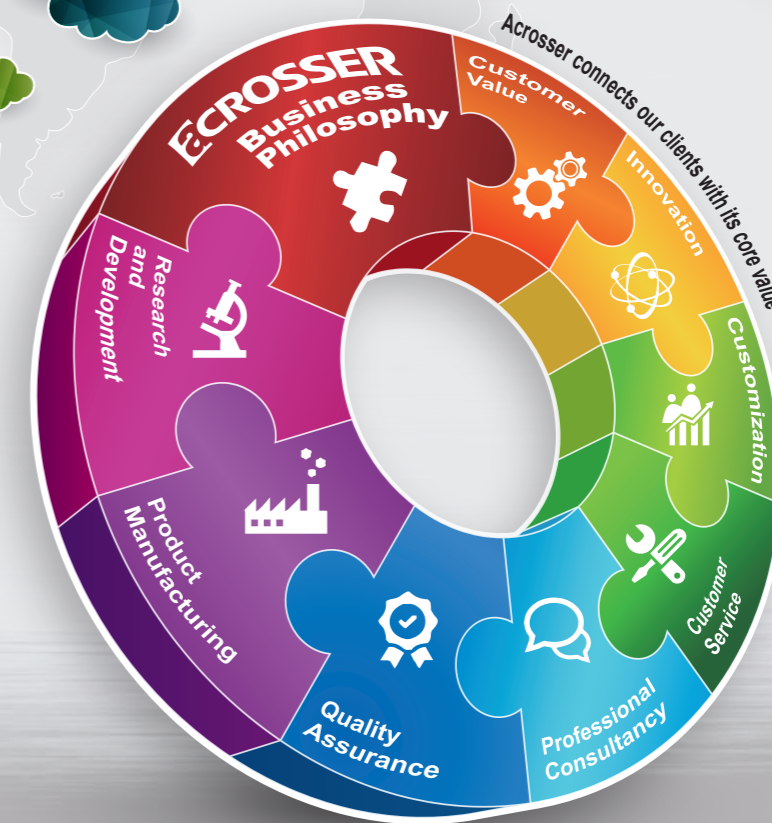


# To Make Your Embedded Idea a Reality

- In-Vehicle Computer
- Embedded Computer
- Gaming Solution
- Networking Appliance
- Panel PC



ECROSSER



To Make Your  
Embedded  
Idea a Reality

**ECROSSER**  
Acrosser Technology Co., Ltd.

**Acrosser Headquarters**

241新北市三重區光復路一段61巷26號10樓  
10F., No.26, Ln. 61, Sec. 1, Guangfu Rd.,  
Sanchong Dist., New Taipei City 241, Taiwan (R.O.C.)  
TEL: +886-2-29999000  
FAX: +886-2-29992887

**Acrosser Taichung Office**

414台中市烏日區僑仁街8號10樓之1  
10F.-1, No.8, Qiaoren St., Wuri Dist.,  
Taichung City 414, Taiwan, (R.O.C.)  
TEL: +886-4-22510659  
FAX: +886-4-22546079

**Acrosser USA Inc.**

11235 Knott Ave. Suite A, Cypress,  
CA 90630, USA  
Toll Free: +1-866-401-9463  
TEL: +1-714-903-1760  
FAX: +1-714-903-5629

**Acrosser China Subsidiary**

深圳市欣扬通电子有限公司  
深圳市福田区车公庙泰然九路21号皇冠科技园3栋2楼 (邮编:518040)  
2F., 3rd Building, Crown Science Park, No. 21,  
Tai-Ran 9th Rd., Che Gong Miao, Futian Dist., Shenzhen, China (Postal:518040)  
TEL: +86-755-83542210  
FAX: +86-755-83700087

**Acrosser Nanjing Office**

欣扬通电子有限公司 南京办事处  
江苏省南京市江宁区天元东路228号504室(莱茵铂郡) (邮编211112)  
Room 504, No. 228, Rhine County Building, Tian Yuan East Rd.,  
Jiang Ning Dist., Nanjing City, Jiangsu, China (Postal:211112)  
TEL: +86-025-86137002  
FAX: +86-025-86137003

**Acrosser Beijing Office**

欣扬通电子有限公司 北京办事处  
北京市海淀区安宁庄西三条9号宜品上层2-703 (邮编:100085)  
Room 2-703, Yipinshangceng, No.9, Xisantiao,  
Anning Zhuang, Haidian Dist., Beijing, China (Postal:100085)  
TEL: +86-10-82359009  
FAX: +86-10-82359003

Acrosser Product Guide

**ECROSSER**

# Company Profile

Founded in 1987, Acrosser is a pioneer in the evolution of industrial computing. For several decades, ACROSSER has provided innovative embedded computer solutions and quality products to over thousands of customers, helping them reducing the time-to-market and gaining higher competence to win the market.



# Business Scope



## Wide Array of Industrial PC Standard Products

ACROSSER designs wide range off-the-shelf Single Board Computer products following the international open standard, such as Embedded PC/104(+), EPIC, Embedded ATX, Mini-ITX, Industrial ISA, PCI, PCI-Express etc. Therefore, the qualified products provide easy-maintain, fast-upgrade and international compatible advantages to save your upfront investment. With a broad range of products lines, ACROSSER products also perform under multiple dominant operating system, including Windows XP, Windows 7, Windows 8, Linux, Fedora, Ubuntu, etc.



## In-Depth and Versatile Applications Experience

From 1987, ACROSSER has assisted our customers developing the embedded systems for different industries, like Networking Security, Wireless Appliance, Gaming, Medical, Industrial Automation, Surveillance, POS, KIOSK, Digital Signage, Home Automation, Instrumentation, Marine, Military, Transportation, etc. Our professional team has the vertical markets knowledge and can help customers develop the right solutions to easily pass the related certificates like FDA for Medical; GLI, Comma 6A for Gaming; FCC, CE for all products.



## Top Quality Assurance with Long Life Time Supply

ACROSSER has been thousands of customers' proven vendor including a lot of Fortune 500 companies. ACROSSER's 100% ESS(Environmental Stress Screen) Burning, Dynamic Vibration and Functional test on every mass production unit help our customers to save a lot of RMA cost. As for its commitment to quality products, ACROSSER designs all products based on its Embedded Roadmap with a minimum 5 years product life time. Along with very strict Revision Control System, it provides our customers with a stable, long term products supply.

ACROSSER encourages participation from all employees and believes that everyone contributes to ACROSSER's success. With "To Make Your Embedded Idea a Reality" as its Mission Statement, ACROSSER keeps its promises to all customers by constantly developing innovative solutions and providing professional OEM/ODM custom design services rapidly. In all, ACROSSER assists you and your company to become the leader in your vertical market, building the Win-Win relationship together.



# Table of Contents

| CPU/Chipset                 | Form Factor               | Model No.      | Page |
|-----------------------------|---------------------------|----------------|------|
| <b>In-Vehicle Computer</b>  |                           |                |      |
| Intel HM76                  | In-Vehicle PC             | AIV-HM76V1FL   | 8    |
| Intel HM76                  | In-Vehicle PC             | AIV-HM76V0FL   | 10   |
| Intel HM65                  | In-Vehicle PC             | AR-V6100FL     | 12   |
| Intel Atom E640             | In-Vehicle PC             | AR-V6005FL     | 14   |
| Intel Atom D525             | In-Vehicle PC             | AR-V6002FL     | 16   |
|                             | Car Monitor               | AR-DP071VW     | 18   |
|                             | Car Monitor               | AR-DP080V      | 19   |
|                             | Car Monitor               | AR-DP080VW     | 20   |
|                             | Car Monitor               | AR-DP100VW     | 21   |
|                             | Car Monitor               | AR-DP100V/VD   | 22   |
|                             | Accessory                 | ACC-VBAT-12    | 23   |
| <b>Gaming Platform</b>      |                           |                |      |
| Intel HM76                  | Proprietary Gaming System | ACE-SHM76G1    | 26   |
| Intel GME965                | Proprietary Gaming System | ACE-S5692FL    | 28   |
| Intel GME965                | Proprietary Gaming Board  | ACE-B5692      | 30   |
| AMD Fusion                  | Proprietary Gaming Board  | AMB-A55EG1     | 32   |
| AMD Fusion                  | Proprietary Gaming System | ACE-S7400      | 34   |
| AMD Fusion                  | Proprietary Gaming Board  | ACE-B7400      | 36   |
| AMD 780E                    | Proprietary Gaming System | ACE-S7300      | 38   |
| AMD 780E                    | Proprietary Gaming Board  | ACE-B7300      | 40   |
| <b>Networking Appliance</b> |                           |                |      |
| Intel B75                   | Rackmount                 | ANR-IB75N2/A/B | 44   |
| Intel B75                   | Rackmount                 | ANR-IB75N1/A/B | 46   |
| Intel H61                   | Rackmount                 | ANR-IH61N1/A/B | 48   |
| Intel Atom D510             | Rackmount                 | AR-R6000       | 50   |
| Intel Atom D525             | Microbox                  | AND-D525N2     | 52   |
| Intel Atom D510             | Microbox                  | AR-N6000       | 54   |
| <b>Embedded SBC</b>         |                           |                |      |
| Intel H61                   | Mini-ITX                  | AMB-IH61T3     | 60   |
| Intel Atom D2550            | Mini-ITX                  | AMB-D255T1     | 62   |
| Intel Atom D2550            | Mini-ITX                  | AMB-D255T3     | 64   |
| Intel QM77                  | COM Express type 6        | ACM-B6360      | 66   |
| Intel HM76                  | COM Express type 6        | AMB-HM76B1FL   | 67   |
| Intel HM76                  | COM Express type 6        | AMB-HM76B1     | 68   |
|                             | COM Express Baseboard     | ACM-B4080      | 69   |
| Intel GME965                | EPIC                      | AR-B5631       | 70   |
| Intel GME965                | EPIC                      | AR-B5630       | 71   |
| Intel Atom N270             | EPIC                      | AR-B5432       | 72   |
| AMD LX800                   | PCI-104                   | AR-B1622       | 73   |
| Intel Atom N2800            | 3.5"                      | AMB-N280S1     | 74   |
| Intel Atom E640             | 3.5"                      | AR-B6051       | 75   |
| Intel Atom N450             | 3.5"                      | AR-B6050       | 76   |
| 4 / 8 Ports COM             | PCI-104 Module            | AR-B104B/4P/8P | 77   |
| 4 / 8 Ports COM             | PCI-104 Module            | AR-B104C/4P/8P | 77   |

| CPU/Chipset                    | Form Factor                        | Model No.           | Page |
|--------------------------------|------------------------------------|---------------------|------|
| <b>Embedded SBC</b>            |                                    |                     |      |
| Intel Atom D525                | Other                              | AR-B6003            | 78   |
| DM&P Vortex86DX                | ISA Half-Size                      | AR-B8170            | 79   |
| DM&P Vortex86DX                | ISA Half-Size                      | AR-B8172            | 80   |
| <b>Fanless Embedded System</b> |                                    |                     |      |
| Intel HM76                     | Fanless Embedded System            | AES-HM76Z1FL        | 82   |
| Intel Atom D525                | Fanless Embedded System            | AR-ES6003FL         | 84   |
| Intel Atom N450                | Fanless Embedded System            | AR-ES6050FLD-W      | 86   |
| <b>Panel PC</b>                |                                    |                     |      |
| Intel Atom D2550               | Industrial Panel PC                | AR-PA707(P)FL-D2550 | 90   |
| Intel Atom D2550               | Industrial Panel PC                | AR-PA708(P)FL-D2550 | 90   |
| Intel Atom D2550               | Industrial Panel PC                | AR-PA710(P)FL-D2550 | 90   |
| Intel Atom D2550               | Industrial Panel PC                | AR-PA712(P)FL-D2550 | 92   |
| Intel Atom D2550               | Industrial Panel PC                | AR-PA715(P)FL-D2550 | 92   |
| Intel Atom D2550               | Industrial Panel PC                | AR-PA717(P)FL-D2550 | 94   |
| Intel Atom D2550               | Industrial Panel PC                | AR-PA721(P)FL-D2550 | 96   |
| Intel Atom N270                | Industrial Panel PC                | AR-H082FL-N270DT    | 98   |
| Intel Atom N270                | Industrial Panel PC                | AR-H100FL-N270DT    | 98   |
| Intel Atom N270                | Industrial Panel PC                | AR-H120FL-N270DT    | 98   |
| Intel Atom N270                | Industrial Panel PC                | AR-H150FL-N270DT    | 100  |
| Intel Atom N270                | Industrial Panel PC                | AR-H190FL-N270DT    | 100  |
| Intel Atom D525                | Industrial Panel PC                | AR-H080FL-D525DT    | 102  |
| Intel Atom D525                | Industrial Panel PC                | AR-H120FL-D525DT    | 102  |
| Intel Atom D525                | Industrial Panel PC                | AR-H150FL-D525DT    | 102  |
| Intel P8400                    | Industrial Panel PC                | AR-P15BFLDC-P84T    | 102  |
| Intel Atom D525                | Stainless Steel Panel PC           | AR-S120FL-D525DT    | 104  |
| Intel Atom D525                | Stainless Steel Panel PC           | AR-S150FL-D525DT    | 104  |
|                                | Industrial Touch Display           | AR-DP080-12T        | 106  |
|                                | Industrial Touch Display           | AR-DP100-12T        | 106  |
|                                | Industrial Touch Display           | AR-DP120-12T        | 106  |
|                                | Industrial Touch Display           | AR-DP150-AT         | 106  |
|                                | Projected Industrial Touch Display | AR-DP150-PDT        | 108  |
|                                | Projected Industrial Touch Display | AR-DP190-PDT        | 108  |

# Embedded SBC Intel CPU Support List

| Process    | Series            | Processor number | Clock   | L2     | Socket    | CPU TDP | AMB-HM76B1FL<br>Intel HM76 | AMB-HM76B1<br>Intel HM76 | AMB-IH61T3<br>Intel H61 | AMB-D255T1<br>Intel D2550<br>NM10 | AMB-D255T3<br>Intel D2550<br>NM10 |
|------------|-------------------|------------------|---------|--------|-----------|---------|----------------------------|--------------------------|-------------------------|-----------------------------------|-----------------------------------|
| 22nm       | Ivy Bridge i7     | i7-3517UE        | 1.7 GHz | 4 MB   | FCBGA1023 | 17W     | ●                          | ●                        |                         |                                   |                                   |
|            | Ivy Bridge i7     | i7-3615QE        | 2.3 GHz | 6 MB   | FCBGA1023 | 45 W    |                            |                          |                         |                                   |                                   |
|            | Ivy Bridge i7     | i7-3770          | 3.4 GHz | 8 MB   | FCLGA1155 | 77 W    |                            |                          | ●                       |                                   |                                   |
| 32nm       | Ivy Bridge i5     | i5-3550S         | 3 GHz   | 6 MB   | FCLGA1155 | 65 W    |                            |                          | ●                       |                                   |                                   |
|            | Ivy Bridge i3     | i3-3217UE        | 1.6 GHz | 3 MB   | FCBGA1023 | 17W     | ●                          | ●                        |                         |                                   |                                   |
|            | Celeron           | 1047UE           | 1.4 GHz | 2MB    | FCBGA1023 | 17W     | ●                          | ●                        |                         |                                   |                                   |
|            | Sandy Bridge i3   | i3-2120          | 3.3 GHz | 3 MB   | FCLGA1155 | 65W     |                            |                          | ●                       |                                   |                                   |
|            | AtomDual-Core     | N2800            | 1.86GHz | 1MB    | FCBGA559  | 6.5W    |                            |                          |                         | ●                                 | ●                                 |
|            | AtomDual-Core     | D2550            | 1.86GHz | 1MB    | FCBGA559  | 10W     |                            |                          |                         | ●                                 | ●                                 |
| 45nm       | Atom              | D425             | 1.80GHz | 512KB  | FCBGA559  | 10W     |                            |                          |                         |                                   |                                   |
|            | AtomDual-Core     | D525             | 1.80GHz | 1MB    | FCBGA559  | 13W     |                            |                          |                         |                                   |                                   |
|            | Atom              | E620             | 600MHz  | 512KB  | FCBGA676  | 3.3W    |                            |                          |                         |                                   |                                   |
|            | Atom              | E640             | 1.00GHz | 512KB  | FCBGA676  | 3.6W    |                            |                          |                         |                                   |                                   |
|            | Atom              | N270             | 1.60GHz | 512KB  | PBGA437   | 2.5W    |                            |                          |                         |                                   |                                   |
|            | Atom              | N450             | 1.66GHz | 512KB  | FCBGA559  | 5.5W    |                            |                          |                         |                                   |                                   |
|            | Core 2 Duo        | P8400            | 2.26GHz | 3MB    | PGA478    | 25W     |                            |                          |                         |                                   |                                   |
|            | Celeron Dual-Core | T3100            | 1.90GHz | 1MB    | PGA478    | 35W     |                            |                          |                         |                                   |                                   |
|            | Celeron Dual-Core | T3300            | 2.0GHz  | 1MB    | PGA478    | 35W     |                            |                          |                         |                                   |                                   |
|            | Celeron Dual-Core | T3500            | 2.1GHz  | 1MB    | PGA478    | 35W     |                            |                          |                         |                                   |                                   |
| Core 2 Duo | T9400             | 2.53GHz          | 6MB     | PGA478 | 35W       |         |                            |                          |                         |                                   |                                   |
| 65nm       | Celeron M         | 440              | 1.86GHz | 1MB    | PPGA478   | 27W     |                            |                          |                         |                                   |                                   |
|            | Celeron M         | 530              | 1.73GHz | 1MB    | PPGA478   | 26W     |                            |                          |                         |                                   |                                   |
|            | Celeron M         | 550              | 2.0GHz  | 1MB    | PPGA478   | 27W     |                            |                          |                         |                                   |                                   |
|            | Celeron           | 575              | 2.0GHz  | 2MB    | PPGA478   | 31W     |                            |                          |                         |                                   |                                   |
|            | Core Duo          | T2300            | 1.66GHz | 2MB    | PPGA478   | 31W     |                            |                          |                         |                                   |                                   |
|            | Core Duo          | T2300E           | 1.66GHz | 2MB    | PPGA478   | 31W     |                            |                          |                         |                                   |                                   |
|            | Core Duo          | T2500            | 2.0GHz  | 2MB    | PPGA478   | 31W     |                            |                          |                         |                                   |                                   |
|            | Core 2 Duo        | T7400            | 2.16GHz | 4MB    | PPGA478   | 34W     |                            |                          |                         |                                   |                                   |
|            | Core 2 Duo        | T7500            | 2.2GHz  | 4MB    | PPGA478   | 35W     |                            |                          |                         |                                   |                                   |

| Processor number | ACM-B6360<br>QM77<br>w ECC | AR-B5631<br>Intel<br>GME965<br>ICH8M | AR-B5630<br>Intel<br>GME965<br>ICH8M | AR-B5430<br>Intel 945GME<br>ICH7M | AR-B5432<br>Intel 945GSE<br>ICH7M | AMB-N280S1<br>Intel N2800<br>NM10 | AR-B6051<br>Intel EG20T | AR-B6050<br>ICH8M | AR-B6003<br>Intel ICH8M |  |  |  |
|------------------|----------------------------|--------------------------------------|--------------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-------------------------|-------------------|-------------------------|--|--|--|
| i7-3517UE        |                            |                                      |                                      |                                   |                                   |                                   |                         |                   |                         |  |  |  |
| i7-3615QE        | ●                          |                                      |                                      |                                   |                                   |                                   |                         |                   |                         |  |  |  |
| i7-3770          |                            |                                      |                                      |                                   |                                   |                                   |                         |                   |                         |  |  |  |
| i5-3550S         |                            |                                      |                                      |                                   |                                   |                                   |                         |                   |                         |  |  |  |
| i3-3217UE        |                            |                                      |                                      |                                   |                                   |                                   |                         |                   |                         |  |  |  |
| 1047UE           |                            |                                      |                                      |                                   |                                   |                                   |                         |                   |                         |  |  |  |
| i3-2120          |                            |                                      |                                      |                                   |                                   |                                   |                         |                   |                         |  |  |  |
| N2800            |                            |                                      |                                      |                                   |                                   | ●                                 |                         |                   |                         |  |  |  |
| D2550            |                            |                                      |                                      |                                   |                                   | ●                                 |                         |                   |                         |  |  |  |
| D425             |                            |                                      |                                      |                                   |                                   |                                   |                         |                   | ●                       |  |  |  |
| D525             |                            |                                      |                                      |                                   |                                   |                                   |                         |                   | ●                       |  |  |  |
| E620             |                            |                                      |                                      |                                   |                                   |                                   | ●                       |                   |                         |  |  |  |
| E640             |                            |                                      |                                      |                                   |                                   |                                   | ●                       |                   |                         |  |  |  |
| N270             |                            |                                      |                                      |                                   | ●                                 |                                   |                         |                   |                         |  |  |  |
| N450             |                            |                                      |                                      |                                   |                                   |                                   |                         | ●                 |                         |  |  |  |
| P8400            |                            |                                      |                                      |                                   |                                   |                                   |                         |                   |                         |  |  |  |
| T3100            |                            | ●                                    | ●                                    |                                   |                                   |                                   |                         |                   |                         |  |  |  |
| T3300            |                            | ●                                    | ●                                    |                                   |                                   |                                   |                         |                   |                         |  |  |  |
| T3500            |                            | ●                                    | ●                                    |                                   |                                   |                                   |                         |                   |                         |  |  |  |
| T9400            |                            |                                      |                                      |                                   |                                   |                                   |                         |                   |                         |  |  |  |
| 440              |                            |                                      |                                      | ●                                 |                                   |                                   |                         |                   |                         |  |  |  |
| 530              |                            |                                      |                                      | ●                                 |                                   |                                   |                         |                   |                         |  |  |  |
| 550              |                            | ●                                    | ●                                    |                                   |                                   |                                   |                         |                   |                         |  |  |  |
| 575              |                            |                                      |                                      |                                   |                                   |                                   |                         |                   |                         |  |  |  |
| T2300            |                            |                                      |                                      | ●                                 |                                   |                                   |                         |                   |                         |  |  |  |
| T2300E           |                            |                                      |                                      | ●                                 |                                   |                                   |                         |                   |                         |  |  |  |
| T2500            |                            |                                      |                                      | ●                                 |                                   |                                   |                         |                   |                         |  |  |  |
| T7400            |                            |                                      |                                      | ●                                 |                                   |                                   |                         |                   |                         |  |  |  |
| T7500            |                            | ●                                    | ●                                    |                                   |                                   |                                   |                         |                   |                         |  |  |  |

# Product Matrix

## In-Vehicle Computers



| Form Factor                         | In-Vehicle Computer                                                        |                                                                         |                                                                         |                                                         |
|-------------------------------------|----------------------------------------------------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------|---------------------------------------------------------|
| Model Name                          | AIV-HM76V1FL                                                               | AIV-HM76V0FL                                                            | AR-V6100FL                                                              | AR-V6005FL                                              |
| <b>Specification</b>                |                                                                            |                                                                         |                                                                         |                                                         |
| CPU                                 | Intel Core i7 3517UM / i3 3217UE / Celeron 1047UE                          | Intel Core i7 3720QM / i5 3610ME / i5 3360M / i3 3120ME                 | Intel Core i7 2710QE / i5 2510E / Celeron B810                          | Intel Atom E640                                         |
| Memory                              | 2 x DDR3 SO-DIMM, Pre-install 2GB, Max. 16GB                               | 2 x DDR3 SO-DIMM, Pre-install 2GB, Max. 16GB                            | 2 x DDR3 SO-DIMM, Pre-install 2GB, Max. 8GB                             | OnBoard DDR2, Pre-install 2GB                           |
| <b>Video</b>                        |                                                                            |                                                                         |                                                                         |                                                         |
| Video Interface                     | 2 x HDMI type A connector<br>1 x Combo connector                           | 1 x HDMI type A connector<br>1 x Combo connector<br>1 x DVI-D connector | 1 x HDMI type A connector<br>1 x Combo connector<br>1 x DVI-D connector | 1 x Combo connector<br>1 x DVI connector                |
| <b>Storage</b>                      |                                                                            |                                                                         |                                                                         |                                                         |
| SATA                                | 1 x SATA III port                                                          | 2 x SATA III port                                                       | 2 x SATA III port                                                       | 1 x SATAII port                                         |
| CF                                  | 1 x External CF socket                                                     | 1 x External CF socket                                                  | 1 x External CF socket                                                  | 1 x External CF socket                                  |
| Disk Bay                            | 1 x Anti-shock 2.5" HDD Bay with easy swappable bracket                    | 1 x Anti-shock 2.5" HDD Bay with easy swappable bracket                 | 1 x Anti-shock 2.5" HDD Bay with easy swappable bracket                 | 1 x Anti-shock 2.5" HDD Bay with easy swappable bracket |
| <b>I/O</b>                          |                                                                            |                                                                         |                                                                         |                                                         |
| Expansion Slot                      | 2 x Mini PCIe                                                              | 2 x Mini PCIe                                                           | 2 x Mini PCIe                                                           | 2 x Mini PCIe                                           |
| Ethernet                            | 2 x Gbps LAN                                                               | 2 x Gbps LAN                                                            | 2 x Gbps LAN                                                            | 1 x Gbps LAN                                            |
| Serial Port                         | 3 x RS232<br>1 x RS232/422/485                                             | 1 x RS232<br>1 x RS232/422/485                                          | 1 x RS232<br>1 x RS232/422/485                                          | 2 x RS232<br>1 x RS232/422/485                          |
| USB                                 | 3 x USB 3.0<br>1 x USB 2.0 (Combo)                                         | 4 x USB 3.0<br>1 x USB 2.0 (Combo)                                      | 4 x USB 2.0<br>1 x USB 2.0 (Combo)                                      | 1 x USB 2.0<br>1 x USB 2.0 (Combo)                      |
| GPIO                                | 4 In, 4 Out                                                                | 4 In, 4 Out                                                             | 4 In, 4 Out                                                             | 4 In, 4 Out                                             |
| Audio                               | 1 x MIC in, 1 x Audio out                                                  | 1 x MIC in, 1 x Audio out                                               | 1 x MIC in, 1 x Audio out                                               | 1 x MIC in, 1 x Audio out                               |
| Remote Control                      | 1 x Remote control switch                                                  | 1 x Remote control switch                                               | 1 x Remote control switch                                               | 1 x Remote control switch                               |
| SIM                                 | 1 x External SIM Slot                                                      | 1 x External SIM Slot                                                   | 1 x External SIM Slot                                                   | 1 x External SIM Slot                                   |
| Can Bus (2.0A/2.0B)                 | YES                                                                        | YES                                                                     | YES                                                                     | YES                                                     |
| iButton                             | 1-Wire interface                                                           | 1-Wire interface                                                        | 1-Wire interface                                                        | 1-Wire interface                                        |
| <b>Power Requirement</b>            |                                                                            |                                                                         |                                                                         |                                                         |
| Wide Range Input                    | DC 9V ~ 32V                                                                | DC 9V ~ 32V                                                             | DC 9V ~ 32V                                                             | DC 9V ~ 32V                                             |
| Power Output                        | DC 12V (Combo)                                                             | DC 12V (Combo)                                                          | DC 12V (Combo)                                                          | DC 12V (Combo)                                          |
| <b>Software</b>                     |                                                                            |                                                                         |                                                                         |                                                         |
| OS Support                          | Windows 7 / Windows Embedded / Fedora 14 / Ubuntu 10                       | Windows 7 / Windows XP / Fedora 14 / Ubuntu 10                          | Windows XP / Fedora 14 / Ubuntu 10                                      | Fedora 14 / Ubuntu 10                                   |
| <b>Mechanical &amp; Environment</b> |                                                                            |                                                                         |                                                                         |                                                         |
| Dimension                           | 290 x 190 x 35 mm                                                          | 310 x 195 x 80 mm                                                       | 310 x 195 x 80 mm                                                       | 294 x 128 x 68 mm                                       |
| Weight                              | 3 Kg                                                                       | 6 Kg                                                                    | 6 Kg                                                                    | 2.4 Kg                                                  |
| Operating Temp                      | 0 ~ 60°C (32 ~ 140°F)                                                      | 0 ~ 60°C (32 ~ 140°F)                                                   | 0 ~ 60°C (32 ~ 140°F)                                                   | 0 ~ 60°C (32 ~ 140°F)                                   |
| Vibration/Shock/Safety              | Comply IEC 60068-2-64 / Comply IEC 60068-2-27 / CE, FCC Class B, E-Mark 13 |                                                                         |                                                                         |                                                         |
| <b>Optional Wireless Module</b>     |                                                                            |                                                                         |                                                                         |                                                         |
| 3.5G                                | GPRS/EDGE/WCDMA/HSUPA/HSDPA                                                |                                                                         |                                                                         |                                                         |
| GPS / WiFi / Bluetooth              | YES, IEEE 802.11 b/g/n, YES                                                |                                                                         |                                                                         |                                                         |
| <b>Reference</b>                    |                                                                            |                                                                         |                                                                         |                                                         |
| Page                                | 8                                                                          | 10                                                                      | 12                                                                      | 14                                                      |



# Product Matrix



AR-V6002FL

Intel Atom D525 / D425

1 x DDR3 SO-DIMM,  
Pre-install 1GB, Max. 4GB

1 x VGA port

2 x SATA II port

1 x External CF socket

1 x Anti-shock 2.5" HDD Bay  
with easy swappable bracket

2 x Mini PCIe

1 x Gbps LAN

2 x RS232

2 x RS232/422/485

4 x USB 2.0

4 In, 4 Out

1 x MIC in, 1 x Audio out

1 x Remote control switch

1 x External SIM Slot

YES

-

DC 12V / 24V

-

Windows XP / XPE /  
Linux Fedora 12

280 x 181.5 x 76.8 mm

2.7 Kg

0 ~ 50°C (32 ~122°F)

16

## In-Vehicle Monitors



| Form Factor                                                      | In-Vehicle Monitors            |                                |                                |
|------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|
| Model Name                                                       | AR-DP071VW                     | AR-DP080V                      | AR-DP080VW                     |
| Panel Size                                                       | 7" Wide Screen (16:9)          | 8" Screen (4:3)                | 8" Wide Screen (16:9)          |
| Resolution                                                       | 640 x 480~1920 x 1080 pixels   | 640 x 480~1600 x 1024 pixels   | 640 x 480~1600 x 1024 pixels   |
| Luminance                                                        | 400 nits (cd/m2)               | 600 nits (cd/m2)               | 400 nits (cd/m2)               |
| View Angle(T/B/L/R)                                              | 50/70/70/70 deg.               | 40/60/60/60 deg.               | 40/60/60/60 deg.               |
| Backlight Lifetime                                               | 20,000 hours                   | 20,000 hours                   | 20,000 hours                   |
| Operating Temp                                                   | -30~85°C                       | -10~60°C                       | -30~85°C                       |
| Power Consumption                                                | 12W                            | 10W                            | 10W                            |
| <b>I/O Combo cable (One-to-VGA / USB / Audio / DC interface)</b> |                                |                                |                                |
| Video                                                            | VGA (DB15)                     | VGA (DB15)                     | VGA (DB15)                     |
| Touch Screen                                                     | 4-Wire Resistive USB interface | 4-Wire Resistive USB interface | 4-Wire Resistive USB interface |
| Audio                                                            | 3.5mm stereo Jack              | 3.5mm stereo Jack              | 3.5mm stereo Jack              |
| DC                                                               | DC Jack (12V ~ 24V)            | DC Jack (12V)                  | DC Jack (12V)                  |
| <b>Reference</b>                                                 |                                |                                |                                |
| Page                                                             | 18                             | 19                             | 20                             |

## In-Vehicle Monitors



| Form Factor                                                      | In-Vehicle Monitors                |                                    |
|------------------------------------------------------------------|------------------------------------|------------------------------------|
| Model Name                                                       | AR-DP100VW                         | AR-DP100V / VD                     |
| Panel Size                                                       | 10.2" Wide Screen (16:9)           | 10.4" Screen (4:3)                 |
| Resolution                                                       | 640 x 480 pixels~1024 x 768 pixels | 640 x 480 pixels~1024 x 768 pixels |
| Luminance                                                        | 400 nits (cd/m2)                   | 300 nits (cd/m2)                   |
| View Angle(T/B/L/R)                                              | 50/70/70/70 deg.                   | 50/60/75/75 deg.                   |
| Backlight Lifetime                                               | 30,000 hours                       | LED                                |
| Operating Temp                                                   | -30~ 85°C                          | -10~ 60°C                          |
| Power Consumption                                                | 12W                                | 12W                                |
| <b>I/O Combo cable (One-to-VGA / USB / Audio / DC interface)</b> |                                    |                                    |
| Video                                                            | VGA (DB15)                         | VGA (DB15) + DVI (Optional)        |
| Touch Screen                                                     | 4-Wire Resistive USB interface     | 4-Wire Resistive USB interface     |
| Audio                                                            | 3.5mm stereo Jack                  | 3.5mm stereo Jack                  |
| DC                                                               | DC Jack (12V ~ 24V)                | DC Jack (12V ~ 24V)                |
| <b>Reference</b>                                                 |                                    |                                    |
| Page                                                             | 21                                 | 22                                 |

# AIV-HM76V1FL

Fanless In-Vehicle system, Intel Core i7/i3, Celeron + HM76 with smart power system, GPS/4G/WiFi/Bluetooth, card option module



## Features

- Rugged fanless design
- Integrated Intel 3rd generation Core i ULV processors with HM76 chipset
- 2 x DDR3 SO-DIMM, up to 16GB
- Support CAN 2.0A/2.0B protocol and i-Button for driver ID
- VGA/HDMI/ output
- Variety Wireless Communication
- Combo connector to simplify touch monitor installation



## Specification

### System

|         |                                                                |
|---------|----------------------------------------------------------------|
| CPU     | Intel Core i7 3517UE / i3 3217UE / Celeron 1047UE              |
| Chipset | Intel HM76                                                     |
| Memory  | 2 x 204-pin DDR3-1333 SO-DIMM<br>2GB pre-installed, up to 16GB |

### Video

|                    |                                                                                  |
|--------------------|----------------------------------------------------------------------------------|
| Graphic Controller | Integrated in Processors                                                         |
| Video Memory       | DVMT                                                                             |
| Video Interface    | 2 x HDMI type A connector<br>1 x dedicated combo connector (VGA/USB/audio/power) |

### Storage

|          |                                                                      |
|----------|----------------------------------------------------------------------|
| SATA     | 1 x SATA III port with power connector                               |
| CF       | 1 x Compact Flash Type I/II slot support UDMA 33                     |
| Disk Bay | 1 x swappable 2.5" HDD bay with Anti-vibration / Anti-shock solution |

### Communication

|             |                                            |
|-------------|--------------------------------------------|
| Ethernet    | 2 x Intel GbE chip via RJ-45 connector     |
| USB         | 3 x USB 3.0 connector & 2 x JST pin header |
| Serial Port | 3 x RS232, 1 x 422/485 (Select By GPIO)    |

### I/O

|                |                                                                              |
|----------------|------------------------------------------------------------------------------|
| Expansion Slot | 2 x Mini PCIe (For Optional 4G / Wifi module only)                           |
| GPIO           | 8-bit GPIO (4 In, 4 Out)                                                     |
| Antenna Hole   | 1 x SMA for GPS, 1 x SMA for 3.5G, 2 x SMA for WiFi<br>1 x SMA for Bluetooth |
| SIM            | SIM Slot x 1, SIM card changeable without opening case                       |
| Security       | Support I-Button for driver ID                                               |
| CAN Bus        | Support CAN 2.0A/2.0B protocol                                               |

### Software

|            |                                                                                             |
|------------|---------------------------------------------------------------------------------------------|
| OS Support | Windows 7(32/64 bit) / Embedded(32 bit)<br>Fedora 17(32/64 bit)14 / Ubuntu 12.10(32/64 bit) |
|------------|---------------------------------------------------------------------------------------------|

### Others Feature

|                  |                                                                           |
|------------------|---------------------------------------------------------------------------|
| Audio            | Audio Codec (Line-out & MIC)                                              |
| Hardware Monitor | CPU voltage and temperature<br>RTC battery voltage (Voltage, 12V/5V/3.3V) |
| WatchDog Timer   | 0~255 sec. software programmable                                          |
| Indicator        | Power / HDD/ Status LED                                                   |

### Power Requirement

|                 |                                                               |
|-----------------|---------------------------------------------------------------|
| Power Input     | 9~32 V (+/-5%) single voltage input,<br>3 pole terminal block |
| Out Put Voltage | 12V DC, 120W                                                  |

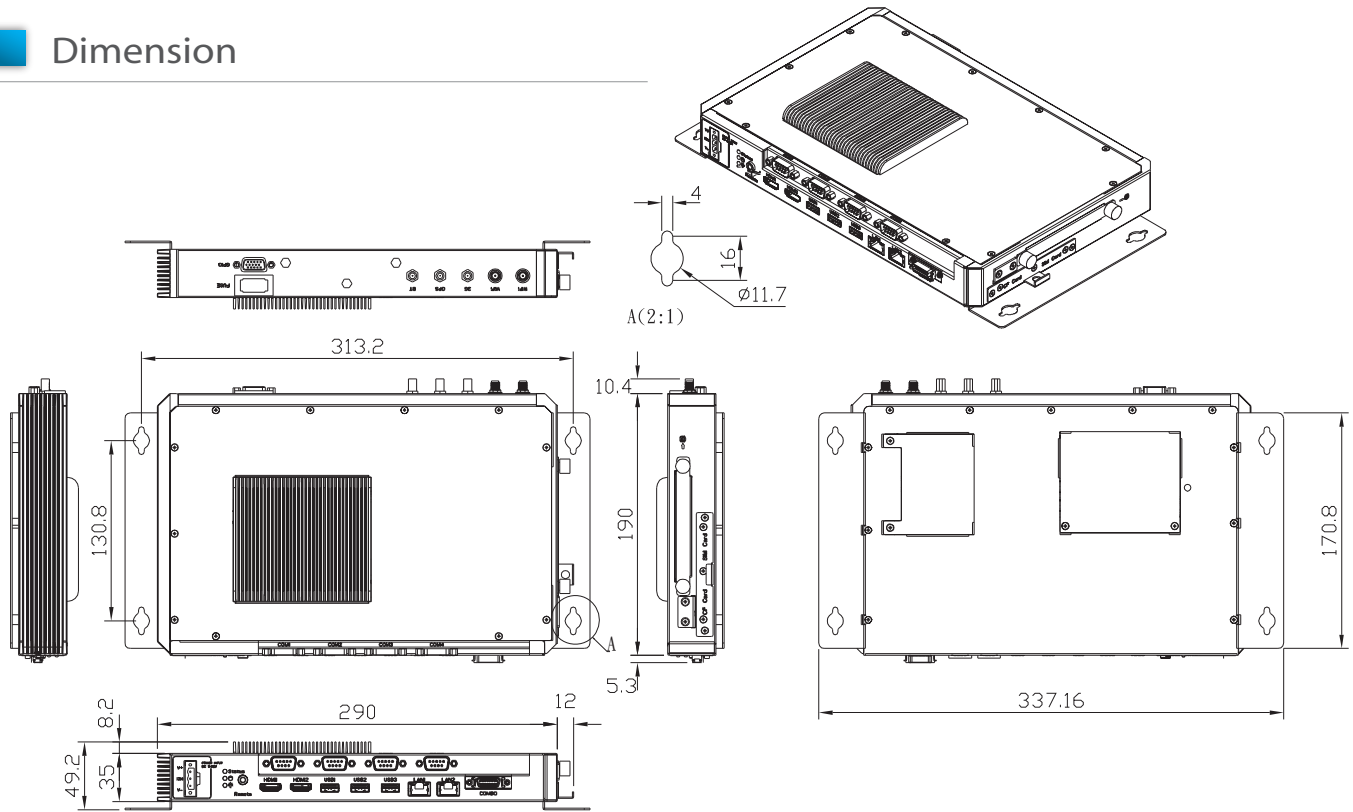
### Mechanical & Environment

|                   |                                                                     |
|-------------------|---------------------------------------------------------------------|
| Thermal Design    | Fanless                                                             |
| Chassis Material  | Sheet metal(Silver, printing color with Acrosser logo)              |
| Vibration         | IEC 60068-2-64, 5~500Hz, 3GRMS(CF/SSD),<br>Operating with SSD       |
| Shock             | IEC 60068-2-27, 50G 500m/s <sup>2</sup> 11MS,<br>Operating with SSD |
| Dimension         | 290mm x 190mm x 35mm                                                |
| Weight            | 3 kg                                                                |
| Operating Temp.   | 0~60°C (32~140°F)                                                   |
| Storage temp.     | -40~80°C (-40~176°F)                                                |
| Relative Humidity | 0~90% @ 40°C, non-condensing                                        |
| Safety            | CE, FCC class B , E-Mark                                            |

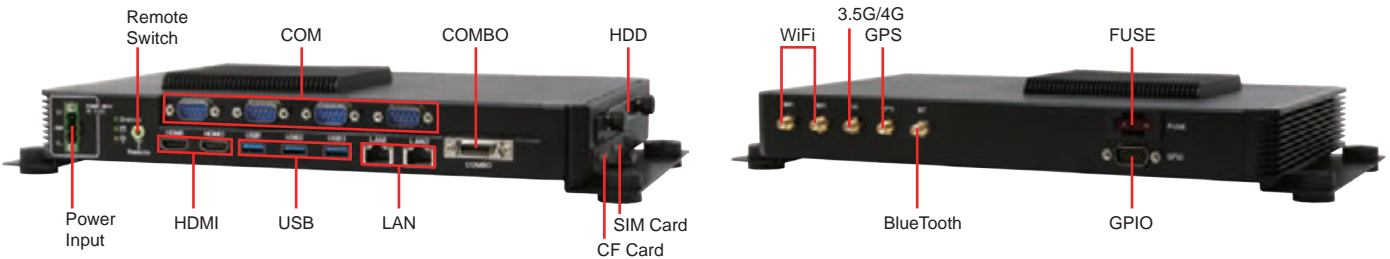
### Smart In-Vehicle Power Management

|                               |                                                                                                                                                                                   |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| O/S Anti-Crash                | Smart O/S boot/shut-down control by power subsystem                                                                                                                               |
| System boot / Shut-down delay | Delay time from 0 seconds to 60 minutes setting in BIOS                                                                                                                           |
| System boot fail retry        | 3 times boot fail retry                                                                                                                                                           |
| Power on/off switches         | <ul style="list-style-type: none"> <li>• System power switch by remote cable switch</li> <li>• System power input serial connection to car battery and ignition switch</li> </ul> |
| Car battery protection        | Low battery voltage monitoring and configurable auto shutdown low battery voltage level                                                                                           |

## Dimension



## I/O Connectors



## Packing List

- 1 x AIV-HM76V1FL
- 1 x Quick Guide
- 1 x User Guide & System Driver CD
- 1 x Screw pack(2.5"HDD bracket: 4pcs)
- 1 x Terminal block female 3pin(for power input)
- 1 x Spare Fuse 10A
- 1 x GPIO/CAN/Driver ID DB15 Cable
- 1 x Remote Switch Cable
- 1 x One to Many Combo Cable(Combo to VGA/USB/Audio/DC Cable)

## Ordering Information

|                 |                                        |
|-----------------|----------------------------------------|
| AIV-HM76V1FLCi7 | AIV-HM76V1FL with Intel Core i7 3517UE |
| AIV-HM76V1FLCi3 | AIV-HM76V1FL with Intel Core i3 3217UE |
| AIV-HM76V1FLCE1 | AIV-HM76V1FL with Intel Celeron 1047UE |

## Optional Modules

|           |                                                                        |
|-----------|------------------------------------------------------------------------|
| 100070085 | Sierra MC8705 with RF cable, Cable Antenna                             |
| 100070067 | WIESON ZYM-5020,RF Cable ,Cable Antenna (L=5M)                         |
| 100070086 | Intel Centrino N6205 802.11 a/b/g/n WiFi module, RF Cable, Antenna x 2 |
| 100070066 | Qcom QBTM400-01,RF Cable, Antenna                                      |

# AIV-HM76V0FL

Fanless In-Vehicle system, Intel Core i3/i5/i7 + HM76 with smart power system, GPS/3.5G/WiFi/Bluetooth option module



## Features

- Rugged fanless design
- Support Intel 3rd generation Core i processors with HM76 chipset
- 2 x DDR3 SO-DIMM, up to 16GB
- Support CAN 2.0A/2.0B protocol and i-Button for driver ID
- VGA/HDMI/DVI-D output
- Variety Wireless Communication
- Combo connector to simplify touch monitor installation



## Specification

### System

|         |                                                                |
|---------|----------------------------------------------------------------|
| CPU     | Intel Core i7 3720QM / i5 3610ME / i5 3360M / i3 3120ME        |
| Chipset | Intel HM76                                                     |
| Memory  | 2 x 204-pin DDR3-1333 SO-DIMM<br>2GB pre-installed, up to 16GB |

### Video

|                    |                                                                                                         |
|--------------------|---------------------------------------------------------------------------------------------------------|
| Graphic Controller | Integrated in Processors                                                                                |
| Video Memory       | DVMT                                                                                                    |
| Video Interface    | 1 x HDMI type A connector<br>1 x DVI-D connector<br>1 x dedicated combo connector (VGA/USB/audio/power) |

### Storage

|          |                                                                      |
|----------|----------------------------------------------------------------------|
| SATA     | 2 x SATA III port with power connector                               |
| CF       | 1 x Compact Flash Type I/II slot support UDMA 33                     |
| Disk Bay | 1 x swappable 2.5" HDD bay with Anti-vibration / Anti-shock solution |

### Communication

|             |                                                                                              |
|-------------|----------------------------------------------------------------------------------------------|
| Ethernet    | 2 x Intel GbE chip via RJ-45 connector                                                       |
| USB         | 4 x USB 3.0 connector & 2 x JST pin header                                                   |
| Serial Port | 2 x RS232 (1 x DB9, 1 x pin header) for Option<br>1 x RS232/422/485 (DB9, switch selectable) |

### I/O

|                |                                                                              |
|----------------|------------------------------------------------------------------------------|
| Expansion Slot | 2 x Mini PCIe (For Optional 3.5G / Wifi module only)                         |
| GPIO           | 8-bit GPIO (4 In, 4 Out)                                                     |
| Antenna Hole   | 1 x SMA for GPS, 1 x SMA for 3.5G, 2 x SMA for WiFi<br>1 x SMA for Bluetooth |
| SIM            | SIM Slot x 1, SIM card changeable without opening case                       |
| Security       | Support I-Button for driver ID                                               |
| CAN Bus        | Support CAN 2.0A/2.0B protocol                                               |

### Software

|            |                                             |
|------------|---------------------------------------------|
| OS Support | Windows XP, Windows 7, Fedora 14, Ubuntu 10 |
|------------|---------------------------------------------|

## Others Feature

|                  |                                  |
|------------------|----------------------------------|
| Audio            | Audio Codec (Line-out & MIC)     |
| Hardware Monitor | CPU voltage and temperature      |
| WatchDog Timer   | 1~255 sec. software programmable |
| Indicator        | Power / HDD/ Status LED          |

## Power Requirement

|                   |                                                               |
|-------------------|---------------------------------------------------------------|
| Power Input       | 9~32 V (+/-5%) single voltage input,<br>3 pole terminal block |
| Power Consumption | Max 80W (i7 CPU)                                              |

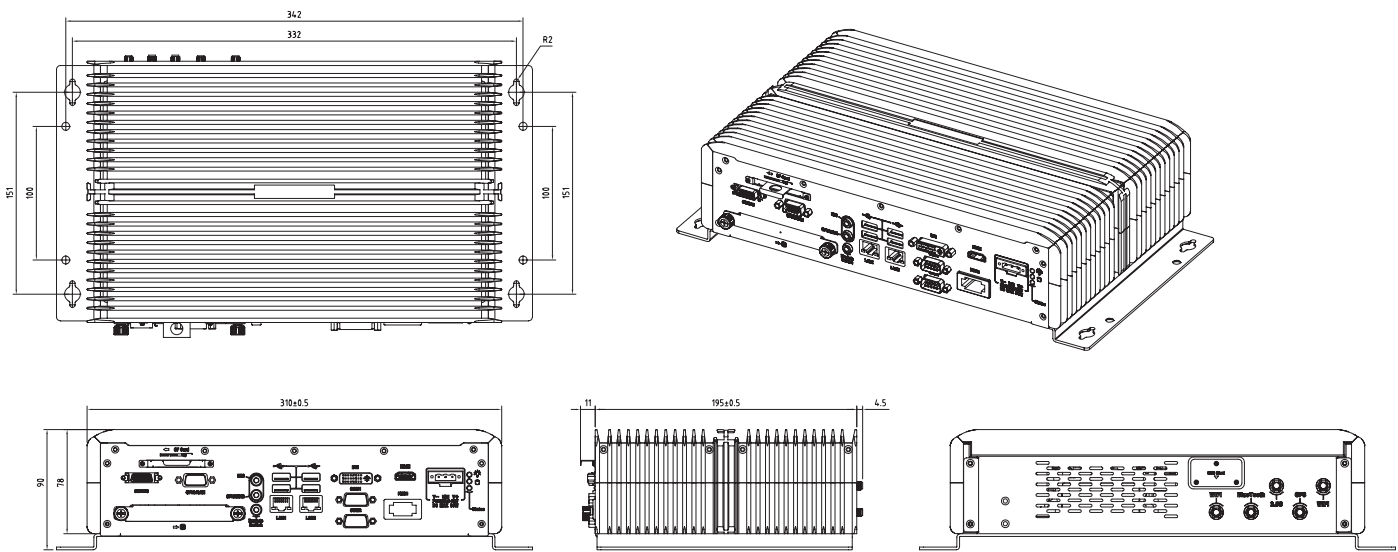
## Mechanical & Environment

|                   |                                                                     |
|-------------------|---------------------------------------------------------------------|
| Thermal Design    | Fanless                                                             |
| Chassis Material  | SECC + Aluminum heatsink                                            |
| Vibration         | IEC 60068-2-64, 5~500Hz, 3GRMS(CF/SSD),<br>Operating with SSD       |
| Shock             | IEC 60068-2-27, 50G 500m/s <sup>2</sup> 11MS,<br>Operating with SSD |
| Dimension         | 310mm x 195mm x 80mm                                                |
| Weight            | 6 kg                                                                |
| Operating Temp.   | 0~60°C (32~140°F)                                                   |
| Storage temp.     | -40~80°C (-40~176°F)                                                |
| Relative Humidity | 0~90% @ 40°C, non-condensing                                        |
| Safety            | CE, FCC class B , E-Mark                                            |

## Smart In-Vehicle Power Management

|                               |                                                                                                                                                                                   |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| O/S Anti-Crash                | Smart O/S boot/shut-down control by power subsystem                                                                                                                               |
| System boot / Shut-down delay | Delay time from 0 seconds to 60 minutes setting in BIOS                                                                                                                           |
| System boot fail retry        | 3 times boot fail retry                                                                                                                                                           |
| Power on/off switches         | <ul style="list-style-type: none"> <li>• System power switch by remote cable switch</li> <li>• System power input serial connection to car battery and ignition switch</li> </ul> |
| Car battery protection        | Low battery voltage monitoring and configurable auto shutdown low battery voltage level                                                                                           |

## Dimension



## I/O Connectors



## Packing List

- 1 x AIV-HM76V0FL
- 1 x User Guide & System Driver CD
- 2 x Wall Mount Bracket
- 1 x Screw pack(2.5"HDD bracket: 4pcs)
- 1 x Terminal block female 3pin
- 1 x Spare Fuse 10A
- 1 x GPIO/CAN/Driver ID DB15 Cable
- 1 x Remote Switch Cable
- 1 x One to Many Combo Cable

## Ordering Information

|                 |                                        |
|-----------------|----------------------------------------|
| AIV-HM76V0FLI71 | AIV-HM76V0FL with Intel Core i7 3720QM |
| AIV-HM76V0FLI52 | AIV-HM76V0FL with Intel Core i5 3610ME |
| AIV-HM76V0FLI51 | AIV-HM76V0FL with Intel Core i5 3360M  |
| AIV-HM76V0FLI31 | AIV-HM76V0FL with Intel Core i3 3120ME |

## Optional Modules

|           |                                                                        |
|-----------|------------------------------------------------------------------------|
| 100070085 | Sierra MC8705 with RF cable, Cable Antenna                             |
| 100070067 | WIESON ZYM-5020,RF Cable ,Cable Antenna (L=5M)                         |
| 100070086 | Intel Centrino N6205 802.11 a/b/g/n WiFi module, RF Cable, Antenna x 2 |
| 100070066 | Qcom QBTM400-01,RF Cable, Antenna                                      |

# AR-V6100FL

Fanless In-Vehicle system, Intel Core i5/i7 + HM65 with smart power system, GPS/3.5G/WiFi/Bluetooth option



## Features

- Rugged fanless design
- Support Intel 2nd generation Core i processors with HM65 chipset
- 2 x DDR3 SO-DIMM, up to 8GB
- Support CAN 2.0A/2.0B protocol and i-Button for driver ID
- VGA/HDMI/DVI-D output
- Variety Wireless Communication
- Combo connector to simplify touch monitor installation



## Specification

### System

|         |                                                               |
|---------|---------------------------------------------------------------|
| CPU     | Intel Core i7 2710QE / i5 2510E / Celeron B810                |
| Chipset | Intel HM65                                                    |
| Memory  | 2 x 204-pin DDR3-1333 SO-DIMM<br>2GB pre-installed, up to 8GB |

### Video

|                    |                                                                                                         |
|--------------------|---------------------------------------------------------------------------------------------------------|
| Graphic Controller | Integrated within processors                                                                            |
| Video Memory       | DVMT                                                                                                    |
| Video Interface    | 1 x HDMI type A connector<br>1 x DVI-D connector<br>1 x dedicated combo connector (VGA/USB/audio/power) |

### Storage

|          |                                                                      |
|----------|----------------------------------------------------------------------|
| SATA     | 2 x SATA III port with power connector                               |
| CF       | 1 x Compact Flash Type I/II slot support UDMA 33                     |
| Disk Bay | 1 x swappable 2.5" HDD bay with Anti-vibration / Anti-shock solution |

### Communication

|             |                                                         |
|-------------|---------------------------------------------------------|
| Ethernet    | 2 x Intel GbE chip via RJ-45 connector                  |
| USB         | 4 x USB 2.0                                             |
| Serial Port | 1 x RS232<br>1 x RS232/422/485 (DB9, switch selectable) |

### I/O

|                |                                                                               |
|----------------|-------------------------------------------------------------------------------|
| Expansion Slot | 2 x Mini PCIe (For Optional 3.5G / Wifi module only)                          |
| GPIO           | 8-bit GPIO (4 In, 4 Out)                                                      |
| Antenna Hole   | 1 x SMA for GPS, 1 x SMA for 3.5G, 2 x SMA for WiFi,<br>1 x SMA for Bluetooth |
| SIM            | SIM Slot x 1, SIM card changeable without opening case                        |
| iButton        | 1-Wire interface for driver ID and sensors                                    |
| CAN Bus        | Support CAN 2.0A/2.0B protocol                                                |

### Software

|            |                                             |
|------------|---------------------------------------------|
| OS Support | Windows XP, Windows 7, Fedora 14, Ubuntu 10 |
|------------|---------------------------------------------|

## Others Feature

|                  |                                  |
|------------------|----------------------------------|
| Audio            | Audio Codec (Line-out & MIC)     |
| Hardware Monitor | CPU voltage and temperature      |
| WatchDog Timer   | 1~255 sec. software programmable |
| Indicator        | Power/HDD/Status LED             |

## Power Requirement

|                   |                                                               |
|-------------------|---------------------------------------------------------------|
| Power Input       | 9~32 V (+/-5%) single voltage input,<br>3 pole terminal block |
| Power Consumption | Max 80W (i7 CPU)                                              |

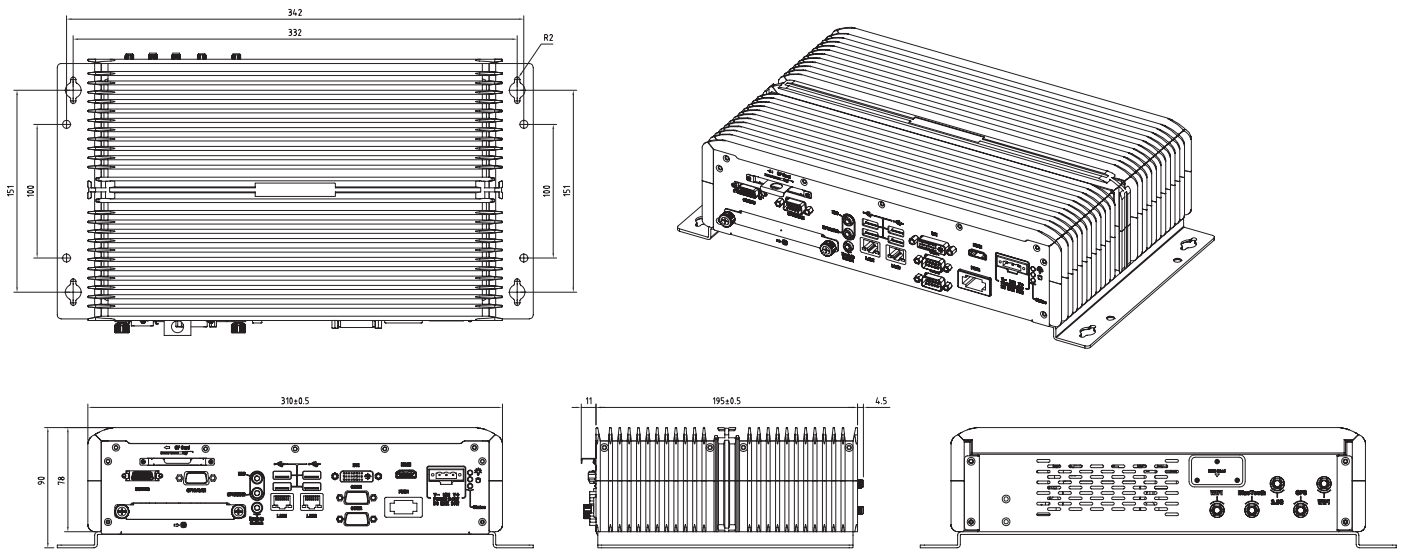
## Mechanical & Environment

|                   |                                                               |
|-------------------|---------------------------------------------------------------|
| Thermal Design    | Fanless                                                       |
| Chassis Material  | Metal SPGC                                                    |
| Vibration         | IEC 60068-2-64, 5~500Hz, 3Grms(CF/SSD),<br>Operating with SSD |
| Shock             | IEC 60068-2-27, 50G 11ms,<br>Operating with SSD               |
| Dimension         | 310mm x 195mm x 80mm                                          |
| Weight            | 6 kg                                                          |
| Operating Temp.   | 0~60°C (32~140°F)                                             |
| Storage temp.     | -40~80°C (-40~176°F)                                          |
| Relative Humidity | 0~90% @ 40°C, non-condensing                                  |
| Safety            | CE, FCC class B, E-Mark                                       |

## Smart In-Vehicle Power Management

|                               |                                                                                                                                                                                   |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| O/S Anti-Crash                | Smart O/S boot/shut-down control by power subsystem                                                                                                                               |
| System boot / Shut-down delay | Delay time from 0 seconds to 60 minutes setting in BIOS                                                                                                                           |
| System boot fail retry        | 3 times boot fail retry                                                                                                                                                           |
| Power on/off switches         | <ul style="list-style-type: none"> <li>• System power switch by remote cable switch</li> <li>• System power input serial connection to car battery and ignition switch</li> </ul> |
| Car battery protection        | Low battery voltage monitoring and configurable auto shutdown low battery voltage level                                                                                           |

## Dimension



## I/O Connectors



## Packing List

- 1 x AR-V6100FL
- 1 x User Guide & System Driver CD
- 1 x Screw pack(2.5"HDD bracket: 4pcs)
- 1 x Terminal block female 3pin x 1
- 1 x Spare Fuse 10A
- 1 x Remote Switch Cable
- 1 x GPIO/CAN/Driver ID DB15 Cable
- 1 x One to Many Combo Cable

## Ordering Information

|              |                                                        |
|--------------|--------------------------------------------------------|
| AR-V6100FLCM | AR-V6100FL with Intel Celeron B810 1.6GHz, 2M cache    |
| AR-V6100FLI5 | AR-V6100FL with Intel Core i5 2510E 2.50GHz, 3M cache  |
| AR-V6100FLI7 | AR-V6100FL with Intel Core i7 2710QE 2.10GHz, 6M cache |

## Optional Modules

|           |                                                                        |
|-----------|------------------------------------------------------------------------|
| 100070067 | Wieson G5020-1 GPS module with RF Cable, Cable Antenna (L=5M)          |
| 100070066 | Qcom QBTM400-01, RF Cable, Antenna                                     |
| 100070075 | Sierra MC8705 with RF cable, Cable Antenna                             |
| 100070086 | Intel Centrino N6205 802.11 a/b/g/n WiFi module, RF Cable, Antenna x 2 |

# AR-V6005FL

Fanless In-Vehicle system, Intel Atom E640  
with smart power onboard, GPS/3.5G/WiFi/Bluetooth option



## Features

- Rugged fanless design
- Support Intel Atom E640 processors with EG20T chipset
- 2GB DDR2 Memory Onboard
- Support CAN 2.0A/2.0B protocol and i-Button for driver ID
- VGA/DVI-D output
- Variety Wireless Communication
- Combo connector to simplify touch monitor installation



## Specification

### System

|         |                           |
|---------|---------------------------|
| CPU     | Intel Atom E640 1.0 GHz   |
| Chipset | Intel EG20T               |
| Memory  | DDR2 memory, 2GB on board |

### Video

|                    |                                                                |
|--------------------|----------------------------------------------------------------|
| Graphic Controller | Integrated with Processor                                      |
| Video Memory       | DVMT                                                           |
| Video Interface    | 1 x DVI connector<br>1 x Combo connector (VGA/USB/Audio/12VDC) |

### Storage

|          |                                                            |
|----------|------------------------------------------------------------|
| SATA     | 1 x SATAII connector with power connector                  |
| CF       | 1 x CF slot (Type I/Type II), support UDMA                 |
| Disk Bay | 1 x 2.5" HDD bay with Anti-vibration / Anti-shock solution |

### Communication

|             |                                                                   |
|-------------|-------------------------------------------------------------------|
| Ethernet    | 1 x Intel GbE Chip via RJ-45 connector                            |
| USB         | 2 x USB 2.0 (1 x External port, 1 x COMBO connector)              |
| Serial Port | 2 x RS232 (2 x DB9)<br>1 x RS232/422/485 (DB9, switch selectable) |

### I/O

|                |                                                                               |
|----------------|-------------------------------------------------------------------------------|
| Expansion Slot | 2 x Mini PCIe (For Optional 3.5G / WiFi module only)                          |
| GPIO           | 8-bit GPIO (4 In, 4 Out)                                                      |
| Antenna Hole   | 1 x SMA for GPS, 1 x SMA for 3.5G, 2 x SMA for WiFi,<br>1 x SMA for Bluetooth |
| SIM            | 1 x SIM Slot, SIM card changeable without opening case                        |
| iButton        | 1-Wire interface for driver ID and sensors                                    |
| CAN Bus        | Support CAN 2.0A/2.0B protocol                                                |

### Software

|            |                      |
|------------|----------------------|
| OS Support | Fedora 14, Ubuntu 10 |
|------------|----------------------|

## Others Feature

|                  |                                  |
|------------------|----------------------------------|
| Audio            | Audio Codec (Line-out & MIC)     |
| Hardware Monitor | CPU voltage and temperature      |
| WatchDog Timer   | 1~255 sec. software programmable |
| Indicator        | Power / HDD / Status LED         |

## Power Requirement

|                   |                                                               |
|-------------------|---------------------------------------------------------------|
| Power Input       | 9~32 V (+/-5%) single voltage input,<br>3 pole terminal block |
| Power Consumption | Max 19W                                                       |

## Mechanical & Environment

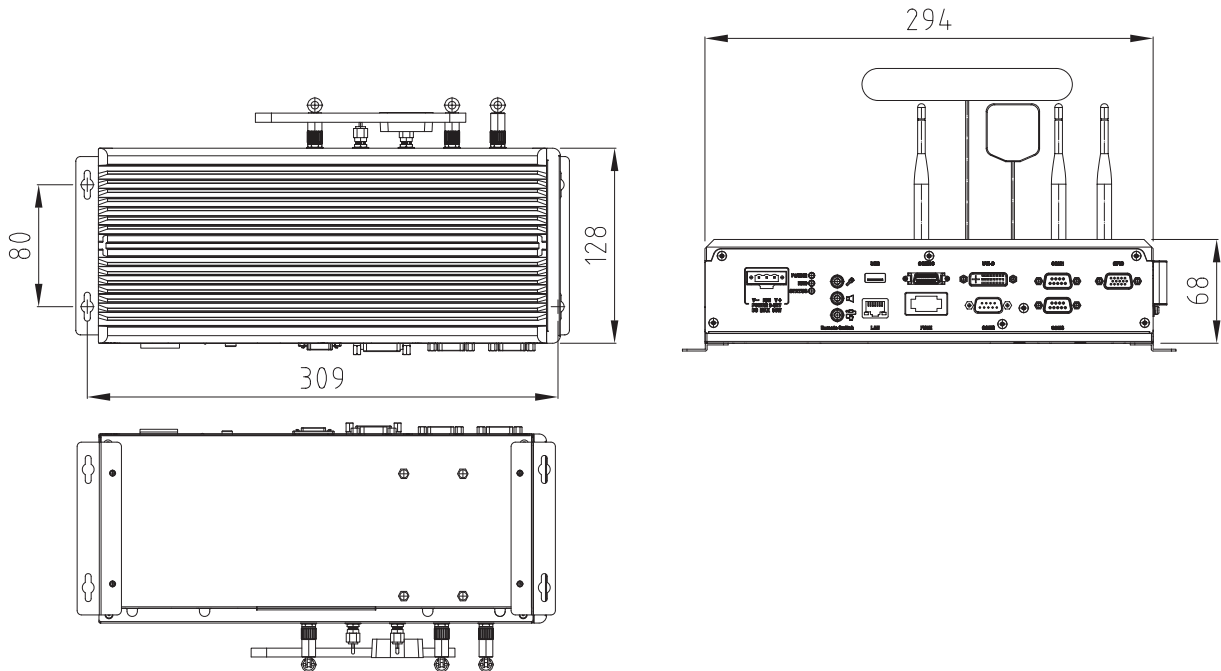
|                   |                                                                     |
|-------------------|---------------------------------------------------------------------|
| Thermal Design    | Fanless                                                             |
| Chassis Material  | Metal SPGC                                                          |
| Vibration         | IEC 60068-2-64, 5~500Hz, 3GRMS(CF/SSD),<br>Operating with SSD       |
| Shock             | IEC 60068-2-27, 50G 500m/s <sup>2</sup> 11MS,<br>Operating with SSD |
| Dimension         | 294mm x 128mm x 68mm                                                |
| Weight            | 2.4 kg                                                              |
| Operating Temp.   | 0~60°C (32~140°F) for SSD                                           |
| Storage temp.     | -40~80°C (-40~176°F)                                                |
| Relative Humidity | 0~90% @ 40°C, non-condensing                                        |
| Safety            | CE, FCC class B, E-Mark                                             |

## Smart In-Vehicle Power Management

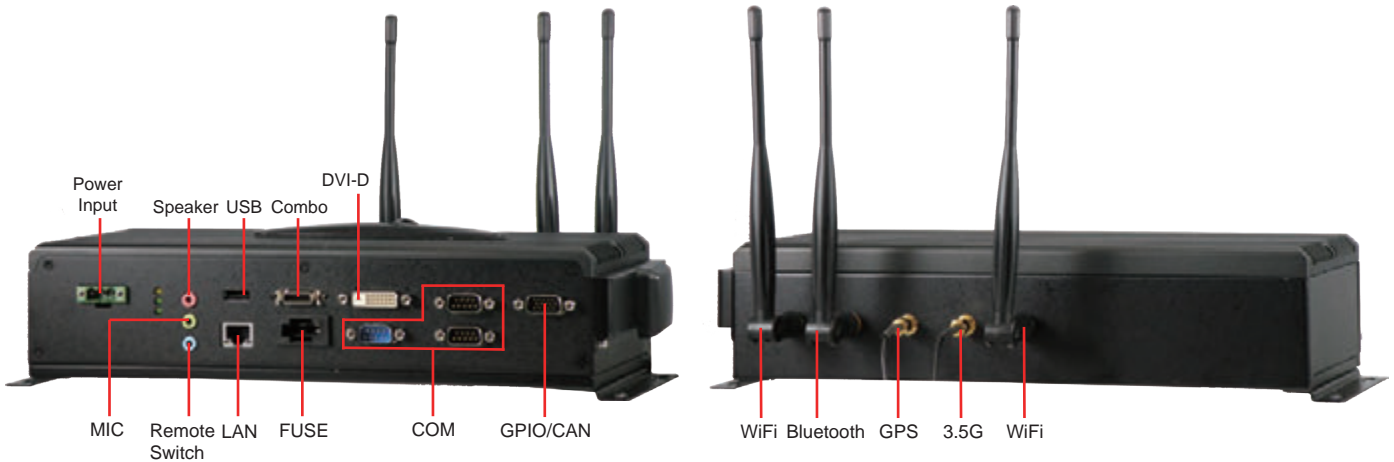
|                               |                                                                                                                                                                                   |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| O/S Anti-Crash                | Smart O/S boot/shut-down control by power subsystem                                                                                                                               |
| System boot / Shut-down delay | Delay time from 0 seconds to 60 minutes setting in BIOS                                                                                                                           |
| System boot fail retry        | 3 times boot fail retry                                                                                                                                                           |
| Power on/off switches         | <ul style="list-style-type: none"> <li>• System power switch by remote cable switch</li> <li>• System power input serial connection to car battery and ignition switch</li> </ul> |
| Car battery protection        | Low battery voltage monitoring and configurable auto shutdown low battery voltage level                                                                                           |



## Dimension



## I/O Connectors



## Packing List

- 1 x AR-V6005FL
- 1 x User Guide & System Driver CD
- 2 x Wall Mount Bracket
- 1 x Screw pack(2.5"HDD bracket: 4pcs)
- 1 x Terminal block female 3pin
- 1 x Spare Fuse 7.5A
- 1 x Remote Switch Cable
- 1 x GPIO/CAN/Driver ID DB15 Cable
- 1 x One to Many Combo Cable

## Ordering Information

|            |                                                      |
|------------|------------------------------------------------------|
| AR-V6005FL | AR-V6005FL with Intel Atom E640 1.0GHz, 2GB on board |
|------------|------------------------------------------------------|

## Optional Modules

|              |                                                                              |
|--------------|------------------------------------------------------------------------------|
| 100070072    | Sierra MC8705 with RF cable, Cable Antenna                                   |
| 100070074-01 | Wieson G5020-1 GPS module with RF Cable, Cable Antenna (L=5M)                |
| 100070070    | Qcom QBTM400-01 bluetooth module with RF Cable, Antenna                      |
| 100070092    | Sparklan WPEA-252NI WiFi Module Industrial Temperature, RF Cable Antenna x 2 |

# AR-V6002FL

Fanless and Dustproof Intel Atom D425/D525  
In-Vehicle Computer



## Features

- Rugged fanless design
- Support Intel Atom D425/D525 processors with ICH8M chipset
- 1 x DDR3 SO-DIMM, up to 4GB
- Support CAN 2.0A/2.0B protocol
- VGA output
- Variety Wireless Communication



## Specification

### System

|         |                                                               |
|---------|---------------------------------------------------------------|
| CPU     | Intel Atom D425/D525                                          |
| Chipset | Intel ICH8M                                                   |
| Memory  | One DDR3 SO-DIMM socket, support up to 4GB<br>1GB pre-install |

### Video

|                    |                                  |
|--------------------|----------------------------------|
| Graphic Controller | Integrated within Atom D425/D525 |
| Video Memory       | N/A                              |
| Video Interface    | 1 x VGA port (DB15)              |

### Storage

|          |                                                                             |
|----------|-----------------------------------------------------------------------------|
| IDE      | N/A                                                                         |
| SATA     | 2 x SATA II port                                                            |
| CF       | 1 x External Compact Flash Type I/II socket                                 |
| Disk Bay | 1 x 2.5" Disk bay with Anti-vibration /<br>Anti-shock solution for SSD only |

### Communication

|             |                                   |
|-------------|-----------------------------------|
| Ethernet    | 1 x GbE RJ45, Realtek 8111D       |
| USB         | 4 X USB 2.0                       |
| Serial Port | 2 x RS-232/422/485,<br>2 x RS-232 |

### I/O

|                |                                                                                                   |
|----------------|---------------------------------------------------------------------------------------------------|
| Expansion Slot | 2 x Mini PCIe(Reserve for WiFi and 3.5G)                                                          |
| GPIO           | 8-bit GPIO (4 In, 4 Out)                                                                          |
| Antenna Hole   | 1 x SMA for GPS, 1 x SMA for 3.5G, 2 x SMA for WiFi,<br>1 x SMA for Bluetooth                     |
| SIM            | SIM Slot x 1, SIM card changeable without opening<br>case, latch to protect SIM uncertainly touch |
| Audio          | 1 x MIC in , 1 x Audio out                                                                        |
| CAN Bus        | 2 pin JST connector , support CAN 2.0A/2.0B protocol                                              |

### Software

|            |                                                  |
|------------|--------------------------------------------------|
| OS Support | Windows XP, XP embedded, Windows 7, Linux fedora |
|------------|--------------------------------------------------|

## Others Feature

|                |                                  |
|----------------|----------------------------------|
| WatchDog Timer | 1~255 sec. software programmable |
|----------------|----------------------------------|

## Power Requirement

|                   |                           |
|-------------------|---------------------------|
| Power Input       | 12V/24V(Jumper selection) |
| Power Consumption | Max Load 47W              |

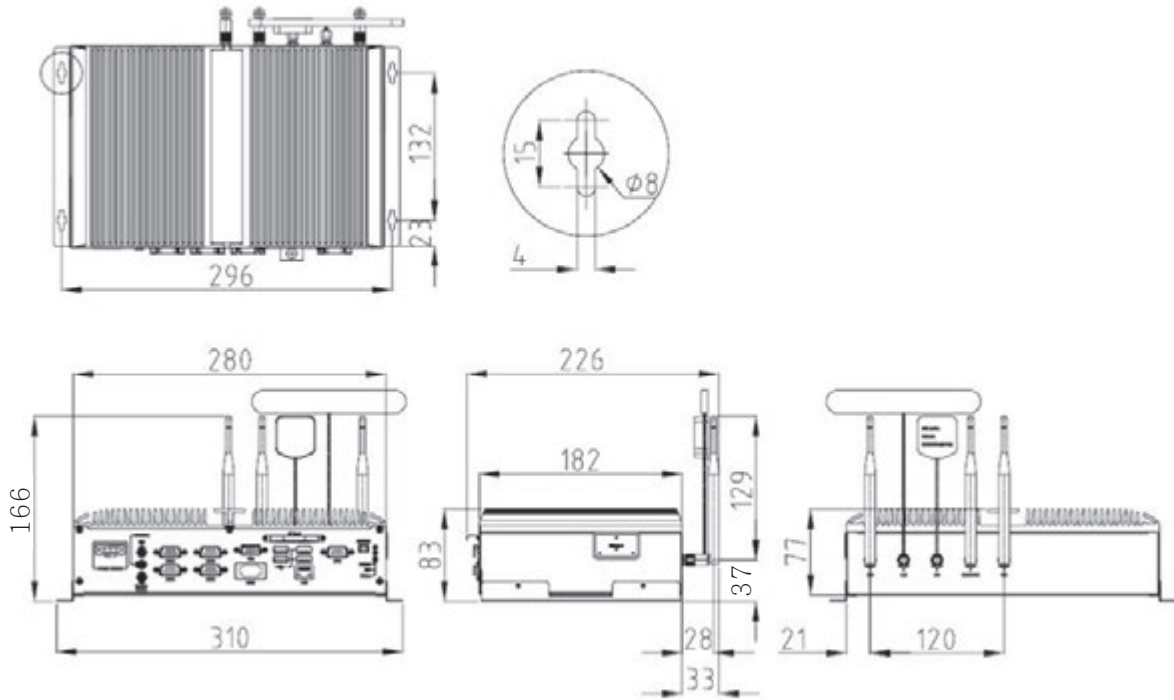
## Mechanical & Environment

|                 |                                                        |
|-----------------|--------------------------------------------------------|
| Thermal Design  | Fanless                                                |
| Vibration       | IEC 60068-2-64 5~500Hz,<br>2GRMS for CF, 3GRMS for SSD |
| Shock           | IEC 60068-2-27 50G 11ms                                |
| Dimension       | 280mm x 181.5mm x 76.8mm                               |
| Weight          | 2.7 kg                                                 |
| Operating Temp. | 0~50°C (32~122°F)                                      |
| Storage temp.   | -40~80°C (-40~176°F)                                   |
| Safety          | CE, FCC class B, E-Mark                                |

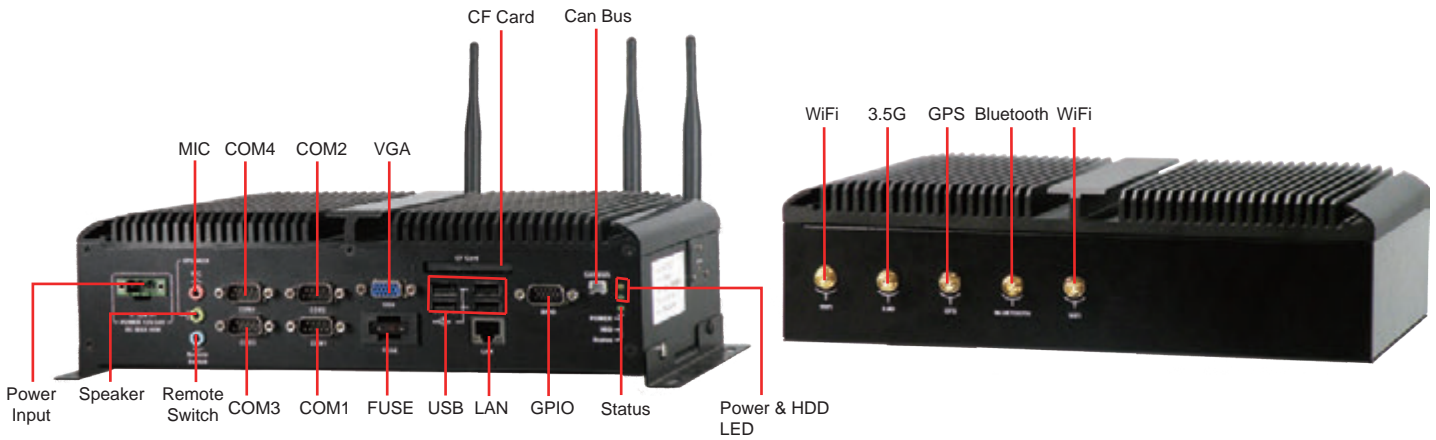
## Smart In-Vehicle Power Management

|                               |                                                                                                                                                                                   |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| O/S Anti-Crash                | Smart O/S boot/shut-down control by power subsystem                                                                                                                               |
| System boot / Shut-down delay | Delay time from 0 seconds to 60 minutes setting<br>in BIOS                                                                                                                        |
| System boot fail retry        | 3 times boot fail retry                                                                                                                                                           |
| Power on/off switches         | <ul style="list-style-type: none"> <li>• System power switch by remote cable switch</li> <li>• System power input serial connection to car battery and ignition switch</li> </ul> |
| Car battery protection        | Low battery voltage monitoring and configurable auto shutdown low battery voltage level                                                                                           |

## Dimension



## I/O Connectors



## Packing List

- 1 x AR-V6002FL
- 1 x User Guide CD with driver
- 2 x Wall Mount Bracket
- 1 x Screw pack (2.5" HDD bracket : 4pcs)
- 1 x Terminal block (Plug-DC connector)
- 1 x Remote Switch Cable
- 1 x Antenna for GPS (option)
- 2 x Antenna for WiFi (option)
- 1 x Antenna for 3.5G (option)
- 1 x Antenna for Bluetooth (option)
- 1 x Fuse 7.5A

## Ordering Information

|              |                                                  |
|--------------|--------------------------------------------------|
| AR-V6002FLD4 | AR-V6002FL with Intel Atom D425 1.8GHz, 1GB DDR3 |
| AR-V6002FLD5 | AR-V6002FL with Intel Atom D525 1.8GHz, 1GB DDR3 |

## Optional Modules

|           |                                                                        |
|-----------|------------------------------------------------------------------------|
| 100070083 | Sierra MC8705 with RF cable, Cable Antenna                             |
| 100070055 | WIESON ZYM-5020, Cable Antenna (L=5M)                                  |
| 100070056 | Qcom QBTM400-01, Antenna                                               |
| 100070003 | Intel Centrino N6205 802.11 a/b/g/n WiFi module, RF Cable, Antenna x 2 |

# AR-DP071VW

7-Inch (16:9) Monitor with VGA, USB Touch Screen



## Features

- 7-Inch (16:9) Wide Screen
- LED Backlight with Low Power Consumption
- Resistive Touch Screen
- VESA75 Mounting and Stand
- DC 12~24V Power Input



## Specification

### Panel

|                    |                                         |
|--------------------|-----------------------------------------|
| Panel Size         | 7-Inch Screen (16:9)                    |
| Resolution         | Supports 640 x 480 ~ 1920 x 1080 pixels |
| Luminance (cd/m2)  | 400 nits                                |
| View Angle (H/V)   | H:140 / V:120                           |
| Backlight Lifetime | 20,000 hours                            |
| Touch Screen Type  | 4-wire Resistive                        |

### I/O

|                 |                          |
|-----------------|--------------------------|
| Video Interface | 1 x VGA                  |
| USB             | 1 x USB for Touch Screen |
| Audio           | 1 x Audio Input Jack     |

### Power Requirement

|             |                         |
|-------------|-------------------------|
| Power Input | DC 12~24V, with Adapter |
|-------------|-------------------------|

## Software

|                         |                                                                                                                                                                                                       |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TouchKit Driver Support | Windows vista / 9X / Me / NT4.0 / 2000 / XP / E.NET / CE 2.12/3.0, Embedded/ Dos, Mac OS 9X / OS X(Intel CPU) Linux Redme / Mandrake / Red Hat / Fedora Core / SuSE / Debian / (K)Ubuntu / Yellow Dog |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

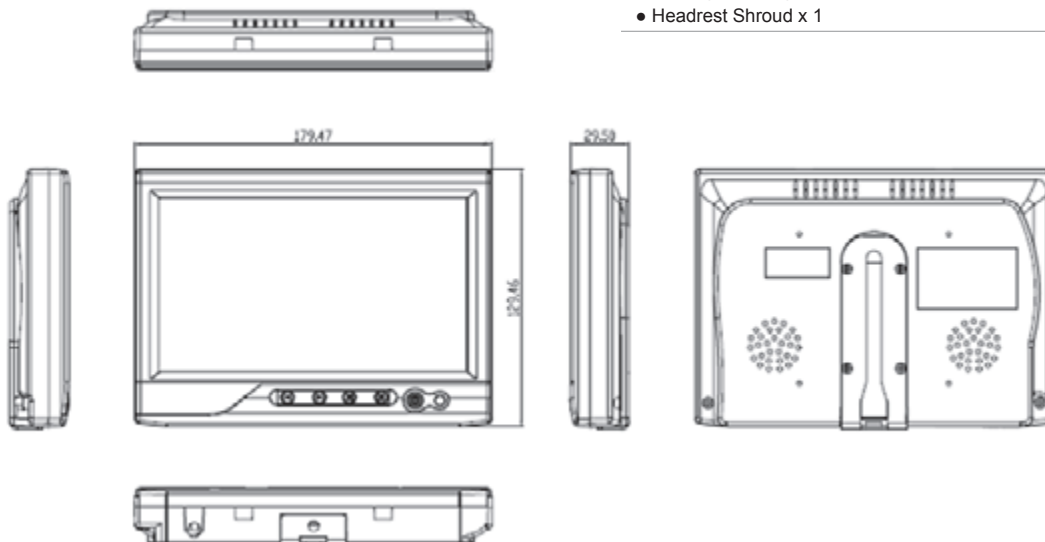
## Mechanical & Environment

|                       |                              |
|-----------------------|------------------------------|
| Chassis Material      | Plastic                      |
| Dimension (W x H x D) | 179.43mm x 129.43mm x 29.5mm |
| Mounting              | VESA75 mount                 |
| Operating Temp.       | -30~85°C (-22~185°F)         |
| Storage temp.         | -30~85°C (-22~185°F)         |
| Safety                | CE, FCC, E13, RoHS           |

## Packing List

- User Manual x 1
- Metal Stand x 1
- All-in-One Cable x 1
- Remote Controller x 1
- Touch Driver CD x 1
- Touch Stylus Pen x 1
- AC/DC switching Power Supply x 1
- Car Cigarette Lighter Adapter x 1(Option)
- Headrest Shroud x 1

## Dimension



# AR-DP080V

8-Inch(4:3) Display Monitor with VGA, USB Touch Screen



## Features

- 8-Inch(4:3) Wide Screen
- LED Backlight with Low Power Consumption
- Resistive Touch Screen
- VESA75 Mounting and Stand
- DC 12~24V Power Input



## Specification

### Panel

|                    |                                            |
|--------------------|--------------------------------------------|
| Panel Size         | 8-Inch Screen (4:3)                        |
| Resolution         | Supports from 640 x 480~1600 x 1024 pixels |
| Luminance (cd/m2)  | 400 nits                                   |
| View Angle (H/V)   | H:110 / V:50                               |
| Backlight Lifetime | 20,000 hours                               |
| Touch Screen Type  | 4-wire resistive                           |

### I/O

|                 |                          |
|-----------------|--------------------------|
| Video Interface | 1 x VGA                  |
| USB             | 1 x USB for Touch Screen |
| Audio           | 1 x 3.5mm stereo Jack    |

### Power Requirement

|                   |        |
|-------------------|--------|
| Power Input       | DC 12V |
| Power Consumption | 10W    |

### Software

#### TouchKit Driver Support

Windows: Vista, 9X, Me, NT4.0, 2000, XP, CE.net, CE 2.12, CE 3.0, Embedded, Dos.  
Mac: Mac OS 9X, OS X (Intel CPU).  
Linux: Linux Readme, Mandrake, Red Hat, Fedora Core, SuSE, Debian, Ubuntu, Yellow Dog

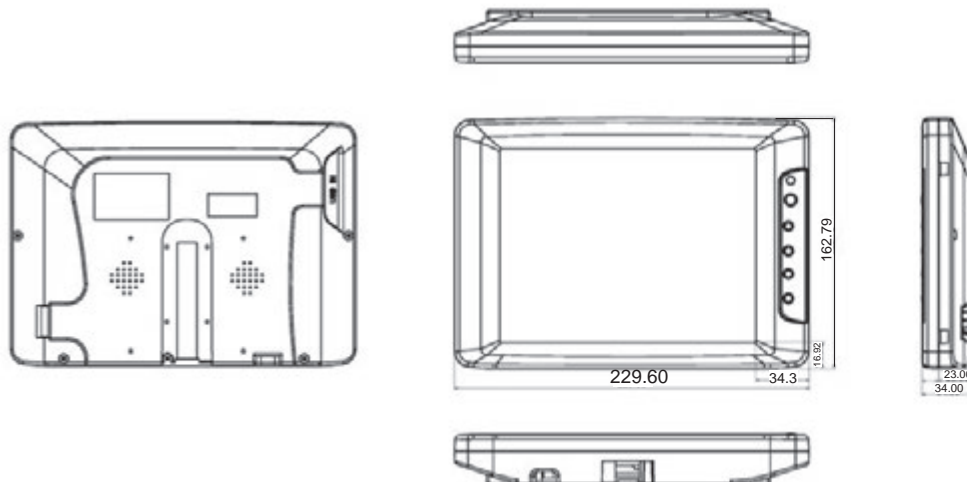
### Mechanical & Environment

|                       |                            |
|-----------------------|----------------------------|
| Chassis Material      | Plastic                    |
| Dimension (W x H x D) | 229.6mm x 162.8mm x 33.9mm |
| Mounting              | VESA 75, Metal Stand       |
| Operating Temp.       | -10~60°C                   |
| Storage temp.         | -30~70°C                   |
| Safety                | CE, E-Mark, FCC            |

### Packing List

- User Manual x 1
- Metal Stand x 1
- All-in-One Cable x 1 (VGA / USB / DC Jack / Audio)
- Remote Controller x 1
- Touch Driver CD x 1
- Touch Stylus x 1
- Car Cigarette Lighter Adapter x 1(Option)
- AC Switching Power Supply x 1

## Dimension



# AR-DP080VW

8-Inch(16:9) Display Monitor with VGA, USB Touch Screen



## Features

- 8-Inch(16:9) Wide Screen
- CCFT Backlight
- Resistive Touch Screen
- VESA75 Mounting and Stand
- DC 12V Power Input



## Specification

### Panel

|                    |                                              |
|--------------------|----------------------------------------------|
| Panel Size         | 8-Inch Wide Screen (16:9)                    |
| Resolution         | Supports from 640 x 480 ~ 1600 x 1024 pixels |
| Luminance (cd/m2)  | 500 nits                                     |
| View Angle (H/V)   | H:120 / V:100                                |
| Backlight Lifetime | 20,000 hours                                 |
| Touch Screen Type  | 4-wire Resistive                             |

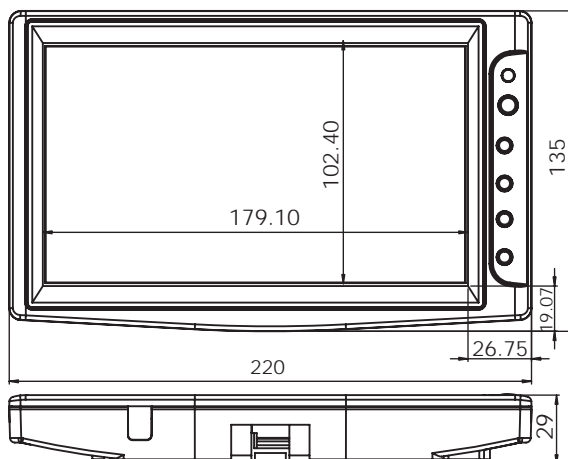
### I/O

|                 |                          |
|-----------------|--------------------------|
| Video Interface | 1 x VGA                  |
| USB             | 1 x USB for Touch Screen |
| Audio           | 1 x 3.5mm stereo Jack    |

### Power Requirement

|                   |        |
|-------------------|--------|
| Power Input       | DC 12V |
| Power Consumption | 7.2W   |

## Dimension



## Software

### TouchKit Driver Support

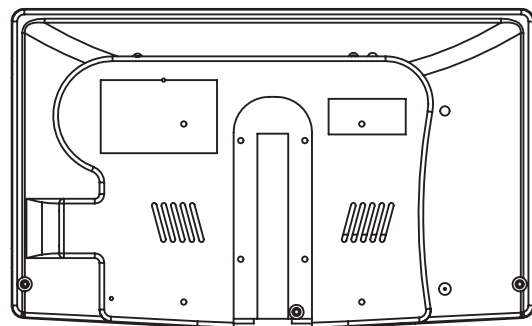
Windows: Vista, 9X, Me, NT4.0, 2000, XP, CE.net, CE 2.12, CE 3.0, Embedded, Dos.  
Mac: Mac OS 9X, OS X (Intel CPU).  
Linux: Linux Readme, Mandrake, Red Hat, Fedora Core, SuSE, Debian, Ubuntu, Yellow Dog

## Mechanical & Environment

|                       |                       |
|-----------------------|-----------------------|
| Chassis Material      | Plastic               |
| Dimension (W x H x D) | 220mm x 135mm x 29 mm |
| Mounting              | VESA 75, Metal Stand  |
| Operating Temp.       | 0~70°C                |
| Storage temp.         | -20~70°C              |
| Safety                | CE, E-Mark, FCC       |

## Packing List

- User Manual x 1
- Metal Stand x 1
- All-in-One Cable x 1 (VGA / USB / DC Jack / Audio)
- Remote Controller x 1
- Touch Driver CD x 1
- Touch Stylus x 1
- Car Cigarette Lighter Adapter x 1(Option)
- AC Switching Power Supply x 1



# AR-DP100VW

10.2-Inch(16:9) Display Monitor with VGA, USB Touch Screen



## Features

- 10.2-Inch(16:9) Wide Screen
- LED Backlight with Low Power Consumption
- Resistive Touch Screen
- VESA75 Mounting and Stand
- DC 12~24V Power Input



CE FC (E13)

## Specification

### Panel

|                    |                                           |
|--------------------|-------------------------------------------|
| Panel Size         | 10.2-Inch Screen (16:9)                   |
| Resolution         | Supports from 640 x 480~1024 x 768 pixels |
| Luminance (cd/m2)  | 400 nits                                  |
| View Angle (H/V)   | H:140 / V:120                             |
| Backlight Lifetime | 30,000 hours                              |
| Touch Screen Type  | 4-wire resistive                          |

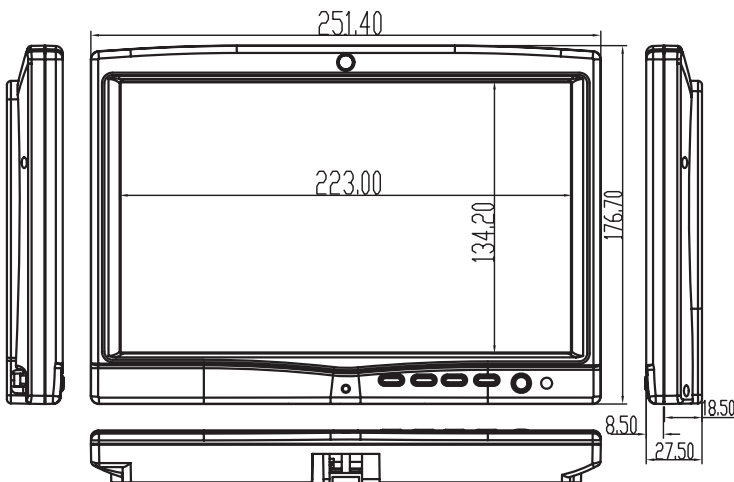
### I/O

|                 |                          |
|-----------------|--------------------------|
| Video Interface | 1 x VGA                  |
| USB             | 1 x USB for Touch Screen |
| Audio           | 1 x 3.5mm stereo Jack    |

### Power Requirement

|                   |           |
|-------------------|-----------|
| Power Input       | DC 12~24V |
| Power Consumption | 12W       |

## Dimension



## Software

### TouchKit Driver Support

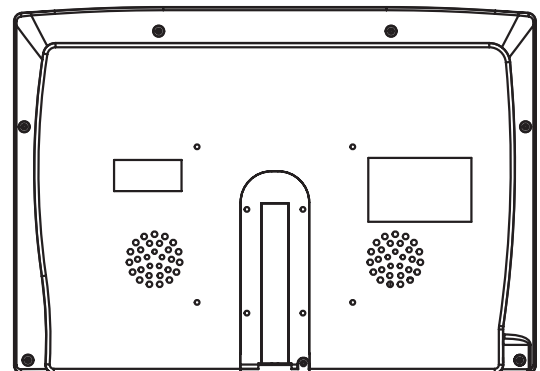
Windows: Vista, 9X, Me, NT4.0, 2000, XP, CE.net, CE 2.12, CE 3.0, Embedded, Dos.  
Mac: Mac OS 9X, OS X (Intel CPU).  
Linux: Linux Readme, Mandrake, Red Hat, Fedora Core, SuSE, Debian, Ubuntu, Yellow Dog

## Mechanical & Environment

|                       |                            |
|-----------------------|----------------------------|
| Chassis Material      | Plastic                    |
| Dimension (W x H x D) | 251.5mm x 176.7mm x 27.5mm |
| Mounting              | VESA 75, Metal Stand       |
| Operating Temp.       | -30~85°C                   |
| Storage temp.         | -40~85°C                   |
| Safety                | CE, E-Mark, FCC            |

## Packing List

- User Manual x 1
- Metal Stand x 1
- All-in-One Cable x 1 (VGA / USB / DC Jack / Audio)
- Remote Controller x 1
- Touch Driver CD x 1
- Touch Stylus x 1
- Car Cigarette Lighter Adapter x 1(Option)
- AC Switching Power Supply x 1



# AR-DP100V/VD

10.4-Inch(4:3) Display Monitor with VGA, Touch Screen



## Features

- 10.4-Inch TFT LCD
- LED Backlight with Low Power Consumption
- Resistive Touch Screen
- VESA75 Mounting and Stand
- DC12-24V Power Input



## Specification

### Panel

|                                |                        |
|--------------------------------|------------------------|
| Panel Size                     | 10.4-Inch Screen (4:3) |
| Resolution                     | 800 x 600              |
| Luminance (cd/m <sup>2</sup> ) | 300 nits               |
| Backlight Lifetime             | 50,000hrs              |
| Touch Screen Type              | 4-wire Resistive       |

### I/O

|                 |                              |
|-----------------|------------------------------|
| Video Interface | 1 x VGA + 1 x DVI (optional) |
| USB             | 1 x USB for Touch Screen     |
| Audio           | 2 x Audio Input Jack         |

### Power Requirement

|             |                         |
|-------------|-------------------------|
| Power Input | DC 12~24V, with Adapter |
|-------------|-------------------------|

### Software

|                         |                                                                                                                                                                                                   |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TouchKit Driver Support | Windows vista / 9X / Me / NT4.0 / 2000 / XP / CE.NET/CE 2.12/3.0, Embedded/ DosMac OS 9X / OS X(Intel CPU)Linux Redme / Mandrake / Red Hat / Fedora Core / SuSE / Debian / (K)Ubuntu / Yellow Dog |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

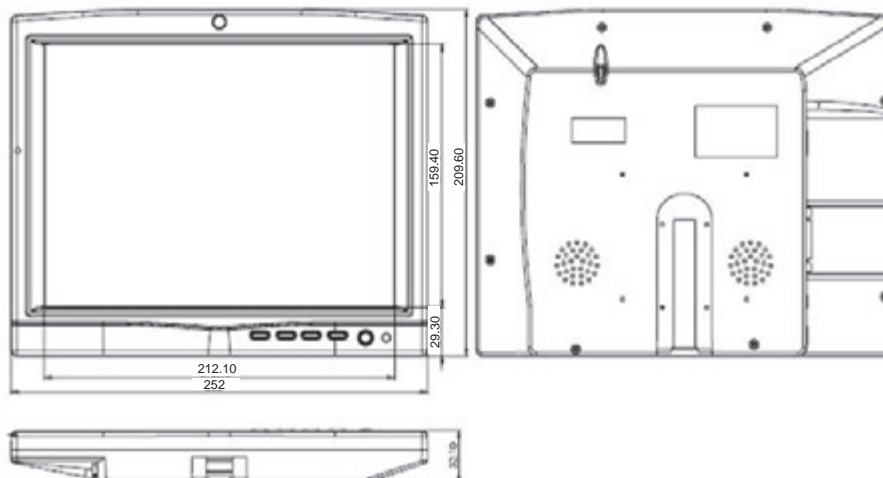
### Mechanical & Environment

|                       |                          |
|-----------------------|--------------------------|
| Chassis Material      | Plastic                  |
| Dimension (W x H x D) | 252mm x 209.6mm x 32.1mm |
| Mounting              | VESA75 mount             |
| Operating Temp.       | -10~60°C                 |
| Storage temp.         | -20~70°C                 |
| Safety                | CE, FCC                  |

### Packing List

- User Manual x 1
- VESA Stand x 1
- All in One Cable x 1
- Remote Controller x 1
- Touch Driver CD x 1
- Touch Stylus Pen x 1
- AC/DC switching Power Supply x 1
- Car Cigarette Lighter Adapter x 1(Option)

## Dimension





# ACC-VBAT-12

UPS Back-Up Power Solution for In-Vehicle Computer  
C-LiFePO4 Battery 12.8V/4.2Ah



## Features

- Support 12V/24V Input power
- Work as an UPS
- C-LiFePO4 Battery 12.8V/4.2Ah
- Auto Charge and Battery Protection



CE FCC

## Specification

### General

|              |                                                                                               |
|--------------|-----------------------------------------------------------------------------------------------|
| Battery SPEC | Backup control board with battery for Vehicle PC<br>(With PHET C-LiFePO4 12.8V 4.2Ah Battery) |
|--------------|-----------------------------------------------------------------------------------------------|

### Specification

|                                               |                                                    |
|-----------------------------------------------|----------------------------------------------------|
| power input                                   | IDC 9~32V                                          |
| Power charge for Backup battery               | DC 14.6V (constant-voltage, CV)                    |
| Power charge for backup battery current limit | Max. 4.2A                                          |
| Backup battery cut off voltage                | 10.6V                                              |
| Backup battery low voltage warning            | DC 11.2V till DC 10.6V                             |
| Capacity LED                                  | 3 Green LED to present the Battery capacity status |
| Charging LED                                  | 1 Yellow LED to present Battery charging status    |
| Fuse socket                                   | Input protection : Fuse 12V(15A), 24V(7.5A)        |

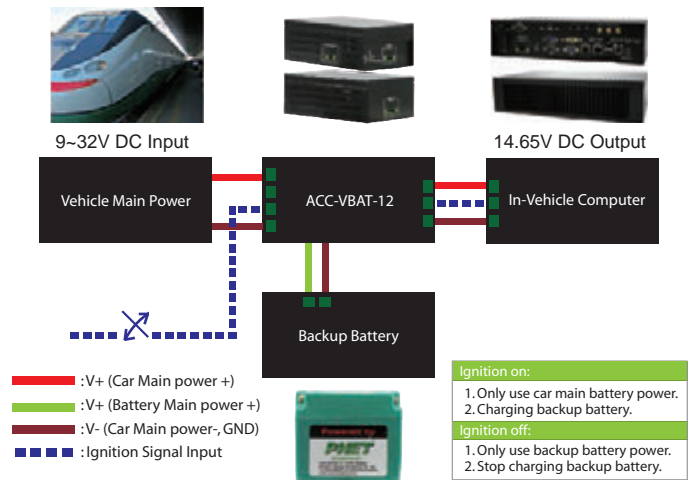
### I/O

|                |                                                   |
|----------------|---------------------------------------------------|
| Man power in   | Terminal block 4 pin : Positive, Ground, Ignition |
| Backup battery | Terminal block 2 pin : Positive, Ground           |
| Power output   | Terminal block 3 pin : Positive, Ground           |

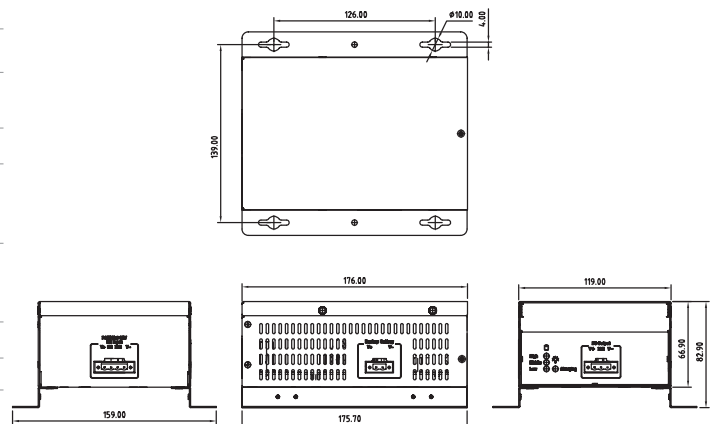
### Mechanical & Environment

|                         |                                                                                                                |
|-------------------------|----------------------------------------------------------------------------------------------------------------|
| Dimension ( W x D x H ) | System box with bracket : 159mm x 176mm x 82.9mm<br>Battery: 60mm x 120mm x 105mm                              |
| Weight                  | Battery: 0.96Kg                                                                                                |
| Operating Temp.         | System : -20~65°C<br>Battery : 0~45°C, 45~85%RH (In Std. charging)<br>-20~60°C, 45~85%RH (In Std. discharging) |
| Storage Temp.           | System: -20~80°C<br>Battery: -20~35°C (Within 1 year)<br>-20~40°C (Within 6 month)                             |
| Relative Humidity       | 0~90% @ 40°C, non-condensing                                                                                   |
| Safety                  | CE, FCC class A                                                                                                |

## Function Diagram



## Dimension



# Product Matrix

## Gaming Platform



| Form Factor                            | Gaming Platform                                                                             |                                                               |                                                                                                                              |
|----------------------------------------|---------------------------------------------------------------------------------------------|---------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| Model name                             | ACE-SHM76G1                                                                                 | ACE-S5692FL                                                   | AMB-A55EG1                                                                                                                   |
| Board                                  | -                                                                                           | ACE-B5692                                                     | AMB-A55EG1                                                                                                                   |
| CPU                                    | Intel Core i5 3230M                                                                         | Intel Core 2 Duo / Celeron M                                  | AMD Dual Core T56N 1.6GHz                                                                                                    |
| Chipset                                | Intel HM76                                                                                  | Intel GME965                                                  | AMD Fusion Control Hub A55E                                                                                                  |
| System Memory                          | 2 x DDR3 SO-DIMM Socket, up to 16GB                                                         | 2 x DDR2 DIMM Socket, up to 4GB                               | 2 x DDR3 SO-DIMM socket, up to 8GB                                                                                           |
| Graphic Controller                     | Integrated HD graphic 4000<br>Open GL 4.0, DirectX 11                                       | Integrated x 3100<br>Open GL 1.5, DirectX 10                  | Integrated Radeon HD 6320<br>Open GL 4.0, Direct X11                                                                         |
| Display Interface                      | 2 x VGA                                                                                     | 2 x VGA                                                       | 1 x VGA & 1 x HDMI                                                                                                           |
| Expansion Slot (PCI-E x16)             | -                                                                                           | 1                                                             | N/A                                                                                                                          |
| USB                                    | 6                                                                                           | 7                                                             | 4 x USB 2.0 port, 2 x USB 2.0 pin header                                                                                     |
| Ethernet                               | 1 x GbE                                                                                     | 1 x GbE                                                       | 1x GbE                                                                                                                       |
| Audio                                  | 2.1 channel output without amplifier                                                        | 2 channel with 2 x 6 Watts Amplifier                          | 5.1 channel audio without amplifier                                                                                          |
| I/O Connector                          | micro fit connector                                                                         | Italian JAMMA/ 72+20 pin Golden Finger                        | Golden fingers                                                                                                               |
| I/O Definition                         | Proprietary                                                                                 | Jamma & Proprietary                                           | Proprietary                                                                                                                  |
| Serial Port                            | 4 x RS-232 DB9 connector<br>2 x RS-232 / 422 / 485 / SAS (8 bit IC)<br>ccTalk DB9 connector | 3 x RS-232 DB9 connector<br>2 x RS-232 / ccTalk DB9 connector | 1 x RS232 with DB9 connector<br>1 x RS232/422/485 DB9 connector<br>1 x 4-pin ccTalk connector<br>1 x 10-pin ccTalk connector |
| Digital I/O                            | 32 Input / 32 Output                                                                        | 30 Input / 27 Output                                          | Follow golden fingers definition                                                                                             |
| Readable DIP switch                    | N/A                                                                                         | 16 bits                                                       | N/A                                                                                                                          |
| GPIO (TTL level)                       | 32 bits                                                                                     | 28 bits                                                       | N/A                                                                                                                          |
| Battery Backup SRAM                    | 2 x 512KB                                                                                   | 2 x 512KB                                                     | 256KB (Max 1MB)                                                                                                              |
| EEPROM                                 | N/A                                                                                         | 1KB                                                           | N/A                                                                                                                          |
| Jurisdiction Chip                      | N/A                                                                                         | N/A                                                           | N/A                                                                                                                          |
| Intrusion Logger                       | Yes                                                                                         | Yes                                                           | Yes                                                                                                                          |
| Secure Real Time Clock                 | Yes                                                                                         | Yes                                                           | N/A                                                                                                                          |
| Smart card reader                      | Optional                                                                                    | Optional                                                      | N/A                                                                                                                          |
| Reel Mechanism control                 | N/A                                                                                         | ACE-S5692RFL: supports up to 6 reels                          | N/A                                                                                                                          |
| Hardware Random Number Generator (RNG) | YES                                                                                         | YES                                                           | N/A                                                                                                                          |
| Page                                   | 26                                                                                          | 28                                                            | 32                                                                                                                           |

# Product Matrix

## Gaming Platform



| Form Factor                            | Gaming Platform                                                                    |                                                                                              |
|----------------------------------------|------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| Model name                             | ACE-S7400                                                                          | ACE-S7300                                                                                    |
| Board                                  | ACE-B7400                                                                          | ACE-B7300                                                                                    |
| CPU                                    | AMD T48N Dual Core                                                                 | AMD Athlon / Sempron CPU                                                                     |
| Chipset                                | AMD A55E                                                                           | AMD 780E+SB710                                                                               |
| System Memory                          | 2 x DDR3 SO-DIMM socket, up to 8GB                                                 | 2 x DDR2 SO-DIMM Socket, up to 4GB                                                           |
| Graphic Controller                     | Integrated AMD Radeon HD 6310<br>Open GL 4.0, DirectX 11                           | Integrated AMD Radeon HD 3200<br>Open GL 2.0, DirectX 10                                     |
| Display Interface                      | 1 x DVI-I & 1 x DVI-D                                                              | 2 x VGA                                                                                      |
| Expansion Slot (PCI-E x16)             | -                                                                                  | 1                                                                                            |
| USB                                    | 8                                                                                  | 4                                                                                            |
| Ethernet                               | 2 x GbE                                                                            | 1 x GbE                                                                                      |
| Audio                                  | 5.1 channel audio, 2.1 channel w/ amplifier                                        | 2 channel with 2 x 6 Watts amplifier                                                         |
| I/O Connector                          | Micro-Fit connectors                                                               | Italian JAMMA Golden Finger                                                                  |
| I/O Definition                         | Proprietary                                                                        | Jamma                                                                                        |
| Serial Port                            | 4 x RS-232 DB9 connector<br>2 x RS-232/485/ccTalk<br>Micro-Fit 3.0 connector 7-pin | 2 x RS-232 with DB9 connector<br>1 x 4-pin ccTalk connector<br>1 x ccTalk from golden finger |
| Digital I/O                            | 32 Inuput / 32 Output                                                              | 11 Input / 15 Output                                                                         |
| Readable DIP switch                    | 8 bits (optional)                                                                  | 8 bits (optional)                                                                            |
| GPIO (TTL level)                       | N/A                                                                                | N/A                                                                                          |
| Battery Backup SRAM                    | 2 x 1MB                                                                            | 1MB (Max. 2MB)                                                                               |
| EEPROM                                 | 1KB                                                                                | 1KB                                                                                          |
| Jurisdiction Chip                      | N/A                                                                                | N/A                                                                                          |
| Intrusion Logger                       | Yes                                                                                | Yes                                                                                          |
| Secure Real Time Clock                 | Yes                                                                                | Yes                                                                                          |
| Smart card reader                      | N/A                                                                                | Yes                                                                                          |
| Reel Mechanism control                 | N/A                                                                                | N/A                                                                                          |
| Hardware Random Number Generator (RNG) | N/A                                                                                | N/A                                                                                          |
| Page                                   | 34                                                                                 | 38                                                                                           |

# ACE-SHM76G1

Intel Ivy Bridge All-in-One gaming system



## Specification

### General PC Feature

|                 |                                                                                        |
|-----------------|----------------------------------------------------------------------------------------|
| CPU             | Mobile Intel Ivy Bridge Core i5 3230M (2.60GHz, 3M cache, Dual cores)                  |
| Chipset         | Intel HM76                                                                             |
| Memory          | Memory DDR3 (1.5V) 1066 MT/s, 1333 MT/s and 1600 MT/s<br>Dual Channel 204Pin 1.5V DDR3 |
| Battery         | One 220mAh CR2032 for system RTC<br>One extra rechargeable battery for door switch     |
| Real Time Clock | 1 x system RTC and 1x secured RTC                                                      |
| Fan Connector   | 2 x 12V fan connector                                                                  |

### Video

|                    |                                                                   |
|--------------------|-------------------------------------------------------------------|
| Graphic Controller | Intel integrated HD graphic 4000 supports OpenGL 4.0 , DirectX 11 |
| Video Memory       | shared memory                                                     |
| Video Interface    | 2 x VGA (1 x DB15, 1 x pin header optional DVI-I)                 |

### Storage

|      |                    |
|------|--------------------|
| SATA | 2 x SATA port(3.0) |
|------|--------------------|

### Communication

|             |                                                                                                       |
|-------------|-------------------------------------------------------------------------------------------------------|
| Ethernet    | 1 x GbE RJ45, Realtek RTL8111DL                                                                       |
| USB         | 6 x USB (2 xUSB 2.0, 4 x USB 3.0)                                                                     |
| Serial Port | 4 x RS-232 (4x DB9)<br>2 x RS232 / 422 / 485 / SAS (8 bit IC) communication. (2 x male DB9 connector) |

### Audio

|        |                                                                                              |
|--------|----------------------------------------------------------------------------------------------|
| Output | 2.1 channel output without amplifier<br>Audio jack 3.5Φ (2 layers for stereo and sub-woofer) |
|--------|----------------------------------------------------------------------------------------------|

### Other Feature

|                     |                                                                                                                          |
|---------------------|--------------------------------------------------------------------------------------------------------------------------|
| Hardware Monitoring | <ul style="list-style-type: none"> <li>• CPU temperature</li> <li>• System temperature</li> <li>• CPU voltage</li> </ul> |
| WatchDog Timer      | Software programmable 1~255 sec.                                                                                         |
| Indicator           | HDD and Power LED                                                                                                        |

## Features

- Chipset Intel HM76 chipset (Ivy Bridge Core i5 3230M)
- Display - VGA + DVI-D dual display
- SATA DOM door and key switch for easy maintenance and security
- Digital Input x 32 pin header
- Digital Output x 32 pin header
- 6 x COM(4 x rs232,2 x RS232 / 422 / 485 / SAS (8 bit IC) communication.
- Door Switch for intrusion log use.



## Gaming I/O

|                     |                                                                                                                                                                                                                                                                                                                                              |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| I/O Interface       | micro fit connector                                                                                                                                                                                                                                                                                                                          |
| Digital Input       | 32 bits GPI by micro fit connector (digital logic,high above 3v,low is 0V)                                                                                                                                                                                                                                                                   |
| Digital Output      | 32 bits GPO by micro fit connector (max.500ma drain current)                                                                                                                                                                                                                                                                                 |
| GPIO                | 32 bits                                                                                                                                                                                                                                                                                                                                      |
| Door Switch         | <ul style="list-style-type: none"> <li>• 4 x Door Switches (2 x internal &amp; 2 external)</li> <li>• One switch is designed for HDD open (SATA DOM)</li> <li>• One switch is designed for system open</li> <li>• 2 x external switches connected to micro fit</li> <li>• Door switch connect to GPI ports for intrusion log use.</li> </ul> |
| Hardware Monitoring | <ul style="list-style-type: none"> <li>• CPU temperature</li> <li>• System temperature</li> <li>• CPU voltage</li> </ul>                                                                                                                                                                                                                     |

## Power Requirement

|             |                                           |
|-------------|-------------------------------------------|
| Power Input | +12V input from power connector (AT mode) |
|-------------|-------------------------------------------|

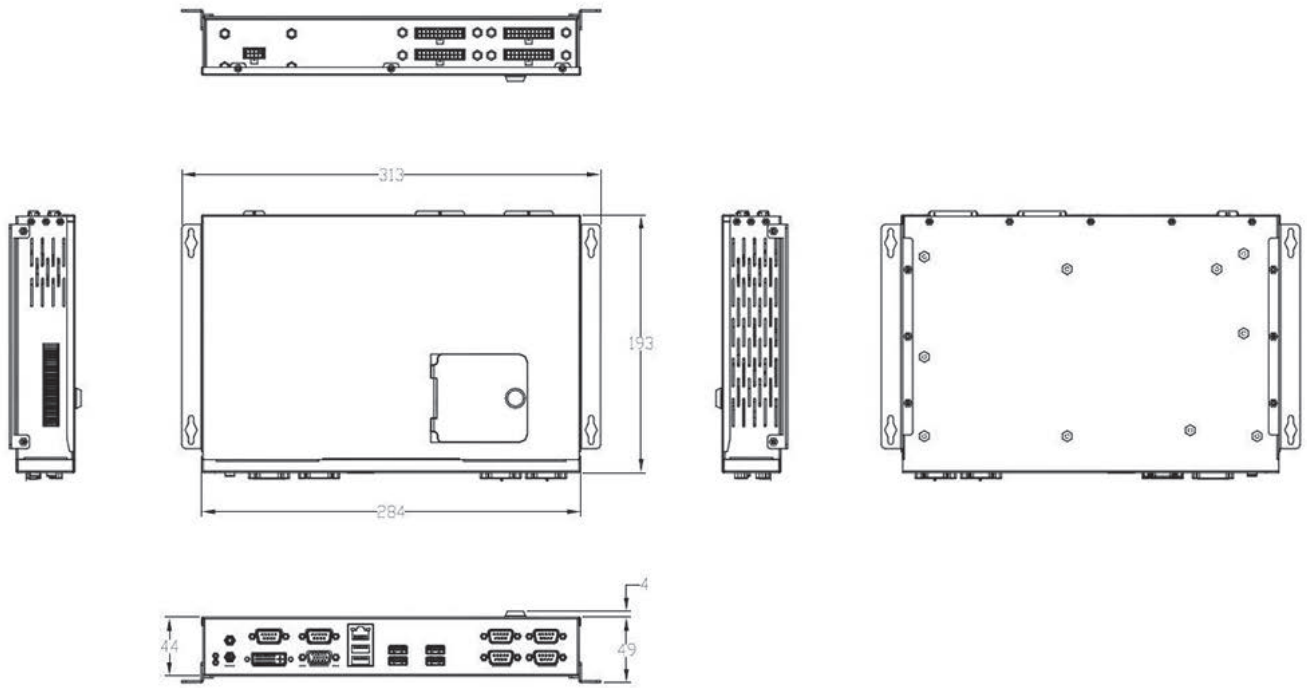
## Software

|                          |                                                                                                                                                                                                                                              |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| OS Support               | Support Windows 7(32 bit)/ Windows 7 Embedded(32 bit)                                                                                                                                                                                        |
| Software Development Kit | <ul style="list-style-type: none"> <li>• Windows 7 (32 bit) and Windows 7 Embedded 32 bit (WES7) for</li> <li>• Chipset driver, LAN, audio &amp; graphic</li> <li>• Digital I/O</li> <li>• Door switch</li> <li>• System Watchdog</li> </ul> |

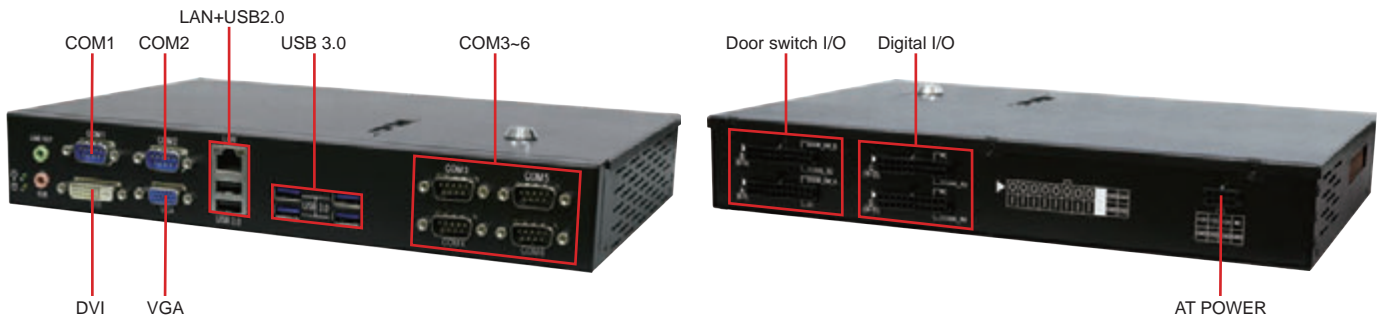
## Mechanical & Environment

|                   |                                 |
|-------------------|---------------------------------|
| Dimension         | 193mm x 313mm x 49mm(D x W x H) |
| Operating Temp.   | 0 to 50 degree Celsius          |
| Storage temp.     | -20 to 85 degree Celsius        |
| Relative Humidity | 90% non-condensing              |
| Safety            | CE, FCC class A                 |

## Dimension



## I/O Connectors



## Packing List

- 1 x ACE-SHM76G1
- 1 x Driver CD
- 1 x Quick user manual
- 1 x Carton
- 4 x 22(2x11) pin micro fit cable for digital input
- 1 x 8(2x4) pin micro fit cable for power

# ACE-S5692FL

Intel GME965 Fanless and Gaming System with International and Italian JAMMA Interface



## Features

- GME965 with Core 2 Duo/Celeron M
- 30-bit Interruptible Digital Input
- 27-bit High Current Output
- 8 Liner and Italian JAMMA Interface
- Dual 512KB Battery Backup SRAM with Battery Low Event Logger
- Dual VGA
- 4 x 16-bit Interruptible Timer
- 7-bit Intrusion Logger Input



CE FCC Invention Patent I334065

## Specification

### General PC Feature

|                 |                                                                                                                                                                             |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CPU             | Intel Core 2 Duo 2.20GHz<br>Intel Celeron M 2.0GHz                                                                                                                          |
| Chipset         | Intel GME965 + ICH8M                                                                                                                                                        |
| Memory          | <ul style="list-style-type: none"> <li>• 2 x 240-pin DIMM socket support 533/667MHz Dual Channel DDR2 SDRAM up to 4GB</li> <li>• 1GB DDR2 pre-installed</li> </ul>          |
| Battery         | <ul style="list-style-type: none"> <li>• 1 x 220 mAh battery for system RTC</li> <li>• 2 x 140 mAh re-chargable batteries for SRAM, Second RTC, Intrusion Logger</li> </ul> |
| Real Time Clock | 1 x system RTC and 1x secured RTC                                                                                                                                           |

### Video

|                    |                                                                                      |
|--------------------|--------------------------------------------------------------------------------------|
| Graphic Controller | Intel GME965 integrated GMA X3100 graphic controller supports OpenGL 1.5, DirectX 10 |
| Video Memory       | shared memory                                                                        |
| Video Interface    | 2 x VGA (2 x DB15)                                                                   |

### Storage

|      |                                                 |
|------|-------------------------------------------------|
| IDE  | 1 x IDE (40-pin)                                |
| SATA | 2 x SATA port                                   |
| CF   | 1 x Compact Flash Type I/II socket support UDMA |

### Communication

|             |                                                    |
|-------------|----------------------------------------------------|
| Ethernet    | 1 x GbE RJ45 with LED, Intel 82574L                |
| USB         | 6 x USB 2.0 (2 x external port, 4 x pin header)    |
| Serial Port | 4 x RS-232 (4 x DB9, COM3/4 selectable for ccTalk) |

### Audio

|                |                     |
|----------------|---------------------|
| Output         | Stereo              |
| Amplifier      | 6 Watts per channel |
| Volume Channel | Left channel        |

### Other Feature

|                     |                                                                                                                 |
|---------------------|-----------------------------------------------------------------------------------------------------------------|
| Hardware Monitoring | <ul style="list-style-type: none"> <li>• CPU voltage and speed</li> <li>• CPU and system temperature</li> </ul> |
| WatchDog Timer      | Software programmable 1~255 sec.                                                                                |
| Indicator           | HDD and Power LED                                                                                               |

### Gaming I/O

|                          |                                                                                                                                                                                                                                                   |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| I/O Interface            | 8 Liner (72-pin) and Italian JAMMA interface                                                                                                                                                                                                      |
| Digital Input            | <ul style="list-style-type: none"> <li>• 25 x optical isolated input, 5 x TTL input</li> <li>• State change interrupt</li> </ul>                                                                                                                  |
| Digital Output           | 3 x 1000 mA and 24 x 500 mA digital output                                                                                                                                                                                                        |
| Readable DIP Switch      | 2 x 8-bit DIP switch                                                                                                                                                                                                                              |
| GPIO (TTL Level)         | 28 bits                                                                                                                                                                                                                                           |
| Timer                    | 4 x 16-bit timers with time out interrupt                                                                                                                                                                                                         |
| Battery backup SRAM      | <ul style="list-style-type: none"> <li>• 2 x 512KB</li> <li>• 140 mAh rechargeable battery</li> <li>• Battery voltage low log and voltage readback</li> </ul>                                                                                     |
| EEPROM                   | 1KB                                                                                                                                                                                                                                               |
| Intrusion Logger         | <ul style="list-style-type: none"> <li>• 1 x chassis intrusion switch + 5 bits on golden fingers</li> <li>• 10 events with time stamps</li> <li>• 140 mAh rechargeable battery</li> <li>• battery voltage low log and voltage readback</li> </ul> |
| Chassis Intrusion Switch | 1 x switch on system chassis                                                                                                                                                                                                                      |
| Smart Card Reader        | Optional                                                                                                                                                                                                                                          |

### Power Requirement

|                   |                                                   |
|-------------------|---------------------------------------------------|
| Power Input       | 5V (+/-5%) and 12V (+/-5%) input on golden finger |
| Power Consumption | 60W without external devices                      |

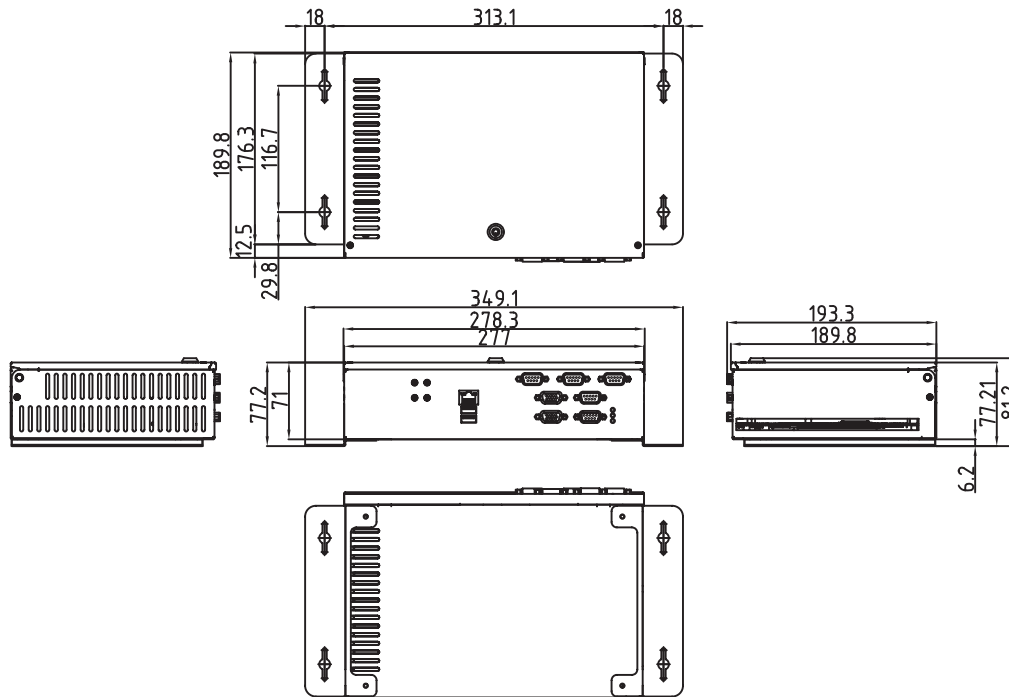
### Software

|                          |                                                                                                                                          |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| OS Support               | Windows XP/XP Embedded, Linux                                                                                                            |
| Software Development Kit | <ul style="list-style-type: none"> <li>• Device driver</li> <li>• Application Program Interface (API)</li> <li>• Demo program</li> </ul> |

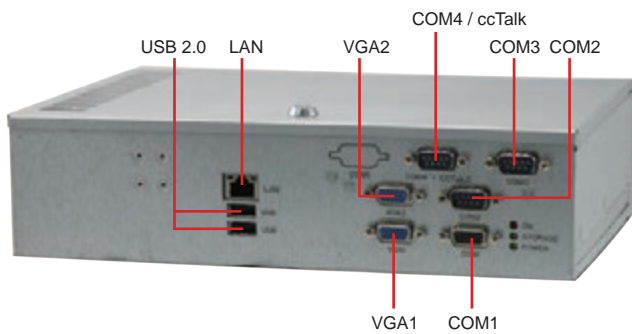
### Mechanical & Environment

|                   |                                               |
|-------------------|-----------------------------------------------|
| Thermal Design    | Fanless                                       |
| Chassis Material  | SPGC steel                                    |
| Dimension         | 279mm x 190mm x 73mm (10.99" x 7.49" x 2.88") |
| Weight            | 5 kg                                          |
| Operating Temp.   | 0~50°C (32~122°F)                             |
| Storage temp.     | -20~80°C (-4~176°F)                           |
| Relative Humidity | 0~90% @ 40°C, non-condensing                  |
| Safety            | CE, FCC class A                               |

## Dimension



## I/O Connectors



## Packing List

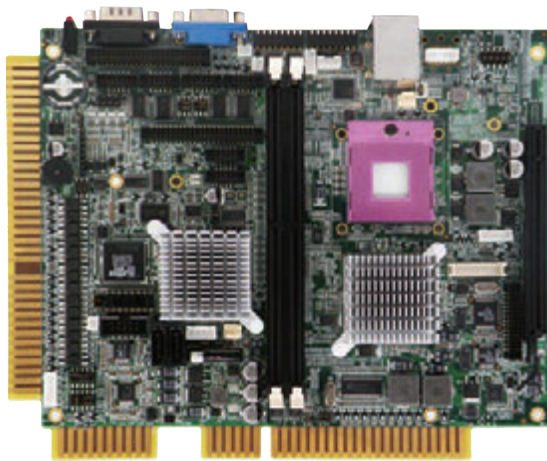
- 1 x ACE-S5692FL
- 1 x Software driver CD
- 1 x Quick user's manual
- 2 x Mounting bracket
- 1 x Screw pack

## Ordering Information

|                 |                                                                        |
|-----------------|------------------------------------------------------------------------|
| ACE-S5692FLT75  | ACE-S5692FL with Intel Core 2 Duo 2.20GHz, 1GB DDR2 and 2 x 512KB SRAM |
| ACE-S5692FLCM55 | ACE-S5692FL with Intel Celeron M 2.0GHz, 1GB DDR2 and 2 x 512KB SRAM   |

# ACE-B5692

Intel GME965 All-in-One Gaming Board  
with International and Italian JAMMA Interface



## Features

- GME965 with Core 2 Duo/Celeron M
- 30-bit Interruptible Digital Input
- 27-bit High Current Output
- 8 Liner and Italian JAMMA Interface
- Dual 512KB Battery Backup SRAM with Battery Low Event Logger
- Dual VGA
- 4 x 16-bit Interruptible Timer
- 7-bit Intrusion Logger Input



Invention Patent I334065

## Specification

### General PC Feature

|                 |                                                                                                                                                                             |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CPU             | Intel Core 2 Duo 2.20GHz<br>Intel Celeron M 2.0GHz                                                                                                                          |
| Chipset         | Intel GME965 + ICH8M                                                                                                                                                        |
| Memory          | <ul style="list-style-type: none"> <li>• 2 x 240-pin DIMM socket support 533/667MHz Dual Channel DDR2 SDRAM up to 4GB</li> </ul>                                            |
| Battery         | <ul style="list-style-type: none"> <li>• 1 x 220 mAh battery for system RTC</li> <li>• 2 x 140 mAh re-chargable batteries for SRAM, Second RTC, Intrusion Logger</li> </ul> |
| Real Time Clock | 1 x system RTC and 1x secured RTC                                                                                                                                           |
| Fan Connector   | 2 x 12V fan connector                                                                                                                                                       |

### Video

|                    |                                                                                      |
|--------------------|--------------------------------------------------------------------------------------|
| Graphic Controller | Intel GME965 integrated GMA X3100 graphic controller supports OpenGL 1.5, DirectX 10 |
| Video Memory       | shared memory                                                                        |
| Video Interface    | 2 x VGA (1 x DB15, 1 x pin header optional DVI-I)                                    |
| Expansion Slot     | 1 x PCI-E x16 slot                                                                   |

### Storage

|      |                                                 |
|------|-------------------------------------------------|
| IDE  | 1 x IDE (40-pin)                                |
| SATA | 2 x SATA port                                   |
| CF   | 1 x Compact Flash Type I/II socket support UDMA |

### Communication

|             |                                                                                                                                     |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Ethernet    | 1 x GbE RJ45 with LED, Intel 82574L                                                                                                 |
| USB         | 6 x USB 2.0 (2 x external port, 4 x pin header)                                                                                     |
| Serial Port | <ul style="list-style-type: none"> <li>• 3 x RS-232 (1 x DB9, 2 x pin header)</li> <li>• 2 x ccTalk/RS-232 DB9 connector</li> </ul> |

### Audio

|                |                     |
|----------------|---------------------|
| Output         | Stereo              |
| Amplifier      | 6 Watts per channel |
| Volume Channel | Left channel        |

### Other Feature

|                     |                                                                                                                 |
|---------------------|-----------------------------------------------------------------------------------------------------------------|
| PS/2                | 1 x PS/2 pin header                                                                                             |
| Hardware Monitoring | <ul style="list-style-type: none"> <li>• CPU voltage and speed</li> <li>• CPU and system temperature</li> </ul> |
| WatchDog Timer      | Software programmable 1~255 sec.                                                                                |
| Indicator           | HDD and Power LED                                                                                               |

### Gaming I/O

|                         |                                                                                                                                                                                                                                                   |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| I/O Interface           | 8 Liner (72-pin) and Italian JAMMA interface                                                                                                                                                                                                      |
| Digital Input           | <ul style="list-style-type: none"> <li>• 25 x optical isolated input, 5 x TTL input</li> <li>• State change interrupt</li> </ul>                                                                                                                  |
| Digital Output          | 3 x 1000 mA and 24 x 500 mA digital output                                                                                                                                                                                                        |
| Readable DIP Switch     | 2 x 8-bit DIP switch                                                                                                                                                                                                                              |
| GPIO (TTL Level)        | 28 bits                                                                                                                                                                                                                                           |
| Timer                   | 4 x 16-bit timers with time out interrupt                                                                                                                                                                                                         |
| Battery backup SRAM     | <ul style="list-style-type: none"> <li>• 2 x 512KB</li> <li>• 140 mAh rechargeable battery</li> <li>• Battery voltage low log and voltage readback</li> </ul>                                                                                     |
| EEPROM                  | 1K Bytes                                                                                                                                                                                                                                          |
| Intrusion Logger        | <ul style="list-style-type: none"> <li>• 1 x chassis intrusion switch + 5 bits on golden fingers</li> <li>• 10 events with time stamps</li> <li>• 140 mAh rechargeable battery</li> <li>• battery voltage low log and voltage readback</li> </ul> |
| Smart Card Reader       | Optional                                                                                                                                                                                                                                          |
| Random Number Generator | 16 bits                                                                                                                                                                                                                                           |

### Power Requirement

|                   |                                                   |
|-------------------|---------------------------------------------------|
| Power Input       | 5V (+/-5%) and 12V (+/-5%) input on golden finger |
| Power Consumption | 60W without external devices                      |

### Software

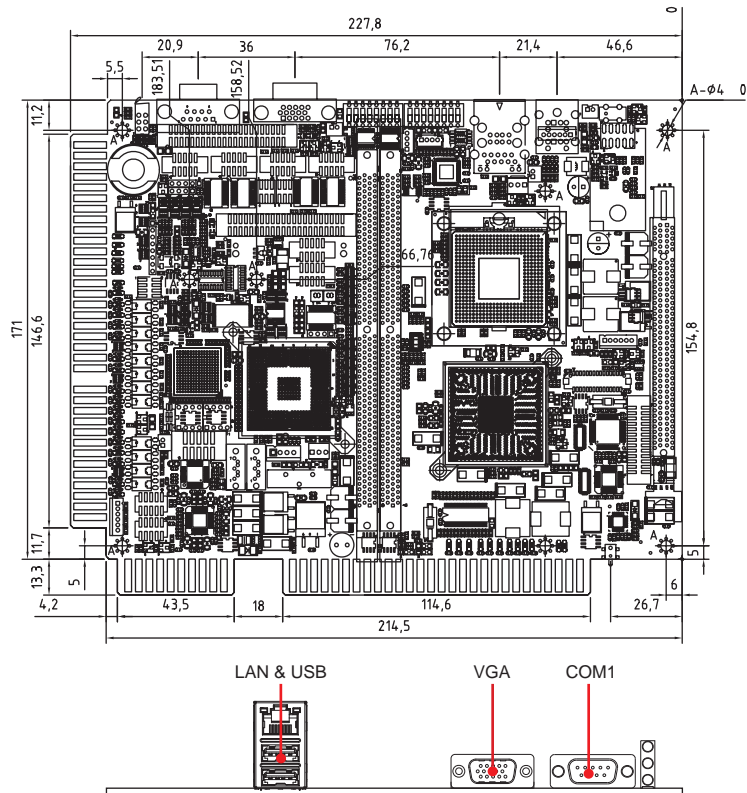
|                          |                                                                                                                                          |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| OS Support               | Windows XP/XP Embedded, Linux                                                                                                            |
| Software Development Kit | <ul style="list-style-type: none"> <li>• Device driver</li> <li>• Application Program Interface (API)</li> <li>• Demo program</li> </ul> |

### Mechanical & Environment

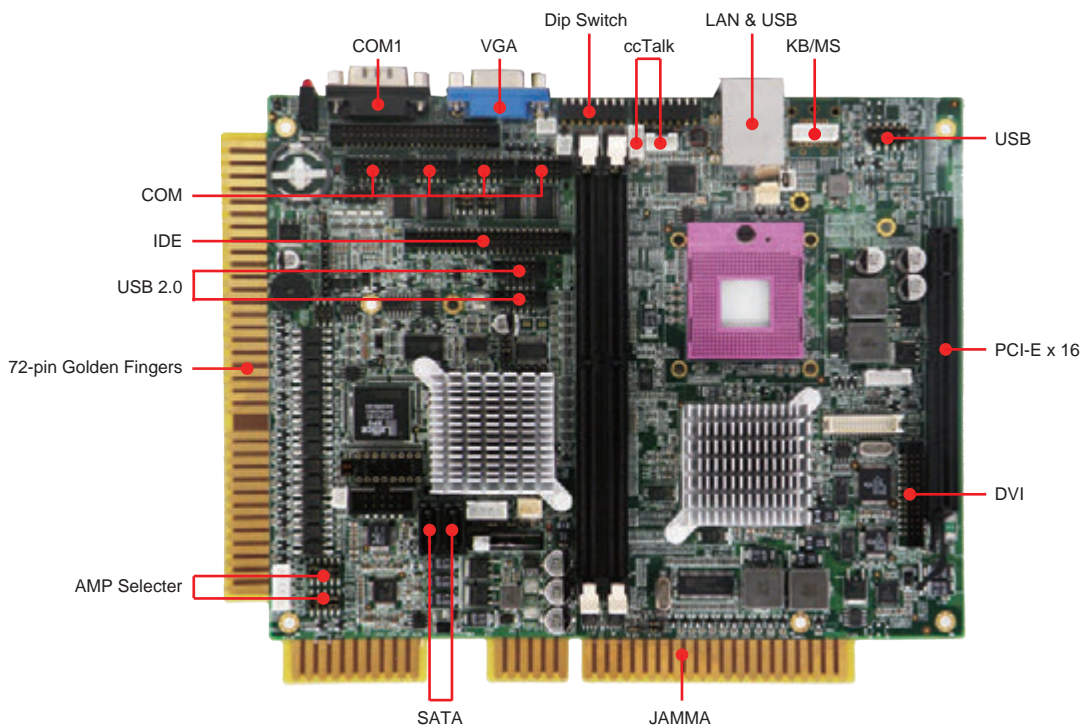
|                   |                                |
|-------------------|--------------------------------|
| Dimension         | 171mm x 214mm (6.74" x 8.43")  |
| Weight            | Net: 337g (0.8Lb)              |
| Operating Temp.   | 0~60°C (32~140°F)              |
| Storage temp.     | -20~80°C (-4~176°F)            |
| Relative Humidity | 0 ~ 90% @ 40°C, non-condensing |
| Safety            | CE, FCC compliant              |



## Dimension



## I/O Connectors



## Packing List

- 1 x ACE-B5692
- 1 x Driver CD
- 1 x Quick user manual

## Ordering Information

|                 |                                                             |
|-----------------|-------------------------------------------------------------|
| ACE-B5692FLi75  | Intel Core 2 Duo T7500 2.20GHz, FSB 800MHz and 4MB L2 cache |
| ACE-B5692FLCM55 | Intel Celeron M 550 2.0GHz, FSB 533MHz and 1MB L2 cache     |

# AMB-A55EG1

AMD Embedded G-Series T56N all-in-one gaming board with 2 x COM, 6 x USB, 1 x LAN, 2 x ccTalk, golden fingers for 17 protected input & 16 output, battery backup SRAM, 2 x Intrusion Detection.



## Features

GAMB-A55EG1 provides great computing and graphic performance which is suitable for casino gaming and amusement applications. It is designed to comply with the most of gaming regulations such as GLI & BMM.



## Specification

### Specification

|         |                                                                  |
|---------|------------------------------------------------------------------|
| CPU     | AMD G-Series Dual Core T56N 1.65GHz processor                    |
| Chipset | AMD Fusion Control Hub A55E                                      |
| Memory  | 2 x 204-pin SO-DIMM sockets support 1066/1333MHz DDR3, up to 8GB |

### Video

|                    |                                                                                                          |
|--------------------|----------------------------------------------------------------------------------------------------------|
| Graphic Controller | Integrated Radeon HD 6320 supports OpenGL 4.0, DirectX 11                                                |
| Video Memory       | shared memory                                                                                            |
| Video Interface    | <ul style="list-style-type: none"> <li>• 1 x VGA DB15 connector</li> <li>• 1 x HDMI connector</li> </ul> |

### Storage

|       |                                               |
|-------|-----------------------------------------------|
| SATA  | 2 x SATA II port with SATA II power connector |
| mSATA | 1 x mSATA connector                           |

### Communication

|             |                                                                                                                                                                                         |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ethernet    | 1 x GbE LAN Port                                                                                                                                                                        |
| USB         | 4 x USB 2.0 connector & 2 x USB 2.0 pin header                                                                                                                                          |
| Serial Port | <ul style="list-style-type: none"> <li>• 1 x RS232 with DB9 connectors</li> <li>• 1 x RS232/422/485 DB9 connector</li> <li>• 1 x 4-pin cc-Talk</li> <li>• 1 x 10-pin cc-Talk</li> </ul> |

### Audio

|           |                                                  |
|-----------|--------------------------------------------------|
| Output    | 5.1 channel audio without amplifier (pin header) |
| Amplifier | 6W audio amplifier (golden finger)               |

### Gaming I/O

|                     |                                                                                                                                            |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Digital Input       | Follow golden fingers definition <ul style="list-style-type: none"> <li>• 14 x Button</li> <li>• 2 x Coin</li> <li>• 1 x Hopper</li> </ul> |
| Digital Output      | Follow golden fingers definition <ul style="list-style-type: none"> <li>• 10 x Lamp</li> <li>• 5 x Meter</li> <li>• 1 x Hopper</li> </ul>  |
| Intrusion Detection | <ul style="list-style-type: none"> <li>• 1 x onboard door switch</li> <li>• 1 x pin header</li> </ul>                                      |
| SRAM                | battery backup 256KB SRAM (max 1MB)                                                                                                        |

## Other Feature

|                     |                                  |
|---------------------|----------------------------------|
| Hardware Monitoring | CPU voltage and temperature      |
| WatchDog Timer      | Software programmable 1~255 sec. |

## Power Requirement

|                   |                                                                                                |
|-------------------|------------------------------------------------------------------------------------------------|
| Power Input       | <ul style="list-style-type: none"> <li>• 5V (4.35A~5.8A)</li> <li>• 12V (3.3A~4.4A)</li> </ul> |
| Power Consumption | 43W                                                                                            |

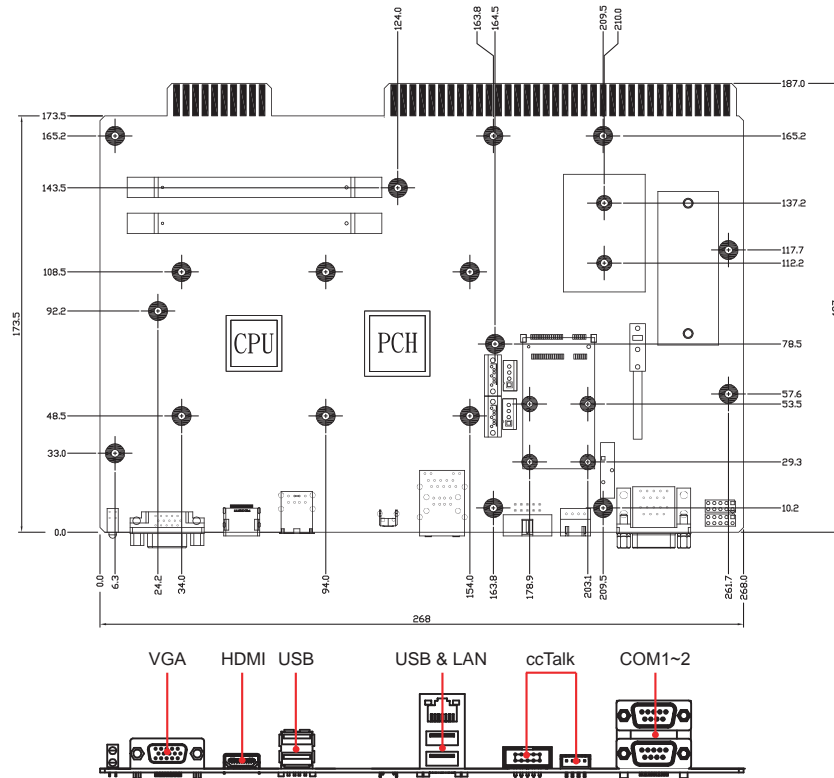
## Software

|                          |                                                                                                                                          |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| OS Support               | Windows XP, Fedora 14, Ubuntu 10                                                                                                         |
| Software Development Kit | <ul style="list-style-type: none"> <li>• Device Driver</li> <li>• Application Program Interface (API)</li> <li>• Demo Program</li> </ul> |

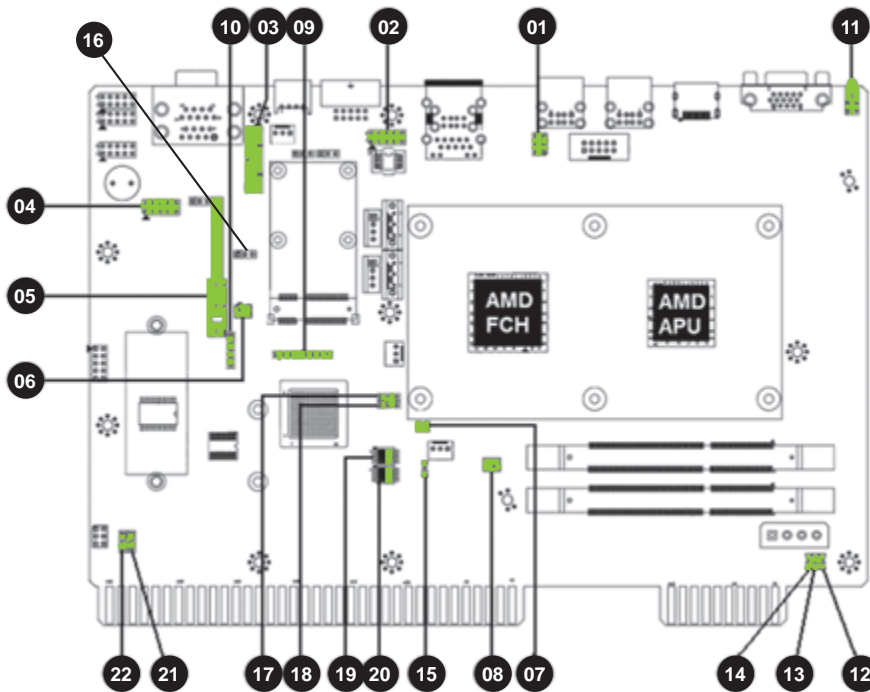
## Mechanical & Environment

|                   |                              |
|-------------------|------------------------------|
| Thermal Design    | FAN                          |
| Dimension         | 187 mm x 268 mm              |
| Weight            | 1 KG                         |
| Operating Temp.   | 0~60°C (32~140°F)            |
| Storage temp.     | -40~80°C (-4~176°F)          |
| Relative Humidity | 0~90% @ 40°C, non-condensing |
| Safety            | CE, FCC compliant            |

## Dimension



## I/O Connectors



01. Reset Button connector
02. SPI Interface connector
03. CR2032 Battery socket
04. LPC Interface connector
05. Case open Log switch
06. External Log input connector
07. 3.7V 500mAh Re-chargeable battery connector
08. iButton signal connector
09. FPGA firmware recoded Header
10. PIC firmware recoded Header
11. System status indicated
12. 5V Power IN LED
13. 24V Power IN LED
14. 12V Power IN LED
15. Battery charging LED  
ON: Battery charging
16. Clear CMOS
17. SRAM1 data clear
18. SRAM1 data clear
19. METER OUT setting 1
20. METER OUT setting 2 & HOPPER SSR setting
21. (Reserved)
22. Edge connector GPO pins Clamping voltage setting

## Packing List

- 1 x AMB-A55EG1
- 1 x System Driver CD
- 1 x Quick User Guide

## Ordering Information

AMB-A55EG1

AMD Embedded G-Series T56N all-in-one gaming board with 2 x COM, 6 x USB, 1 x LAN, 2 x cctalk, golden fingers for 17 protected input & 16 output, battery backup SRAM, 2 x Intrusion Detection (Door Switch), iButton and Security.

# ACE-S7400

AMD eOntario All-in-One Gaming System



## Features

- AMD Radeon HD 6310 Integrated Graphic Controller
- Supports DX11 & OpenGL 4.1
- 32 digital inputs and 32 digital outputs with Micro-Fit 3.0 connector
- 6 serial ports, 4 x RS-232, 2 x RS-232/485/ccTalk
- 2MB SRAM memory (max. 4MB)
- Timer & Meter pulse generator, counters
- Intrusion Logger



CE FCC Invention Patent I334065

## Specification

### Specification

|         |                                                                                                              |
|---------|--------------------------------------------------------------------------------------------------------------|
| CPU     | AMD Dual Core:T48N 1.4GHz                                                                                    |
| Chipset | AMD Fusion Control Hub A55E                                                                                  |
| Memory  | <ul style="list-style-type: none"> <li>• 2 x DDR3 SO-DIMM up to 8GB,</li> <li>• 1GB pre-installed</li> </ul> |

### Video

|                    |                                                          |
|--------------------|----------------------------------------------------------|
| Graphic Controller | Integrated Radeon HD 6310, support DX11, OpenGL 4.1      |
| Video Memory       | shared memory                                            |
| Video Interface    | 1 x DVI-I (DVI or VGA) + 1 x DVI, Dual display supported |

### Storage

|      |                                  |
|------|----------------------------------|
| SATA | 2 x SATA 2.0 connectors          |
| CF   | 2 x Compact Flash Type II socket |

### Communication

|             |                                                                                                                                                     |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| Ethernet    | 2 x GbE LAN with RJ45 connector                                                                                                                     |
| USB         | 8 x USB 2.0 (6 x external, 2 x internal)                                                                                                            |
| Serial Port | <ul style="list-style-type: none"> <li>• 4 x RS-232 with male DB9</li> <li>• 2 x RS-232/RS-485/ccTalk with Micro-Fit 3.0 7-pin connector</li> </ul> |

### Audio

|           |                                                                                                                                     |
|-----------|-------------------------------------------------------------------------------------------------------------------------------------|
| Output    | <ul style="list-style-type: none"> <li>• 2.1 channel from Micro-Fit 3.0 connector</li> <li>• 5.1 channel from box header</li> </ul> |
| Amplifier | <ul style="list-style-type: none"> <li>• 2.1 channel (10W x 2 + 20W)</li> <li>• 5.1 channel un-amplified</li> </ul>                 |

### Other Feature

|                |                               |
|----------------|-------------------------------|
| WatchDog Timer | 1 to 255 seconds programmable |
| Indicator      | HDD and Power LED             |
| Expansion Slot | 1 x Mini PCIe slot            |
| Reset          | 1 x system reset connector    |

### Gaming I/O

|               |                                                                                                                                                                                                                         |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| I/O Interface | Micro-Fit 3.0 connector                                                                                                                                                                                                 |
| Digital Input | <ul style="list-style-type: none"> <li>• 32 x external inputs (Features 4 counters, 5 intrusion loggers)</li> <li>• 8-bit DIP switch</li> <li>• Programmable debounce time</li> <li>• State Change interrupt</li> </ul> |

### Gaming I/O

|                         |                                                                                                                                                                                               |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Digital Output          | <ul style="list-style-type: none"> <li>• 29 x 500 mA outputs (features 8 pulse generators)</li> <li>• 3 x 1000 mA outputs</li> <li>• Meter outputs support pulse generator</li> </ul>         |
| Readable DIP Switch     | 8-bit (Optional)                                                                                                                                                                              |
| GPIO                    | 16-bit TTL level GPIOs                                                                                                                                                                        |
| Timer                   | 4 x 16-bit programmable timer                                                                                                                                                                 |
| SRAM                    | <ul style="list-style-type: none"> <li>• 2 x 1MB (optional 2 x 2MB)</li> <li>• 2 x 500mAh re-chargeable battery</li> </ul>                                                                    |
| EEPROM                  | 1KB                                                                                                                                                                                           |
| Door Intrusion Logger   | <ul style="list-style-type: none"> <li>• 5 x external, 1 x internal, 1 x chassis door intrusion inputs</li> <li>• 2 x SRAM battery low detections</li> <li>• Power and Reset event</li> </ul> |
| Smart Card Reader       | N/A                                                                                                                                                                                           |
| Secured Real Time Clock | Password protected                                                                                                                                                                            |
| Software Security       | <ul style="list-style-type: none"> <li>• 1x DS2404 on board iButton chip</li> <li>• 1 x external 1 wire interface for iButton</li> <li>• ProtectU 2.0: AES, HASH</li> </ul>                   |

### Power Requirement

|                   |                                                                                                     |
|-------------------|-----------------------------------------------------------------------------------------------------|
| Power Input       | <ul style="list-style-type: none"> <li>• 12V for system</li> <li>• 12V or 24V for ccTalk</li> </ul> |
| Power Consumption | max. 36W                                                                                            |

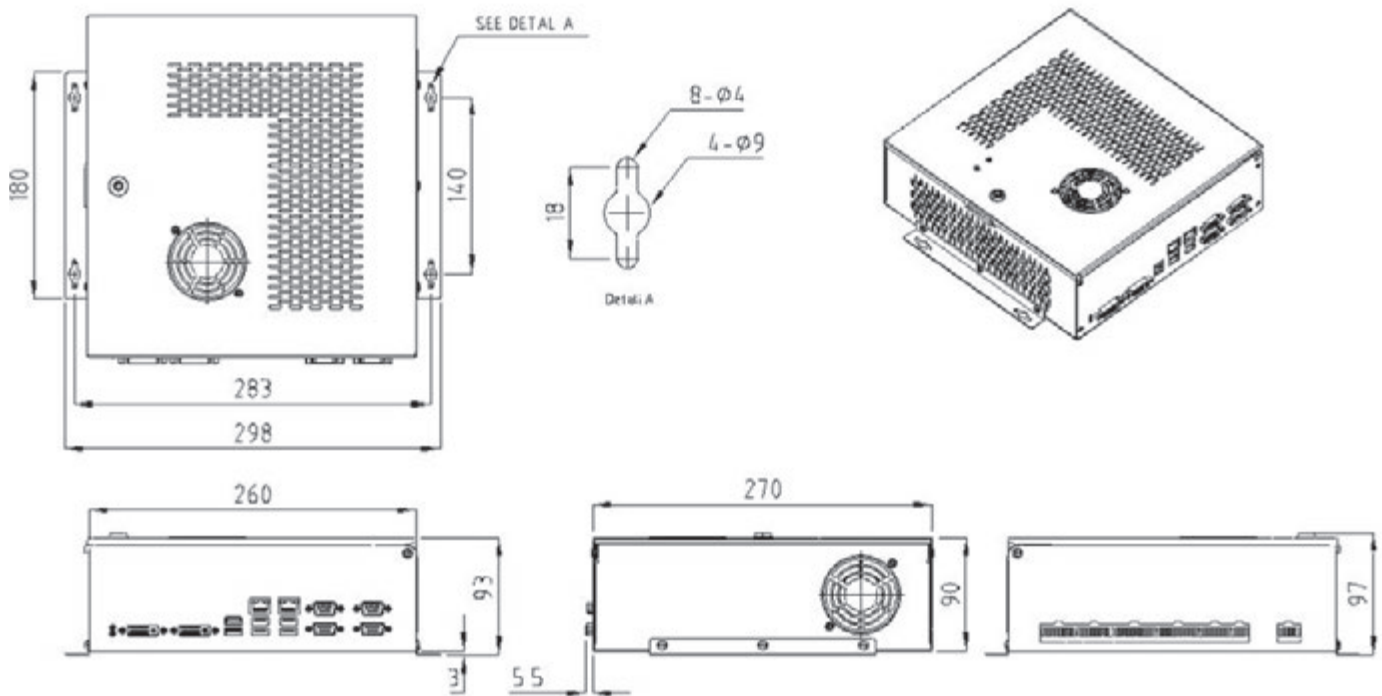
### Software

|                          |                                                                                                                                          |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| OS Support               | Windows XP, Windows 7 (32/64 bit), Linux Fedora 14 (32 bit), Ubuntu 10.04 (32 bit)                                                       |
| Software Development Kit | <ul style="list-style-type: none"> <li>• Device driver</li> <li>• Application Program Interface (API)</li> <li>• Demo program</li> </ul> |

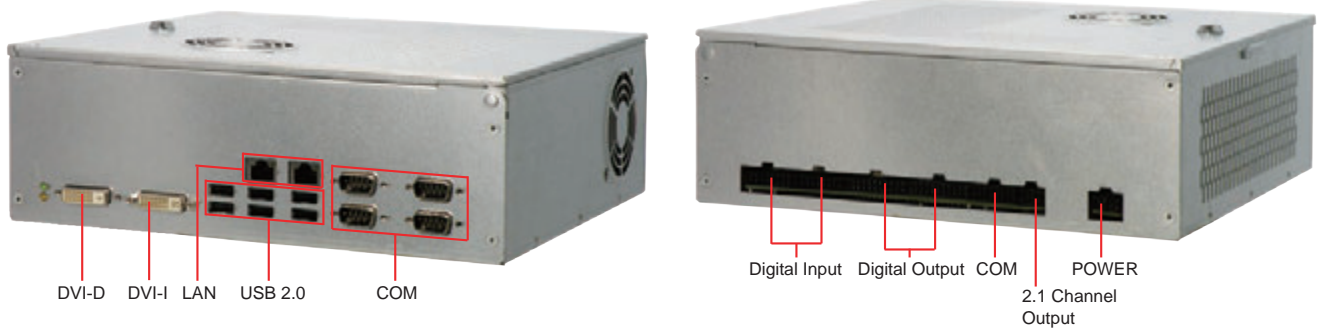
### Mechanical & Environment

|                   |                                                     |
|-------------------|-----------------------------------------------------|
| Thermal Design    | 1 x CPU fan, 2 x system fan                         |
| Dimension         | 270 mm x 260 mm x 89 mm (10.63" x 10.236" x 3.504") |
| Operating Temp.   | 0~60°C (32~140°F)                                   |
| Storage temp.     | -20~80°C (-4~185°F)                                 |
| Relative Humidity | 0~90% @ 40°C, non-condensing                        |
| Safety            | CE, FCC class A                                     |

## Dimension



## I/O Connectors



## Packing List

- ACE-S7400 x1
- Micro-Fit cable for digital input, COM, Audio, Power input x 1 set
- SATA power cable x 2
- DVI-I to VGA adaptor x1
- Internal USB cable x2
- Software Driver CD x 1
- Mounting bracket and screws x 2

## Ordering Information

|              |                                                    |
|--------------|----------------------------------------------------|
| ACE-S7400T48 | ACE-S7400 with AMD T48N 1.4GHz Dual Core processor |
|--------------|----------------------------------------------------|

# ACE-B7400

AMD eOntario All-in-One Gaming Board



## Features

- AMD Radeon HD 6310 Integrated Graphic Controller
- Supports DX11 & OpenGL 4.1
- 32 digital inputs and 32 digital outputs with Micro-Fit 3.0 connector
- 6 serial ports, 4 x RS-232, 2 x RS-232/485/ccTalk
- 2MB SRAM memory (max. 4MB)
- Timer & Meter pulse generator, counters
- Intrusion Logger



Invention Patent I334065

## Specification

### Specification

|         |                                               |
|---------|-----------------------------------------------|
| CPU     | AMD Dual Core:T48N 1.4GHz                     |
| Chipset | AMD Fusion Control Hub A55E                   |
| Memory  | 2 x DDR3 SO-DIMM up to 8GB, 1GB pre-installed |

### Video

|                    |                                                          |
|--------------------|----------------------------------------------------------|
| Graphic Controller | Integrated Radeon HD 6310, support DX11, OpenGL 4.1      |
| Video Memory       | shared memory                                            |
| Video Interface    | 1 x DVI-I (DVI or VGA) + 1 x DVI, Dual display supported |

### Storage

|      |                                  |
|------|----------------------------------|
| SATA | 2 x SATA 2.0 connector           |
| CF   | 2 x Compact Flash Type II socket |

### Communication

|             |                                                                                             |
|-------------|---------------------------------------------------------------------------------------------|
| Ethernet    | 2 x Gbps LAN with RJ45                                                                      |
| USB         | 8 x USB 2.0 (6 x external, 2 x internal)                                                    |
| Serial Port | • 4 x RS-232 with male DB9<br>• 2 x ccTalk/RS-485/RS-232 with Micro-Fit 3.0 7-pin connector |

### Audio

|           |                                                                             |
|-----------|-----------------------------------------------------------------------------|
| Output    | • 2.1 channel from Micro-Fit 3.0 connector<br>• 5.1 channel from box header |
| Amplifier | • 2.1 channel (10W x 2 + 20W)<br>• 5.1 channel un-amplified                 |

### Gaming I/O

|                     |                                                                                                                                                     |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| I/O Interface       | Micro-Fit 3.0 connector                                                                                                                             |
| Digital Input       | • 32 x external inputs (Features 4 counters, 5 intrusion loggers)<br>• 8-bit DIP switch<br>• Programmable debounce time<br>• State Change interrupt |
| Digital Output      | • 29 x 500 mA outputs (features 8 pulse generators)<br>• 3 x 1000 mA outputs<br>• Meter outputs support pulse generator                             |
| Readable DIP Switch | 8-bit (Optional)                                                                                                                                    |
| GPIO                | 16-bit TTL level GPIOs                                                                                                                              |

### Gaming I/O

|                         |                                                                                                                                |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| Timer                   | 4 x 16-bit programmable timer                                                                                                  |
| Battery backup SRAM     | • 2 x 1MB bytes (optional 2 x 2MB bytes)<br>• 2 x 500mAh re-chargeable battery                                                 |
| EEPROM                  | 1KB                                                                                                                            |
| Event Logger            | • 5 x external, 1 x internal, 1x chassis door intrusion inputs<br>• 2 x SRAM battery low detections<br>• Power and Reset event |
| Smart Card Reader       | N/A                                                                                                                            |
| Secured Real Time Clock | Password protected                                                                                                             |
| Software Security       | • 1 x DS2404 on board iButton chip<br>• 1 x external 1 wire interface for iButton<br>• ProtectU 2.0: AES, HASH                 |

### Other Feature

|                |                               |
|----------------|-------------------------------|
| WatchDog Timer | 1 to 255 seconds programmable |
| Indicator      | HDD and Power LED             |
| Expansion Slot | 1 x Mini PCIe slot (Optional) |
| Reset          | 1 x system reset connector    |

### Power Requirement

|                   |                                             |
|-------------------|---------------------------------------------|
| Power Input       | • 12V for system<br>• 12V or 24V for ccTalk |
| Power Consumption | max. 36W                                    |

### Software

|                          |                                                                                    |
|--------------------------|------------------------------------------------------------------------------------|
| OS Support               | Windows XP, Windows 7 (32/64 bit), Linux Fedora 14 (32 bit), Ubuntu 10.04 (32 bit) |
| Software Development Kit | • Device driver<br>• Application Program Interface (API)<br>• Demo program         |

### Mechanical & Environment

|                   |                                    |
|-------------------|------------------------------------|
| Dimension         | 260 mm x 230 mm (10.236" x 9.055") |
| Operating Temp.   | 0~60°C (32~140°F)                  |
| Storage temp.     | -20~80°C (-4~185°F)                |
| Relative Humidity | 0~90% @ 40°C, non-condensing       |
| Safety            | CE, FCC compliant                  |



# ACE-S7300

AMD 780E All-in-One JAMMA Gaming System



## Features

- AMD 780E Integrated Radeon graphic controller
- Supports DX10.0 & OpenGL 3.3
- JAMMA interface 1MB battery backup SRAM (max. 2MB)
- 6W stereo Amplifier
- Timer & Meter pulse generator
- Intrusion Logger
- max. 4 display



CE FCC Invention Patent I334065

## Specification

### Specification

|         |                                                        |
|---------|--------------------------------------------------------|
| CPU     | On-board AMD 1.5GHz Single Core or Dual Core processor |
| Chipset | AMD 780E + SB710                                       |
| Memory  | Dual DDR2 800MHz SO-DIMM Socket, up to 4GB DDR2        |

### Video

|                    |                                                                                |
|--------------------|--------------------------------------------------------------------------------|
| Graphic Controller | Integrated AMD Radeon HD 3200 graphic controller, supports DX10.0 & OpenGL 3.3 |
| Video Memory       | Shared Memory                                                                  |
| Video Interface    | 2 x VGA DB15 Connector                                                         |
| Expansion Slot     | 1x PCI-E x16 slot                                                              |

### Storage

|      |                                    |
|------|------------------------------------|
| SATA | 2 x SATA                           |
| CF   | 1 x Compact Flash Type I/II socket |

### Communication

|             |                                                                                                                                                                                                                |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ethernet    | 1 x GbE LAN with RJ45                                                                                                                                                                                          |
| USB         | 4 x USB 2.0 (2 x external, 2 x internal)                                                                                                                                                                       |
| Serial Port | <ul style="list-style-type: none"><li>• 1 x RS-232 with female DB9 for AAMS</li><li>• 1 x RS-232 with male DB9</li><li>• 1 x ccTalk on JAMMA with 12/24 V power</li><li>• 1 x 4-pin ccTalk connector</li></ul> |

### Audio

|           |                        |
|-----------|------------------------|
| Output    | Stereo output on JAMMA |
| Amplifier | 6 Watt per channel     |

### Other Feature

|                |                               |
|----------------|-------------------------------|
| WatchDog Timer | 1 to 255 seconds programmable |
| Indicator      | HDD and power LED             |

### Gaming I/O

|               |                                                                                                                                                                                        |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| I/O Interface | JAMMA golden finger                                                                                                                                                                    |
| Digital Input | <ul style="list-style-type: none"><li>• 11 x 5KV optical isolated input</li><li>• 6 x door input (TTL)</li><li>• Programmable debounce time</li><li>• State Change interrupt</li></ul> |

### Gaming I/O

|                         |                                                                                                                                                |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| Digital Output          | <ul style="list-style-type: none"><li>• 12 x 500 mA outputs</li><li>• 3 x 1000 mA</li><li>• Meter outputs support pulse generator</li></ul>    |
| Readable DIP Switch     | 8-bit (Optional)                                                                                                                               |
| Timer                   | 4 x 16-bit programmable timer                                                                                                                  |
| SRAM                    | 1MB, optional 2MB<br>500mAh re-chargeable battery                                                                                              |
| EEPROM                  | 1KB                                                                                                                                            |
| Intrusion Logger        | <ul style="list-style-type: none"><li>• 6 x anti-temper inputs</li><li>• SRAM battery low detections</li><li>• Power and Reset event</li></ul> |
| Smart Card Reader       | On board smart card reader                                                                                                                     |
| Secured Real Time Clock | Password protected                                                                                                                             |

### Power Requirement

|                   |                                     |
|-------------------|-------------------------------------|
| Power Input       | 5V & 12V for system, 24V for ccTalk |
| Power Consumption | 70 Watts                            |

### Software

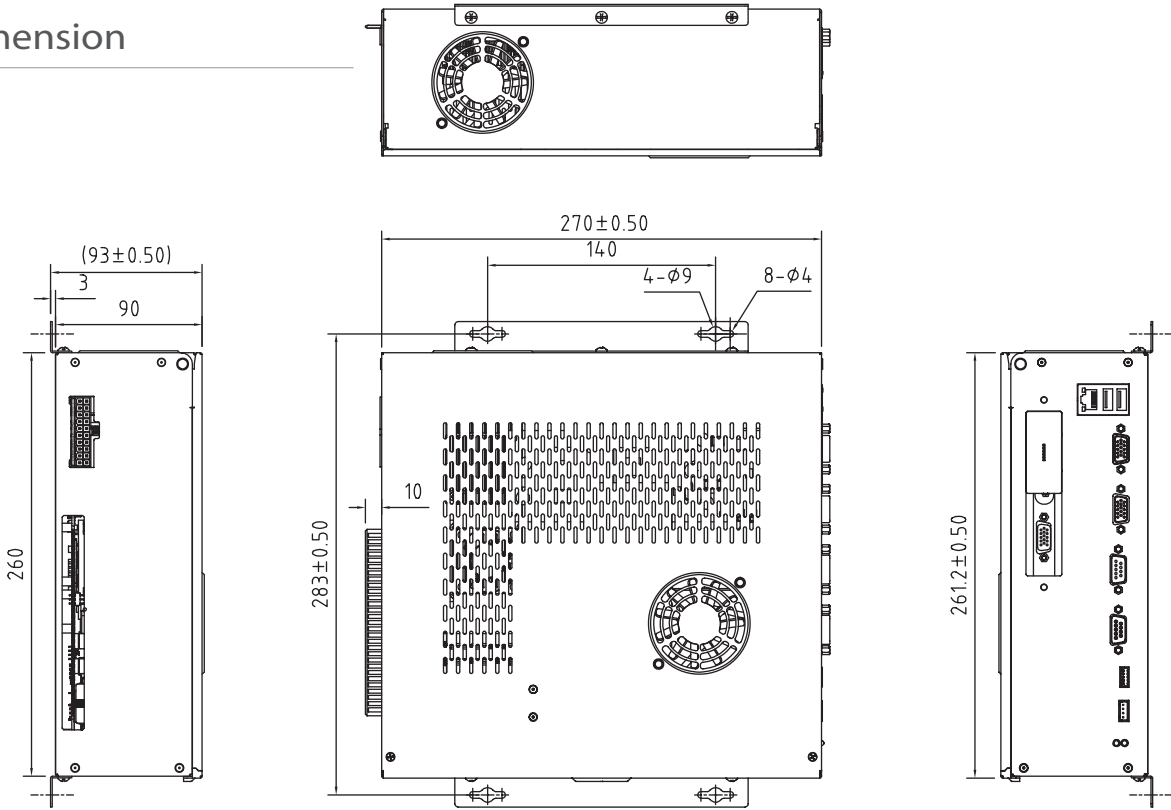
|                          |                                                                                                                                      |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| OS Support               | Windows 7, Windows XP, XP Embedded & Linux                                                                                           |
| Software Development Kit | <ul style="list-style-type: none"><li>• Device driver</li><li>• Application Program Interface (API)</li><li>• Demo program</li></ul> |

### Mechanical & Environment

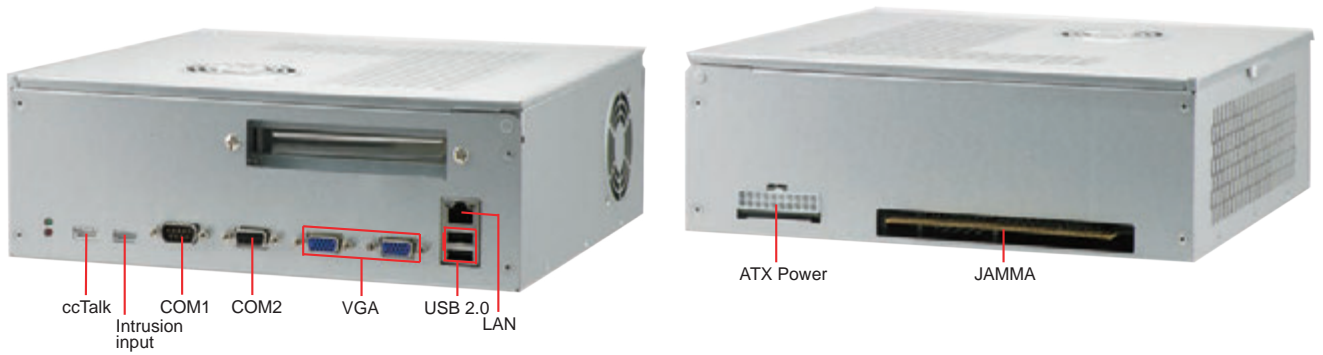
|                   |                                                     |
|-------------------|-----------------------------------------------------|
| Thermal Design    | 1 x CPU fan, 2 x system fan                         |
| Dimension         | 270 mm x 260 mm x 89 mm (10.63" x 10.236" x 3.504") |
| Operating Temp.   | 0~60°C (32~140°F)                                   |
| Storage temp.     | -20~80°C (-4~185°F)                                 |
| Relative Humidity | 0~90% @ 40°C, non-condensing                        |
| Safety            | CE, FCC class A                                     |



## Dimension



## I/O Connectors



## Packing List

- ACE-S7300 x 1
- Software Driver CD x 1
- ACE-S7300 quick user's manual x 1
- Mounting bracket x 2

## Ordering Information

|               |                                                      |
|---------------|------------------------------------------------------|
| ACE-S7300L325 | ACE-S7300 with AMD L325 1.5GHz Dual Core processor   |
| ACE-S7300U210 | ACE-S7300 with AMD 210U 1.5GHz Single Core processor |

# ACE-B7300

AMD 780E All-in-One JAMMA Gaming Board



## Features

- AMD 780E Integrated Radeon graphic controller
- Supports DX10.0 & OpenGL 3.3
- JAMMA interface
- 1MB battery backup SRAM (max. 2MB)
- 6W stereo Amplifier
- Timer & Meter pulse generator
- Intrusion Logger
- PCI-E x16 slot



Invention Patent I334065

## Specification

### Specification

|         |                                                        |
|---------|--------------------------------------------------------|
| CPU     | On-board AMD 1.5GHz Single Core or Dual Core processor |
| Chipset | AMD 780E + SB710                                       |
| Memory  | Dual DDR2 800MHz SO-DIMM Socket up to 4GB              |

### Video

|                    |                                                                                |
|--------------------|--------------------------------------------------------------------------------|
| Graphic Controller | Integrated AMD Radeon HD 3200 graphic controller, supports DX10.0 & OpenGL 3.3 |
| Video Memory       | Shared Memory                                                                  |
| Video Interface    | 2 x VGA                                                                        |
| Expansion Slot     | 1x PCI-E x16 slot                                                              |

### Storage

|      |                                    |
|------|------------------------------------|
| SATA | 2 x SATA 2.0 connector             |
| CF   | 1 x Compact Flash Type I/II socket |

### Communication

|             |                                                                                                                                                                                                                     |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ethernet    | 1 x GbE LAN with RJ45                                                                                                                                                                                               |
| USB         | 4 x USB 2.0 (2 x external, 2x internal)                                                                                                                                                                             |
| Serial Port | <ul style="list-style-type: none"> <li>• 1 x RS-232 with female DB9 for AAMS</li> <li>• 1 x RS-232 with male DB9</li> <li>• 1 x ccTalk on JAMMA with +12/24V power</li> <li>• 1 x 4-pin ccTalk connector</li> </ul> |

### Audio

|           |                        |
|-----------|------------------------|
| Output    | Stereo output on JAMMA |
| Amplifier | 6 Watt per channel     |

### Gaming I/O

|                     |                                                                                                                                                                                             |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| I/O Interface       | JAMMA golden finger                                                                                                                                                                         |
| Digital Input       | <ul style="list-style-type: none"> <li>• 11 x 5KV optical isolated input</li> <li>• 6 x door input (TTL)</li> <li>• Programmable debounce time</li> <li>• State Change interrupt</li> </ul> |
| Digital Output      | <ul style="list-style-type: none"> <li>• 12 x 500 mA outputs</li> <li>• 3 x 1000 mA</li> <li>• Meter outputs support pulse generator</li> </ul>                                             |
| Readable DIP Switch | 8-bit (Optional)                                                                                                                                                                            |
| Timer               | 4 x 16-bit programmable timer                                                                                                                                                               |

### Gaming I/O

|                         |                                                                                                                                                    |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| SRAM                    | 1MB, optional 2MB<br>500mAh re-chargable battery                                                                                                   |
| EEPROM                  | 1KB                                                                                                                                                |
| Event Logger            | <ul style="list-style-type: none"> <li>• 6 x anti-temper inputs</li> <li>• SRAM battery low detections</li> <li>• Power and Reset event</li> </ul> |
| Smart Card Reader       | On board smart card reader                                                                                                                         |
| Secured Real Time Clock | Password protected                                                                                                                                 |

### Other Feature

|                |                                  |
|----------------|----------------------------------|
| Indicator      | HDD and Power LED                |
| Fan connector  | 3 x 12V fan connectors           |
| WatchDog Timer | Software programmable 1~255 sec. |

### Power Requirement

|                   |                                     |
|-------------------|-------------------------------------|
| Power Input       | 5V & 12V for system, 24V for ccTalk |
| Power Consumption | 70 Watts                            |

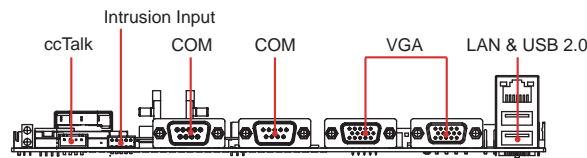
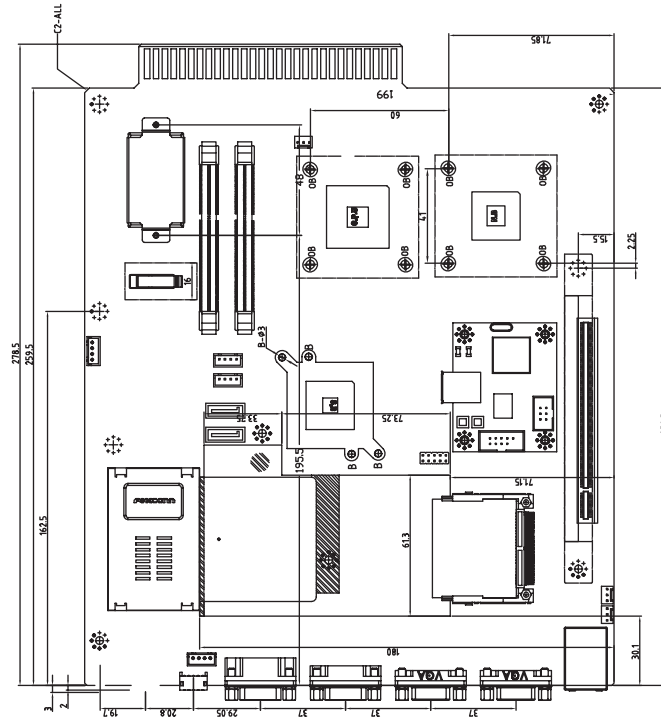
### Software

|                          |                                                                                                                                          |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| OS Support               | Windows 7, Windows XP, XP Embedded & Linux                                                                                               |
| Software Development Kit | <ul style="list-style-type: none"> <li>• Device driver</li> <li>• Application Program Interface (API)</li> <li>• Demo program</li> </ul> |

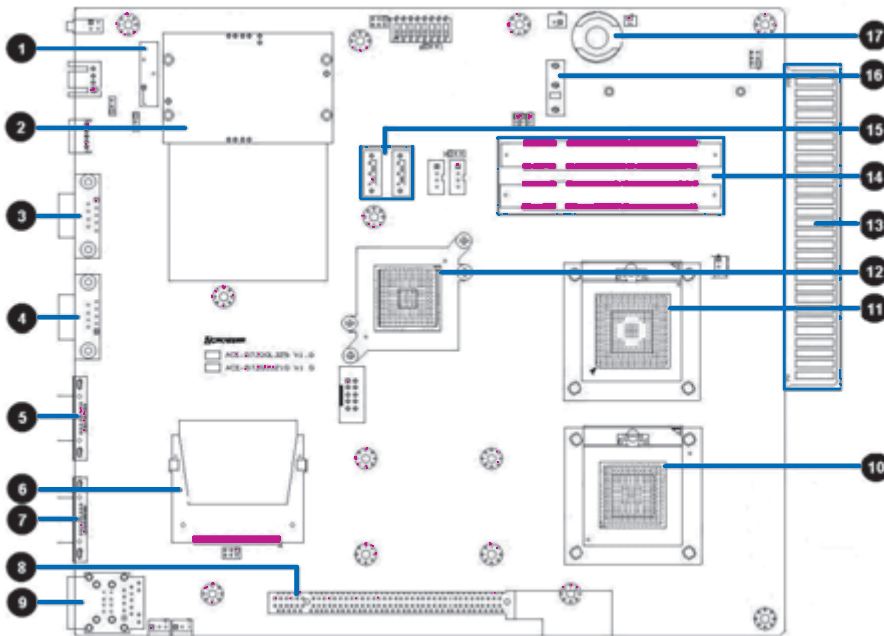
### Mechanical & Environment

|                   |                                    |
|-------------------|------------------------------------|
| Dimension         | 260 mm x 230 mm (10.236" x 9.055") |
| Operating Temp.   | 0~60°C (32~140°F)                  |
| Storage temp.     | -20~80°C (-4~ 176°F)               |
| Relative Humidity | 0~90% @ 40°C, non-condensing       |
| Safety            | CE, FCC compliant                  |

## Dimension



## I/O Connectors



- 01. System RTC battery holder
- 02. Smart card reader connector
- 03. D-Sub 9-pin RS232 Serial Port(male)
- 04. D-Sub 9-pin RS232 Serial Port(female)
- 05. D-Sub 15-pin main VGA connector
- 06. Standard CF Card Slot
- 07. D-Sub 15-pin secondary VGA connector
- 08. PCI-E X16 Slot
- 09. One RJ45 with two layer USB connector
- 10. North Bridge
- 11. CPU
- 12. South Bridge
- 13. JAMMA gaming interface(Note1)
- 14. DDR2 SO-DIMM socket
- 15. Standard 7-pin SATA connector
- 16. Micro switch for chassis open/close detection
- 17. iButton holder(optional)

## Packing List

- ACE-B7300 x 1
- Software Driver CD x 1
- ACE-B7300 quick user's manual x 1

## Ordering Information

|               |                                                      |
|---------------|------------------------------------------------------|
| ACE-B7300L325 | ACE-B7300 with AMD L325 1.5GHz dual core processor   |
| ACE-B7300U210 | ACE-B7300 with AMD 210U 1.5GHz single core processor |

# Product Matrix

## Networking Appliance



| Form Factor    |                 | Rackmount                                             |                                                       |
|----------------|-----------------|-------------------------------------------------------|-------------------------------------------------------|
| Model Name     |                 | ANR-IB75N2/A/B                                        | ANR-IB75N1/A/B                                        |
| System         | CPU type        | Intel 3rd Gen. Core i / Pentium<br>LGA1155 Processors | Intel 3rd Gen. Core i / Pentium<br>LGA1155 Processors |
|                | Chipset         | Intel B75                                             | Intel B75                                             |
| Memory         | Technology      | DDR3                                                  | DDR3                                                  |
|                | Maximum support | 16GB                                                  | 16GB                                                  |
| Ethernet       | SFP GbE         | 0/2/4                                                 | 0/2/4                                                 |
|                | RJ45 GbE        | 8/8/8                                                 | 8/8/8                                                 |
|                | Bypass          | 2/2/2                                                 | 2/2/2                                                 |
| Expansion      | Mini PCIe       | -                                                     | -                                                     |
|                | PCI             | -                                                     | -                                                     |
|                | Mini PCI        | -                                                     | -                                                     |
| LCM            | LCM             | 16 x 2 characters LCD module with 4 buttons           | 16 x 2 characters LCD module with 4 buttons           |
| Storage        | HDD             | 2 x 2.5" / SATA III                                   | 2 x 2.5" / SATA III                                   |
|                | CF              | 1                                                     | 1                                                     |
| I/O            | Console         | 1 x RJ45                                              | 1 x RJ45                                              |
|                | VGA             | Option by cable                                       | Option by cable                                       |
|                | USB             | 2 x USB 3.0 External                                  | 2 x USB 3.0 External                                  |
| Dimension      |                 | 440mm x 371.5mm x 44mm                                | 440mm x 371.5mm x 44mm                                |
| Thermal        |                 | Cooling Fan                                           | Cooling Fan                                           |
| Reference page |                 | 44                                                    | 46                                                    |

## Networking Appliance



| Form Factor    |                 | Rackmount                                                        |                                             |
|----------------|-----------------|------------------------------------------------------------------|---------------------------------------------|
| Model Name     |                 | ANR-IH61N1/A/B                                                   | AR-R6000                                    |
| System         | CPU type        | Intel 3rd Gen. Core i Duo / Quad / Pentium<br>LGA1155 Processors | Intel D510                                  |
|                | Chipset         | Intel H61                                                        | Intel ICH8M                                 |
| Memory         | Technology      | DDR3                                                             | DDR2 667/800 MHz                            |
|                | Maximum support | 16GB                                                             | 2GB                                         |
| Ethernet       | SFP GbE         | 0/2/4                                                            | 0                                           |
|                | RJ45 GbE        | 6/6/6                                                            | 4                                           |
|                | Bypass          | 2/2/2                                                            | 1                                           |
| Expansion      | PCI-E           | -                                                                | 0                                           |
|                | PCI             | -                                                                | 1                                           |
|                | Mini PCI        | -                                                                | 0                                           |
| LCM            | LCM             | 16 x 2 characters LCD module with 4 buttons                      | 16 x 2 characters LCD module with 4 buttons |
| Storage        | HDD             | 2 x 2.5" / SATA II                                               | 1 x 3.5" / 2.5" / SATA II                   |
|                | CF              | 1                                                                | 1                                           |
| I/O            | Console         | 1 x RJ45                                                         | 1 x DB9                                     |
|                | VGA             | Option by cable                                                  | Option by cable                             |
|                | USB             | 2 x USB 2.0 External                                             | 2 x External Port, 2 x Internal Pin header  |
| Dimension      |                 | 440mm x 371.5mm x 44mm                                           | 440mm x 340.5mm x 44mm                      |
| Thermal        |                 | Cooling Fan                                                      | Cooling Fan                                 |
| Reference page |                 | 48                                                               | 50                                          |

# Product Matrix

## Networking Appliance



| Form Factor    |                 | Microbox             |                                               |
|----------------|-----------------|----------------------|-----------------------------------------------|
| Model Name     |                 | AND-D525N2           | AR-N6000                                      |
| System         | CPU type        | Intel D525           | Intel D510                                    |
| Chipset        | Chipset         | Intel ICH8M          | Intel ICH8M                                   |
| Memory         | Technology      | DDR3                 | DDR2 667/800MHz                               |
|                | Maximum support | 4GB                  | 2GB                                           |
| Ethernet       | SFP GbE         | 0                    | 0                                             |
|                | RJ45 GbE        | 4                    | 4                                             |
|                | RJ45 FE 10/100  | -                    | 0                                             |
|                | Bypass          | -                    | 1                                             |
| Expansion      | Mini PCIe       | 1                    | 0                                             |
|                | PCI-E           | -                    | 1                                             |
|                | Mini PCI        | -                    | 0                                             |
| Storage        | HDD bracket     | 2 x 3.5" / 2.5"      | 1 x 2.5"                                      |
|                | HDD type        | SATA II              | 2 x SATA II                                   |
|                | CF              | 1                    | 1                                             |
| I/O            | Console         | 1 x RJ45             | 1 x DB9                                       |
|                | VGA             | Option by cable      | Option by cable                               |
|                | USB             | 2 x External Port    | 2 x External Port,<br>2 x Internal Pin header |
| Dimension      |                 | 234mm x 165mm x 44mm | 242mm x 148.5mm x 34mm                        |
| Thermal        |                 | Cooling Fan          | Cooling Fan                                   |
| Reference page |                 | 52                   | 54                                            |

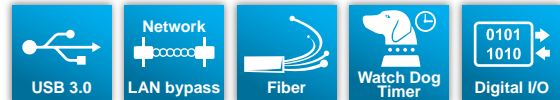
# ANR-IB75N2/A/B

1U Rackmount Intel PCH B75 Networking, 8 GbE LANs



## Features

- Intel B75 Platform
- Supports LGA1155 Intel® Core™ i7/i5/i3 processor / Pentium CPU
- 1 x SATAIII, 1 x SATAII
- 2 x USB 3.0
- Option1: Intel GbE LAN x 8
- Option2: Intel GbE LAN x 8 + 2 Fiber
- Option3: Intel GbE LAN x 8 + 4 Fiber



CE FCC

## Specification

### System

|                |                                                          |
|----------------|----------------------------------------------------------|
| CPU            | Intel 3rd Gen. Core i / Pentium LGA1155 Processors       |
| Chipset        | Intel B75                                                |
| Memory         | 2 x 240-pin DIMM support DDR3 1600 / 1333 MHz up to 16GB |
| BIOS           | AMI                                                      |
| WatchDog Timer | Software programmable 0~255 sec.                         |

### Video

|                 |                          |
|-----------------|--------------------------|
| Video Interface | VGA(on board pin header) |
|-----------------|--------------------------|

### Ethernet

|            |                                                                                                                                                                                 |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Chipset    | ANR-IB75N2: Intel I210-AT(GbE) x8<br>ANR-IB75N2A: Intel I210-AT(GbE) x8<br>Intel 82576EB x2 (Fiber port)<br>ANR-IB75N2B: Intel I210-AT(GbE) x8<br>Intel 82576EB x4 (Fiber port) |
| Connector  | ANR-IB75N2: 8 x RJ45 for Copper Ethernet<br>ANR-IB75N2A: 8 x RJ45 for Copper Ethernet<br>2 x SFP Slot<br>ANR-IB75N2B: 8 x RJ45 for Copper Ethernet<br>4 x SFP Slot              |
| LAN bypass | 2-pair                                                                                                                                                                          |

### Storage

|               |                                                |
|---------------|------------------------------------------------|
| SATA          | 1 x SATA III , 1 x SATA II                     |
| Compact Flash | 1 x Compact Flash Type II socket supports UDMA |
| HDD Bay       | 2 x 2.5" HDD bay                               |

### I/O

|              |                                              |
|--------------|----------------------------------------------|
| Console port | 1 x RJ45 for console                         |
| USB port     | 2 x USB 3.0 ports                            |
| LCM          | 16 x 2 characters LCD module with 4 buttons  |
| GPIO         | 8-bit GPIO (4 In, 4 Out) on board pin header |

## Power Requirement

|                   |                                                                                     |
|-------------------|-------------------------------------------------------------------------------------|
| Power Requirement | Internal 250W 80 PLUS(Bronze) power supply, input range 100V AC 60Hz ~ 230V AC 50Hz |
|-------------------|-------------------------------------------------------------------------------------|

## Software

|            |                                                                        |
|------------|------------------------------------------------------------------------|
| OS Support | Win 7 32/64 bit, WES7 32bit, Fedora 14 32/64bit, Ubuntu 10.04 32/64bit |
|------------|------------------------------------------------------------------------|

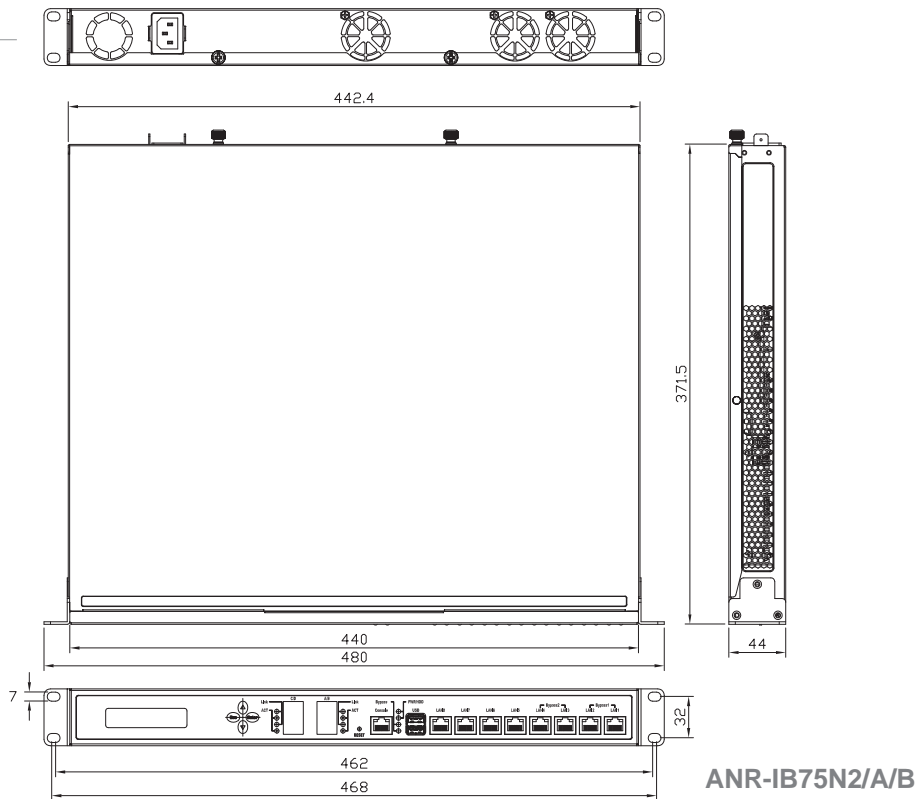
## Mechanical & Environment

|                   |                              |
|-------------------|------------------------------|
| Dimension         | 440 mm x 371.5 mm x 44mm     |
| Operating Temp.   | 0~40°C (32~104°F)            |
| Storage temp.     | -20~80°C (-4~176°F)          |
| Relative Humidity | 0~90% @ 40°C, non-condensing |
| Safety            | CE, FCC class A              |

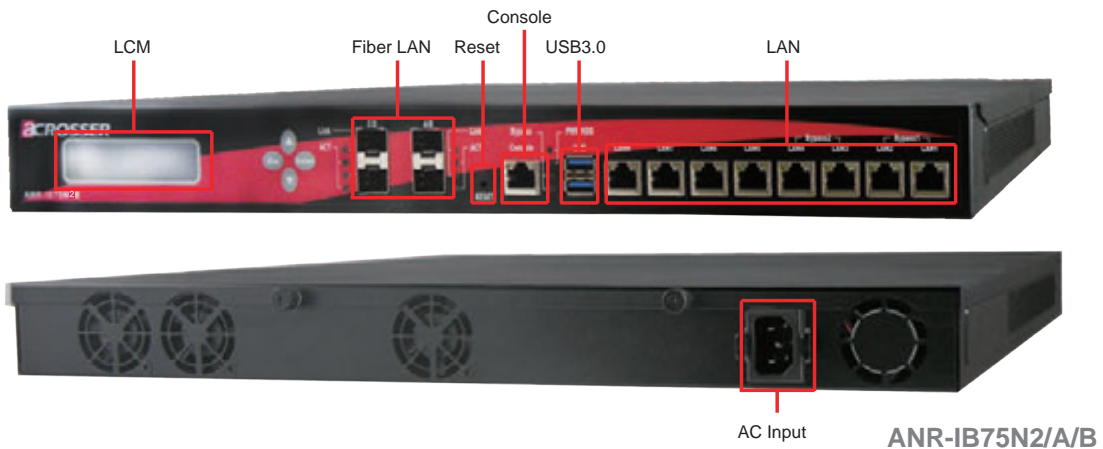
## Model Name

|             |                                                                                                            |
|-------------|------------------------------------------------------------------------------------------------------------|
| ANR-IB75N2  | Networking Rackmount Server with PCH B75, 8 x RJ45 GbE LAN (2-pair bypass)                                 |
| ANR-IB75N2A | Networking Rackmount Server with PCH B75, 8 x RJ45 GbE LAN (2-pair bypass) and 2 x Fiber expansion feature |
| ANR-IB75N2B | Networking Rackmount Server with PCH B75, 8 x RJ45 GbE LAN (2-pair bypass) and 4 x Fiber expansion feature |

## Dimension



## I/O Connectors



## Packing List

- ANR-IB75N2/A/B system x 1
- Quick manual x 1
- SATA cable x 2
- CD Utility x 1
- Console Cable(RJ45) x 1
- USA or Europe or Japan or UK power cord x 1
- Rack bracket x 2
- Box Packing x 1
- Screw for bracket (for Rack + HDD bracket) x 14
- Power cord hook x 1

## Ordering Information & CPU support list

|                     |                                                  |
|---------------------|--------------------------------------------------|
| ANR-IB75N2 Barebone | Barebone, w/o CPU                                |
| ANR-IB75N2(A/B)i71  | 3rd Generation Intel Core i7 Processors i7-3770  |
| ANR-IB75N2(A/B)i51  | 3rd Generation Intel Core i5 Processors i5-3550S |
| ANR-IB75N2(A/B)i31  | 3rd Generation Intel Core i3 Processors i3-3220  |
| ANR-IB75N2(A/B)PG1  | Intel Pentium Processor G2120                    |

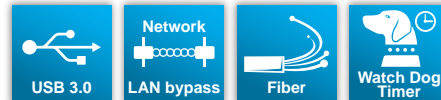
# ANR-IB75N1/A/B

1U Rackmount Intel PCH B75 Networking, 8 GbE LANs



## Features

- Intel B75 Platform
- Supports LGA1155 Intel® Core™ i7/i5/i3 processor / Pentium CPU
- 1 x SATAIII, 1 x SATAII
- 2 x USB 3.0
- Option1: Intel GbE LAN x 8
- Option2: Intel GbE LAN x 8 + 2 Fiber
- Option3: Intel GbE LAN x 8 + 4 Fiber



CE FCC

## Specification

### System

|                |                                                          |
|----------------|----------------------------------------------------------|
| CPU            | Intel 3rd Gen. Core i / Pentium LGA1155 Processors       |
| Chipset        | Intel B75                                                |
| Memory         | 2 x 240-pin DIMM support DDR3 1600 / 1333 MHz up to 16GB |
| BIOS           | AMI                                                      |
| WatchDog Timer | Software programmable 1~255 sec.                         |

### Video

|                 |                          |
|-----------------|--------------------------|
| Video Interface | VGA(on board pin header) |
|-----------------|--------------------------|

### Ethernet

|            |                                                                                                                                                                              |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Chipset    | ANR-IB75N1: Intel 82574L(GbE) x8<br>ANR-IB75N1A: Intel 82574L(GbE) x8<br>Intel 82576EB x2 (Fiber port)<br>ANR-IB75N1B: Intel 82574L(GbE) x8<br>Intel 82576EB x4 (Fiber port) |
| Connector  | ANR-IB75N1: 8 x RJ45 for Copper Ethernet<br>ANR-IB75N1A: 8 x RJ45 for Copper Ethernet<br>2 x SFP Slot<br>ANR-IB75N1B: 8 x RJ45 for Copper Ethernet<br>4 x SFP Slot           |
| LAN bypass | 2-pair                                                                                                                                                                       |

### Storage

|               |                                                |
|---------------|------------------------------------------------|
| SATA          | 1 x SATA III , 1 x SATA II                     |
| Compact Flash | 1 x Compact Flash Type II socket supports UDMA |
| HDD Bay       | 2 x 2.5" HDD bay                               |

### I/O

|              |                                             |
|--------------|---------------------------------------------|
| Console port | 1 x RJ45 for console                        |
| USB port     | 2 x USB 3.0 ports                           |
| LCM          | 16 x 2 characters LCD module with 4 buttons |

## Power Requirement

|                   |                                                                                     |
|-------------------|-------------------------------------------------------------------------------------|
| Power Requirement | Internal 250W 80 PLUS(Bronze) power supply, input range 100V AC 60Hz ~ 230V AC 50Hz |
|-------------------|-------------------------------------------------------------------------------------|

## Software

|            |                                                                     |
|------------|---------------------------------------------------------------------|
| OS Support | Win 7 32/64 bit, WES7 32bit, Fedora 14 32/64bit, Ubuntu 10 32/64bit |
|------------|---------------------------------------------------------------------|

## Mechanical & Environment

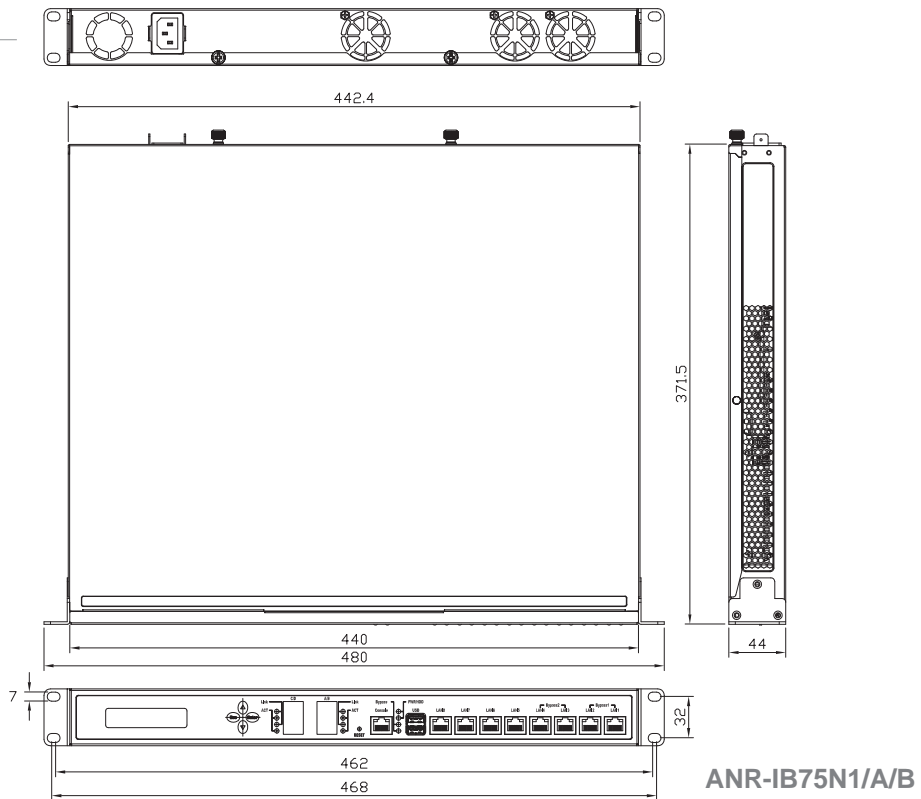
|                   |                              |
|-------------------|------------------------------|
| Dimension         | 440 mm x 371.5 mm x 44mm     |
| Operating Temp.   | 0~40°C (32~104°F)            |
| Storage temp.     | -20~80°C (-4~176°F)          |
| Relative Humidity | 0~90% @ 40°C, non-condensing |
| Safety            | CE, FCC class A              |

## Model Name

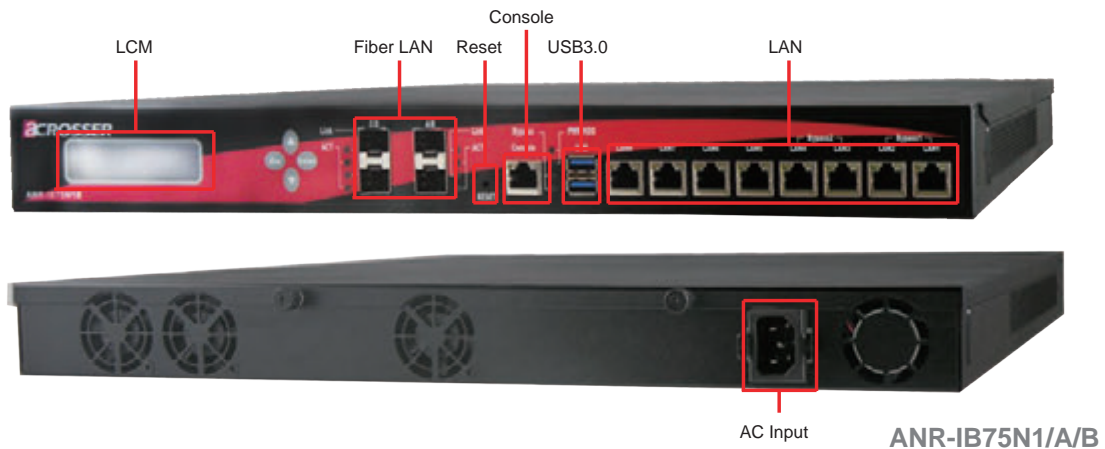
|             |                                                                                                            |
|-------------|------------------------------------------------------------------------------------------------------------|
| ANR-IB75N1  | Networking Rackmount Server with PCH B75, 8 x RJ45 GbE LAN (2 pair bypass)                                 |
| ANR-IB75N1A | Networking Rackmount Server with PCH B75, 8 x RJ45 GbE LAN (2 pair bypass) and 2 x Fiber expansion feature |
| ANR-IB75N1B | Networking Rackmount Server with PCH B75, 8 x RJ45 GbE LAN (2 pair bypass) and 4 x Fiber expansion feature |



## Dimension



## I/O Connectors



## Packing List

- ANR-IB75N1/A/B system x 1
- Quick manual x 1
- SATA cable x 2
- CD Utility x 1
- Console Cable(RJ45) x 1
- USA or Europe or Japan or UK power cord x 1
- Rack bracket x 2
- Box Packing x 1
- Screw for bracket (for Rack + HDD bracket) x 14
- Power cord hook x 1

## Ordering Information & CPU support list

|                     |                                                  |
|---------------------|--------------------------------------------------|
| ANR-IB75N1 Barebone | Barebone, w/o CPU                                |
| ANR-IB75N1(A/B)i71  | 3rd Generation Intel Core i7 Processors i7-3770  |
| ANR-IB75N1(A/B)i51  | 3rd Generation Intel Core i5 Processors i5-3550S |
| ANR-IB75N1(A/B)i31  | 3rd Generation Intel Core i3 Processors i3-3220  |
| ANR-IB75N1(A/B)PG1  | Intel Pentium Processor G2120                    |

# ANR-IH61N1/A/B

1U Rackmount Intel PCH H61 Networking, 6 GbE LANs



## Features

- Intel H61 Platform
- Supports LGA1155 Intel® Core™ i7/i5/i3 processor / Pentium CPU
- 2 x SATAII
- 2 xUSB 2.0
- Option1: Intel GbE LAN x 6
- Option2: Intel GbE LAN x 6 + 2 Fiber
- Option3: Intel GbE LAN x 6 + 4 Fiber



CE FCC

## Specification

### System

|                |                                                               |
|----------------|---------------------------------------------------------------|
| CPU            | Intel 3rd Gen. Core i Duo / Quad / Pentium LGA1155 Processors |
| Chipset        | Intel H61                                                     |
| Memory         | 2 x 240-pin DIMM support DDR3 1600 / 1333 MHz up to 16GB      |
| BIOS           | AMI                                                           |
| WatchDog Timer | Software programmable 1~255 sec.                              |

### Video

|                 |                          |
|-----------------|--------------------------|
| Video Interface | VGA(on board pin header) |
|-----------------|--------------------------|

### Ethernet

|            |                                                                                                                                                                              |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Chipset    | ANR-IH61N1: Intel 82574L(GbE) x6<br>ANR-IH61N1A: Intel 82574L(GbE) x6<br>Intel 82576EB x2 (Fiber port)<br>ANR-IH61N1B: Intel 82574L(GbE) x6<br>Intel 82576EB x4 (Fiber port) |
| Connector  | ANR-IH61N1: 6 x RJ45 for Copper Ethernet<br>2 x SFP Slot<br>ANR-IH61N1A: 6 x RJ45 for Copper Ethernet<br>4 x SFP Slot                                                        |
| LAN bypass | 2-pair                                                                                                                                                                       |

### Storage

|               |                                                |
|---------------|------------------------------------------------|
| SATA          | 2 x SATA II port                               |
| Compact Flash | 1 x Compact Flash Type II socket supports UDMA |
| HDD Bay       | 2 x 2.5" HDD bay                               |

### I/O

|              |                                             |
|--------------|---------------------------------------------|
| Console port | 1 x RJ45 for console                        |
| USB port     | 2 x USB 2.0 ports                           |
| LCM          | 16 x 2 characters LCD module with 4 buttons |

### Power Requirement

|                   |                                                                                     |
|-------------------|-------------------------------------------------------------------------------------|
| Power Requirement | Internal 250W 80 PLUS(Bronze) power supply, input range 100V AC 60Hz ~ 230V AC 50Hz |
|-------------------|-------------------------------------------------------------------------------------|

### Software

|            |                                                                                    |
|------------|------------------------------------------------------------------------------------|
| OS Support | Win 7 32/64 bit, WinXP 32bit, WES7 32bit, Fedora 14 32/64 bit, Ubuntu 10 32/64 bit |
|------------|------------------------------------------------------------------------------------|

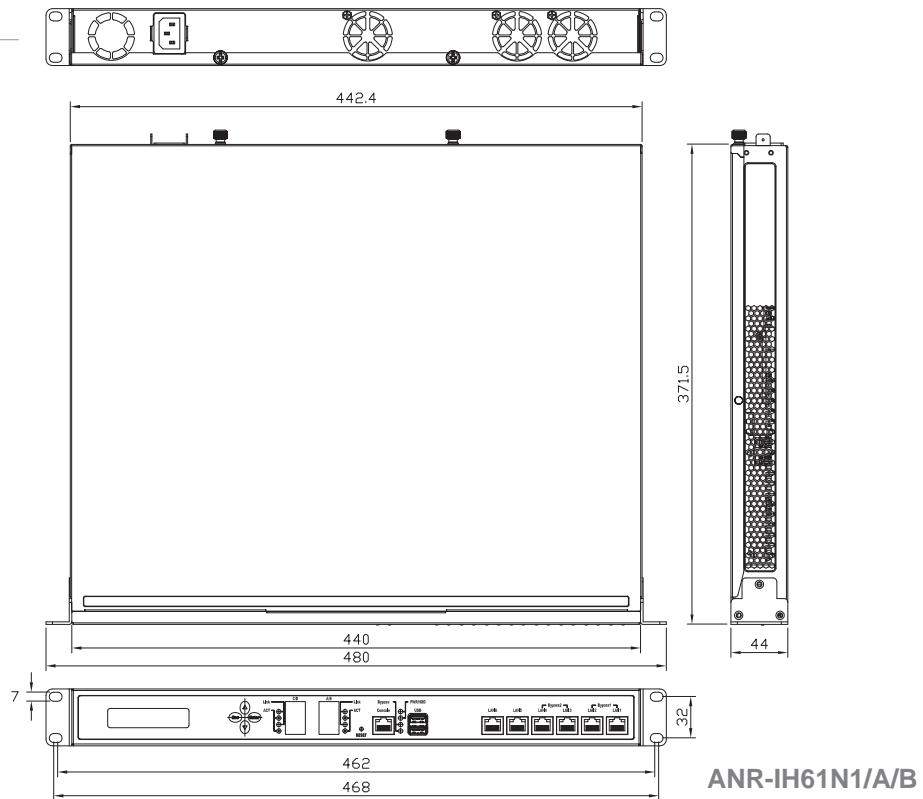
### Mechanical & Environment

|                   |                                |
|-------------------|--------------------------------|
| Dimension         | 440 mm x 371.5 mm x 44mm       |
| Operating Temp.   | 0 ~ 40°C (32 ~ 104°F)          |
| Storage temp.     | -20 ~ 80°C (-4 ~ 176°F)        |
| Relative Humidity | 0 ~ 90% @ 40°C, non-condensing |
| Safety            | CE, FCC class A                |

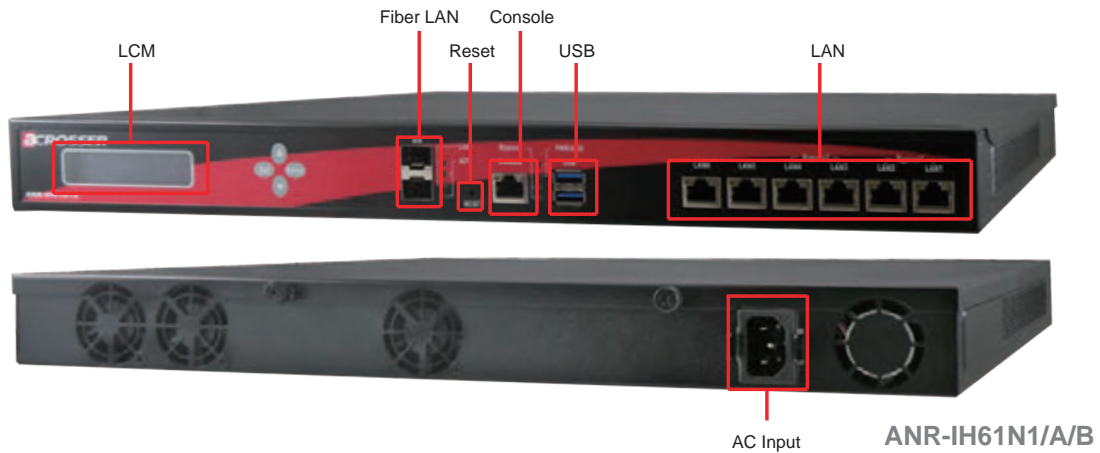
### Model Name

|             |                                                                                                            |
|-------------|------------------------------------------------------------------------------------------------------------|
| ANR-IH61N1  | Networking Rackmount Server with PCH H61, 6 x RJ45 GbE LAN (2 pair bypass)                                 |
| ANR-IH61N1A | Networking Rackmount Server with PCH H61, 6 x RJ45 GbE LAN (2 pair bypass) and 2 x Fiber expansion feature |
| ANR-IH61N1B | Networking Rackmount Server with PCH H61, 6 x RJ45 GbE LAN (2 pair bypass) and 4 x Fiber expansion feature |

## Dimension



## I/O Connectors



## Packing List

- ANR-IH61N1/A/B system x 1
- Quick manual x 1
- SATA cable x 2
- CD Utility x 1
- Console Cable(RJ45) x 1
- USA or Europe or Japan or UK power cord x 1
- Rack bracket x 2
- Box Packing x 1
- Screw for bracket (for Rack + HDD bracket) x 14
- Power cord hook x 1

## Ordering Information & CPU support list

|                     |                                                  |
|---------------------|--------------------------------------------------|
| ANR-IH61N1 Barebone | 3rd Generation Intel Core i7 Processors i7-3770  |
| ANR-IH61N1(A/B)i51  | 3rd Generation Intel Core i5 Processors i5-3550S |
| ANR-IH61N1(A/B)i31  | 3rd Generation Intel Core i3 Processors i3-3220  |
| ANR-IH61N1(A/B)PG1  | Intel Pentium Processor G2120                    |

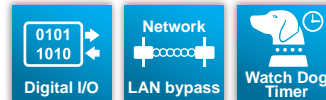
# AR-R6000

1U Rackmount Intel Atom D510 Networking, 4 GbE LANs



## Features

- Support Intel Atom D510 with integrated graphic controller
- 4 x Intel PCI-E GbE ethernet ports
- Support Console Redirection, boot from LAN
- Support LAN bypass function
- 1 x PCI expansion slot



CE FCC

## Specification

### System

|                |                                                                         |
|----------------|-------------------------------------------------------------------------|
| CPU            | Intel D510 1.66GHz Dual Core processor                                  |
| Chipset        | Intel ICH8M                                                             |
| Memory         | • One DDR2 667/800MHz SO-DIMM Socket, up to 2 GB<br>• 1GB pre-installed |
| BIOS           | AMI                                                                     |
| WatchDog Timer | Software programmable 1~255 sec.                                        |

### Video

|                 |                           |
|-----------------|---------------------------|
| Video Interface | VGA (on board pin header) |
|-----------------|---------------------------|

### Ethernet

|            |                        |
|------------|------------------------|
| Chipset    | Intel 82574L (GbE) x 4 |
| Connector  | 4 x RJ45               |
| LAN        | 4 x PCI-E GbE LAN      |
| Bypass LAN | AR-R6000D51 : one pair |

### Storage

|         |                                                |
|---------|------------------------------------------------|
| SATA    | 2 x SATA II port                               |
| CF      | 1 x Compact Flash Type II socket supports UDMA |
| HDD Bay | 1 x 3.5"/2.5" HDD bracket                      |

### I/O

|                |                                             |
|----------------|---------------------------------------------|
| Console Port   | 1 x DB9 for Console                         |
| USB port       | 2 x external ports, 2 x onboard pin header  |
| LCM            | 16 x 2 characters LCD module with 4 buttons |
| GPIO           | 8-bit digital I/O                           |
| Keyboard/Mouse | PS/2 keyboard and mouse pin header          |
| Expansion Slot | 1 x PCI slot                                |

## Power Requirement

|                   |                                                                               |
|-------------------|-------------------------------------------------------------------------------|
| Power Supply      | internal 60W open frame power supply, input range 115V AC 60Hz ~ 230V AC 50Hz |
| Power Consumption | 31W                                                                           |

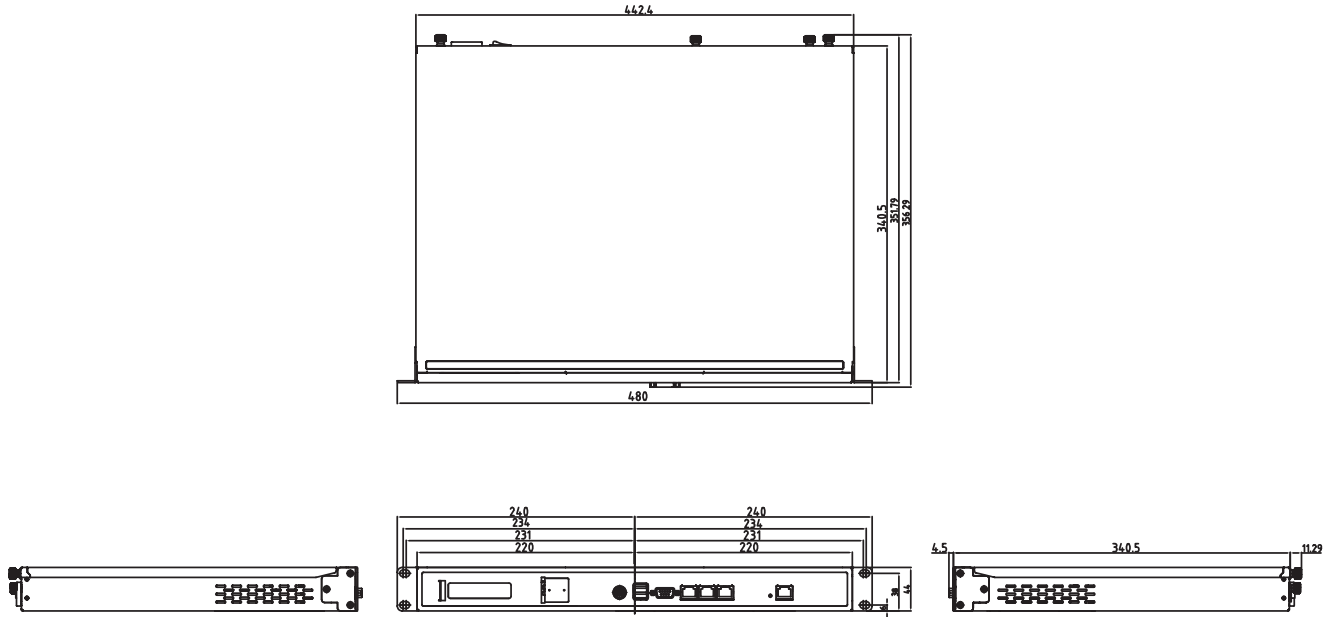
## Software

|            |                                       |
|------------|---------------------------------------|
| OS Support | Win XP/XP Embedded, Fedora 10(2.6.27) |
|------------|---------------------------------------|

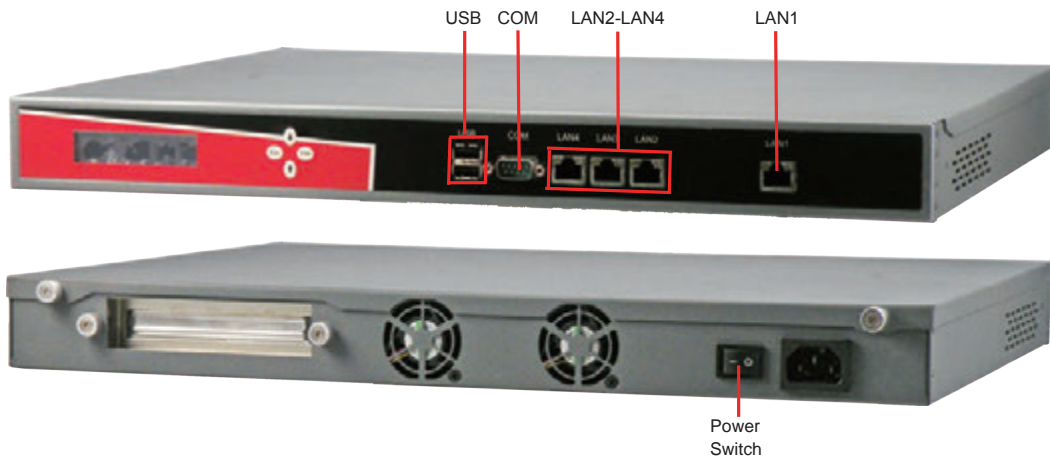
## Mechanical & Environment

|                   |                              |
|-------------------|------------------------------|
| Dimension         | 440 mm x 340.5 mm x 44mm     |
| Operating Temp.   | 0~40°C (32~104°F)            |
| Storage temp.     | -20~80°C (-4~176°F)          |
| Relative Humidity | 0~90% @ 40°C, non-condensing |
| Safety            | CE, FCC class B              |

## Dimension



## I/O Connectors



## Packing List

- AR-R6000 x 1
- Driver CD x 1
- Quick user manual x 1
- Power Cord x 1 (USA or UK or Japan or Europe)
- Console cable x 1
- SATA cable x 1
- SATA power cable x 1
- Bracket for 1U rackmount x 2

## Ordering Information

AR-R6000D51

1U Rackmount with Intel Atom D510, 4 x GbE LAN, SATA, CF, PCI slot, PCI socket, serial port, USB 2.0 port, one pair bypass LAN

# AND-D525N2

Microbox Intel Atom D525 Networking, 4 GbE LANs



## Features

- Intel Atom D525 with ICH8M Chipset
- 1 x 204-pin DDR3 SO-DIMM up to 4GB
- 4 x GbE, 2 x USB 2.0
- 1 x Mini PCIe Expansion



## Specification

### System

|                |                                                           |
|----------------|-----------------------------------------------------------|
| CPU            | Onboard Intel D525 1.8GHz                                 |
| Chipset        | Intel ICH8M                                               |
| Memory         | 1 x 204-pin SO-DIMM socket support 1333MHz DDR3 up to 4GB |
| BIOS           | Phoenix                                                   |
| WatchDog Timer | Software programmable 1~255 sec.                          |

### Video

|                    |                                                                           |
|--------------------|---------------------------------------------------------------------------|
| Graphic Controller | Integrated graphics support for processors with Intel Graphics Technology |
| Video Interface    | 1 x VGA (1 x internal header)                                             |

### Ethernet

|            |                            |
|------------|----------------------------|
| Chipset    | 4 x Realtek RTL8111E (GbE) |
| Connector  | 4 x RJ45 with LED          |
| HDD Bay    | 4 x PCI-E GbE LAN          |
| LAN Bypass | N/A                        |

### Storage

|               |                                  |
|---------------|----------------------------------|
| SATA          | 2 x SATA II port                 |
| Compact Flash | 1 x Compact Flash Type II socket |
| HDD Bay       | 1 x 2.5" HDD bay                 |

### I/O

|              |                           |
|--------------|---------------------------|
| Expansion    | 1 x Mini PCIe slot        |
| Console Port | 1 x Console (1 x RJ45)    |
| USB          | 2 x USB2.0 (2 x external) |

## Power Requirement

|             |                                    |
|-------------|------------------------------------|
| Power Input | 1 x DC 12V input (1 x 2.5 DC jack) |
|-------------|------------------------------------|

## Software

|            |                                                       |
|------------|-------------------------------------------------------|
| OS Support | Windows XP 32-bit, Windows 7 32-bit, Fedora 17 32-bit |
|------------|-------------------------------------------------------|

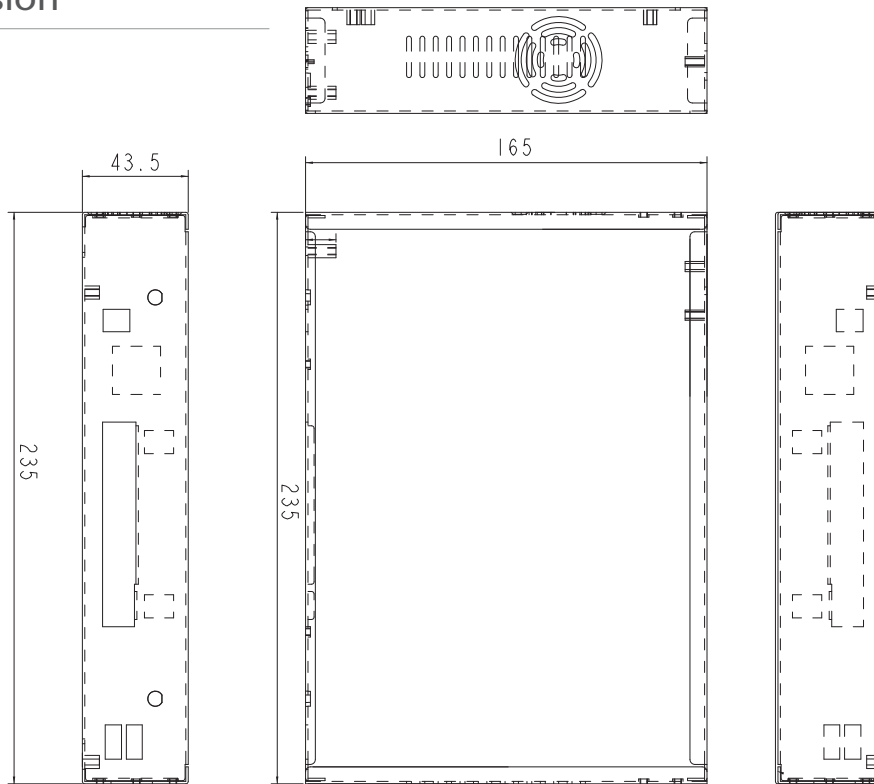
## Mechanical & Environment

|                 |                     |
|-----------------|---------------------|
| Dimension       | 234 x 165 x 44mm    |
| Operating Temp. | 0~40°C (32~104°F)   |
| Storage temp.   | -20~80°C (-4~176°F) |
| Safety          | CE, FCC class A     |

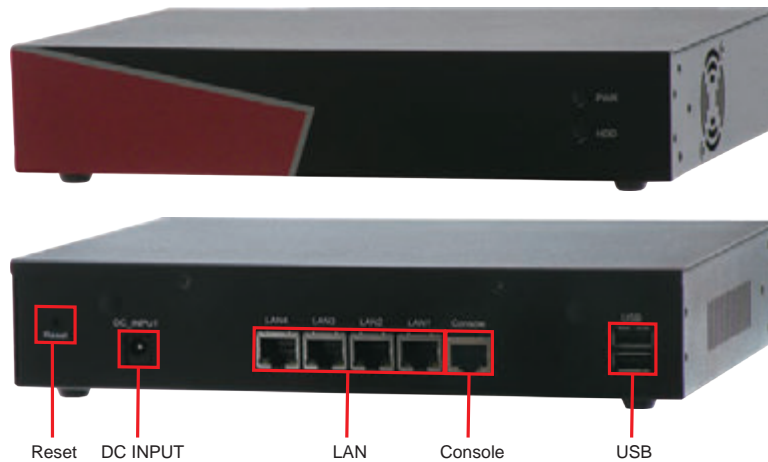
## Option

|               |                                |
|---------------|--------------------------------|
| Rackmount Kit | Rackmount kit for AND-D525N2   |
| VGA Cable     | VGA cable for AND-D525N2       |
| WiFi Kit      | WiFi module, RF cable, Antenna |

## Dimension



## I/O Connectors



## Packing List

- 1 x AND-D525N2
- 1 x Driver CD
- 1 x Quick Guide
- 1 x Console Cable (DB9)
- 1 x SATA Cable
- 1 x SATA Power Cable
- 1 x Power Adaptor
- 1 x Power Cord (Option for USA / UK / EU / Japan)

## Ordering Information

AND-D525N2

Microbox with Intel Atom D525, DDR3, GbE, USB2.0, SATA II, CF, Mini PCIe

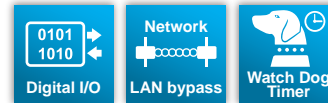
# AR-N6000

Microbox Intel Atom D510 Networking, 4 GbE LANs



## Features

- Support Intel Atom D510 with integrated graphic controller
- 4 x Intel PCIe GbE ethernet ports
- Support Console Redirection, boot from LAN
- Support LAN bypass function



CE FCC

## Specification

### System

|                |                                                                                                                              |
|----------------|------------------------------------------------------------------------------------------------------------------------------|
| CPU            | On-board Intel D510 1.66GHz Dual Core processor                                                                              |
| Chipset        | Intel ICH8M                                                                                                                  |
| Memory         | <ul style="list-style-type: none"><li>• One DDR2 667/800MHz SO-DIMM Socket, up to 2 GB</li><li>• 1GB pre-installed</li></ul> |
| BIOS           | AMI                                                                                                                          |
| WatchDog Timer | Software programmable 1~255 sec.                                                                                             |

### Video

|                 |                           |
|-----------------|---------------------------|
| Video Interface | VGA (on board pin header) |
|-----------------|---------------------------|

### Ethernet

|            |                        |
|------------|------------------------|
| Chipset    | Intel 82574L (GbE) x 4 |
| Connector  | 4 x RJ45               |
| LAN        | 4 x PCI-E GbE LAN      |
| LAN Bypass | AR-N6000D51 : one pair |

### Storage

|         |                                                |
|---------|------------------------------------------------|
| SATA    | 2 x SATA II port                               |
| CF      | 1 x Compact Flash Type II socket supports UDMA |
| HDD Bay | 1 x 2.5" HDD bracket                           |

### I/O

|             |                                            |
|-------------|--------------------------------------------|
| Serial Port | 1 x DB9 for Console                        |
| USB Port    | 2 x external ports, 2 x onboard pin header |
| GPIO        | 8-bit digital I/O                          |

### Power Requirement

|                   |                  |
|-------------------|------------------|
| Power Supply      | 12V DC 60W input |
| Power Consumption | 31W              |

### Software

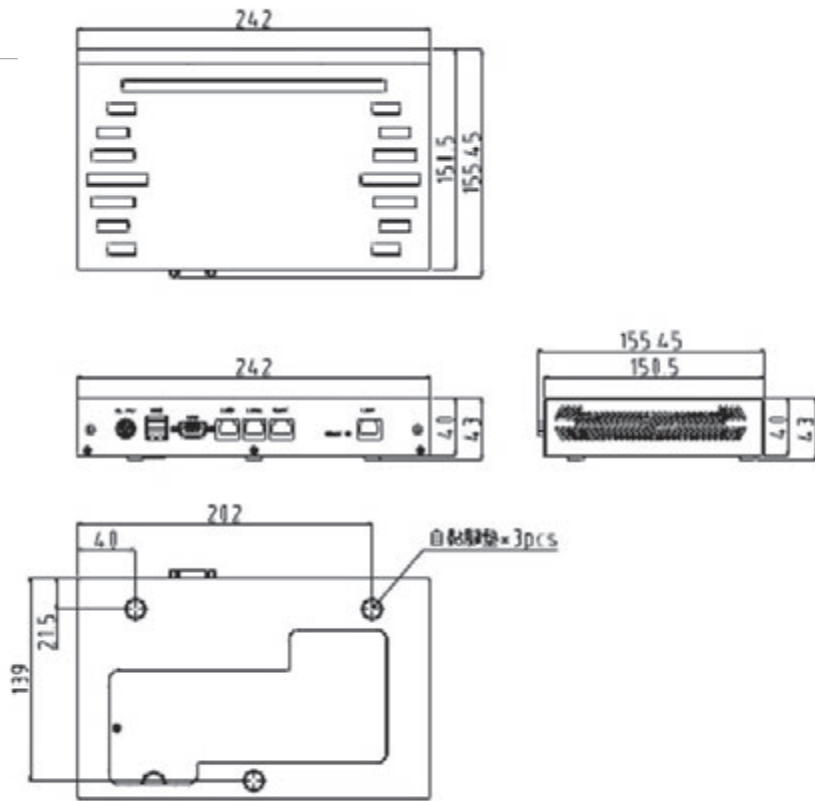
|            |                                       |
|------------|---------------------------------------|
| OS Support | Win XP/XP Embedded, Fedora 10(2.6.27) |
|------------|---------------------------------------|

### Mechanical & Environment

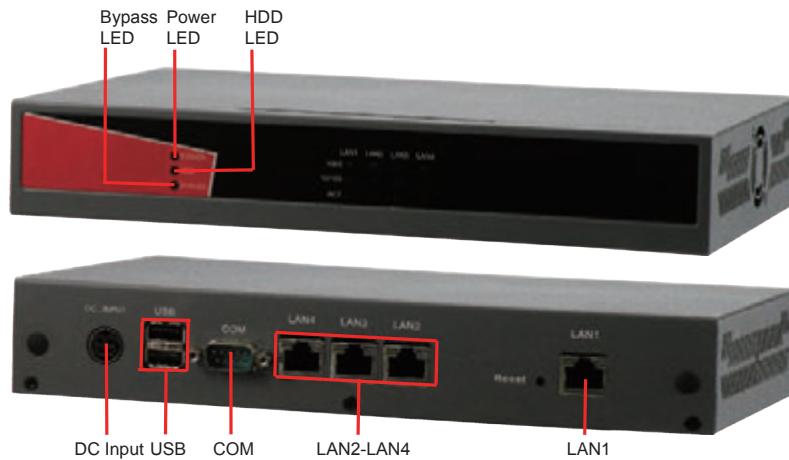
|                   |                                 |
|-------------------|---------------------------------|
| Dimension         | 242mm x 148.5mm x 34mm          |
| Operating Temp.   | 0~40°C (32~104°F)               |
| Storage temp.     | -20~80°C (-4~176°F)             |
| Relative Humidity | 0 to 90% @ 40°C, non-condensing |
| Safety            | CE, FCC class B                 |



## Dimension



## I/O Connectors



## Packing List

- AR-N6000 x 1
- Driver CD x 1
- Quick user manual x 1
- Power Cord x 1 (USA or UK or Japan or Europe)
- 60W power adapter x 1
- Console cable x 1

## Ordering Information

|             |                                                                                                                     |
|-------------|---------------------------------------------------------------------------------------------------------------------|
| AR-N6000D51 | MicroBox with Intel Atom D510, 4 x GbE LAN, SATA, CF, Mini PCI slot, serial port, USB 2.0 port, one pair bypass LAN |
|-------------|---------------------------------------------------------------------------------------------------------------------|



# Product Matrix

## Embedded SBC



| Form Factor               | Mini-ITX                                                 |                                                   |                                                   |
|---------------------------|----------------------------------------------------------|---------------------------------------------------|---------------------------------------------------|
| Model Name                | AMB-IH61T3                                               | AMB-D255T1                                        | AMB-D255T3                                        |
| CPU                       | Intel Core i7 / i5 / i3,<br>Intel Pentium, Intel Celeron | Intel Atom D2550                                  | Intel Atom D2550                                  |
| Chipset                   | Intel H61                                                | Intel NM10                                        | Intel NM10                                        |
| Memory                    | DDR3 1333/1066MHz<br>2 x 240-Pin DIMM, Max. 16GB         | DDR3 1066/800MHz<br>1 x 204-Pin SO-DIMM, Max. 4GB | DDR3 1066/800MHz<br>1 x 204-Pin SO-DIMM, Max. 4GB |
| Graphics                  | Intel Processor Integrated GMA                           | Intel GMA 3650                                    | Intel GMA 3650                                    |
| Video Interface           | 2 x VGA<br>1 x LVDS                                      | 1 x VGA, 1 x HDMI,<br>1 x 24-bit LVDS             | 1 x VGA, 1 x HDMI,<br>1 x 18-bit LVDS             |
| E-IDE(44pin) / IDE(40pin) | - / -                                                    | - / -                                             | - / -                                             |
| SATA                      | 2 x SATA II                                              | 1 x SATA II                                       | 2 x SATA II                                       |
| CF                        | -                                                        | -                                                 | -                                                 |
| Expansion Slot            | 1 x PCI-E x16, 1 x Mini PCIe                             | 1 x Mini PCIe, 1 x SIM Slot                       | 1 x Mini PCIe, 1 x PCI                            |
| Ethernet                  | 2 x GbE                                                  | 1 x GbE                                           | 2 x GbE                                           |
| USB                       | 8 x USB 2.0                                              | 6 x USB 2.0                                       | 6 x USB 2.0                                       |
| GPIO                      | 8-bit Digital I/O                                        | 8-bit Digital I/O                                 | 8-bit Digital I/O                                 |
| Serial Port               | 10 x RS-232                                              | 4 x RS-232                                        | 6 x RS-232                                        |
| Parallel Port             | 1                                                        | 1                                                 | 1                                                 |
| Audio                     | Realtek ALC662                                           | Realtek ALC662                                    | Realtek ALC662                                    |
| WatchDog Timer            | 1 ~ 255 seconds                                          | 1 ~ 255 seconds                                   | 1 ~ 255 seconds                                   |
| Hardware Monitor          | YES                                                      | YES                                               | YES                                               |
| Page                      | 60                                                       | 62                                                | 64                                                |

## Embedded SBC



| Form Factor               | COM Express type 6                                                                                                          |                                                                                                               |                                                                                                               |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| Model Name                | ACM-B6360                                                                                                                   | AMB-HM76B1FL                                                                                                  | AMB-HM76B1                                                                                                    |
| CPU                       | Intel Core i7-3615QE                                                                                                        | Intel Core i7/ i3/ Celeron                                                                                    | Intel Core i7/ i3/ Celeron                                                                                    |
| Chipset                   | Intel QM77                                                                                                                  | Intel HM76                                                                                                    | Intel HM76                                                                                                    |
| Front Side Bus            | -                                                                                                                           | -                                                                                                             | -                                                                                                             |
| Memory                    | DDR3 1600/1333SDRAM<br>2 x 204-Pin DIMM, Max. 16GB                                                                          | DDR3 1600/1333 SDRAM<br>2 x 204-Pin DIMM, Max. 16GB                                                           | DDR3 1600/1333 SDRAM<br>2 x 204-Pin DIMM, Max. 16GB                                                           |
| Graphics                  | Intel GMA Integrated<br>in Processor                                                                                        | Intel HD / HD 4000                                                                                            | Intel HD / HD 4000                                                                                            |
| Video Interface           | Provide Signal to Connector<br>1 x VGA, 1 x DVI-D<br>1 x Dual Ch. 18-bit LVDS<br>1 x TV-Out, 1 x S-Video<br>Component Video | 1 x Analog RGB Display<br>1 x HDMI Port<br>1 x Dual Channel LVDS<br>3 x Display Port<br>1 x SDVO/Display Port | 1 x Analog RGB Display<br>1 x HDMI Port<br>1 x Dual Channel LVDS<br>3 x Display Port<br>1 x SDVO/Display Port |
| E-IDE(44pin) / IDE(40pin) | -                                                                                                                           | -                                                                                                             | -                                                                                                             |
| SATA                      | 4                                                                                                                           | 4                                                                                                             | 4                                                                                                             |
| CF                        | -                                                                                                                           | -                                                                                                             | -                                                                                                             |
| Expansion Slot            | Signal only<br>1 x PCI-E x16, 6 x PCI-E x1                                                                                  | 1 x PCI-E x16 Gen.3,<br>6 x PCI-E x1                                                                          | 1 x PCI-E x16 Gen.3,<br>6 x PCI-E x1                                                                          |
| Ethernet                  | 1 x Intel 82574L                                                                                                            | 1 x RJ45                                                                                                      | 1 x RJ45                                                                                                      |
| USB                       | 4 x USB 3.0, 8 x USB 2.0                                                                                                    | 4 x USB 3.0, 8 x USB 2.0                                                                                      | 4 x USB 3.0, 8 x USB 2.0                                                                                      |
| GPIO                      | 4-bit DI and 4-bit DO                                                                                                       | 8-bit Digital I/O 4-bit DI and 4-bit DO                                                                       | 8-bit Digital I/O 4-bit DI and 4-bit DO                                                                       |
| Serial Port               | 2 x COM Interface (TX/RX only)                                                                                              | 2 x COM Interface (TX/RX only)                                                                                | 2 x COM Interface (TX/RX only)                                                                                |
| Audio                     | -                                                                                                                           | Intel HD Audio Channel                                                                                        | Intel HD Audio Channel                                                                                        |
| WatchDog Timer            | 1 ~ 255 seconds                                                                                                             | 0 ~ 255 seconds                                                                                               | 0 ~ 255 seconds                                                                                               |
| Hardware Monitor          | Yes                                                                                                                         | Yes                                                                                                           | Yes                                                                                                           |
| Page                      | 66                                                                                                                          | 67                                                                                                            | 68                                                                                                            |

# Product Matrix

## Embedded SBC



| Form Factor               | COM Express Baseboard                                                          | EPIC                                                                                  | EPIC                                                     |
|---------------------------|--------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|----------------------------------------------------------|
| Model Name                | ACM-B4080                                                                      | AR-B5631                                                                              | AR-B5630                                                 |
| CPU                       | -                                                                              | Intel Core2 / Core Duo / Celeron M                                                    | Intel Core2 / Celeron M                                  |
| Chipset                   | -                                                                              | Intel GME965 + ICH8M                                                                  | Intel GME965 + ICH8M                                     |
| Front Side Bus            | -                                                                              | 533/800MHz                                                                            | 533/800MHz                                               |
| Memory                    | -                                                                              | DDR2 533/667MHz<br>1 x 200-Pin DIMM, Max. 2GB                                         | DDR2 400/533/667MHz<br>1 x 200-Pin SO-DIMM, Max. 2GB     |
| Graphics                  | -                                                                              | Intel GME965 Integrated GMA X3100                                                     | Intel GME965 Integrated GMA X3100                        |
| Video Interface           | 1 x VGA, 1 x Dual Ch. LVDS, 2 x HDMI connectors, 1 x DVO/HDMI/DVI/Display Port | 1 x VGA, 1 x DVI-D, 1 x Dual Ch. 18-bit LVDS, 1 x TV-Out, 1 x S-Video Component Video | 1 x VGA, 1 x DVI-D, 1 x Dual Ch. 24-bit LVDS, 1 x TV-Out |
| E-IDE(44pin) / IDE(40pin) | -                                                                              | 1 / -                                                                                 | 1 / -                                                    |
| SATA                      | 2                                                                              | 2                                                                                     | 1                                                        |
| CF                        | -                                                                              | 1                                                                                     | 1                                                        |
| Floppy                    | -                                                                              | -                                                                                     | -                                                        |
| Expansion Slot            | 1 x PCI-E x16, 1 x PCI-E x4 , 3 x PCI-E x1                                     | 1 x PCI-104                                                                           | 1 x PCI-104                                              |
| Ethernet                  | 1 x RJ45                                                                       | 1 x GbE                                                                               | 2 x GbE                                                  |
| USB                       | 8                                                                              | 6                                                                                     | 4                                                        |
| GPIO                      | 4-bit DI and 4-bit DO                                                          | 8-bit Digital I/O                                                                     | 8-bit Digital I/O                                        |
| Serial Port               | 2 x COM Interface (TX/RX only)                                                 | 1 x RS-232, 1 x RS-232/422/485                                                        | 3 x RS-232, 1 x RS-232/422/485                           |
| Parallel Port             | -                                                                              | -                                                                                     | -                                                        |
| Audio                     | Realtek ALC662                                                                 | Realtek ALC662                                                                        | Realtek ALC655                                           |
| WatchDog Timer            | -                                                                              | 1 ~ 255 seconds                                                                       | 1 ~ 255 seconds                                          |
| Hardware Monitor          | -                                                                              | Yes                                                                                   | Yes                                                      |
| Page                      | 69                                                                             | 70                                                                                    | 71                                                       |

## Embedded SBC



| Form Factor               |                                                            | PCI-104                                        |                                                     |
|---------------------------|------------------------------------------------------------|------------------------------------------------|-----------------------------------------------------|
| Model Name                | AR-B5432                                                   | AR-B1622                                       | AMB-N280S1                                          |
| CPU                       | Intel Atom N270 1.6GHz                                     | AMD GeodeLX800 500 MHz                         | Intel Atom N2800 1.86GHz                            |
| Chipset                   | Intel 945GME + ICH7M                                       | AMD Geode LX800 + CS5536                       | Intel NM10                                          |
| Front Side Bus            | 533 MHz                                                    | 500MHz                                         | -                                                   |
| Memory                    | DDR2 400/533MHz<br>1 x 200-Pin SO-DIMM, Max. 2GB           | DDR 200MHz<br>1 x 200-Pin So-DIMM, Max. 1GB    | DDR3 1066/800MHz<br>1 x 204-Pin SO-DIMM<br>Max. 4GB |
| Graphics                  | Intel 945GSE Integrated GMA 950                            | AMD Gdode LX800Integrated GPU                  | Intel Atom N2800                                    |
| Video Interface           | 1 x VGA, 1 x DVI-D<br>1 x Dual Ch. 18-bit LVDS, 1 x TV-Out | 1 x VGA<br>1 x 24-bit TTLinterface for TFT LCD | 1 x VGA, 1 x HDMI<br>1 x 18-bit LVDS                |
| E-IDE(44pin) / IDE(40pin) | - / -                                                      | 1 / -                                          | - / -                                               |
| SATA                      | 2                                                          | -                                              | 1                                                   |
| CF                        | 1                                                          | -                                              | -                                                   |
| Floppy                    | -                                                          | -                                              | -                                                   |
| Expansion Slot            | 1 x PCI-104                                                | 1 x PCI-104                                    | 2 x Mini PCIe<br>1 x SIM slot                       |
| Ethernet                  | 2 x GbE                                                    | 1 x 10/100 MB                                  | 2 x GbE                                             |
| USB                       | 6                                                          | 4                                              | 4                                                   |
| GPIO                      | 8-bit Digital I/O                                          | 8-bit Digital I/O                              | 8-bit Digital I/O                                   |
| Serial Port               | 3 x RS-232, 1 x RS-232/422/485                             | 2 x RS-232                                     | 5 x RS-232 (2 x TX/RX only)<br>1 x RS-232/485       |
| Parallel Port             | 1                                                          | -                                              | 1                                                   |
| Audio                     | Realtek ALC655                                             | -                                              | Realtek ALC662                                      |
| WatchDog Timer            | 1 ~ 255 seconds                                            | 1 ~ 63 seconds                                 | 1 ~ 255 seconds                                     |
| Hardware Monitor          | -                                                          | YES                                            | YES                                                 |
| Page                      | 72                                                         | 73                                             | 74                                                  |

# Product Matrix

## Embedded SBC



| Form Factor               | 3.5"                                 |                                                      | Other                                                    |
|---------------------------|--------------------------------------|------------------------------------------------------|----------------------------------------------------------|
| Model Name                | AR-B6051                             | AR-B6050                                             | AR-B6003                                                 |
| CPU                       | Intel Atom E640                      | Intel Atom N450 1.66GHz                              | Intel Atom D525 / D425                                   |
| Chipset                   | Intel EG20T                          | Intel ICH8M                                          | Intel ICH8M                                              |
| Front Side Bus            | -                                    | 667MHz                                               | -                                                        |
| Memory                    | DDR2 800MHz 1GB                      | DDR2 400/533/667MHz<br>1 x 200-Pin SO-DIMM, Max. 2GB | DDR3 800MHz<br>2 x 204-Pin SO-DIMM, Max. 4GB             |
| Graphics                  | Intel Atom E600                      | Intel Atom N450                                      | Intel Atom D525/D425                                     |
| Video Interface           | 1 x VGA                              | 1 x VGA 18-bit LVDS                                  | 1 x VGA, 1 x 18-bit LVDS                                 |
| E-IDE(44pin) / IDE(40pin) | 1 x 18/24-bit LVDS                   | - / -                                                | - / -                                                    |
| SATA                      | - / -                                | 2                                                    | 2                                                        |
| CF                        | 1                                    | 1                                                    | 1                                                        |
| Floppy                    | 1                                    | -                                                    | -                                                        |
| Expansion Slot            | -                                    | 1 x PCI-104                                          | 1 x Mini PCIe                                            |
| Ethernet                  | 1 x Mini PCIe<br>1 x CANBus, 2 x GbE | 1 x Mini PCIe<br>2 x GbE                             | 1 x PCIe x16 Physical with Proprietary signal<br>2 x GbE |
| USB                       | 4                                    | 6                                                    | 6                                                        |
| GPIO                      | 8-bit Digital I/O                    | 8-bit Digital I/O                                    | 8-bit Digital I/O                                        |
| Serial Port               | 3 x RS-232, 1 x RS-232/422/485       | 2 x RS-232                                           | 3 x RS-232, 1 x RS-232/422/485                           |
| Parallel Port             | -                                    | -                                                    | -                                                        |
| Audio                     | Realtek ALC662                       | Realtek ALC888                                       | Realtek ALC662                                           |
| WatchDog Timer            | 1 ~ 255 seconds                      | 1 ~ 255 seconds                                      | 1 ~ 255 seconds                                          |
| Hardware Monitor          | YES                                  | YES                                                  | YES                                                      |
| Page                      | 75                                   | 76                                                   | 78                                                       |

## Embedded SBC



| Form Factor               | ISA Half-Size                             |                                    |
|---------------------------|-------------------------------------------|------------------------------------|
| Model Name                | AR-B8170                                  | AR-B8172                           |
| CPU                       | Onboard DM&P Vortex86DX 800MHz            | Onboard DM&P Vortex86DX 800MHz     |
| Chipset                   | -                                         | -                                  |
| Front Side Bus            | -                                         | -                                  |
| Memory                    | 256MB DDR2 SDRAM<br>512KB SRAM            | 256MB DDR2 SDRAM                   |
| Graphics                  | XGI Z9s                                   | XGI Z9s                            |
| Video Interface           | 1 x VGA                                   | 1 x VGA                            |
| E-IDE(44pin) / IDE(40pin) | 1 x IDE(40pin) support Ultra DMA33/66/100 | 1 x IDE(44-pin)                    |
| SATA                      | -                                         | -                                  |
| CF                        | 1 x Compact Flash Type I/II socket        | 1 x Compact Flash Type I/II socket |
| Floppy                    | -                                         | -                                  |
| Expansion Slot            | 1 x PC/104                                | 1 x PC/104                         |
| Ethernet                  | 1 x 100 MB                                | 1 x 100 MB                         |
| USB                       | 4                                         | 4                                  |
| GPIO                      | 16-bit Digital I/O                        | 16-bit Digital I/O                 |
| Serial Port               | 1 x RS-232, 1 x RS-232/422/485            | 1 x RS-232, 1 x RS-232/422/485     |
| Parallel Port             | 1 x LPT                                   | 1 x LPT                            |
| Audio                     | -                                         | -                                  |
| WatchDog Timer            | 1 ~ 255 seconds                           | 1 ~ 255 seconds                    |
| Hardware Monitor          | YES                                       | YES                                |
| Page                      | 79                                        | 80                                 |

# AMB-IH61T3

Intel® H61 Chipset with Core i7/ i5/ i3 Mini-ITX Motherboard,  
2 x VGA, 2 x GbE, 10 x COM, 8 x USB, 1 x PCI-E x16, 1 x Mini PCIe



## Features

- Intel LGA1155 Socket supports Intel Pentium/ 2nd Core i3/ 3rd Generation Core i3/5/7 CPU
- With Cooler Module (W90 x L90 x H50 mm)
- Two DIMM slots support DDR3 1333/ 1066 SDRAM up to 16GB
- 2 x VGA, 2 x GbE, 10 x COM, 8 x USB2.0, 1 x PCI-E x16, 1 x Mini PCIe



## Specification

### Specification

|         |                                                                                                                                            |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------|
| CPU     | Intel LGA1155 Socket support up to 77W processors with Intel Core i7/i5/i3/Pentium/ Celeron desktop Processors, CPU TDP no higher than 77W |
| Chipset | Intel H61 Express Chipset                                                                                                                  |
| Memory  | Two 240-pin DIMM support DDR3-1333/ 1066 SDRAM, (Non-ECC up to 16GB)                                                                       |

### Video

|                    |                                                                                        |
|--------------------|----------------------------------------------------------------------------------------|
| Graphic Controller | Integrated graphics support for processors with Intel Graphics Technology              |
| Video Memory       | Shared Memory                                                                          |
| Video Interface    | <ul style="list-style-type: none"> <li>• 2 x VGA (DB15)</li> <li>• 1 x LVDS</li> </ul> |

### Storage

|      |                   |
|------|-------------------|
| SATA | 2 x SATA II ports |
|------|-------------------|

### I/O

|                |                                                                                                                                             |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| Ethernet       | 2 x Gbps RJ45 with LED, Realtek RTL8111E GbE                                                                                                |
| Expansion Slot | <ul style="list-style-type: none"> <li>• 1 x PCI-E x16 slot</li> <li>• 1 x Mini PCIe slot</li> </ul>                                        |
| Serial Port    | <ul style="list-style-type: none"> <li>• 1 x RS232 (DB9)</li> <li>• 1 x RS232/485 (Pin Header)</li> <li>• 8 x RS232 (Pin Header)</li> </ul> |
| USB            | 8 x USB 2.0 ( 4 x Rear, 4 x Pin Header)                                                                                                     |
| GPIO           | 8-bit Digital I/O                                                                                                                           |
| Paralle Port   | 1 x LPT DB25                                                                                                                                |
| PS/2           | 1 x Keyboard or Mouse                                                                                                                       |
| Audio          | Realtek ALC662 Audio Codec                                                                                                                  |

### Hardware Feature

|                     |                                                                                                      |
|---------------------|------------------------------------------------------------------------------------------------------|
| Hardware Monitoring | Monitoring temperature, voltage, and cooling fan status. Auto throttling control when CPU overheats. |
| WatchDog Timer      | Software programmable 1~255 sec./mins.                                                               |

## Power Requirement

|                   |                                                                     |
|-------------------|---------------------------------------------------------------------|
| Power Input       | 1 x 20-pin ATX Power Connector<br>1 x 4-pin ATX 12V Power Connector |
| Power Consumption | TBD                                                                 |

## Software

|            |                                                 |
|------------|-------------------------------------------------|
| OS Support | Windows XP, Window 7 (32bit), Fedora 17 (32bit) |
|------------|-------------------------------------------------|

## Mechanical & Environment

|                   |                                |
|-------------------|--------------------------------|
| Dimension         | 170mm x 170mm (6.69" x 6.69" ) |
| Weight            | TBD                            |
| Operating Temp.   | 0~50°C (32~140°F)              |
| Storage Temp.     | -20~80°C (-4~176°F)            |
| Relative Humidity | 10%~90% (non-condensing)       |
| Safety            | CE, FCC compliant              |

## Packing List

- 1 x AMB-IH61T3
- 1 x Driver CD
- 1 x Quick Guide
- 1 x IO Shield
- 2 x SATA Cable
- 1 x Cooler Module (ACC-IH61T3-H500)
- 1 x COM2 Cable
- 1 x COM3~6 Cable
- 1 x COM7~10 Cable



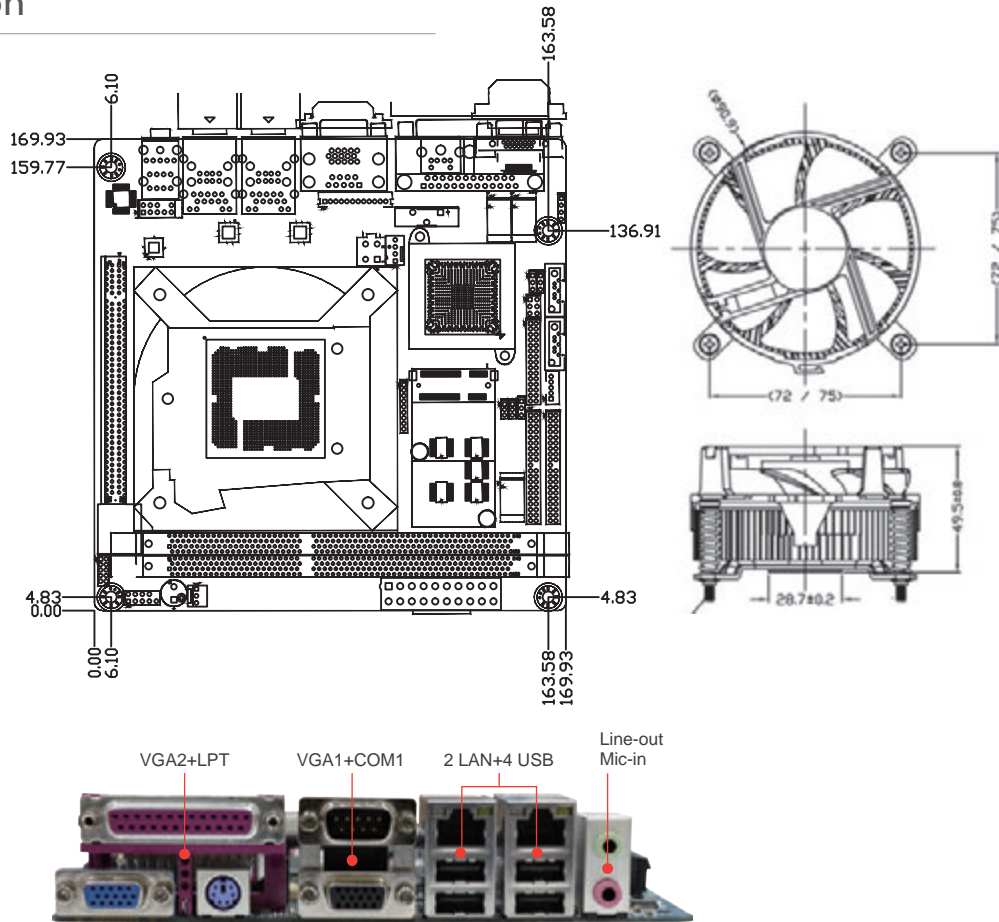
## Ordering Information

|            |                                                                                                                        |
|------------|------------------------------------------------------------------------------------------------------------------------|
| AMB-IH61T3 | Intel® H61 Mini-ITX Motherboard, 2 x VGA, 2 x GbE, 10 x COM, 8 x USB, 1 x PCI-E x16, 1 x Mini PCIe, With Cooler Module |
|------------|------------------------------------------------------------------------------------------------------------------------|

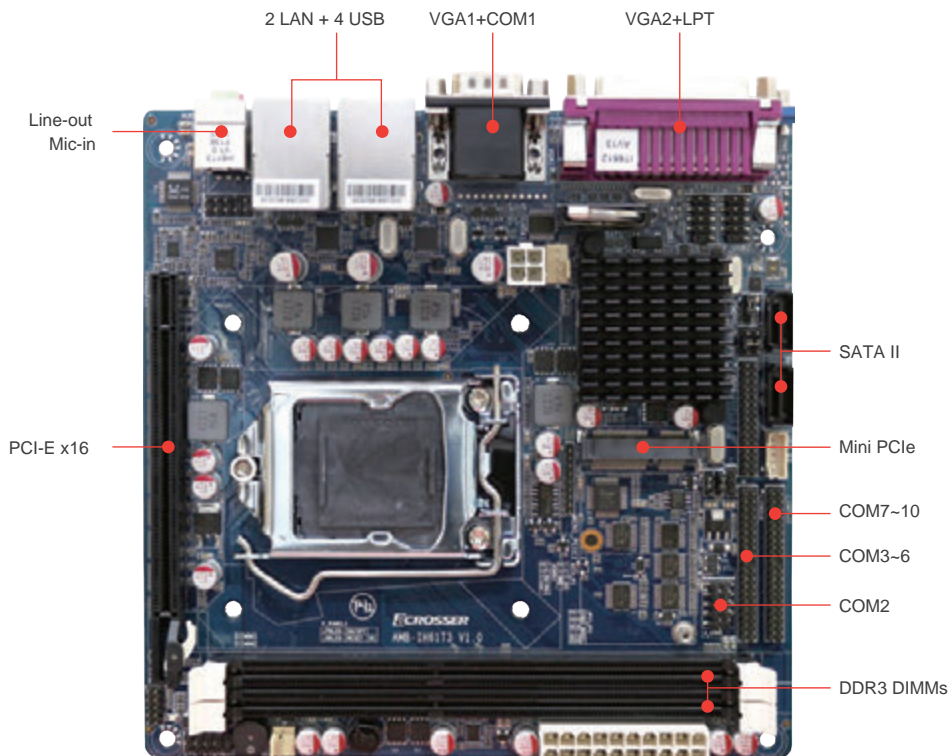
## Accessory

|                 |                                    |
|-----------------|------------------------------------|
| ACC-IH61T3-H500 | W90 x L90 x H50 mm, 3600RPM, 38dBa |
|-----------------|------------------------------------|

## Dimension



## I/O Connectors



# AMB-D255T1

Mini-ITX with Intel D2550, NM10, DDR3, GbE, SATA II, USB 2.0, COM



## Features

- Intel D2550 Processor with NM10 Chipset
- One 204-Pin DDR3 SO-DIMM Socket
- 4 x COM, 6 x USB 2.0, 1 x SATA II, 1 x Mini PCIe, 1 x GbE
- Mini PCIe Expansion, SIM Card Socket
- mSATA Support



## Specification

### Specification

|         |                                                                    |
|---------|--------------------------------------------------------------------|
| CPU     | Intel Atom D2550 Dual Core 1.86GHz                                 |
| Chipset | Intel NM10 PCH                                                     |
| Memory  | 1 x 204-pin SO-DIMM socket supports DDR3 SDRAM (Non-ECC up to 4GB) |

### Video

|                    |                                                                                                                                    |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------|
| Graphic Controller | Intergrated Intel Graphics Media Accelerator 3650                                                                                  |
| Video Memory       | Shared Memory                                                                                                                      |
| Video Interface    | <ul style="list-style-type: none"><li>• 1 x VGA (1 x DB15)</li><li>• 1 x HDMI</li><li>• 1 x 24-bit LVDS (1 x pin header)</li></ul> |

### Storage

|      |             |
|------|-------------|
| SATA | 1 x SATA II |
|------|-------------|

### I/O

|                |                                                                                                                           |
|----------------|---------------------------------------------------------------------------------------------------------------------------|
| Ethernet       | 1 x GbE RJ45 with LED, Realtek RTL8111E                                                                                   |
| Expansion Slot | 1 x Mini PCIe socket                                                                                                      |
| Serial Port    | <ul style="list-style-type: none"><li>• 3 x RS-232 (3 x pin header)</li><li>• 1 x RS-232/TTL (1 x pin header)</li></ul>   |
| USB            | 6 x USB 2.0 (4 x external, 2 x pin header)                                                                                |
| GPIO           | 8-bit Digital I/O                                                                                                         |
| Paralle Port   | 1 x LPT (1 x pin haeder)                                                                                                  |
| PS/2           | 1 x 6-pin header                                                                                                          |
| Audio          | <ul style="list-style-type: none"><li>• Realtek ALC662 Audio Codec</li><li>• Mic-in / Line-out (2 x phone jack)</li></ul> |

### Hardware Feature

|                     |                                                                                                   |
|---------------------|---------------------------------------------------------------------------------------------------|
| Hardware Monitoring | <ul style="list-style-type: none"><li>• CPU voltage and temperature</li><li>• FAN speed</li></ul> |
| WatchDog Timer      | Software programmable 1~255 sec./mins.                                                            |

## Power Requirement

|             |                                                                                                                                                  |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| Power Input | <ul style="list-style-type: none"><li>• 1 x 4-pin 2.54mm single 12V power input connector</li><li>• 1 x single 12V power input DC jack</li></ul> |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------|

## Software

|            |                                        |
|------------|----------------------------------------|
| OS Support | Windows 7 (32-bit), Fedora 14 (32-bit) |
|------------|----------------------------------------|

## Mechanical & Environment

|                 |                                |
|-----------------|--------------------------------|
| Dimension       | 170mm x 170mm (6.69" x 6.69" ) |
| Operating Temp. | 0~55°C (32~131°F)              |
| Storage Temp.   | -20~80°C (-4~176°F)            |
| Safety          | CE, FCC compliant              |

## Packing List

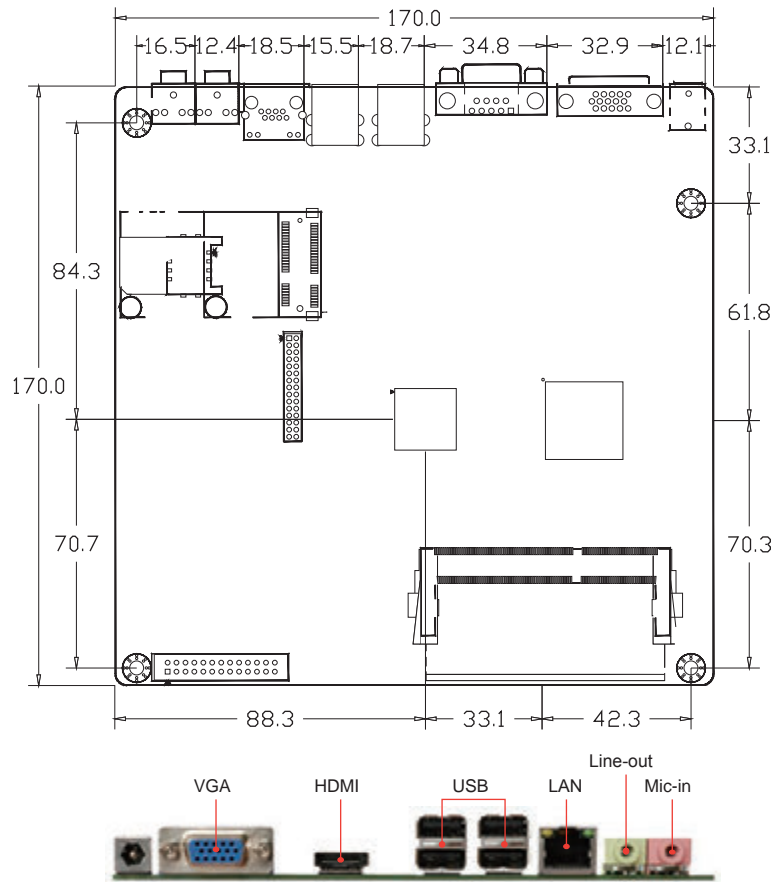
- 1 x AMB-D255T1
- 1 x Driver CD
- 1 x Quick Guide
- 1 x SATA Power Cable
- 1 x SATA Cable
- 1 x DC Power Cable
- 4 x COM Cable (DB9)

## Ordering Information

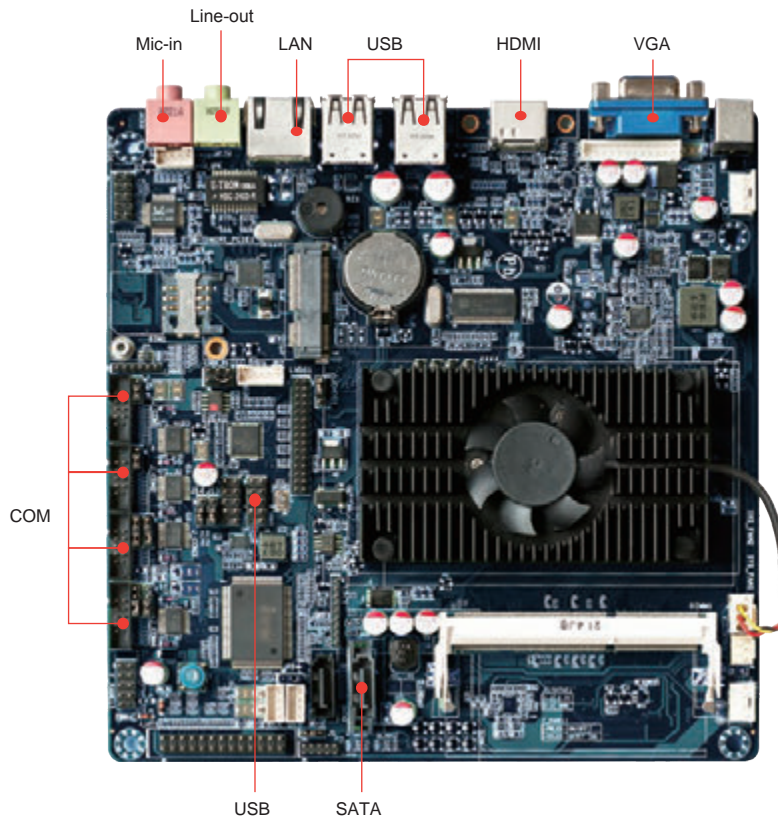
|            |                                                                   |
|------------|-------------------------------------------------------------------|
| AMB-D255T1 | Mini-ITX with Intel D2550, NM10, DDR3, GbE, SATA II, USB 2.0, COM |
|------------|-------------------------------------------------------------------|



## Dimension

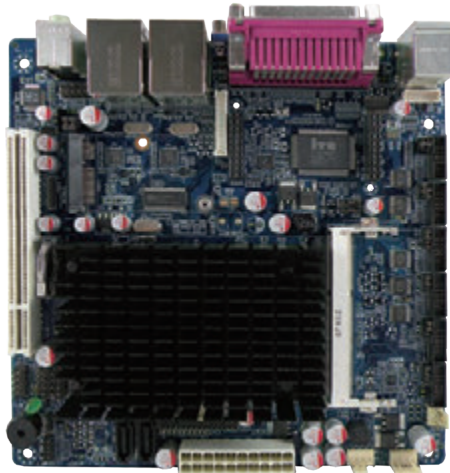


## I/O Connectors



# AMB-D255T3

Mini-ITX SBC with Intel Atom D2550, NM10, DDR3, HDMI, GbE, SATA II, USB 2.0, COM, PCI



## Features

- Intel D2550 Processor with NM10 Chipset
- One 204-Pin DDR3 SO-DIMM Socket
- 6 x COM, 6 x USB 2.0, 2 x SATA II, 2 x GbE LAN
- 1 x Mini PCIe, 1 x PCI



## Specification

### System

|         |                                                                    |
|---------|--------------------------------------------------------------------|
| CPU     | Intel Atom D2550 Dual Core 1.86GHz                                 |
| Chipset | Intel NM10 PCH                                                     |
| Memory  | 1 x 204-pin SO-DIMM socket supports DDR3 SDRAM (Non-ECC up to 4GB) |

### Video

|                    |                                                                                                                                  |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------|
| Graphic Controller | Intergrated Intel Graphics Media Accelerator 3650                                                                                |
| Video Memory       | Shared Memory                                                                                                                    |
| Video Interface    | <ul style="list-style-type: none"><li>• 1 x VGA (1 x DB15)</li><li>• 1 x HDMI</li><li>• 1 x single channel 18-bit LVDS</li></ul> |

### Storage

|      |                                           |
|------|-------------------------------------------|
| SATA | 2 x SATA II port w/o SATA power connector |
|------|-------------------------------------------|

### I/O

|                |                                                                                                                                  |
|----------------|----------------------------------------------------------------------------------------------------------------------------------|
| Ethernet       | 2 x GbE RJ45 with LED, Realtek RTL8111E                                                                                          |
| Expansion Slot | 1 x Mini PCIe socket<br>1 x PCI slot                                                                                             |
| Serial Port    | 6 x RS-232 (6 x internal header, COM6 only TX/RX)                                                                                |
| USB            | 6 x USB 2.0 (4 x external, 2 x internal header)                                                                                  |
| GPIO           | 4-bit GPI and 4-bit GPO                                                                                                          |
| Paralle Port   | 1 x LPT (1 x DB25)                                                                                                               |
| Keyboard/Mouse | 1 x PS/2 Mouse, 1 x PS/2 Keyboard                                                                                                |
| Audio          | <ul style="list-style-type: none"><li>• Realtek ALC662 Audio Codec</li><li>• 1 x Mic-in, 1 x Line-out (2 x phone jack)</li></ul> |

### Hardware Feature

|                |                                  |
|----------------|----------------------------------|
| WatchDog Timer | Software programmable 1~255 sec. |
|----------------|----------------------------------|

## Power Requirement

|             |                          |
|-------------|--------------------------|
| Power Input | 1 x ATX 20-pin connector |
|-------------|--------------------------|

## Software

|            |                                        |
|------------|----------------------------------------|
| OS Support | Windows 7 (32-bit), Fedora 14 (32-bit) |
|------------|----------------------------------------|

## Mechanical & Environment

|                 |                                |
|-----------------|--------------------------------|
| Dimension       | 170mm x 170mm (6.69" x 6.69" ) |
| Operating Temp. | 0~55°C (32~131°F)              |
| Storage Temp.   | -20~80°C (-4~176°F)            |
| Safety          | CE, FCC compliant              |

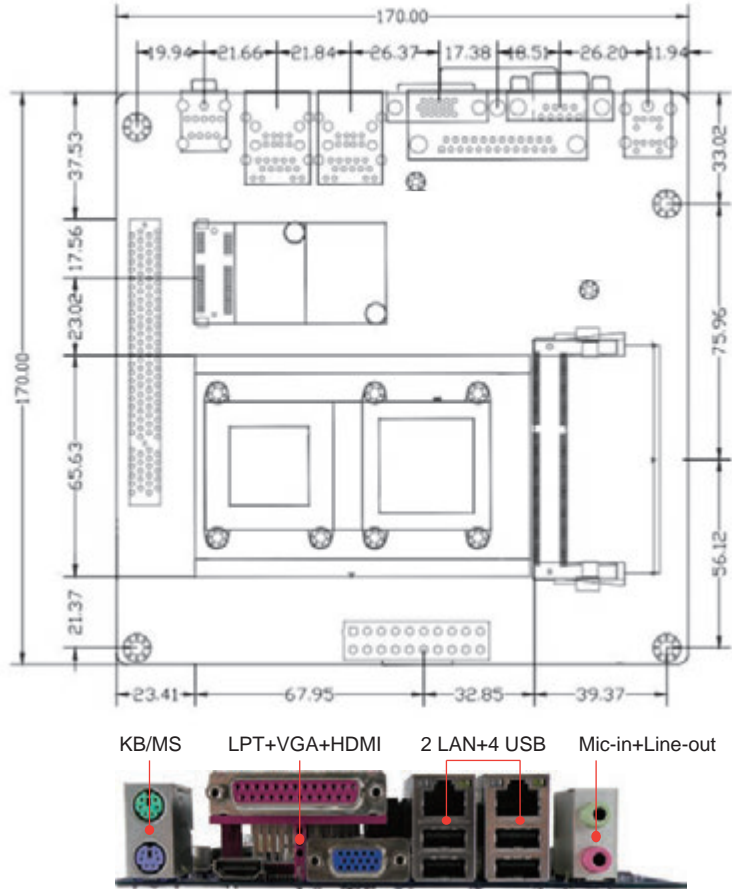
## Packing List

- 1 x AMB-D255T3
- 1 x Driver CD
- 1 x Quick Guide
- 6 x COM Cable (DB9)
- 1 x SATA Cable
- 1 x IO Shield

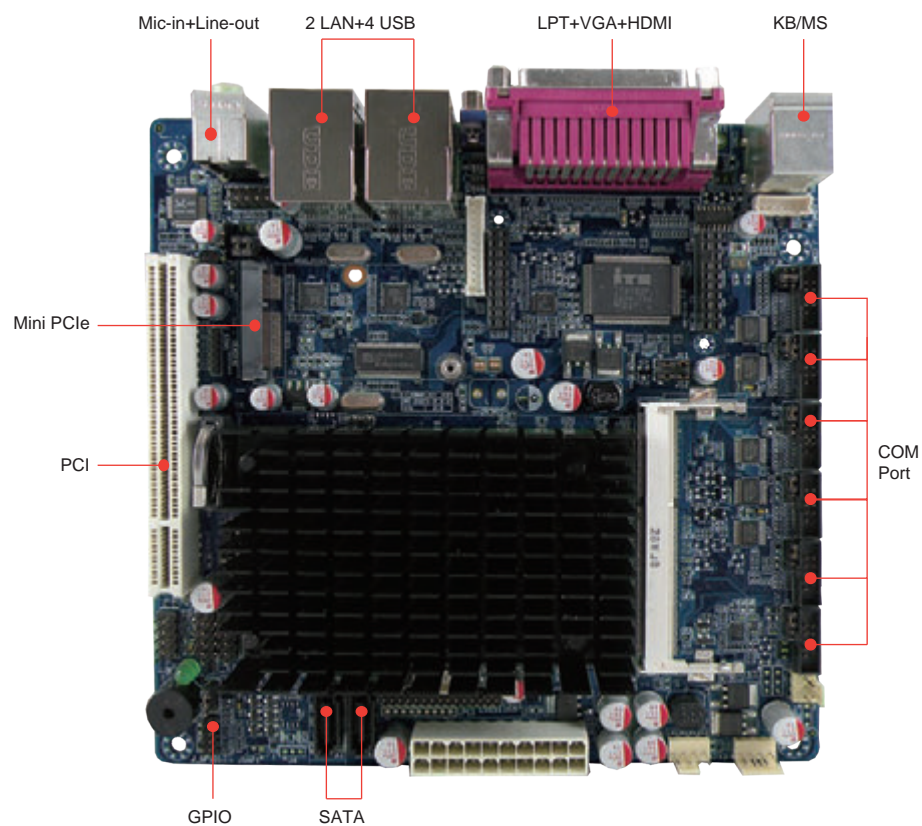
## Ordering Information

|            |                                                                       |
|------------|-----------------------------------------------------------------------|
| AMB-D255T3 | Mini-ITX SBC with Intel D2550, NM10, DDR3, GbE, SATA II, USB 2.0, COM |
|------------|-----------------------------------------------------------------------|

## Dimension

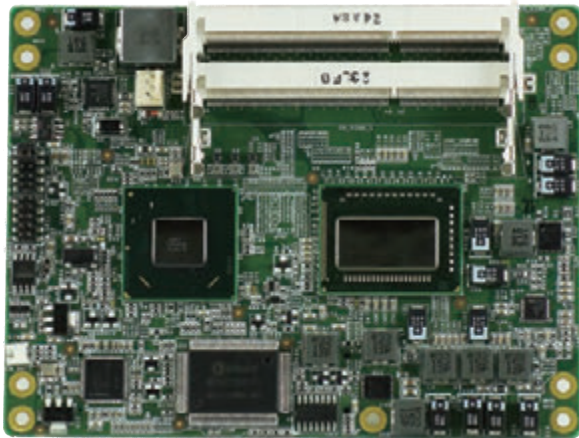


## I/O Connectors



# ACM-B6360

COM Express Intel QM77 Basic Type 6 Module



## Features

- Newest platform and highest performance COM Express Basic Type 6
- The 3rd generation Intel Core platform + Intel QM77 Chipset
- Intel Core i7-3615QE processor
- Two 204-pin SO ECC-DIMM sockets support DDR3 SDRAM, up to 16GB



## Specification

### System

|                |                                                                        |
|----------------|------------------------------------------------------------------------|
| CPU            | Intel Core i7-3615QE<br>(Quad Core, 2.3GHz, 6MB L2 cache, TDP 45W)     |
| Chipset        | Intel 7 Series Mobile Express Chipset, QM77 Chipset                    |
| Memory         | Two 204-pin SO-DIMM support DDR3 1600/1333 SDRAM, with ECC, up to 16GB |
| BIOS           | AMI                                                                    |
| WatchDog Timer | Software programmable 1~255 sec.                                       |

### Video (Support by Carrier Board)

|                    |                                                                                                                                                                                                                                                  |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Graphic Controller | Intel GMA integrated in Processor                                                                                                                                                                                                                |
| Video Interface    | <ul style="list-style-type: none"><li>• 1 x Analogic RGB Display Output, supports max resolution 2048 x1536@75Hz</li><li>• 1 x Dual Channel LVDS Output</li><li>• 2 x DisplayPort 1.1 Output</li><li>• 1 x SDVO/DisplayPort 1.1 Output</li></ul> |

### Storage (Support by Carrier Board)

|      |                                                                                                            |
|------|------------------------------------------------------------------------------------------------------------|
| SATA | <ul style="list-style-type: none"><li>• 2 x SATA III with 6Gb/s</li><li>• 2 x SATA II with 3Gb/s</li></ul> |
|------|------------------------------------------------------------------------------------------------------------|

### I/O (Support by Carrier Board)

|                     |                                                                                              |
|---------------------|----------------------------------------------------------------------------------------------|
| Ethernet Chip       | Intel 82574L GbE LAN supports iAMT 8.0 and PXE Boot                                          |
| Expansion Interface | <ul style="list-style-type: none"><li>• 1 x PCI-E x16 Gen.3</li><li>• 6 x PCI-E x1</li></ul> |
| Serial Interface    | 2 x COM port Interface (TX/RX only)                                                          |
| USB                 | 4 x USB 3.0, 8 x USB 2.0                                                                     |
| GPIO                | 8-bit Digital I/O, 4-bit DI and 4-bit DO                                                     |
| Audio Codec         | Intel HD Audio Channel                                                                       |

### Power Requirement

|                   |                                                                                                                              |
|-------------------|------------------------------------------------------------------------------------------------------------------------------|
| Power Input       | <ul style="list-style-type: none"><li>• 1 x 24-pin ATX Power Connector</li><li>• 1 x 4-pin ATX 12V Power Connector</li></ul> |
| Power Consumption | TBD                                                                                                                          |

### Software

|            |                                                                                                                                                                                  |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| OS Support | <ul style="list-style-type: none"><li>• Windows XP Professional 32 bit</li><li>• Windows 7 32 / 64-bit</li><li>• Fedora 14 32 / 64-bit</li><li>• Ubuntu 10 32 / 64-bit</li></ul> |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## Mechanical & Environment

|                   |                                                  |
|-------------------|--------------------------------------------------|
| Dimension         | 125 mm x 95 mm (4.92" x 3.74") COM Express Basic |
| Weight            | TBD                                              |
| Operating Temp.   | 0~60°C (32~140°F)                                |
| Storage Temp.     | -20~80°C (-4~176°F)                              |
| Relative Humidity | 0 to 90%, non-condensing                         |
| Safety            | CE, FCC compliant                                |

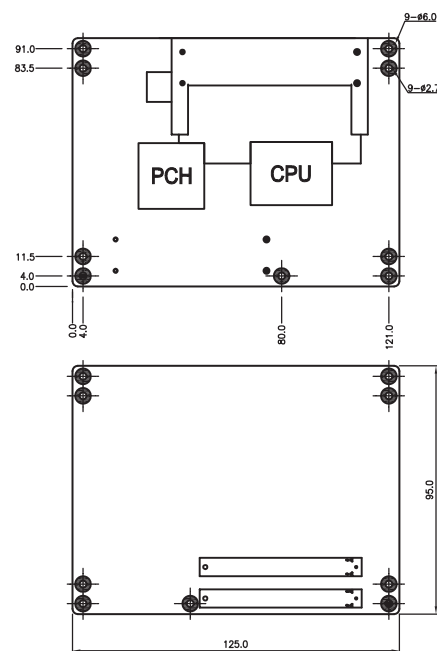
## Packing List

- 1 x ACM-B6360
- 1 x CD Title
- 1 x Quick Guide
- 5 x Screw For Carrier Board

## Ordering Information

|                 |                                                                |
|-----------------|----------------------------------------------------------------|
| ACM-B6360i73615 | Intel QM77 with Core i7-3615QE COM Express Basic Type 6 Module |
| ACM-B4080       | ATX Carrier Board COM Express Module                           |

## Dimension



# AMB-HM76B1FL

COM Express Intel HM76 Basic Type 6 Module



## Features

- Fanless COM Express Basic Type 6 Module
- The 3rd generation Intel Core platform + Intel HM76 Chipset
- Support Intel Core i7, i3, Celeron CPU
- Two 204-pin SO-DIMM sockets support DDR3 SDRAM, up to 16GB



## Specification

### System

|                |                                                                        |
|----------------|------------------------------------------------------------------------|
| CPU            | • Intel Core i7 3517UE<br>(Dual Core, 1.7GHz, 4MB cache, TDP 17W)      |
|                | • Intel Core i3 3217UE<br>(Dual Core, 1.6GHz, 3MB cache, TDP 17W)      |
|                | • Intel Core Celeron 1047UE<br>(Dual Core, 1.4GHz, 2MB cache, TDP 17W) |
|                |                                                                        |
| Chipset        | Intel HM76                                                             |
| Memory         | 2 x 204pin SO-DIMM DDR3, Max: 16GB                                     |
| BIOS           | AMI 32Mbit SPI BIOS                                                    |
| WatchDog Timer | Software programmable 0~255 seconds                                    |

### Video (Support by Carrier Board)

|                    |                                                                                    |
|--------------------|------------------------------------------------------------------------------------|
| Graphic Controller | Intel HD / HD 4000                                                                 |
| Video Interface    | • 1 x Analog RGB Display Output Resolution up to 2048x1536 pixels with 32-bit@75Hz |
|                    | • 1 x HDMI Port Output Resolution up to 1920x1200@60Hz                             |
|                    | • 1 x Dual Channel LVDS Output                                                     |
|                    | • 3 x DisplayPort Output                                                           |
|                    | • 1 x SDVO/DisplayPort Output                                                      |

### Storage (Support by Carrier Board)

|      |                                                       |
|------|-------------------------------------------------------|
| SATA | • 2 x SATA III with 6Gb/s<br>• 2 x SATA II with 3Gb/s |
|------|-------------------------------------------------------|

### I/O (Support by Carrier Board)

|                     |                                                     |
|---------------------|-----------------------------------------------------|
| Ethernet Chip       | Intel 82574L GbE LAN supports iAMT 8.0 and PXE Boot |
| Expansion Interface | • 1 x PCI-E x16 Gen.3<br>• 6 x PCI-E x1             |
| Serial Interface    | 2 x COM port Interface (TX/RX only)                 |
| USB                 | 4 x USB 3.0, 8 x USB 2.0                            |
| GPIO                | 8-bit Digital I/O, 4-bit DI and 4-bit DO            |
| Audio Codec         | Intel HD Audio Channel                              |

### Power Requirement

|                   |                                                                         |
|-------------------|-------------------------------------------------------------------------|
| Power Input       | • 1 x 24-pin ATX Power Connector<br>• 1 x 4-pin ATX 12V Power Connector |
| Power Consumption | TBD                                                                     |

### Software

|            |                                                                                                          |
|------------|----------------------------------------------------------------------------------------------------------|
| OS Support | • Windows 7 32 / 64-bit<br>• Linux 3.3 (Fedora 17) 32 / 64-bit<br>• Linux 3.5 (Ubuntu 12.10) 32 / 64-bit |
|------------|----------------------------------------------------------------------------------------------------------|

## Mechanical & Environment

|                   |                                                      |
|-------------------|------------------------------------------------------|
| Dimension         | 125 mm x 95 mm (4.92" x 3.74"),<br>COM Express Basic |
| Operating Temp.   | 0~60°C (32~140°F)                                    |
| Storage Temp.     | -20~80°C (-4~176°F)                                  |
| Relative Humidity | 0 to 90%, non-condensing                             |
| Safety            | CE, FCC class A                                      |

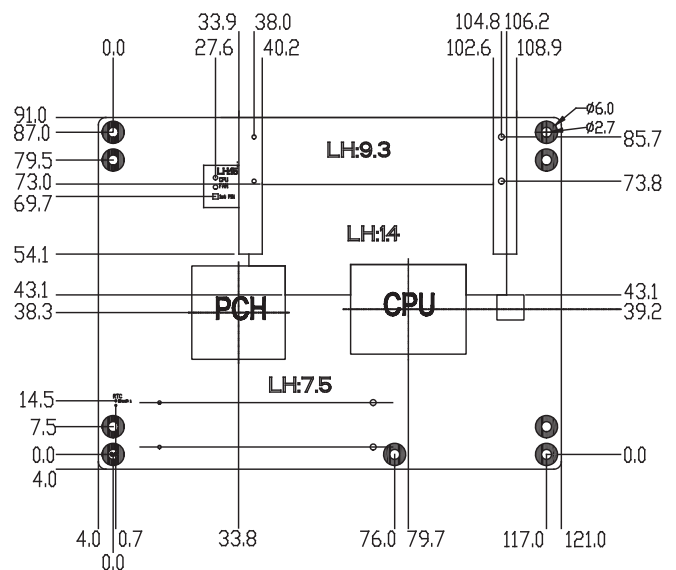
### Packing List

- 1 x AMB-HM76B1FLi71/i31/CE1
- 1 x CD Title
- 1 x Quick Guide
- 5 x Screw For Carrier Board

### Ordering Information

|                 |                                                                     |
|-----------------|---------------------------------------------------------------------|
| AMB-HM76B1FLi71 | Intel HM76 with Core i7-3517UE COM Express Basic Type 6 Module      |
| AMB-HM76B1FLi31 | Intel HM76 with Core i3-3217UE COM Express Basic Type 6 Module      |
| AMB-HM76B1FLCE1 | Intel HM76 with Core Celeron 1047UE COM Express Basic Type 6 Module |

## Dimension



# AMB-HM76B1

COM Express Intel HM76 Basic Type 6 Module



## Features

- COM Express Basic Type 6 Module
- The 3rd generation Intel Core platform + Intel HM76 Chipset
- Intel Core i7/i3/Celeron CPU
- Two 204-pin SO-DIMM sockets support DDR3 SDRAM, up to 16GB



## Specification

### System

|                |                                                                                                                                                                                                                                                                       |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CPU            | <ul style="list-style-type: none"> <li>• Intel Core i7 3517UE (Dual Core, 1.7GHz, 4MB cache, TDP 17W)</li> <li>• Intel Core i3 3217UE (Dual Core, 1.6GHz, 3MB cache, TDP 17W)</li> <li>• Intel Core Celeron 1047UE (Dual Core, 1.4GHz, 2MB cache, TDP 17W)</li> </ul> |
| Chipset        | Intel HM76                                                                                                                                                                                                                                                            |
| Memory         | 2 x 204pin SO-DIMM DDR3, Max: 16GB                                                                                                                                                                                                                                    |
| BIOS           | AMI 32Mbit SPI BIOS                                                                                                                                                                                                                                                   |
| WatchDog Timer | Software programmable 0~255 seconds                                                                                                                                                                                                                                   |

### Video (Support by Carrier Board)

|                    |                                                                                                                                                                                                                                                                                                                       |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Graphic Controller | Intel HD / HD 4000                                                                                                                                                                                                                                                                                                    |
| Video Interface    | <ul style="list-style-type: none"> <li>• 1 x Analog RGB Display Output Resolution up to 2048x1536 pixels with 32-bit@75Hz</li> <li>• 1 x HDMI Port Output Resolution up to 1920x1200@60Hz</li> <li>• 1 x Dual Channel LVDS Output</li> <li>• 3 x DisplayPort Output</li> <li>• 1 x SDVO/DisplayPort Output</li> </ul> |

### Storage (Support by Carrier Board)

|      |                                                                                                               |
|------|---------------------------------------------------------------------------------------------------------------|
| SATA | <ul style="list-style-type: none"> <li>• 2 x SATA III with 6Gb/s</li> <li>• 2 x SATA II with 3Gb/s</li> </ul> |
|------|---------------------------------------------------------------------------------------------------------------|

### I/O (Support by Carrier Board)

|                     |                                                                                                 |
|---------------------|-------------------------------------------------------------------------------------------------|
| Ethernet Chip       | Intel 82574L GbE LAN supports iAMT 8.0 and PXE Boot                                             |
| Expansion Interface | <ul style="list-style-type: none"> <li>• 1 x PCI-E x16 Gen.3</li> <li>• 6 x PCI-E x1</li> </ul> |
| Serial Interface    | 2 x COM port Interface (TX/RX only)                                                             |
| USB                 | 4 x USB 3.0, 8 x USB 2.0                                                                        |
| GPIO                | 8-bit Digital I/O, 4-bit DI and 4-bit DO                                                        |
| Audio Codec         | Intel HD Audio Channel                                                                          |

### Power Requirement

|                   |                                                                                                                                 |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Power Input       | <ul style="list-style-type: none"> <li>• 1 x 24-pin ATX Power Connector</li> <li>• 1 x 4-pin ATX 12V Power Connector</li> </ul> |
| Power Consumption | TBD                                                                                                                             |

### Software

|            |                                                                                                                                                                        |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| OS Support | <ul style="list-style-type: none"> <li>• Windows 7 32 / 64-bit</li> <li>• Linux 3.3 (Fedora 17) 32 / 64-bit</li> <li>• Linux 3.5 (Ubuntu 12.10) 32 / 64-bit</li> </ul> |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## Mechanical & Environment

|                   |                                                                 |
|-------------------|-----------------------------------------------------------------|
| Dimension         | 125 mm x 95 mm (4.92" x 3.74"), COM Express Type 6 Module Board |
| Operating Temp.   | 0~60°C (32~140°F)                                               |
| Storage Temp.     | -20~80°C (-4~176°F)                                             |
| Relative Humidity | 0 to 90%, non-condensing                                        |
| Safety            | CE, FCC class A                                                 |

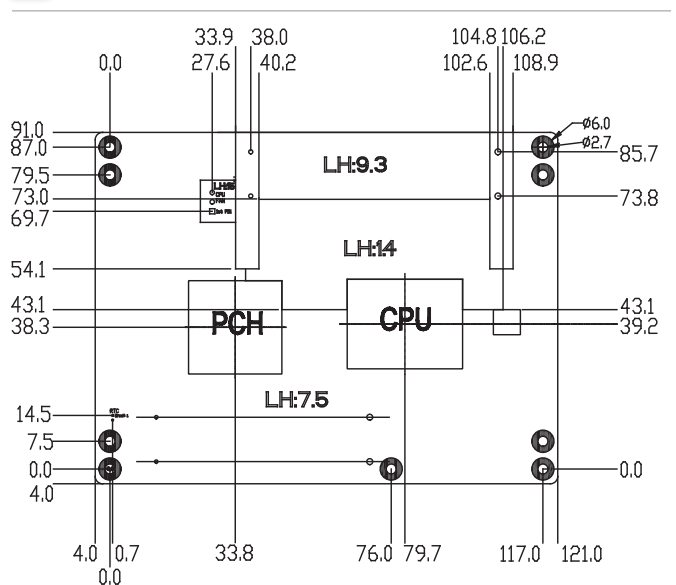
## Packing List

- 1 x Quick Guide
- 1 x AMB-HM76B1 Module Board Set
- 1 x CD Title
- 5 x Screws For Carrier Board (only for system package)

## Ordering Information

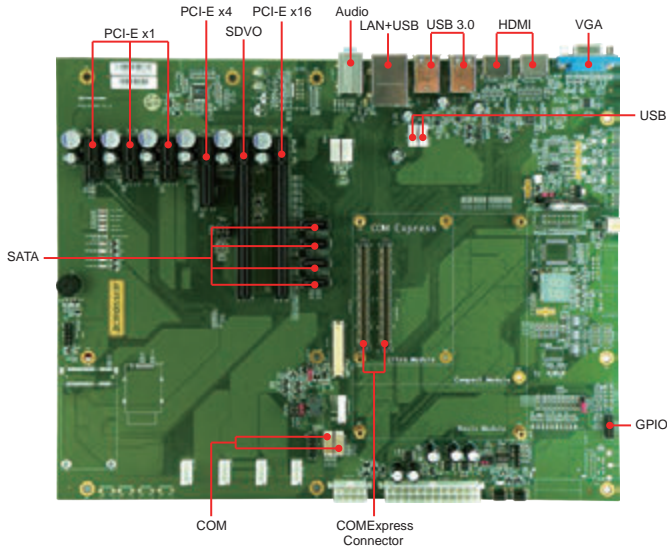
|               |                                                                     |
|---------------|---------------------------------------------------------------------|
| AMB-HM76B1i71 | Intel HM76 with Core i7-3517UE COM Express Basic Type 6 Module      |
| AMB-HM76B1i31 | Intel HM76 with Core i3-3217UE COM Express Basic Type 6 Module      |
| AMB-HM76B1CE1 | Intel HM76 with Core Celeron 1047UE COM Express Basic Type 6 Module |

## Dimension



# ACM-B4080

ATX Carrier Board COM Express Basic Type 6 Module



## Features

- Compatible with Acrosser COM Express Type 6 Module
- 1 x VGA, 2 x HDMI, 4 x SATA, 8 x USB
- 1 x PCI-E x16 slot, 1 x PCI-E x4 slot, 3 x PCI-E x1 slots
- ATX form factor to meet most standard mounting space



## Specification

### System

|                    |                                                                                      |
|--------------------|--------------------------------------------------------------------------------------|
| COM Express Module | Acrosser COM Express Type 6 Modules<br>Supports Basic, Compact and COM-Ultra Modules |
|--------------------|--------------------------------------------------------------------------------------|

### Video

|                 |                                                                                                                                                                                        |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Video Interface | <ul style="list-style-type: none"> <li>• 1 x VGA (DB15)</li> <li>• 1 x Dual Channel LVDS Connector</li> <li>• 2 x HDMI connectors</li> <li>• 1 x SDVO/HDMI/DVI/Display Port</li> </ul> |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### Storage

|      |                                                                                                               |
|------|---------------------------------------------------------------------------------------------------------------|
| SATA | <ul style="list-style-type: none"> <li>• 2 x SATA III with 6Gb/s</li> <li>• 2 x SATA II with 3Gb/s</li> </ul> |
|------|---------------------------------------------------------------------------------------------------------------|

### I/O

|                     |                                                                                                                                                          |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ethernet            | 1 x RJ45 from Module                                                                                                                                     |
| Expansion Interface | <ul style="list-style-type: none"> <li>• 1 x PCI-E x16 slot</li> <li>• 1 x PCI-E x4 slot</li> <li>• 3 x PCI-E x1</li> </ul>                              |
| Serial Interface    | 2 x COM port Interface (TX/RX only)                                                                                                                      |
| USB                 | <ul style="list-style-type: none"> <li>• 4 x USB 3.0 (Rear),</li> <li>• 4 x USB 2.0 (2 x Rear, 2 x Pin Header)</li> </ul>                                |
| GPIO                | 8-bit Digital I/O, 4-bit DI and 4-bit DO                                                                                                                 |
| Audio               | Realtek ALC662 High Definition Audio Codec<br>MIC-in/Line-in/Line-out                                                                                    |
| Others              | <ul style="list-style-type: none"> <li>• 1 x SPI Header, 1 x I2C Header, 1 x SMBus Header</li> <li>• Port 80 Display via LPC, 2 x Fan Headers</li> </ul> |

### Power Requirement

|                   |                                                                                                                                 |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Power Input       | <ul style="list-style-type: none"> <li>• 1 x 24-pin ATX Power Connector</li> <li>• 1 x 8-pin ATX 12V Power Connector</li> </ul> |
| Power Consumption | TBD                                                                                                                             |

### Mechanical & Environment

|                   |                                               |
|-------------------|-----------------------------------------------|
| Dimension         | 305 mm x 244 mm (12" x 9.6"), ATX Form-Factor |
| Weight            | TBD                                           |
| Operating Temp.   | 0~60°C (32~140°F)                             |
| Storage Temp.     | -20~80°C (-4~176°F)                           |
| Relative Humidity | 0 to 90% , non-condensing                     |
| Safety            | CE, FCC compliant                             |

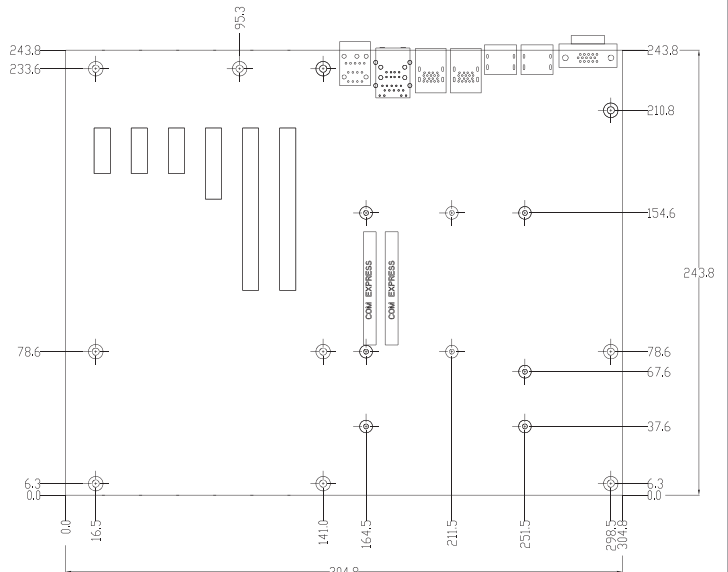
## Packing List

- 1 x ACM-B4080
- 1 x User Manual
- 1 x Quick Guide
- 1 x USB Cable
- 2 x COM port cables (RX/TX only)
- 1 x SATA Cable

## Ordering Information

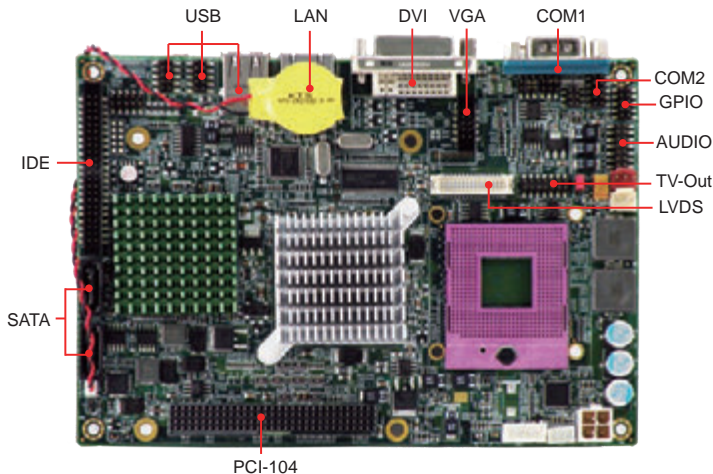
|           |                                                        |
|-----------|--------------------------------------------------------|
| ACM-B4080 | ATX Form-factor Carrier Board<br>for COM Express Basic |
|-----------|--------------------------------------------------------|

## Dimension



# AR-B5631

EPIC Intel uFC-PGA 478 SBC Supporting



## Features

- Medical Solution
- Support Intel Core 2 Duo/Core Duo/Celeron M
- VGA/DVI/LVDS/TV-Out
- 1 x GbE, 2 x COM, 6 x USB 2.0, SATA, CF
- PCI-104 Expansion
- CE / FCC class B
- EN60601



EN60601

## Specification

### System

|                     |                                                                                                      |
|---------------------|------------------------------------------------------------------------------------------------------|
| CPU                 | Socket P support Intel Core 2 Duo / Core Duo / Celeron M                                             |
| Chipset             | Intel GME965 + ICH8M                                                                                 |
| Front Side Bus      | 533/800MHz                                                                                           |
| Memory              | 1 x 200-pin SO-DIMM socket support DDR2-533/667 SDRAM up to 2GB                                      |
| BIOS                | Phoenix                                                                                              |
| Hardware Monitoring | <ul style="list-style-type: none"> <li>• CPU voltage and temperature</li> <li>• Fan speed</li> </ul> |
| WatchDog Timer      | Software programmable 1~255 sec. (+/- 5%)                                                            |

### Video

|                    |                                                                                                                                                                                                                                                                |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Graphic Controller | Intel GME965 integrated GMA X3100 graphic controller                                                                                                                                                                                                           |
| Video Memory       | Maximum 384MB shared                                                                                                                                                                                                                                           |
| Video Interface    | <ul style="list-style-type: none"> <li>• 1 x VGA (Pin header)</li> <li>• 1 x DVI-D</li> <li>• 1 x Dual Channel 24-bit LVDS (Pin header)</li> <li>• 1 x TV-Out (Pin header)</li> <li>• 1 x S-Video (Pin header)</li> <li>• 1 x Component Video cable</li> </ul> |

### Storage

|      |                                  |
|------|----------------------------------|
| IDE  | 1 x E-IDE (44-pin)               |
| SATA | 2 x SATA II port                 |
| CF   | 1 x Compact Flash Type I/II slot |

### I/O

|                |                                                          |
|----------------|----------------------------------------------------------|
| Ethernet       | 1 x GbE RJ45 with LED, Intel 82574L                      |
| Expansion Slot | 1 x PCI-104 slot                                         |
| Serial Port    | 1 x RS-232, 1 x RS-232/422/485 (1 x DB9, 1 x pin header) |
| USB            | 6 x USB 2.0 (2 x external port, 4 x pin header)          |
| GPIO           | 8-bit Digital I/O                                        |
| Audio          | Realtek ALC662 Audio Codec                               |

### Power Requirement

|                   |                                  |
|-------------------|----------------------------------|
| Power Input       | 12V (+/-5%) single voltage input |
| Power Consumption | 54.0W, 4.5A@12V                  |

### Software

|            |                                                       |
|------------|-------------------------------------------------------|
| OS Support | Windows XP/XP Embedded/CE 5.0 & 6.0, Linux Fedora 8.0 |
|------------|-------------------------------------------------------|

## Mechanical & Environment

|                   |                                |
|-------------------|--------------------------------|
| Dimension         | 165mm x 115mm (6.50" x 4.53")  |
| Operating Temp.   | 0~60°C (32~140°F)              |
| Storage Temp.     | -20~80°C (-4~176°F)            |
| Relative Humidity | 0 to 90% @ 40°C non-condensing |
| Safety            | CE, FCC compliant, EN60601     |

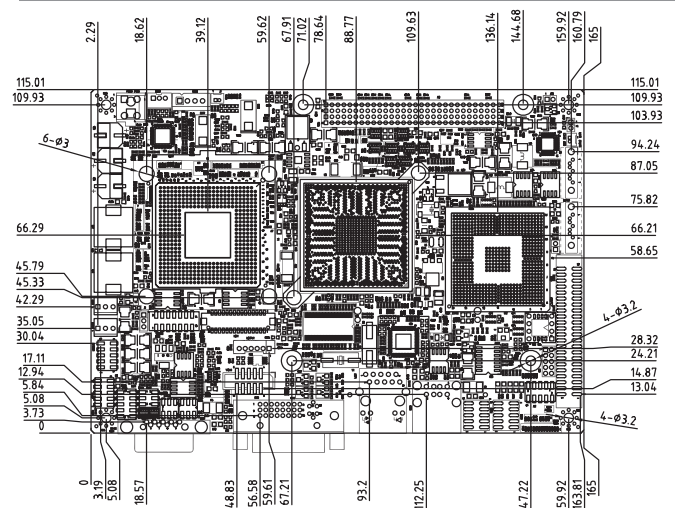
## Packing List

- 1 x AR-B5631
- 1 x Driver CD
- 1 x User manual
- 1 x Cooler

## Ordering Information

|           |                                                                                                                                                                                                                                                                                                                            |
|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AR-B5631  | 1 x AR-B5631                                                                                                                                                                                                                                                                                                               |
| Accessory | ACC-5631:<br><ul style="list-style-type: none"> <li>• 1 x Power cable (ATX to AT)</li> <li>• 1 x USB cable</li> <li>• 1 x COM cable (10-pin)</li> <li>• 2 x SATA cable</li> <li>• 1 x VGA cable</li> <li>• 1 x TV-Out BNC output cable</li> <li>• 1 x S-Video output cable</li> <li>• 1 x Component Video cable</li> </ul> |

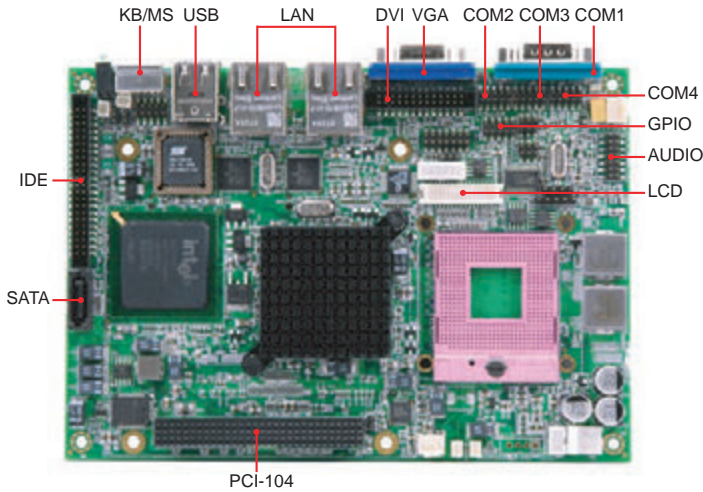
## Dimension





# AR-B5630

EPIC Intel uFC-PGA 478 SBC



## Features

- Socket P support Intel Core 2 Duo / Celeron M
- Support DDR2-400/533/667 SDRAM
- VGA/DVI/LVDS/TV-Out
- 2 x GbE LAN
- PCI-104 Expansion
- COM, USB 2.0, GPIO, SATA, IDE, CF II, Audio



## Specification

### System

|                     |                                                                                                                                           |
|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| CPU                 | Socket P support Intel Core 2 Duo/Celeron M                                                                                               |
| Chipset             | Intel GME965 + Intel ICH8M                                                                                                                |
| Front Side Bus      | 533/800MHz                                                                                                                                |
| Memory              | 1 x 200-pin SO-DIMM socket support DDR2-400/533/667 SDRAM up to 2GB                                                                       |
| BIOS                | Phoenix                                                                                                                                   |
| Hardware Monitoring | <ul style="list-style-type: none"> <li>• CPU voltage</li> <li>• CPU and system temperature</li> <li>• CPU and system fan speed</li> </ul> |
| WatchDog Timer      | Software programmable 1~255 sec.                                                                                                          |

### Video

|                    |                                                                                                                                                                                                 |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Graphic Controller | Intel GME965 integrated GMA X3100 graphic controller                                                                                                                                            |
| Video Memory       | Maximum 384MB shared                                                                                                                                                                            |
| Video Interface    | <ul style="list-style-type: none"> <li>• 1 x VGA port (DB15)</li> <li>• 1 x DVI (Pin header)</li> <li>• 1 x Dual Channel 24-bit LVDS (Pin header)</li> <li>• 1 x TV-Out (Pin header)</li> </ul> |

### Storage

|      |                                    |
|------|------------------------------------|
| IDE  | 1 x E-IDE (44-pin)                 |
| SATA | 2 x SATA II port                   |
| CF   | 1 x Compact Flash Type I/II socket |

### I/O

|                |                                                          |
|----------------|----------------------------------------------------------|
| Ethernet       | 2 x GbE RJ45 with LED, Broadcom BCM5787                  |
| Expansion Slot | 1 x PCI-104 slot                                         |
| Serial Port    | 3 x RS-232, 1 x RS-232/422/485 (1 x DB9, 3 x pin header) |
| USB            | 4 x USB 2.0 (2 x external port, 2 x pin header)          |
| GPIO           | 8-bit Digital I/O                                        |
| PS/2           | 1 x PS/2                                                 |
| Audio          | Realtek ALC655                                           |

### Power Requirement

|             |                                  |
|-------------|----------------------------------|
| Power Input | 12V (+/-5%) single voltage input |
|-------------|----------------------------------|

### Software

|            |                                        |
|------------|----------------------------------------|
| OS Support | Windows Vista/XP/XP Embedded/CE, Linux |
|------------|----------------------------------------|

## Mechanical & Environment

|                   |                                        |
|-------------------|----------------------------------------|
| Dimension         | 165mm x 115mm (6.50" x 4.53")          |
| Weight            | Net: 226g (0.5Lb), Gross: 785g (1.7Lb) |
| Operating Temp.   | 0~60°C (32~140°F)                      |
| Storage Temp.     | -20~80°C (-4~176°F)                    |
| Relative Humidity | 0 to 90% @ 40°C non-condensing         |
| Safety            | CE, FCC compliant                      |

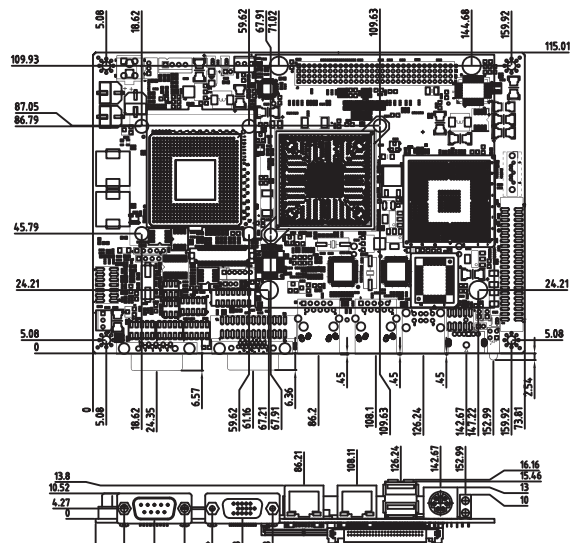
## Packing List

- 1 x AR-B5630
- 1 x Quick user guide
- 1 x Driver and utility CD
- 1 x Cooler

## Ordering Information

|           |                                                                                                                                                                                                                                                                                                                                                                                |
|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AR-B5631  | 1 x AR-B5630                                                                                                                                                                                                                                                                                                                                                                   |
| Accessory | <p>ACC-5630:</p> <ul style="list-style-type: none"> <li>• 1 x Power cable (ATX)</li> <li>• 1 x IDE cable (44-pin)</li> <li>• 2 x COM port (DB9)</li> <li>• 1 x TV-Out cable (S-Video)</li> <li>• 1 x PS/2 keyboard and mouse cable</li> <li>• 1 x Audio cable (Line-in/Line-out/Mic-in)</li> <li>• 1 x SATA cable</li> <li>• 1 x USB cable</li> <li>• 1 x DVI cable</li> </ul> |

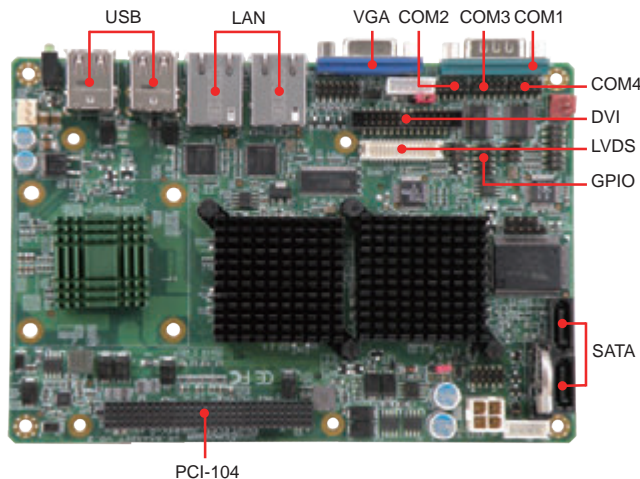
## Dimension



Specifications are subject to change without notice.

# AR-B5432

EPIC Intel Atom N270 SBC



## Features

- Intel Atom N270 1.6GHz
- Memory Support DDR2-400/533 up to 2GB
- VGA/DVI/LVDS/TV-Out
- 6 x USB 2.0, ALC655 AC97 Rev. 2.3,
- 4 x COM, CF Socket, PCI-104



## Specification

### System

|                     |                                                                                                                                           |
|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| CPU                 | Intel Atom N270 1.6GHz                                                                                                                    |
| Chipset             | Intel 945GSE + Intel ICH7M                                                                                                                |
| Front Side Bus      | 533MHz                                                                                                                                    |
| Memory              | 1 x 200-pin SO-DIMM socket support DDR2-400/533 SDRAM up to 2GB                                                                           |
| BIOS                | Award                                                                                                                                     |
| Hardware Monitoring | <ul style="list-style-type: none"> <li>• CPU voltage</li> <li>• CPU and system temperature</li> <li>• CPU and system fan speed</li> </ul> |
| WatchDog Timer      | Software programmable 1~255 sec.                                                                                                          |

### Video

|                    |                                                                                                                                                                                                 |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Graphic Controller | Intel 945GSE integrated GMA 950 graphic controller                                                                                                                                              |
| Video Memory       | DVMT 3.0, Maximum 224MB shared                                                                                                                                                                  |
| Video Interface    | <ul style="list-style-type: none"> <li>• 1 x VGA port (DB15)</li> <li>• 1 x DVI (Pin header)</li> <li>• 1 x Dual Channel 18-bit LVDS (Pin header)</li> <li>• 1 x TV-Out (Pin header)</li> </ul> |

### Storage

|      |                                                  |
|------|--------------------------------------------------|
| SATA | 2 x SATA II port                                 |
| CF   | 1 x Compact Flash Type I/II slot support UDMA 33 |

### I/O

|                |                                                          |
|----------------|----------------------------------------------------------|
| Ethernet       | 2 x GbE RJ45 with LED, Intel 82574L                      |
| Expansion Slot | 1 x PCI-104 slot                                         |
| Serial Port    | 3 x RS-232, 1 x RS-232/422/485 (1 x DB9, 3 x pin header) |
| USB            | 6 x USB 2.0 (4 x external port, 2 x pin header)          |
| GPIO           | 8-bit Digital I/O                                        |
| Audio          | Realtek ALC655                                           |

### Power Requirement

|                   |                                  |
|-------------------|----------------------------------|
| Power Input       | 12V (+/-5%) single voltage input |
| Power Consumption | 26.4W, 2.2A@12V                  |

### Software

|            |                                                         |
|------------|---------------------------------------------------------|
| OS Support | Windows XP/ XP Embedded/ CE 5.0 & 6.0, Linux Fedora 8.0 |
|------------|---------------------------------------------------------|

## Mechanical & Environment

|                   |                                 |
|-------------------|---------------------------------|
| Dimension         | 165mm x 115mm (6.50" x 4.53")   |
| Operating Temp.   | 0~60°C (32~140°F)               |
| Storage Temp.     | -20~80°C (-4~176°F)             |
| Relative Humidity | 0 to 90% @ 40°C, non-condensing |
| Safety            | CE, FCC compliant               |

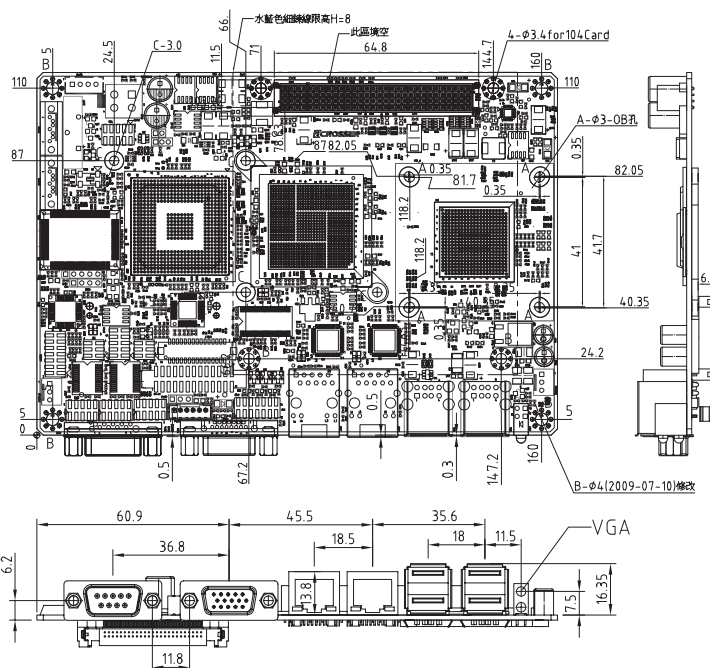
## Packing List

- 1 x AR-B5432
- 1 x Driver CD
- 1x User manual

## Ordering Information

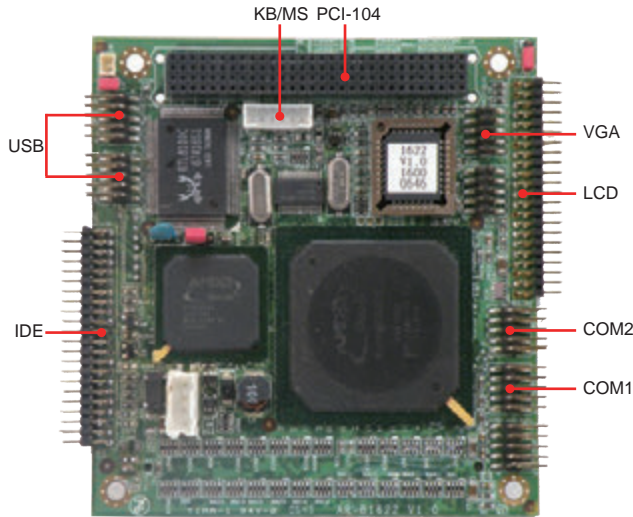
|           |                                                                                                                                                                             |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AR-B1631  | 1 x AR-B5432                                                                                                                                                                |
| ACC-5432: | <ul style="list-style-type: none"> <li>• 1 x Power cable (AT)</li> <li>• 1 x Audio cable</li> <li>• 2 x COM cable (10-pin)</li> <li>• 1 x TV-Out cable (S-Video)</li> </ul> |
| Accessory | <ul style="list-style-type: none"> <li>• 1 x SATA power cable</li> <li>• 1 x USB cable</li> <li>• 2 x SATA cable</li> <li>• 1 x DVI cable</li> </ul>                        |

## Dimension



# AR-B1622

PCI-104 AMD LX 800 SBC



## Features

- AMD LX 800 + CS5536
- Fanless Design
- Memory support DDR-400 SDRAM up to 1GB
- VGA/TTL
- 2 x COM, 4 x USB 2.0



## Specification

### System

|                |                                                               |
|----------------|---------------------------------------------------------------|
| CPU            | AMD LX 800                                                    |
| Chipset        | AMD LX 800 + CS5536                                           |
| Front Size Bus | 500MHz                                                        |
| Memory         | 1 x 200-pin SO-DIMM socket support<br>DDR-400 SDRAM up to 1GB |
| BIOS           | Phoenix                                                       |
| WatchDog Timer | Software programmable 1~63 sec.                               |

### Video

|                  |                                                                                                                                                                                                           |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Video Controller | AMD Geode LX integrated video controller                                                                                                                                                                  |
| Video Interface  | <ul style="list-style-type: none"> <li>• 1 x VGA (Pin header)</li> <li>• 1 x 24-bit TTL interface for TFT LCD panel, "LCD inverter power connector and ON/OFF control support 3.3V and 5V LCD"</li> </ul> |

### Storage

|     |                                |
|-----|--------------------------------|
| IDE | 1 x IDE (44-pin) support ATA66 |
|-----|--------------------------------|

### I/O

|                |                                |
|----------------|--------------------------------|
| Ethernet       | 1 x 100MB pin header, RTL8100C |
| Expansion Slot | 1 x PCI-104                    |
| Serial Port    | 2 x RS-232 (2 x pin header)    |
| USB Port       | 4 x USB 2.0 (4 x pin header)   |
| GPIO           | 8-bit Digital I/O              |
| PS/2           | 1 x PS/2 (Pin header)          |

### Power Requirement

|             |                            |
|-------------|----------------------------|
| Power Input | +5V 2A and +12V 1A maximum |
|-------------|----------------------------|

### Software

|            |                                       |
|------------|---------------------------------------|
| OS Support | Windows XP/XP Embedded/2000/CE, Linux |
|------------|---------------------------------------|

### Mechanical & Environment

|                   |                                      |
|-------------------|--------------------------------------|
| Dimension         | 96mm x 90mm (3.78" x 3.54")          |
| Weight            | Net: 84g (0.2Lb), Gross: 84g (1.1Lb) |
| Operating Temp.   | 0~60°C (32~140°F)                    |
| Storage Temp.     | -20~80°C (-4~176°F)                  |
| Relative Humidity | 5 to 90% @ 40°C, non-condensing      |
| Safety            | CE, FCC compliant                    |

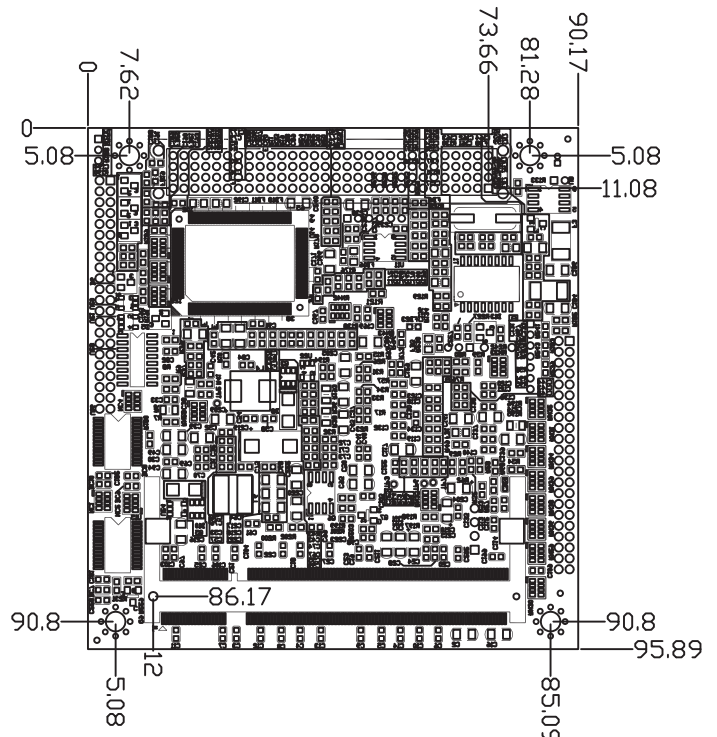
### Packing List

- 1 x AR-B1622
- 1 x Driver CD
- 1 x User manual
- 1 x LAN cable + RJ45 connector
- 1 x Power cable (AT)
- 1 x HDD cable
- 1 x COM cable (DB9)
- 1 x USB cable
- 1 x PS/2 keyboard and mouse cable
- 1 x VGA cable (DB15)

### Ordering Information

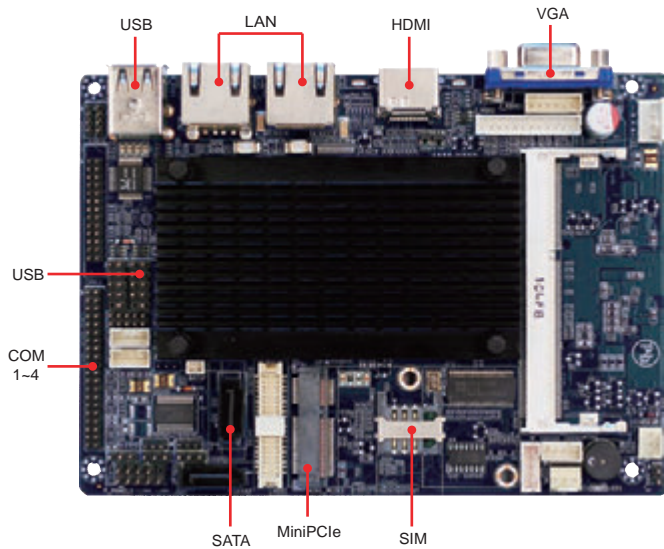
|          |              |
|----------|--------------|
| AR-B1622 | 1 x AR-B1622 |
|----------|--------------|

### Dimension



# AMB-N280S1

3.5" Intel N2800 SBC



## Features

- Intel N2800 Processor with NM10 Chipset
- One 204-Pin DDR3 SO-DIMM Socket
- 6 x COM, 4 x USB 2.0, 1 x SATA II, 2 x Mini PCIe, 2 x GbE
- mSATA Support



## Specification

### System

|                     |                                                                   |
|---------------------|-------------------------------------------------------------------|
| CPU                 | Intel Atom N2800 Dual Core 1.86GHz                                |
| Chipset             | Intel NM10 PCH                                                    |
| Memory              | 1 x 204-pin SO-DIMM socket supports DDR3 SDRAM up to 4GB, non-ECC |
| BIOS                | AMI                                                               |
| Hardware Monitoring | CPU voltage and temperature.                                      |
| WatchDog Timer      | Software programmable 1~255 sec.                                  |

### Video

|                    |                                                                                                                                        |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Graphic Controller | Intergrated Intel Graphics Media Accelerator 3650                                                                                      |
| Video Interface    | <ul style="list-style-type: none"> <li>• 1 x VGA (1 x DB15)</li> <li>• 1 x HDMI</li> <li>• 1 x 18-bit LVDS (1 x pin header)</li> </ul> |

### Storage

|       |                                   |
|-------|-----------------------------------|
| SATA  | 1 x SATA II port                  |
| mSATA | 1 x mSATA port (Mini PCIe socket) |

### I/O

|                |                                                                                                                              |
|----------------|------------------------------------------------------------------------------------------------------------------------------|
| Ethernet       | 2 x GbE RJ45 with LED, RTL8111E                                                                                              |
| Expansion Slot | 2 x Mini PCIe socket                                                                                                         |
| Serial Port    | 4 x RS-232(1 x 40-pin header)<br>1 x RS-232(1 x 3-pin header, only TX/RX)<br>1 x RS-232/485(1 x 3-pin header, only TX/RX)    |
| USB            | 4 x USB 2.0 (4 x pin header)                                                                                                 |
| GPIO           | 8-bit Digital I/O                                                                                                            |
| Parallel Port  | 1 x LPT (1 x pin header)                                                                                                     |
| Keyboard/Mouse | 1 x JST 6-pin header                                                                                                         |
| Audio          | <ul style="list-style-type: none"> <li>• Realtek ALC662 Audio Codec</li> <li>• MIC-in / Line-out (1 x pin header)</li> </ul> |

### Power Requirement

|             |                                                   |
|-------------|---------------------------------------------------|
| Power Input | 1 x 4-pin 2.54mm single 12V power input connector |
|-------------|---------------------------------------------------|

### Software

|            |                                    |
|------------|------------------------------------|
| OS Support | Windows 7 32-bit, Fedora 14 32-bit |
|------------|------------------------------------|

## Mechanical & Environment

|                 |                           |
|-----------------|---------------------------|
| Dimension       | 146mm x 102mm (5.7" x 4") |
| Operating Temp. | 0~55°C (32~131°F)         |
| Storage Temp.   | -20~80°C (-4~176°F)       |
| Safety          | CE, FCC compliant         |

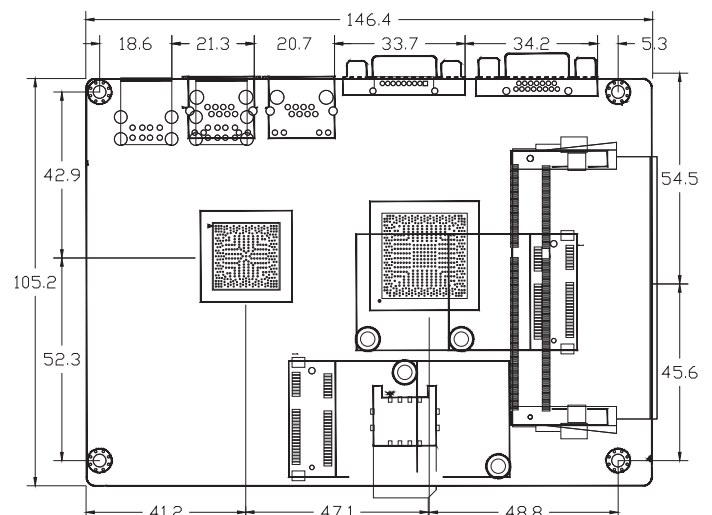
## Packing List

- 1 x AMB-N280S1
- 1 x Driver CD
- 1 x Quick Guide
- 1 x SATA Power Cable
- 1 x SATA Cable
- 1 x DC Power Cable
- 1 x 4 in 1 COM Cable (4 x DB9)

## Ordering Information

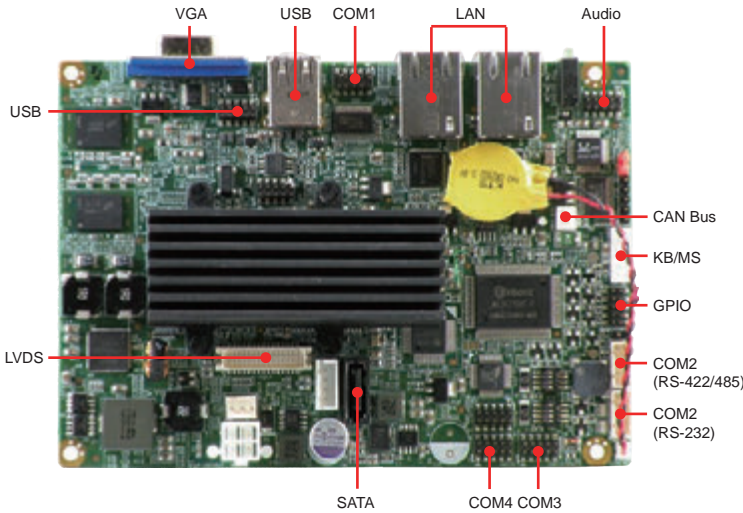
|            |                                                                   |
|------------|-------------------------------------------------------------------|
| AMB-N280S1 | 3.5" SBC with Intel N2800, NM10, DDR3, GbE, SATA II, USB 2.0, COM |
|------------|-------------------------------------------------------------------|

## Dimension



# AR-B6051

3.5" Intel Atom E640 1GHz SBC



## Features

- Intel Atom E640 1GHz
- Onboard DDR2 1GB
- VGA/LVDS
- 2 x GbE, 4 x COM, 4 x USB 2.0, SATA, CF, CAN bus
- Mini PCIe Expansion



## Specification

### System

|                     |                                                                                                      |
|---------------------|------------------------------------------------------------------------------------------------------|
| CPU                 | Intel Atom E640 1GHz                                                                                 |
| Chipset             | Intel EG20T                                                                                          |
| Memory              | Onboard DDR2-800 1GB                                                                                 |
| BIOS                | Phoenix                                                                                              |
| Hardware Monitoring | <ul style="list-style-type: none"> <li>• CPU voltage and temperature</li> <li>• Fan speed</li> </ul> |
| WatchDog Timer      | Software programmable 1~255 sec. (+/- 5%)                                                            |

### Video

|                    |                                                                                                               |
|--------------------|---------------------------------------------------------------------------------------------------------------|
| Graphic Controller | Intel Atom E600 series intergrated graphic engine                                                             |
| Videe Memory       | Maximum 64MB shared                                                                                           |
| Video Interface    | <ul style="list-style-type: none"> <li>• 1 x VGA (DB15)</li> <li>• 1 x 18/24-bit LVDS (Pin header)</li> </ul> |

### Storage

|      |                                  |
|------|----------------------------------|
| IDE  | N/A                              |
| SATA | 1 x SATA II port                 |
| CF   | 1 x Compact Flash Type I/II slot |

### I/O

|                |                                                                                                                           |
|----------------|---------------------------------------------------------------------------------------------------------------------------|
| Ethernet       | 2 x GbE RJ45 with LED, Intel 82574L                                                                                       |
| Expansion Slot | <ul style="list-style-type: none"> <li>• 1 x Mini PCIe slot</li> <li>• 1 x CAN Bus</li> </ul>                             |
| Serial Port    | <ul style="list-style-type: none"> <li>• 3 x RS-232 (3 x pin header)</li> <li>• 1 x RS-232/422/485 (JST, COM2)</li> </ul> |
| USB            | 4 x USB 2.0 (2 x external port, 2 x pin header)                                                                           |
| GPIO           | 8-bit Digital I/O                                                                                                         |
| PS/2           | 1 x KB/MS (Pin Header)                                                                                                    |
| Audio          | Realtek ALC662 Audio Codec                                                                                                |

### Power Requirement

|                   |                                  |
|-------------------|----------------------------------|
| Power Input       | 12V (+/-5%) single voltage input |
| Power Consumption | 19.38W, 1.62A @ 12V              |

### Software

|            |                                                                    |
|------------|--------------------------------------------------------------------|
| OS Support | Windows XP 32-bit, Fedora 14 32 / 64-bit, Ubuntu 10.04 32 / 64-bit |
|------------|--------------------------------------------------------------------|

## Mechanical & Environment

|                 |                           |
|-----------------|---------------------------|
| Dimension       | 146mm x 102mm (5.7" x 4") |
| Operating Temp. | 0~50°C (32~122°F)         |
| Storage Temp.   | -20~80°C (-4~176°F)       |
| Safety          | CE, FCC compliant         |

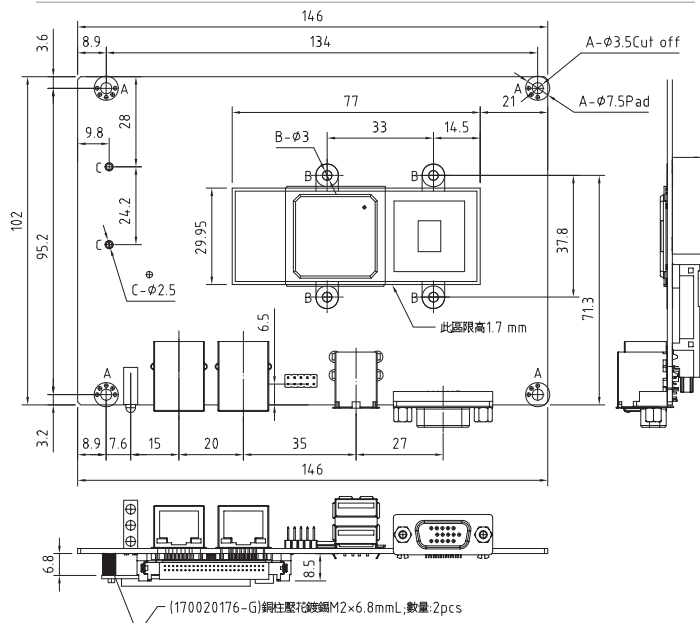
## Packing List

- 1 x AR-B6051E64
- 1 x Driver CD
- 1 x Quick Manual
- 1 x Audio cable

## Ordering Information

|                      |                                                                                                                                                                                                                                                                                                |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AR-B6051E64          | 3.5" SBC supports Intel Atom E640 1GHz, onboard DDR2, GbE, USB 2.0, VGA, LVDS, COM, SATA, CF, Mini PCIe                                                                                                                                                                                        |
| ACC-6051:            | <ul style="list-style-type: none"> <li>• 1 x SATA + SATA Power cable</li> <li>• 3 x COM cable (for COM1, COM3 &amp; COM4)</li> <li>• 1 x COM cable (JST, for COM2 RS-232)</li> <li>• 1 x COM cable (JST, for COM2 RS-422/485)</li> <li>• 1 x USB cable</li> <li>• 1 x KB/MS Y cable</li> </ul> |
| Accessory (Optional) |                                                                                                                                                                                                                                                                                                |

## Dimension

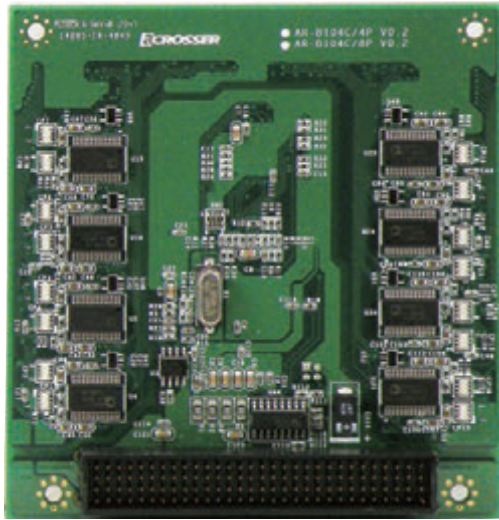


Specifications are subject to change without notice.

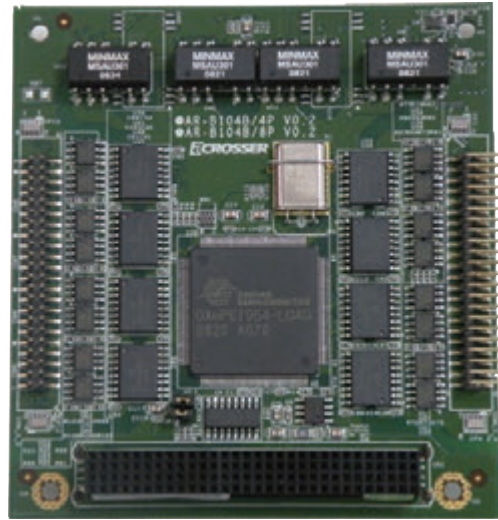


# AR-B104B/AR-B104C

PCI-104 Module with 4 / 8, Isolation Senal Ports



AR-B104C/8P  
AR-B104C/4P



AR-B104B/8P  
AR-B104B/4P

## Specification

(Non-Isolation)

### General

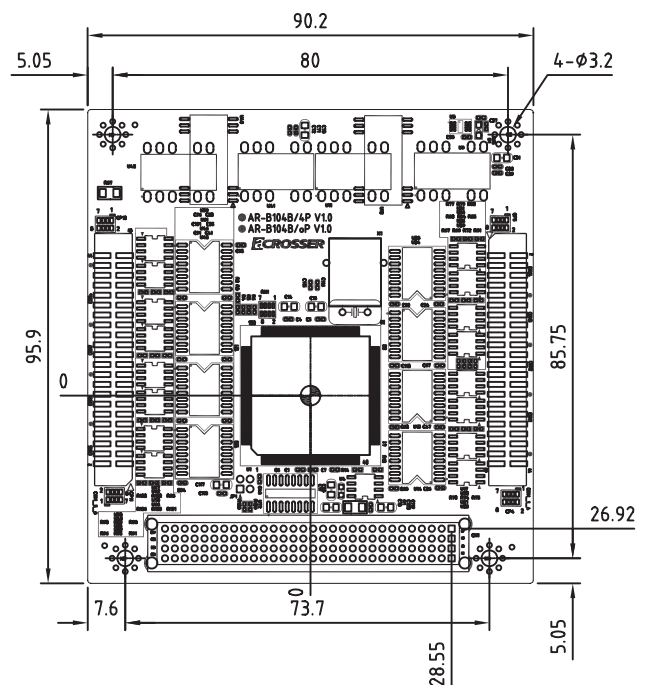
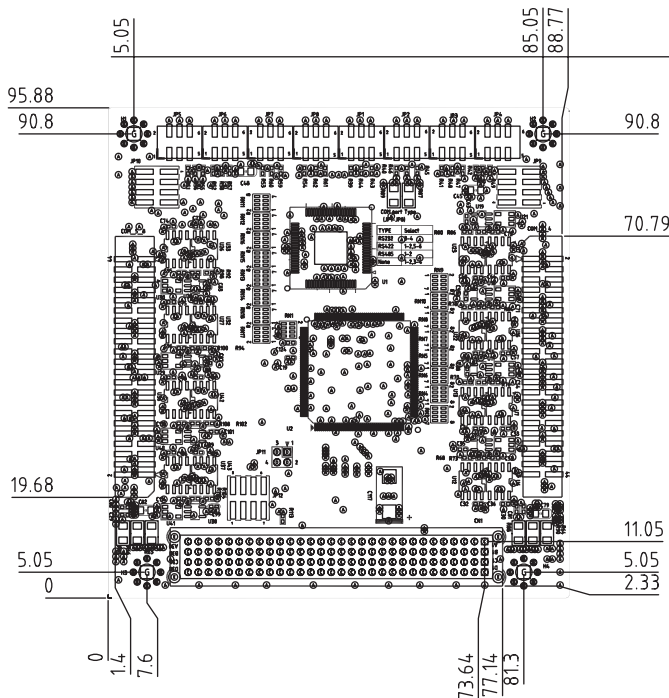
|                     |                                         |
|---------------------|-----------------------------------------|
| Description         | PCI-104 with 4/8 COM                    |
| Interface           | PCI-104                                 |
| RS-232/422/485      | Without isolation                       |
| OS                  | Windows 2000/XP, Linux FC6              |
| Dimension           | 95.9mm x 90.2mm                         |
| Operating Temp.     | 0~60°C (32~140°F)                       |
| Storage Temp.       | -20~80°C (-4~176°F)                     |
| Function Selectable | RS-232/485/422 selectable by jumper/API |

(Non-Isolation)

### General

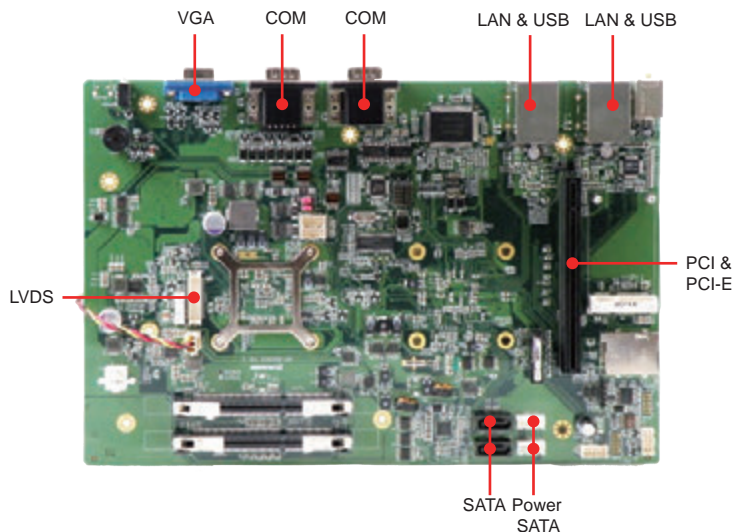
|                     |                                         |
|---------------------|-----------------------------------------|
| Description         | PCI-104 with 4/8 COM                    |
| Interface           | PCI-104                                 |
| RS-232/422/485      | Isolation 1KV and ESD 12KV protect      |
| OS                  | Windows 2000/XP, Linux FC6              |
| Dimension           | 95.9mm x 90.2mm                         |
| Operating Temp.     | 0~60°C (32~140°F)                       |
| Storage Temp.       | -20~80°C (-4~176°F)                     |
| Function Selectable | RS-232/485/422 selectable by jumper/API |

## Dimension



# AR-B6003

Intel Atom D525/D425 SBC



## Features

- Support Intel Atom D525 (Dual Core) and D425 (Single Core)
- 2 x DDR3 SO-DIMM, up to 4GB
- Dedicated / selectable PCI & PCI-E x 1 Expansion Slot
- Mini PCIe Expansion Slot
- Use JST connectors and switch to avoid cables drop
- Support Win XP, 7, Fedora 14 and Ubuntu 10



## Specification

### System

|                     |                                                           |
|---------------------|-----------------------------------------------------------|
| CPU                 | Intel Atom Dual Cores D525 and Single Core D425           |
| Chipset             | Intel ICH8M                                               |
| Memory              | 2 x 204-pin SO-DIMM socket support 800MHz DDR3, up to 4GB |
| BIOS                | Phoenix                                                   |
| Hardware Monitoring | CPU voltage and temperature                               |
| WatchDog Timer      | Software programmable 1~255 sec.                          |

### Video

|                  |                                                     |
|------------------|-----------------------------------------------------|
| Video Controller | Intel Atom D525/D425 integrated                     |
| Video Memory     | DVMT 4.0                                            |
| Video Interface  | 1 x VGA port (DB15)<br>1 x 18-bit LVDS (Pin Header) |

### Storage

|      |                                                  |
|------|--------------------------------------------------|
| SATA | 2 x SATA II port with SATA II power connector    |
| CF   | 1 x Compact Flash Type I/II slot support UDMA 33 |

### I/O

|                |                                                               |
|----------------|---------------------------------------------------------------|
| Ethernet       | 2 x GbE RJ45 with LED, Realtek RTL8111DL                      |
| AR-RS20        | Riser Card (2 x PCI-E x 1 expansion slots)                    |
| AR-RS21        | Riser Card (1 x PCI + 1 x PCI-E x 1 expansion slots)          |
| Mini PCIe      | 1 x Mini PCIe                                                 |
| Serial Port    | 3 x RS232 (DB9)<br>1 x RS232/422/485 (DB9, switch selectable) |
| USB            | 6 x USB 2.0 (4 x external port, 2 x JST pin header)           |
| Digital Input  | 4 x TTL input                                                 |
| Digital Output | 4 x 500mA digital output                                      |
| Audio          | Realtek Audio Codec                                           |

### Power Requirement

|             |                                                          |
|-------------|----------------------------------------------------------|
| Power Input | 12V (+/-5%) single voltage input, 3 poles terminal block |
|-------------|----------------------------------------------------------|

### Software

|            |                                             |
|------------|---------------------------------------------|
| OS Support | Windows XP, Windows 7, Fedora 14, Ubuntu 10 |
|------------|---------------------------------------------|

### Mechanical & Environment

|                   |                                 |
|-------------------|---------------------------------|
| Dimension         | 262mm x 175mm (10.31" x 6.89")  |
| Operating Temp.   | 0~60°C (32~140°F)               |
| Storage Temp.     | -20~80°C (-4~176°F)             |
| Relative Humidity | 0 to 90% @ 40°C, non-condensing |
| Safety            | CE, FCC compliant               |

## Packing List

- 1 x AR-B6003
- 1 x CPU Heatsink and Fan
- 1 x User manual & Driver CD

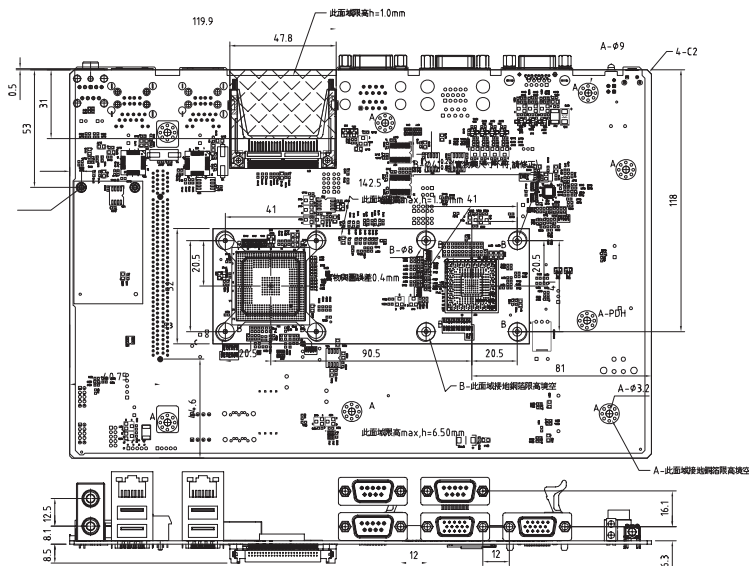
## Optional (Purchase Separately)

|             |                                                      |
|-------------|------------------------------------------------------|
| WiFi Module | Mini PCIe card with RF cable and antenna             |
| LVDS        | LVDS cable                                           |
| AR-RS20     | Riser Card (2 x PCI-E x 1 expansion slots)           |
| AR-RS21     | Riser Card (1 x PCI + 1 x PCI-E x 1 expansion slots) |

## Ordering Information

|              |                                                            |
|--------------|------------------------------------------------------------|
| AR-B6003D525 | 1 x AR-B6003D525                                           |
| AR-B6003D425 | 1 x AR-B6003D425                                           |
| ACC-6003     |                                                            |
| Accessory    | • 1 x USB cable • 1 x SATA cable<br>• 1 x SATA power cable |

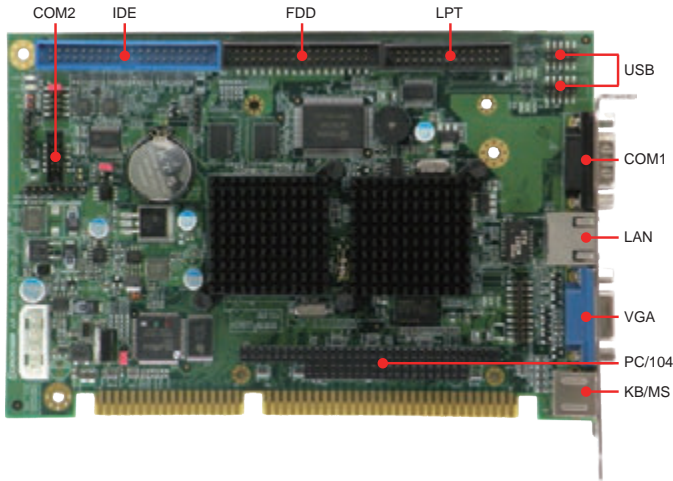
## Dimension





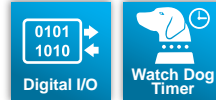
# AR-B8170

Fanless ISA Bus DM&P Vortex86DX 800MHz SBC



## Features

- Fanless Design
- Onboard DM&P Vortex86DX 800MHz
- Onboard 256MB DDR2 SDRAM 512KB SRAM
- PC/104 Interface
- 2 x COM, 4 x USB 2.0, VGA, 1 x 10/100 MB



## Specification

### System

|                |                                  |
|----------------|----------------------------------|
| CPU            | Onboard DM&P Vortex86DX 800MHz   |
| Memory         | Onboard 256MB DDR2 SDRAM         |
| BIOS           | AMI                              |
| WatchDog Timer | Software programmable 1~255 sec. |

### Video

|                    |                |
|--------------------|----------------|
| Graphic Controller | XGI Z9s        |
| Video Memory       | 64MB           |
| Video Interface    | 1 x VGA (DB15) |

### Storage

|     |                                             |
|-----|---------------------------------------------|
| IDE | 1 x IDE (40-pin) support Ultra DMA33/66/100 |
| FDD | 1 x Floppy disk drive 3.5"                  |

### I/O

|                |                                                                                                                 |
|----------------|-----------------------------------------------------------------------------------------------------------------|
| Ethernet       | 1 x 100MB RJ45 with LED, DM&P Vortex86DX                                                                        |
| Expansion Slot | 1 x PC/104                                                                                                      |
| Serial Port    | <ul style="list-style-type: none"> <li>• 1 x RS-232 (DB9)</li> <li>• 1 x RS-232/422/485 (Pin header)</li> </ul> |
| USB            | 4 x USB 2.0 (4 x pin header)                                                                                    |
| GPIO           | 16-bit Digital I/O                                                                                              |
| Parallel Port  | 1 x LPT (1 x pin header)                                                                                        |
| Keyboard/Mouse | • 1 x PS/2                                                                                                      |

### Power Requirement

|             |                                                                                                                                                                                                 |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power Input | <ul style="list-style-type: none"> <li>• AT : 12V single voltage input (default set as AT mode)</li> <li>• ATX : power switch pin header and pin head for external 5V stand-by input</li> </ul> |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### Software

|            |                        |
|------------|------------------------|
| OS Support | Windows XP, Linux, DOS |
|------------|------------------------|

## Mechanical & Environment

|                   |                                 |
|-------------------|---------------------------------|
| Dimension         | 185mm x 122mm (7.29" x 4.81")   |
| Operating Temp.   | 0 ~ 60°C (32 ~ 140°F)           |
| Storage Temp.     | -20 ~ 80°C (-4 ~ 176°F)         |
| Relative Humidity | 0 to 90% @ 40°C, non-condensing |
| Safety            | CE, FCC compliant               |

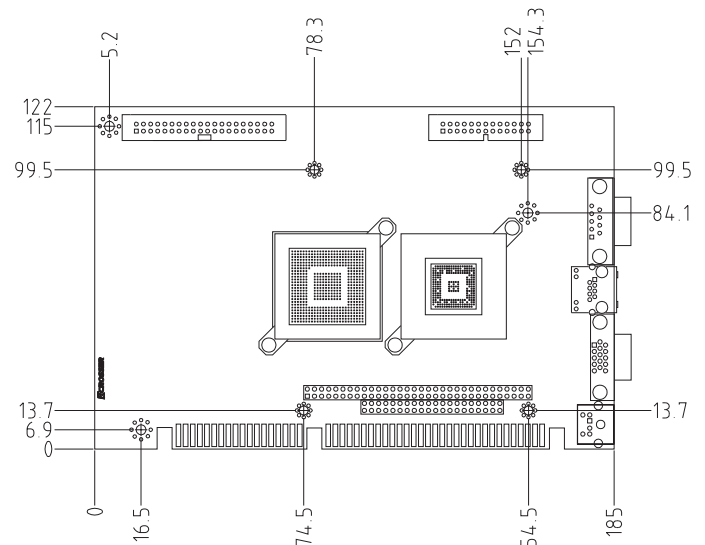
## Packing List

- 1 x AR-B8170
- 1 x Quick user guide
- 1 x Driver CD

## Ordering Information

|           |                                                                                                                                                                                                                                                      |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AR-B8170  | 1 x AR-B8170                                                                                                                                                                                                                                         |
| Accessory | ACC-8170: <ul style="list-style-type: none"> <li>• 1 x IDE cable (40-pin)</li> <li>• 1 x PS/2 keyboard and mouse cable</li> <li>• 1 x 2 ports USB cable with bracket</li> <li>• 1 x COM + LPT cable with bracket</li> <li>• 1 x FDD cable</li> </ul> |

## Dimension





# Product Matrix

## Embedded System



| Form Factor     |                              | Fanless Embedded System                 |                                  |
|-----------------|------------------------------|-----------------------------------------|----------------------------------|
| Model           |                              | AES-HM76Z1FL                            | AR-ES6003FL                      |
| Chipset         |                              | Intel HM76                              | Intel ICH8M                      |
| CPU Type        |                              | Intel Core i7/ i3/<br>Celeron Processor | Intel Atom D425 / D525           |
| Memory          | Type                         | 2 x 204-pin DDR3                        | 2 x 204-pin DDR3                 |
|                 | Installed / Max.<br>Capacity | 1GB / 16GB                              | 1GB / 4GB                        |
| Video           | VGA                          | 1                                       | 1                                |
|                 | HDMI                         | 2                                       | -                                |
|                 | LVDS                         | -                                       | 1                                |
|                 | TV-Out                       | -                                       | -                                |
| Ethernet        |                              | 2 x GbE RJ45                            | 2 x GbE RJ45                     |
| Storage         | IDE                          | -                                       | -                                |
|                 | SATA                         | 1 x SATA III                            | 2 x SATA II                      |
|                 | Flash                        | 1 x CF                                  | 1 x CF                           |
| I/O             | Serial Port                  | 2 x RS-232<br>2 x RS-422/485            | 3 x RS-232<br>1 x RS-232/422/485 |
|                 | USB Port (ext/int)           | 3/-                                     | 4/2                              |
|                 | Expansion Slot               | 2 x PCI/PCI-E x1, 1 x Mini PCIe         | 2 x PCI/PCI-E x1, 1 x Mini PCIe  |
| Operating Temp. |                              | 0~45°C (32~113°F)                       | 0~55°C (32~131°F)                |
| Page            |                              | 82                                      | 84                               |

## Embedded System



| Form Factor     |                              | Fanless Embedded System    |  |
|-----------------|------------------------------|----------------------------|--|
| Model           |                              | AR-ES6050FLD-W             |  |
| Chipset         |                              | Intel ICH8M                |  |
| CPU Type        |                              | Intel Atom N450            |  |
| Memory          | Type                         | 1 x 200-pin DDR2           |  |
|                 | Installed / Max.<br>Capacity | 1GB / 2GB                  |  |
| Video           | VGA                          | 1                          |  |
|                 | DVI                          | -                          |  |
|                 | LVDS                         | 1                          |  |
|                 | TV-Out                       | -                          |  |
| Ethernet        |                              | 2 x GbE RJ45               |  |
| Storage         | IDE                          | -                          |  |
|                 | SATA                         | 2 x SATA II                |  |
|                 | Flash                        | 1 x CF                     |  |
| I/O             | Serial Port                  | 2 x RS-232                 |  |
|                 | USB Port (ext/int)           | 4/2                        |  |
|                 | Expansion Slot               | 1 x PCI-104, 1 x Mini PCIe |  |
| Operating Temp. |                              | 0~60°C (32~140°F)          |  |
| Page            |                              | 86                         |  |

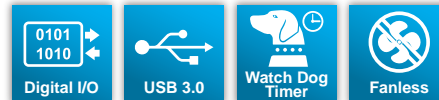
# AES-HM76Z1FL

Fanless and Ultra Slim Intel HM76 Embedded System



## Features

- Fanless and ultra slim design
- Support Intel Ivy Bridge CPU with HM76 chipset
- 2 x DDR3 SO-DIMM, up to 16GB
- Support SATA III and CF storage
- HDMI/VGA/USB/Audio/GPIO output interface
- Serial ports by RS-232 and RS-422/485
- 2 x GbE, 1 x SIM, and 1 x Mini PCIe(for 3G/WiFi)



CE FCC

## Specification

### System

|                     |                                                                                                                                             |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| CPU                 | Intel Core i7 3517UE 1.7GHz<br>Intel Core i3 3217UE 1.6GHz<br>Intel Celeron Processor 1047UE 1.4GHz<br>Intel Celeron Processor 927UE 1.5GHz |
| Chipset             | Intel HM76                                                                                                                                  |
| Memory              | 2 x 204-pin SO-DIMM sockets<br>support 1333/1600MHz DDR3 up to 16GB                                                                         |
| BIOS                | AMI                                                                                                                                         |
| Hardware Monitoring | CPU voltage and temperature                                                                                                                 |
| WatchDog Timer      | Software programmable 1~255 sec.                                                                                                            |

### Video

|                    |                                                                                                                           |
|--------------------|---------------------------------------------------------------------------------------------------------------------------|
| Graphic Controller | Integrated within HM76                                                                                                    |
| Video Interface    | <ul style="list-style-type: none"> <li>• 2 x HDMI (HDMI Type A connector)</li> <li>• 1 x VGA (Combo connector)</li> </ul> |

### Ethernet

|          |                                                                                                         |
|----------|---------------------------------------------------------------------------------------------------------|
| Ethernet | <ul style="list-style-type: none"> <li>• 2 x GbE (RJ45 with LED)</li> <li>• Realtek RTL8111F</li> </ul> |
|----------|---------------------------------------------------------------------------------------------------------|

### Storage

|      |                                             |
|------|---------------------------------------------|
| SATA | 1 x SATA III port with SATA power connector |
| CF   | 1 x Compact Flash Type II socket            |

### I/O

|             |                                                                                                                                                                  |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Expansion   | 1 x Mini PCIe socket(For 3.5G/WiFi)                                                                                                                              |
| SIM         | 1 x SIM slot (SIM card changeable without opening case)                                                                                                          |
| USB         | <ul style="list-style-type: none"> <li>• 3 x USB 3.0 (USB 3.0 Type A connector)</li> <li>• 2 x USB 2.0 (1 for Mini PCIe / 1 for Combo connector)</li> </ul>      |
| Serial Port | <ul style="list-style-type: none"> <li>• 2 x RS-232 (DB9 connector)</li> <li>• 2 x RS-422/485 (DB15 connector, shared with GPIO)</li> </ul>                      |
| Audio       | <ul style="list-style-type: none"> <li>• 1 x Line-Out (Combo connector)</li> <li>• Realtek ALC662</li> </ul>                                                     |
| GPIO        | <ul style="list-style-type: none"> <li>• 8 x GPI (DB15 connector, shared with RS-422/485)</li> <li>• 8 x GPO (DB15 connector, shared with RS-422/485)</li> </ul> |

### Power Requirement

|                   |                             |
|-------------------|-----------------------------|
| Power Input       | 60W Power Adaptor (DC Jack) |
| Power Requirement | 12VDC Single Voltage Input  |

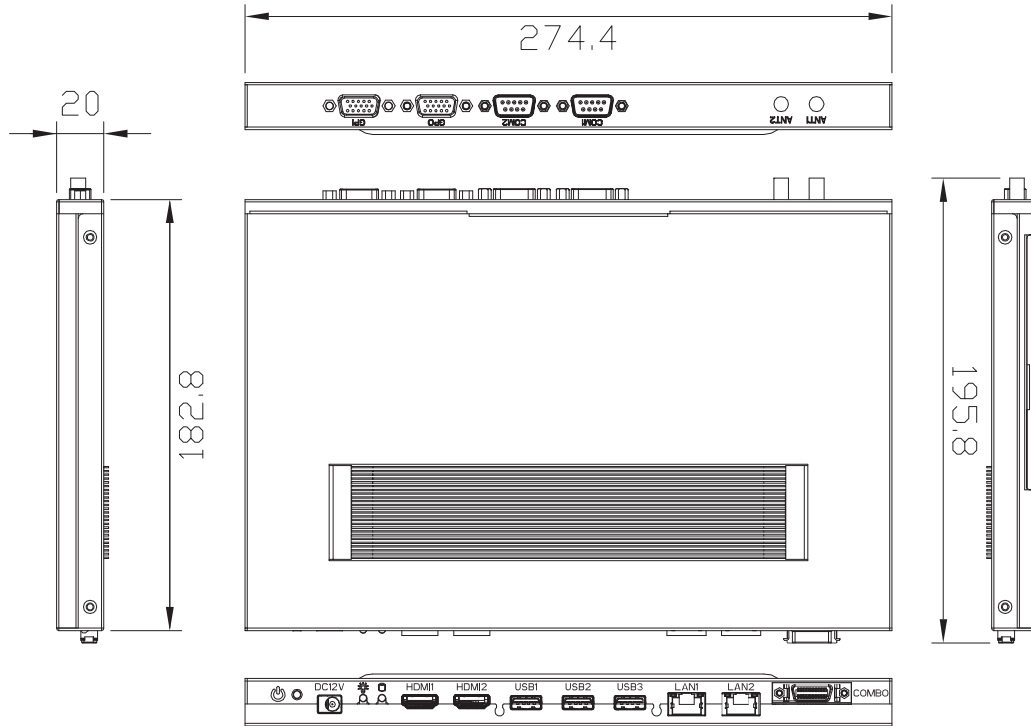
### Software

|            |                                                                                              |
|------------|----------------------------------------------------------------------------------------------|
| OS Support | Windows 7 (32), Windows 7 Embedded (32bit),<br>Fedora 17 (32/64bit), Ubuntu 12.10 (32/64bit) |
|------------|----------------------------------------------------------------------------------------------|

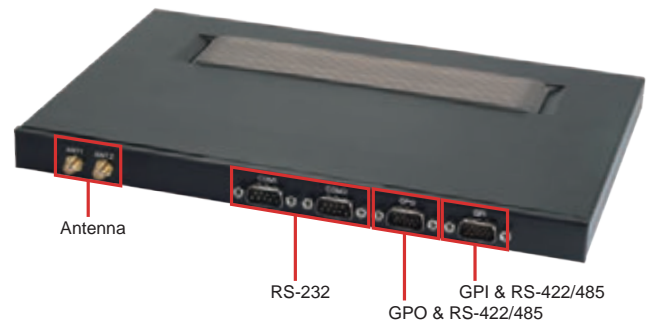
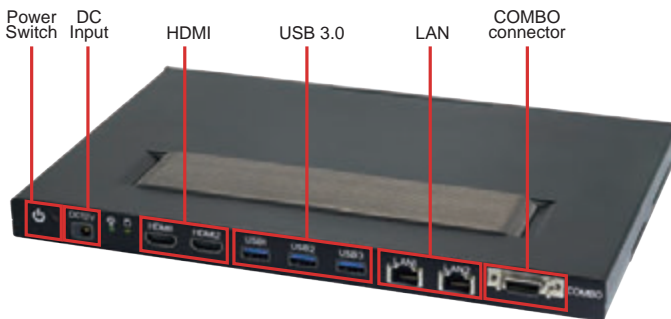
### Mechanical & Environment

|                   |                         |
|-------------------|-------------------------|
| Thermal Design    | Fanless (Heatsink)      |
| Dimension         | 272 mm x 183 mm x 20 mm |
| Operating Temp.   | 0~45°C (32~113°F)       |
| Storage temp.     | -40~80°C (-40~176°F)    |
| Relative Humidity | 0~90%, non-condensing   |
| Safety            | CE, FCC class A         |

## Dimension



## I/O Connectors



## Packing List

- 1 x AES-HM76Z1FL
- 1 x Quick Manual
- 1 x Utility CD
- 1 x Combo Cable
- 2 x GPIO Cable
- 1 x 60W Power Adapter
- 1 x Power Cord (Option for USA or Europe or Japan or UK)

## Ordering Information

|                 |                                                |
|-----------------|------------------------------------------------|
| AES-HM76Z1FLi71 | AES- HM76Z1FL with Intel Core i7 3517UE 1.7GHz |
| AES-HM76Z1FLi31 | AES- HM76Z1FL with Intel Core i3 3217UE 1.6GHz |
| AES-HM76Z1FLCE1 | AES- HM76Z1FL with Intel Celeron 1047UE 1.4GHz |
| AES-HM76Z1FLCE2 | AES- HM76Z1FL with Intel Celeron 927UE 1.5GHz  |

## Optional Modules

|                 |                                |
|-----------------|--------------------------------|
| WiFi Module Kit | WiFi module, RF cable, Antenna |
| 3.5G Module Kit | 3.5G module, RF cable, Antenna |

# AR-ES6003FL

Fanless and Dustproof Intel Atom D525/D425 Embedded System



## Features

- Support Intel Atom D525 (Dual Core) and D425 (Single Core)
- 2 x DDR3 SO-DIMM, up to 4GB
- Dedicated / selectable PCI & PCI Express x1 Expansion Slot
- Mini PCIe Expansion Slot
- Use JST connectors and switch to avoid cables drop
- Support Win XP, 7, Fedora 14 and Ubuntu 10



CE FCC

## Specification

### System

|                     |                                                                                                                                          |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| CPU                 | Intel Atom Dual Cores D525 and Single Core D425                                                                                          |
| Chipset             | Intel ICH8M                                                                                                                              |
| Memory              | <ul style="list-style-type: none"><li>• 2 x 204-pin SO-DIMM socket support DDR3-800 up to 4GB</li><li>• 1GB DDR3 pre-installed</li></ul> |
| BIOS                | SPI                                                                                                                                      |
| Hardware Monitoring | CPU voltage and temperature                                                                                                              |
| WatchDog Timer      | Software programmable 1~255 sec.                                                                                                         |

### Video

|                    |                                                                                                              |
|--------------------|--------------------------------------------------------------------------------------------------------------|
| Graphic Controller | Intel Atom D525/D425 integrated                                                                              |
| Video Memory       | DVMT 4.0                                                                                                     |
| Video Interface    | <ul style="list-style-type: none"><li>• 1 x VGA port (DB15)</li><li>• 1 x 18-bit LVDS (Pin Header)</li></ul> |

### Storage

|          |                                                  |
|----------|--------------------------------------------------|
| SATA     | 2 x SATA II port with SATA II power connector    |
| CF       | 1 x Compact Flash Type I/II slot support UDMA 33 |
| Disk Bay | 1 x 2.5" SATA Disk Bay                           |

### I/O

|             |                                                                                                                        |
|-------------|------------------------------------------------------------------------------------------------------------------------|
| Ethernet    | 2 x GbE RJ45 with LED, Realtek RTL8111DL                                                                               |
| USB         | 6 x USB 2.0 (4 x external port, 2 x JST pin header)                                                                    |
| Serial Port | <ul style="list-style-type: none"><li>• 3 x RS232 (DB9)</li><li>• 1 x RS232/422/485 (DB9, switch selectable)</li></ul> |
| Audio       | Realtek Audio Codec (Line-out & MIC-in)                                                                                |
| GPIO        | 4 x TTL input<br>4 x 500mA digital output                                                                              |

### Expansion

|           |                                                     |
|-----------|-----------------------------------------------------|
| AR-RS20   | Riser Card (2 x PCI-E x1 expansion slots)           |
| AR-RS21   | Riser Card (1 x PCI + 1 x PCI-E x1 expansion slots) |
| Mini PCIe | 1 x Mini PCIe expansion                             |

### Power Requirement

|                   |                                                          |
|-------------------|----------------------------------------------------------|
| Power Input       | 12V (+/-5%) single voltage input, 3 poles terminal block |
| Power adapter     | 100 ~ 240V, 96W power adapter                            |
| Power Consumption | 32.6W @ 12V                                              |

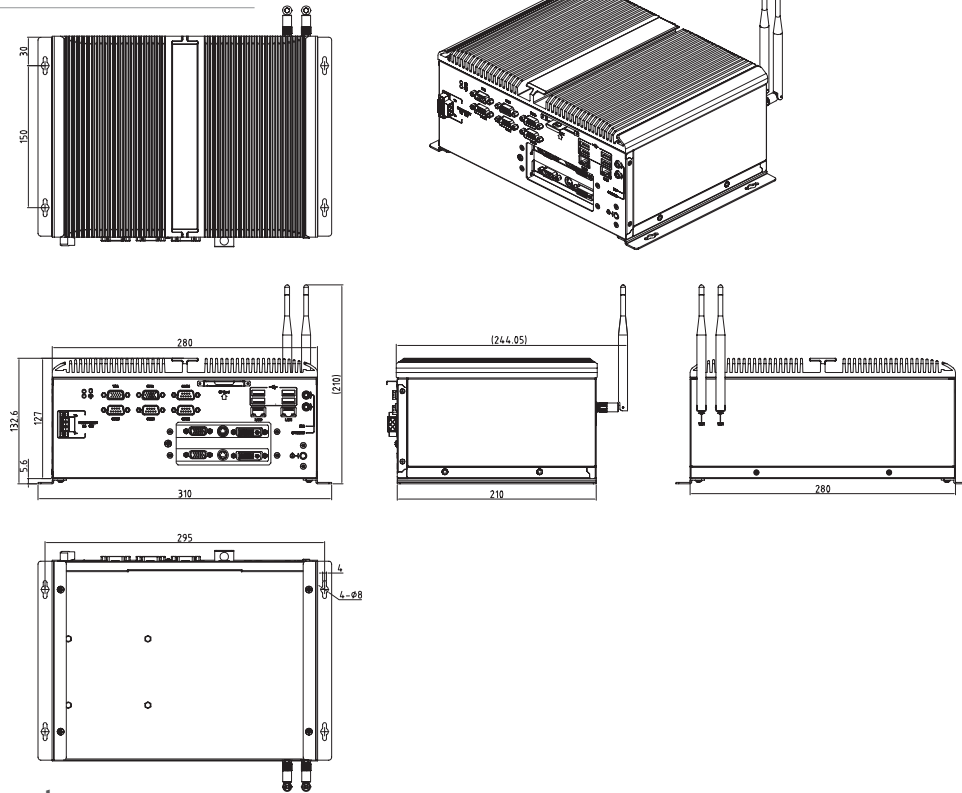
### Software

|            |                                             |
|------------|---------------------------------------------|
| OS Support | Windows XP, Windows 7, Fedora 14, Ubuntu 10 |
|------------|---------------------------------------------|

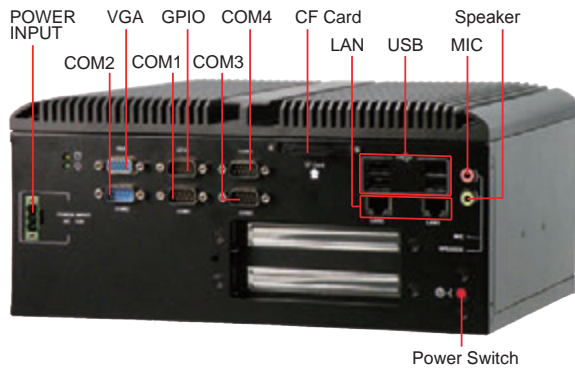
### Mechanical & Environment

|                   |                              |
|-------------------|------------------------------|
| Thermal Design    | Fanless                      |
| Chassis Material  | SECC + Aluminum heatsink     |
| Dimension         | 280mm x 210mm x 127mm        |
| Weight            | 2.5Kg                        |
| Operating Temp.   | 0~55°C (32~131°F)            |
| Storage temp.     | -20~80°C (-4~176°F)          |
| Relative Humidity | 0~90% @ 40°C, non-condensing |
| Safety            | CE, FCC class B              |

## Dimension



## I/O Connectors



## Packing List

- 1 x AR-ES6003FL
- 1GB memory pre-installed
- 1 x User manual & Driver CD
- 1 x AC Power Cord (USA or UK or Japan or Europe)
- 1 x 96W Power Adapter
- 1 x SATA cable & SATA power cable
- 2 x Mounting bracket
- 1 x AR-RS20 riser card
- 1 x AR-RS21 riser card

## Ordering Information

|                 |                                                                                    |
|-----------------|------------------------------------------------------------------------------------|
| AR-ES6003FLD525 | Intel Atom D525 Embedded System with 1GB DDR3 memory, PCI and PCI-E Expansion Slot |
| AR-ES6003FLD425 | Intel Atom D425 Embedded System with 1GB DDR3 memory, PCI and PCI-E Expansion Slot |

## Optional (Purchase Separately)

|             |                                          |
|-------------|------------------------------------------|
| WiFi Module | Mini PCIe card with RF cable and antenna |
| LVDS        | LVDS cable                               |

# AR-ES6050FLD-W

Fanless and Dustproof Intel Atom N450 Embedded System



## Features

- Support Intel Atom N450
- Memory Support DDR2-400/533/667 up to 2GB
- 2 x COM, 6 x USB 2.0, 2 x GbE
- DIN Mount and Wall Mount
- Wide Range Power Input, DC9~32V



CE FCC

## Specification

### System

|                     |                                                                                                                                                                     |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CPU                 | Intel Atom N450 1.66GHz                                                                                                                                             |
| Chipset             | Intel ICH8M                                                                                                                                                         |
| Memory              | <ul style="list-style-type: none"><li>• 1 x 200-pin SO-DIMM socket support</li><li>• 400/533/667MHz DDR2 SDRAM up to 2GB</li><li>• 1GB DDR2 pre-installed</li></ul> |
| BIOS                | Insyde                                                                                                                                                              |
| Hardware Monitoring | <ul style="list-style-type: none"><li>• CPU voltage and temperature</li><li>• CPU and system fan speed</li></ul>                                                    |
| WatchDog Timer      | Software programmable 1~255 sec.                                                                                                                                    |

### Video

|                    |                                                                                                              |
|--------------------|--------------------------------------------------------------------------------------------------------------|
| Graphic Controller | Intel Atom N450 intergrated                                                                                  |
| Video Memory       | DVMT 3.0, Maximum 224MB shared                                                                               |
| Video Interface    | <ul style="list-style-type: none"><li>• 1 x VGA port (DB15)</li><li>• 1 x 18-bit LVDS (Pin header)</li></ul> |

### Storage

|      |                                                  |
|------|--------------------------------------------------|
| SATA | 2 x SATA II port                                 |
| CF   | 1 x Compact Flash Type I/II slot support UDMA 33 |

### I/O

|             |                                                 |
|-------------|-------------------------------------------------|
| Ethernet    | 2 x GbE RJ45 with LED, Realtek RTL8111D         |
| USB         | 6 x USB 2.0 (4 x external port, 2 x pin header) |
| Serial Port | 2 x RS-232 (1 x DB9, 1 x pin header)            |
| PCI Slot    | 1 x PCI-104 expansion                           |
| Mini PCIe   | 1 x Mini PCIe expansion                         |
| Audio       | Realtek Audio Codec (Line-Out)                  |
| GPIO        | 8-bit Digital I/O                               |

### Power Requirement

|                   |                                                              |
|-------------------|--------------------------------------------------------------|
| Power Input       | 9 ~ 32V (+/-5%) single voltage input, 3 poles terminal block |
| Power adapter     | 100 ~ 240V                                                   |
| Power Consumption | 60W power adapter                                            |

### Software

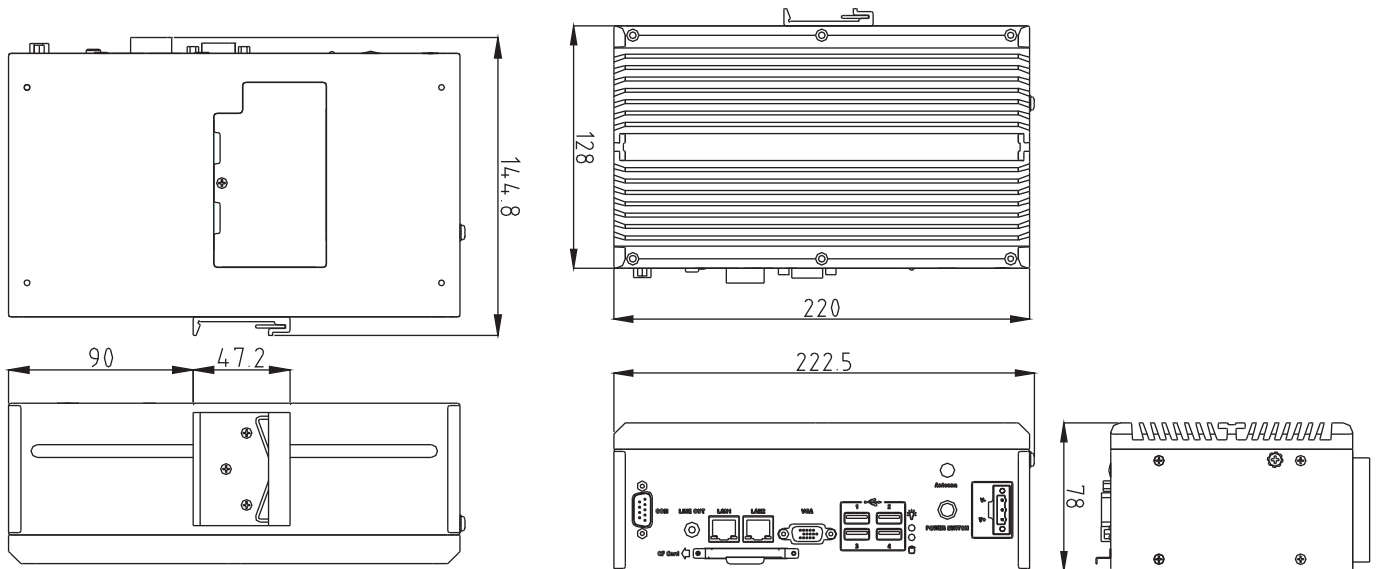
|            |                                             |
|------------|---------------------------------------------|
| OS Support | Windows XP/XP Embedded, Linux kernel 2.6.31 |
|------------|---------------------------------------------|

### Mechanical & Environment

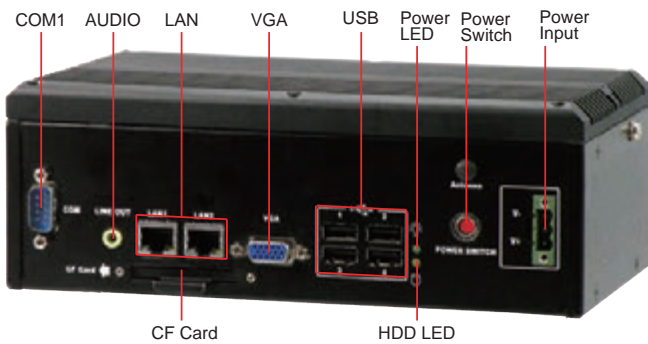
|                   |                                 |
|-------------------|---------------------------------|
| Thermal Design    | Fanless                         |
| Chassis Material  | SECC + Aluminum heatsink        |
| Dimension         | 222.5mm x 128mm x 78mm          |
| Weight            | 2.5 Kg                          |
| Operating Temp.   | 0~50°C (32~122°F)               |
| Storage temp.     | -20~80°C (-4~176°F)             |
| Relative Humidity | 0 to 90% @ 40°C, non-condensing |
| Safety            | CE, FCC class B                 |



## Dimension



## I/O Connectors



## Packing List

- 1 x AR-ES6050FLD-W
- 1GB memory per-installed
- 1 x Driver CD
- 1 x User manual
- 1 x DIN mounting bracket
- 1 x AC power Cord
- 1 x 60W power adapter

## Ordering Information

AR-ES6050FLD-W Intel N450+ICH8M, 1GB DDR2, DIN mount

## Optional Modules

|             |                        |
|-------------|------------------------|
| 170010587-G | Wall mount bracket x 2 |
| 170020028-G | screw x 4              |



# Table of Contents

## Panel PC

| CPU   | LCD Size | Feature                            | Casing                         | Model Name          | Page |
|-------|----------|------------------------------------|--------------------------------|---------------------|------|
| D2550 | 7"       | Industrial Panel PC                | Aluminum Front / Metal Chassis | AR-PA707(P)FL-D2550 | 90   |
| D2550 | 8"       | Industrial Panel PC                | Aluminum Front / Metal Chassis | AR-PA708(P)FL-D2550 | 90   |
| D2550 | 10"      | Industrial Panel PC                | Aluminum Front / Metal Chassis | AR-PA710(P)FL-D2550 | 90   |
| D2550 | 12"      | Industrial Panel PC                | Aluminum Front / Metal Chassis | AR-PA712(P)FL-D2550 | 92   |
| D2550 | 15"      | Industrial Panel PC                | Aluminum Front / Metal Chassis | AR-PA715(P)FL-D2550 | 92   |
| D2550 | 17"      | Industrial Panel PC                | Aluminum Front / Metal Chassis | AR-PA717(P)FL-D2550 | 94   |
| D2550 | 21"      | Industrial Panel PC                | Aluminum Front / Metal Chassis | AR-PA721(P)FL-D2550 | 96   |
| N270  | 8"       | Industrial Panel PC                | Plastic                        | AR-H082FL-N270DT    | 98   |
| N270  | 10"      | Industrial Panel PC                | Plastic                        | AR-H100FL-N270DT    | 98   |
| N270  | 12"      | Industrial Panel PC                | Plastic                        | AR-H120FL-N270DT    | 98   |
| N270  | 15"      | Industrial Panel PC                | Metal                          | AR-H150FL-N270DT    | 100  |
| N270  | 19"      | Industrial Panel PC                | Metal                          | AR-H190FL-N270DT    | 100  |
| D525  | 8"       | Industrial Panel PC                | Plastic                        | AR-H080FL-D525DT    | 102  |
| D525  | 12"      | Industrial Panel PC                | Plastic                        | AR-H120FL-D525DT    | 102  |
| D525  | 15"      | Industrial Panel PC                | Metal                          | AR-H150FL-D525DT    | 102  |
| P8400 | 15"      | Industrial Panel PC                | Metal                          | AR-P15BFLDC-P84T    | 102  |
| D525  | 12"      | Stainless Steel Panel PC           | Stainless Steel                | AR-S120FL-D525DT    | 104  |
| D525  | 15"      | Stainless Steel Panel PC           | Stainless Steel                | AR-S150FL-D525DT    | 104  |
|       | 8"       | Industrial Touch Display           | Plastic                        | AR-DP080-12T        | 106  |
|       | 10"      | Industrial Touch Display           | Plastic Front / Metal Chassis  | AR-DP100-12T        | 106  |
|       | 12"      | Industrial Touch Display           | Plastic Front / Metal Chassis  | AR-DP120-12T        | 106  |
|       | 15"      | Industrial Touch Display           | Metal                          | AR-DP150-AT         | 106  |
|       | 15"      | Projected Industrial Touch Display | Aluminum Front / Metal Chassis | AR-DP150-PDT        | 108  |
|       | 19"      | Projected Industrial Touch Display | Aluminum Front / Metal Chassis | AR-DP190-PDT        | 108  |

# AR-PA7XXFL-D2550 Series

## Features

- Variety of LCD Panel Size Selections
- Flat Front Panel with IP65 Design
- Solid Aluminum Die-casting Chassis
- Intel Atom N2600 processor, Dual Core Low Power Fanless System



## Specification

| Model Name                     | AR-PA707(P)FL-D2550                                                                                                              | AR-PA708(P)FL-D2550          | AR-PA710(P)FL-D2550            |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------|------------------------------|--------------------------------|
| <b>System</b>                  |                                                                                                                                  |                              |                                |
| CPU                            | Intel Atom Cedar View N2600 1.6GHz Dual Core Processors / Intel Atom D2550 1.8GHz                                                |                              |                                |
| System Chipset                 | Intel NM10                                                                                                                       |                              |                                |
| System Memory                  | Onboard DDR3 2GB 800 MHz /4GB (Optional for ARCHMI-712(P)/715(P) only)                                                           |                              |                                |
| <b>Display</b>                 |                                                                                                                                  |                              |                                |
| Display Type                   | 7" TFT-LCD                                                                                                                       | 8" TFT-LCD                   | 10.1" TFT-LCD                  |
| Max. Resolution                | 800 x 480                                                                                                                        | 800 x 600                    | 1200 x 800                     |
| Max. Color                     | 262 K                                                                                                                            | 16.2 M                       | 262 K                          |
| Luminance (cd/m <sup>2</sup> ) | 350                                                                                                                              | 350                          | 350                            |
| View angle(H°/V°)              | H:140° / V:110°                                                                                                                  | H:140° / V:125°              | H:160° / V:160°                |
| <b>Touch screen</b>            |                                                                                                                                  |                              |                                |
| Type                           | Resistive Touch / Projected Capacitive Touch (for P model)                                                                       |                              |                                |
| Interface                      | RS-232 / USB (for P model)                                                                                                       |                              |                                |
| Light Transmission(%)          | 80% / 90% (for P model)                                                                                                          |                              |                                |
| <b>Storage</b>                 |                                                                                                                                  |                              |                                |
| HDD                            | 1 x 1.8" SATA2 half size                                                                                                         |                              | 1 x 2.5" SATA2                 |
| Movable device                 | 1 x Internal SD slot                                                                                                             |                              | 1 x Internal SD slot           |
| <b>I/O Port</b>                |                                                                                                                                  |                              |                                |
| USB                            | 2 x USB 2.0 type A, USB4/5                                                                                                       |                              |                                |
| Serial/Parallel                | 1 x RS-232/422/485 DB-9, COM1, Default RS-232 / 1 x RS-232 DB-9, COM2                                                            |                              |                                |
| Audio                          | 1 x Line out phone jack                                                                                                          |                              |                                |
| LAN                            | 2 x GbE RJ-45                                                                                                                    |                              |                                |
| Power                          | 3 pins terminal block connector, DC Power input                                                                                  |                              |                                |
| <b>Expansion</b>               |                                                                                                                                  |                              |                                |
| On board expansion bus         | 1 x Mini-PCIe half size                                                                                                          |                              |                                |
| <b>Power Requirement</b>       |                                                                                                                                  |                              |                                |
| Power Input                    | 9~36V DC                                                                                                                         |                              |                                |
| Power Consumption              | Max:12.8W Max:13.0W(P)                                                                                                           | Max:15.2W                    | Max: 11.04W                    |
| <b>Software</b>                |                                                                                                                                  |                              |                                |
| OS Support                     | Windows XP pro / Embedded / CE6.0 / Windows 7 pro for Embedded / Windows Embedded standard 7 (Win 7 support 3D Graphic function) |                              |                                |
| <b>Mechanical</b>              |                                                                                                                                  |                              |                                |
| Construction                   | Sliver aluminum front bezel and chassis                                                                                          |                              |                                |
| IP Rating                      | IP65 front panel                                                                                                                 |                              |                                |
| Mounting                       | Panel mounting, VESA 75 x 75                                                                                                     | Panel mounting, VESA 75 x 75 | Panel mounting, VESA 100 x 100 |
| Dimension (mm)                 | 202 x 149 x 39                                                                                                                   | 231 x 176 x 51               | 282 x 185 x 48                 |
| Net Weight (Kgs)               | 1.2 kg                                                                                                                           | 1.8 kg                       | 2 kg                           |

## Environmental

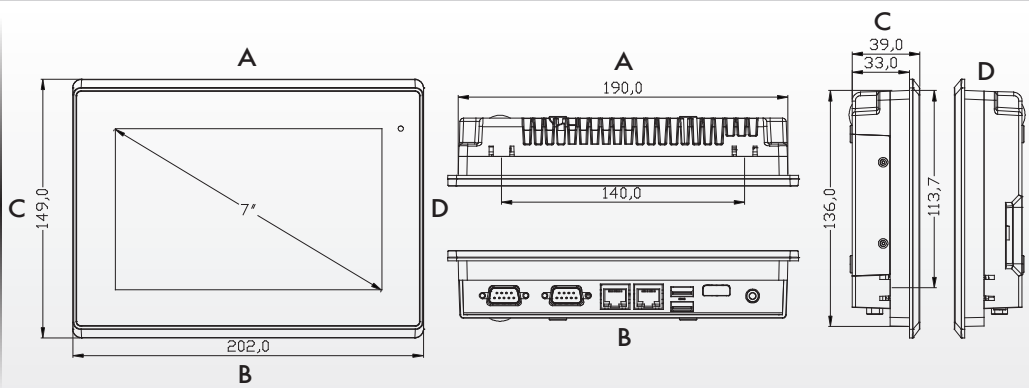
|                           |                                   |
|---------------------------|-----------------------------------|
| Operating temperature(°C) | 0~50°C -20~60°C(option)           |
| Storage temperature(°C)   | -20~60°C                          |
| Storage humidity          | 10 to 90% @ 40°C, non- condensing |
| Certification             | CE / FCC Class A                  |

## Ordering Information

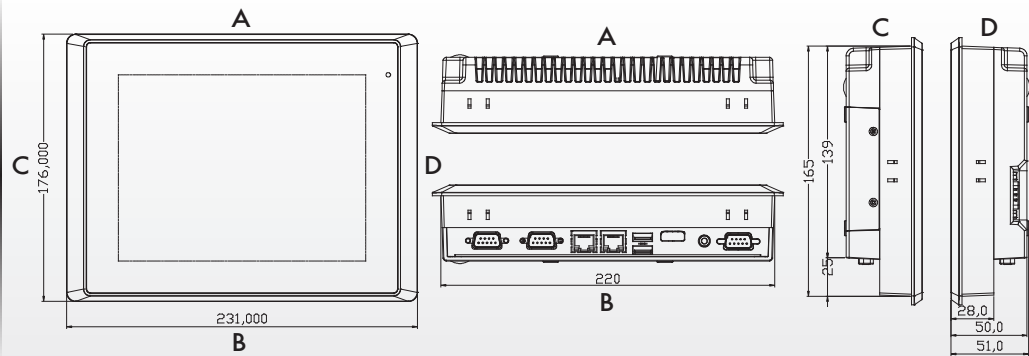
|                     |                                                                                                                                                                                                     |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AR-PA707(P)FL-D2550 | 7" WVGA 800 x 480 fanless HMI with Atom N2600 1.6G CPU, 2GB DDR3 memory, touch window resistive touch screen / projected capacitive touch screen, 9~36VDC input with adapter, Aluminum chassis.     |
| AR-PA708(P)FL-D2550 | 8" SVGA 800 x 600 fanless HMI with Atom N2600 1.6G CPU, 2GB DDR3 memory, touch window resistive touch screen / projected capacitive touch screen, 9~36VDC input with adapter, Aluminum chassis.     |
| AR-PA710(P)FL-D2550 | 10.1" WVGA 1200 x 800 fanless HMI with Atom N2600 1.6G CPU, 2GB DDR3 memory, touch window resistive touch screen / projected capacitive touch screen, 9~36VDC input with adapter, Aluminum chassis. |

## Dimension

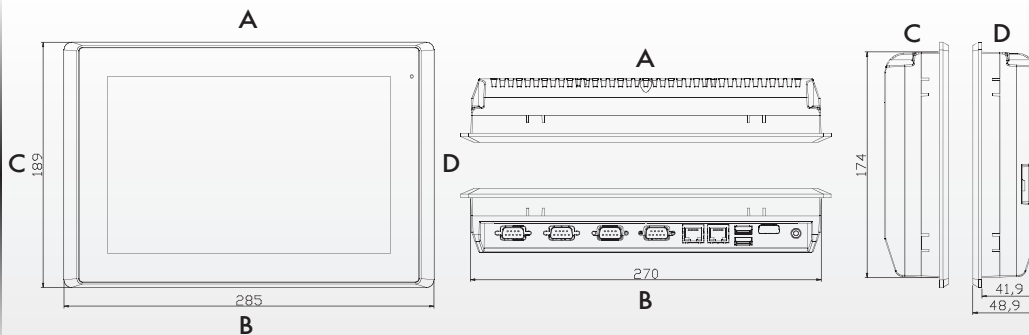
### AR-PA707(P)FL-D2550



### AR-PA708(P)FL-D2550



### AR-PA710(P)FL-D2550



# AR-PA7XXFL-D2550 Series

## Features

- Variety of LCD Panel Size Selections
- Flat Front Panel with IP65 Design
- Solid Aluminum Die-casting Chassis
- Intel Atom N2600 processor, Dual Core Low Power Fanless System



## Specification

| Model Name                     | AR-PA712(P)FL-D2550                                                                                                              | AR-PA715(P)FL-D2550 |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------|---------------------|
| <b>System</b>                  |                                                                                                                                  |                     |
| CPU                            | Intel Atom Cedar View N2600 1.6GHz Dual Core Processors /Intel Atom D2550 1.8GHz                                                 |                     |
| System Chipset                 | Intel NM10                                                                                                                       |                     |
| System Memory                  | Onboard DDR3 2GB 800 MHz /4GB (Optional for ARCHMI-712(P)/715(P) only)                                                           |                     |
| <b>Display</b>                 |                                                                                                                                  |                     |
| Display Type                   | 12.1" TFT-LCD                                                                                                                    | 15" TFT-LCD         |
| Max. Resolution                | 800 x 600                                                                                                                        | 1024 x 768          |
| Max. Color                     | 16.2 M                                                                                                                           | 16.2 M              |
| Luminance (cd/m <sup>2</sup> ) | 330                                                                                                                              | 350                 |
| View angle(H°/V°)              | H:160° / V:140°                                                                                                                  | H:160° / V:145°     |
| <b>Touch screen</b>            |                                                                                                                                  |                     |
| Type                           | Resistive Touch / Projected Capacitive Touch (for P model)                                                                       |                     |
| Interface                      | RS-232 / USB (for P model)                                                                                                       |                     |
| Light Transmission(%)          | 80% / 90% (for P model)                                                                                                          |                     |
| <b>Storage</b>                 |                                                                                                                                  |                     |
| HDD                            | 1 x 2.5" SATA2                                                                                                                   |                     |
| Movable device                 | 1 x Internal SD slot                                                                                                             |                     |
| <b>I/O Port</b>                |                                                                                                                                  |                     |
| USB                            | 2 x USB 2.0 type A, USB4/5                                                                                                       |                     |
| Serial/Parallel                | 1 x RS-232/422/485 DB-9, COM1, Default RS-232 / 1 x RS-232 DB-9, COM2                                                            |                     |
| Audio                          | 1 x Line out phone jack                                                                                                          |                     |
| LAN                            | 2 x GbE RJ-45                                                                                                                    |                     |
| Power                          | 3 pins terminal block connector, DC Power input                                                                                  |                     |
| <b>Expansion</b>               |                                                                                                                                  |                     |
| On board expansion bus         | 1 x Mini-PCIe half size                                                                                                          |                     |
| <b>Power Requirement</b>       |                                                                                                                                  |                     |
| Power Input                    | 9~36V DC                                                                                                                         |                     |
| Power Consumption              | Max:18W                                                                                                                          | Max:19.2W           |
| <b>Software</b>                |                                                                                                                                  |                     |
| OS Support                     | Windows XP pro / Embedded / CE6.0 / Windows 7 pro for Embedded / Windows Embedded standard 7 (Win 7 support 3D Graphic function) |                     |
| <b>Mechanical</b>              |                                                                                                                                  |                     |
| Construction                   | Sliver aluminum front bezel and chassis                                                                                          |                     |
| IP Rating                      | IP65 front panel                                                                                                                 |                     |
| Mounting                       | Panel mounting, VESA 100 x 100                                                                                                   |                     |
| Dimension (mm)                 | 319 x 245 x 52                                                                                                                   | 410 x 310 x 55      |
| Net Weight (Kgs)               | 2.5 kg                                                                                                                           | 4.4 kg              |

### Environmental

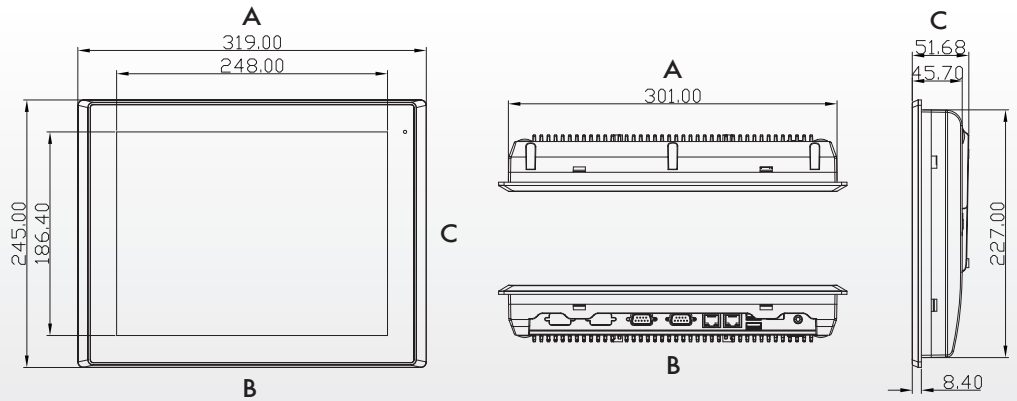
|                           |                                   |
|---------------------------|-----------------------------------|
| Operating temperature(°C) | 0~50°C -20~60°C(option)           |
| Storage temperature(°C)   | -20~60°C                          |
| Storage humidity          | 10 to 90% @ 40°C, non- condensing |
| Certification             | CE / FCC Class A                  |

### Ordering Information

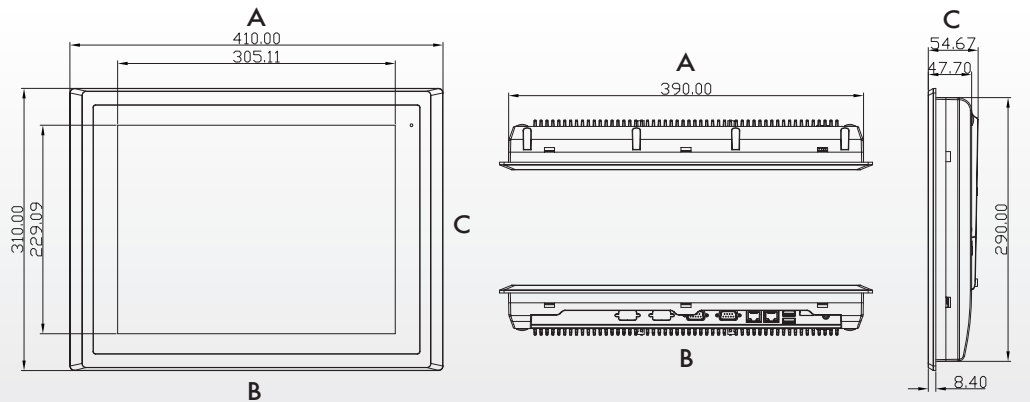
|                     |                                                                                                                                                                                                    |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AR-PA712(P)FL-D2550 | 12.1" WVGA 800 x 600 fanless HMI with Atom N2600 1.6G CPU, 2GB DDR3 memory, touch window resistive touch screen / projected capacitive touch screen, 9~36VDC input with adapter, Aluminum chassis. |
| AR-PA715(P)FL-D2550 | 15" SVGA 1024 x 768 fanless HMI with Atom N2600 1.6G CPU, 2GB DDR3 memory, touch window resistive touch screen / projected capacitive touch screen, 9~36VDC input with adapter, Aluminum chassis.  |

## Dimension

### AR-PA712(P)FL-D2550



### AR-PA715(P)FL-D2550



# AR-PA717(P)FL-D2550

## Features

- 17" Industrial Compact Size Panel PC
- Flat front panel touch screen
- Fanless design
- Intel Atom D2550 1.86GHz CPU built-in
- Onboard 4GB DDR III 800 MHz
- 9~36VDC wide-ranging power input
- IP65 compliant front panel
- Optional projected capacitive touchscreen support  
7H anti-scratch surface



## Specification

|                                                                                  |                                                                                                                                                                                                     |
|----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Model Name</b>                                                                | <b>AR-PA717(P)FL-D2550</b>                                                                                                                                                                          |
| <b>System</b>                                                                    |                                                                                                                                                                                                     |
| CPU                                                                              | Onboard Intel Atom Cedar View D2550 1.86GHz Dual Core Processors                                                                                                                                    |
| System Chipset                                                                   | Intel NM10                                                                                                                                                                                          |
| System Memory                                                                    | Onboard 4GB DDR III 800 MHz                                                                                                                                                                         |
| <b>Display</b>                                                                   |                                                                                                                                                                                                     |
| Display Type                                                                     | 17" TFT-LCD                                                                                                                                                                                         |
| Max. Resolution                                                                  | 1280 x 1024                                                                                                                                                                                         |
| Max. Color                                                                       | 16.7M colors (RGB 8 bits)                                                                                                                                                                           |
| Luminance (cd/m <sup>2</sup> )                                                   | 350                                                                                                                                                                                                 |
| Contrast Ratio                                                                   | 800 : 1                                                                                                                                                                                             |
| View angle(H°/V°)                                                                | H:160° / V:140°                                                                                                                                                                                     |
| Backlight Lifetime                                                               | 50,000 (hrs)                                                                                                                                                                                        |
| <b>Touch screen - Resistive Touch Screen / Projected Capacitive Touch Screen</b> |                                                                                                                                                                                                     |
| Type                                                                             | Resistive Touch / Projected Capacitive Touch Screen                                                                                                                                                 |
| Interface                                                                        | USB                                                                                                                                                                                                 |
| Light Transmission(%)                                                            | Over 80%                                                                                                                                                                                            |
| <b>Storage</b>                                                                   |                                                                                                                                                                                                     |
| HDD                                                                              | 1 x 2.5" SATA HDD bay for SATA HDD (Easy Accessible)                                                                                                                                                |
| Movable device                                                                   | 1 x SD card slot, up to 32GB                                                                                                                                                                        |
| <b>I/O Port</b>                                                                  |                                                                                                                                                                                                     |
| USB                                                                              | 2 x USB 2.0 type A                                                                                                                                                                                  |
| Serial / Parallel                                                                | 1 x RS-232 DB-9<br>1 x DB-9 RS-232/422/485 (Default RS-232)                                                                                                                                         |
| Audio                                                                            | 1 x Audio Line Out                                                                                                                                                                                  |
| LAN                                                                              | 2 x GbE RJ-45                                                                                                                                                                                       |
| Power                                                                            | 1 x 3-pin DC Power input terminal<br>1 x 2-pin power switch                                                                                                                                         |
| LED light                                                                        | 1 x Power LED Light                                                                                                                                                                                 |
| Option                                                                           | 2 x RS-232 DB-9 + 1 x Mini-PCIe slot via TB-528C2ME1<br>2 x CAN bus via TB-528CAN2<br>2 x USB 2.0 type A + 1 x Mini-PCIe slot + 1xRS-232 DB-9 via TB-528C1U2P1<br>2 x USB 2.0 type A + via TB-528U2 |
| <b>Power Requirement</b>                                                         |                                                                                                                                                                                                     |
| Power Input                                                                      | 9~36V DC                                                                                                                                                                                            |
| Power Consumption                                                                | 34.7 W                                                                                                                                                                                              |
| <b>Software</b>                                                                  |                                                                                                                                                                                                     |
| OS Support                                                                       | Windows 32-bit XP Pro, Windows 7 32-bit, Windows CE 6.0                                                                                                                                             |



## Mechanical

|                   |                              |
|-------------------|------------------------------|
| Chassis Color     | RAL9007                      |
| Front Bezel       | Front Bezel Design           |
| Front Bezel Metal | Aluminum / Panel Mounting    |
| Rear Panel Metal  | Aluminum / VESA 100          |
| IP Rating         | IP65 compliant front panel   |
| Mounting          | Panel Mounting VESA 100x 100 |
| Dimension (mm)    | 439 x 348 x 64.8 mm          |
| Net Weight (KG)   | 5.1 Kg                       |

## Environmental

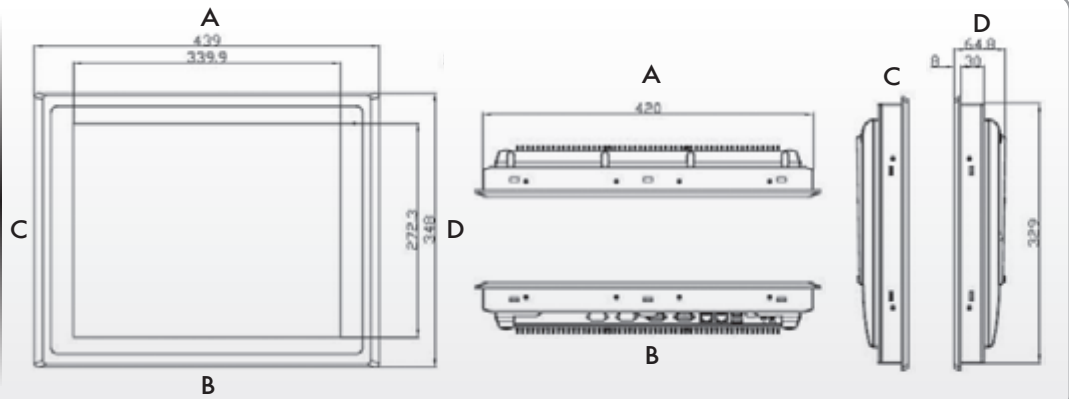
|                           |                                  |
|---------------------------|----------------------------------|
| Operating temperature(°C) | 0~50°C -20~60°C(option)          |
| Storage temperature(°C)   | -20~60°C                         |
| Storage humidity          | 10 to 90% @ 40°C, non-condensing |
| Certification             | CE / FCC Class A                 |

## Ordering Information

|                     |                                                                                                                                                                                                    |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AR-PA717(P)FL-D2550 | 17" WVGA 1280 x 1024 fanless HMI with Atom D2550 1.6G CPU, 4GB DDR3 memory, touch window resistive touch screen / projected capacitive touch screen, 9~36VDC input with adapter, Aluminum chassis. |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## Dimension

### AR-PA717(P)FL-D2550



# AR-PA721(P)FL-D2550

## Features

- Variety of LCD Panel Size Selections
- Flat Front Panel with IP65 Design
- Solid Aluminum Die-casting Chassis
- Intel Atom D2550 processor, Dual Core Low Power Fanless System



## Specification

|                                                                                  |                                                                                                                                                                 |
|----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Model Name</b>                                                                | <b>AR-PA721(P)FL-D2550</b>                                                                                                                                      |
| <b>System</b>                                                                    |                                                                                                                                                                 |
| CPU                                                                              | Intel Atom D2550processor, Dual Core Low Power Fanless System                                                                                                   |
| System Chipset                                                                   | Intel NM10                                                                                                                                                      |
| System Memory                                                                    | Onboard 4GB DDR III 800 MHz                                                                                                                                     |
| <b>Display</b>                                                                   |                                                                                                                                                                 |
| Display Type                                                                     | 21.5" TFT-LCD                                                                                                                                                   |
| Max. Resolution                                                                  | 1920 x 1080                                                                                                                                                     |
| Max. Color                                                                       | 16.7 M                                                                                                                                                          |
| Luminance (cd/m <sup>2</sup> )                                                   | 400                                                                                                                                                             |
| View angle(H°/V°)                                                                | H:170° / V:160°                                                                                                                                                 |
| <b>Expansion</b>                                                                 |                                                                                                                                                                 |
| On board expansion bus                                                           | 1 x Mini-PCIe half size                                                                                                                                         |
| <b>Touch screen - Resistive Touch Screen / Projected Capacitive Touch Screen</b> |                                                                                                                                                                 |
| Type                                                                             | Resistive Touch / Projected Capacitive Touch Screen (for P model)                                                                                               |
| Interface                                                                        | RS-232 / USB (for P model)                                                                                                                                      |
| Light Transmission(%)                                                            | 80%/ 90% (for P model)                                                                                                                                          |
| <b>Storage</b>                                                                   |                                                                                                                                                                 |
| HDD                                                                              | 1 x 2.5" SATA 2                                                                                                                                                 |
| Movable device                                                                   | 1 x Internal SD slot                                                                                                                                            |
| <b>I/O Port</b>                                                                  |                                                                                                                                                                 |
| USB                                                                              | 2 x USB 2.0 type A, USB4/5                                                                                                                                      |
| Serial / Parallel                                                                | 1 x RS-232/422/485 DB-9, COM1, Default RS-232<br>1 x RS-232 DB-9, COM2                                                                                          |
| Audio                                                                            | 1 x Line out phone jack                                                                                                                                         |
| LAN                                                                              | 2 x GbE RJ-45                                                                                                                                                   |
| Power                                                                            | 3 pins terminal block connector, DC Power input 1 x Power ON/OFF Switch connector                                                                               |
| <b>Power</b>                                                                     |                                                                                                                                                                 |
| Power Input                                                                      | 9~36V DC                                                                                                                                                        |
| <b>Software</b>                                                                  |                                                                                                                                                                 |
| OS Support                                                                       | Windows XP pro / Windows XP Embedded / Windows Embedded CE6.0 / Windows 7 pro for Embedded<br>Windows Embedded standard 7 / (Win 7 support 3D Graphic function) |
| <b>Mechanical</b>                                                                |                                                                                                                                                                 |
| Construction                                                                     | Sliver aluminum front bezel and chassis                                                                                                                         |
| IP Rating                                                                        | IP65 front panel                                                                                                                                                |
| Mounting                                                                         | Panel mounting, VESA 100 x 100                                                                                                                                  |
| Dimension (mm)                                                                   | 557 x 362 x 65                                                                                                                                                  |
| Net Weight (Kgs)                                                                 | 11.5 kg                                                                                                                                                         |

## Environmental

Operating temperature(°C)

0~50°C

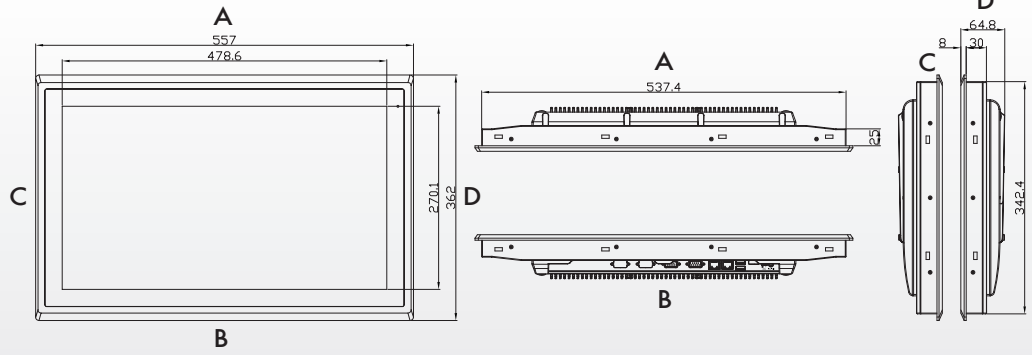
## Ordering Information

AR-PA721(P)FL-D2550

21.5" WVGA 1920 x 1080 fanless HMI with Atom D2550 1.6G CPU, 4GB DDR3 memory, touch window resistive touch screen / projected capacitive touch screen, 9~36VDC input with adapter, Aluminum chassis.

## Dimension

AR-PA721(P)FL-D2550



# N270DT Series

## Features

- Intel Atom N270 1.6GHz Processor built-in
- 320GB HDD & 1GB DDR2 RAM Default
- Low Power Consumption
- Fanless Design
- Overlay Resistive USB Touch Screen
- Front Panel IP65
- DC 11~32V wide range power input
- Additional DB15-VGA output

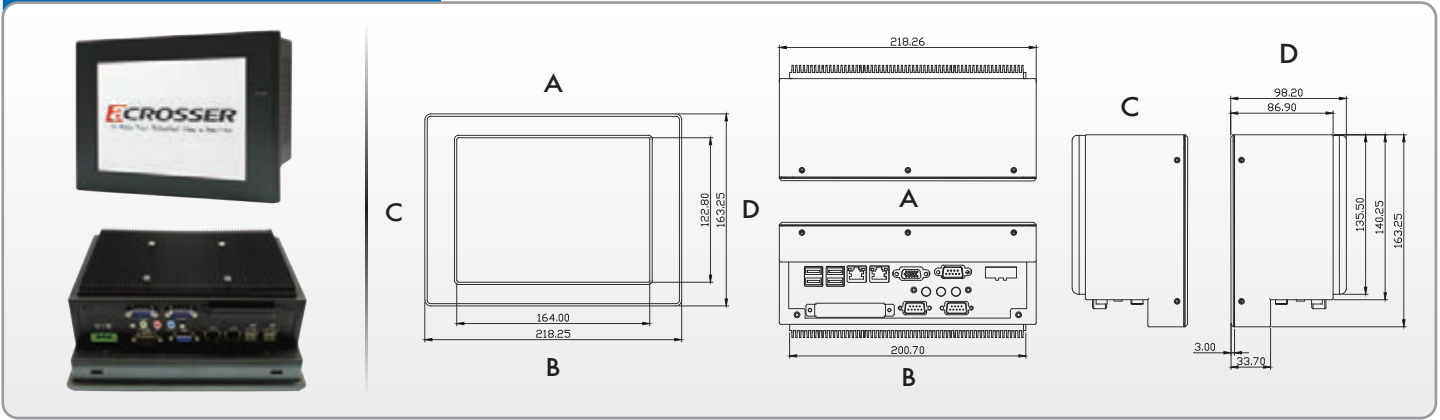


## Specification

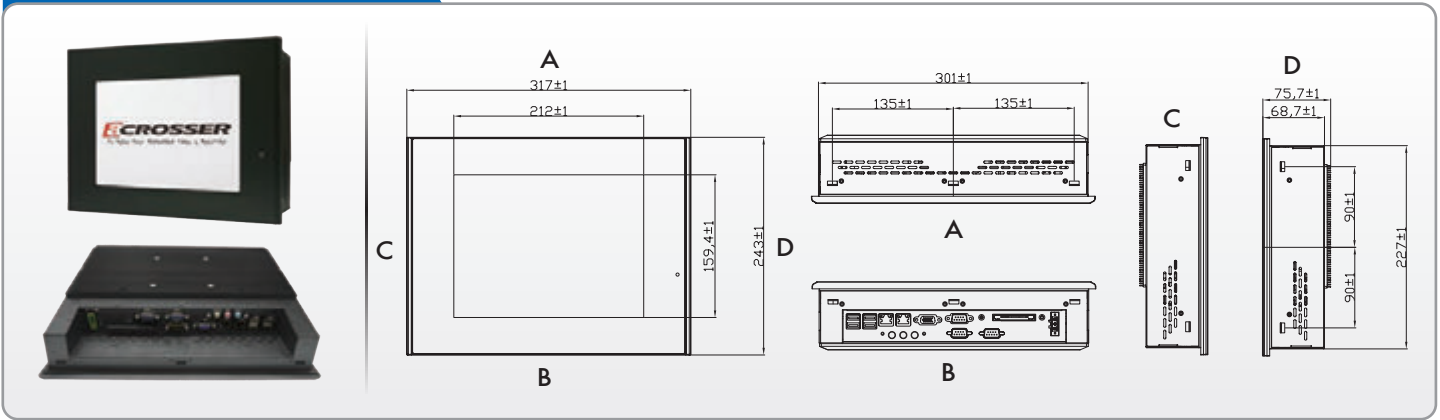
| Model Name                          | AR-H082FL-N270DT                                                                  | AR-H100FL-N270DT       | AR-H120FL-N270DT       |
|-------------------------------------|-----------------------------------------------------------------------------------|------------------------|------------------------|
| <b>System</b>                       |                                                                                   |                        |                        |
| CPU                                 | Intel® Atom™ N270 1.6GHz Processor built-in, FSB 533MHz                           |                        |                        |
| Chipset                             | Intel® 945GSE + ICH7M                                                             |                        |                        |
| Memory Type                         | 1 x 200-pin SO-DIMM socket, support 533MHz up to 2GB SDRAM                        |                        |                        |
| Memory Pre-Installed                | Default 1GB                                                                       |                        |                        |
| <b>LCD</b>                          |                                                                                   |                        |                        |
| Panel Size                          | 8" TFT-LCD                                                                        | 10" TFT-LCD            | 12" TFT-LCD            |
| Max. Resolution                     | 800 x 600                                                                         | 800 x 600              | 800 x 600              |
| Luminance (cd/m <sup>2</sup> )      | 350                                                                               | 250                    | 350                    |
| View Angle                          | H:130° / V:110°                                                                   | H:130° / V:110°        | H:140° / V:110°        |
| Backlight Lifetime                  | 40,000 hrs                                                                        | 30,000 hrs             | 50,000 hrs             |
| Touch Screen Type                   | Overlay Resistive                                                                 |                        |                        |
| <b>Storage</b>                      |                                                                                   |                        |                        |
| HDD                                 | 1 x 2.5" SATA HDD Bay                                                             |                        |                        |
| CF                                  | 1 x External CF slot                                                              |                        |                        |
| <b>I/O</b>                          |                                                                                   |                        |                        |
| Video Interface                     | 1 x VGA                                                                           |                        |                        |
| Ethernet                            | 2 x GbE, RJ45 with LED                                                            |                        |                        |
| USB                                 | 4 x USB 2.0                                                                       |                        |                        |
| Serial Port                         | 2 x RS-232 (DB9), 1 x RS-R232/422/485 (DB9, Default RS232)                        |                        |                        |
| Audio                               | 1 x Audio Line-in / Line-out/ Mic-in                                              |                        |                        |
| Expansion                           | N/A                                                                               |                        |                        |
| <b>Power Requirement</b>            |                                                                                   |                        |                        |
| Power Input                         | DC 11~32V with Adapter                                                            |                        |                        |
| <b>Software</b>                     |                                                                                   |                        |                        |
| OS Support                          | Win CE 5.0/6.0, Windows XP Professional, XP Embedded, Windows Embedded Standard 7 |                        |                        |
| <b>Mechanical &amp; Environment</b> |                                                                                   |                        |                        |
| Thermal Design                      | Fanless                                                                           |                        |                        |
| Chassis Material                    | Plastic molding front panel and metal casing                                      |                        |                        |
| Dimension (W x H x D)               | 231mm x 176mm x 99mm                                                              | 317mm x 243mm x 75.7mm | 317mm x 243mm x 75.7mm |
| Net Weight                          | 3.5Kgs                                                                            | 3.5Kgs                 | 3.5Kgs                 |
| IP Rating                           | NEMA 4 / Front panel IP65                                                         |                        |                        |
| Mounting                            | Panel Mount / VESA 75 x 75                                                        |                        |                        |
| Operating Temp.                     | 0~50°C                                                                            |                        |                        |
| Storage Temp.                       | -20~60°C                                                                          |                        |                        |
| Relative Humidity                   | 10 to 90% @ 40°C, non-condensing                                                  |                        |                        |
| Safety                              | CE, FCC class A                                                                   |                        |                        |

# Dimension

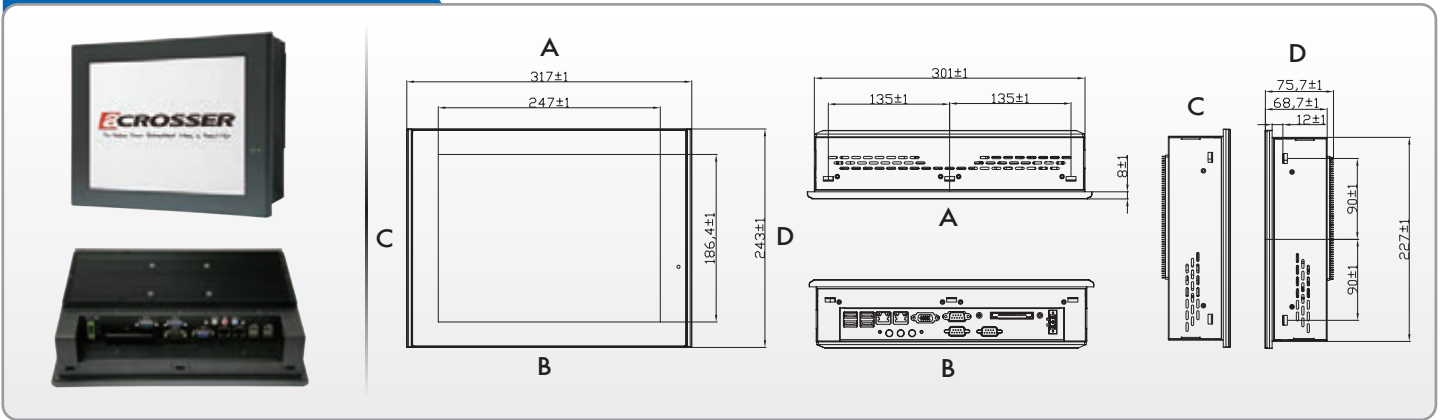
## AR-H082FL-N270DT



## AR-H100FL-N270DT



## AR-H120FL-N270DT



# N270DT Series

## Features

- Intel Atom N270 1.6GHz Processor built-in
- 320GB HDD & 1GB DDR2 RAM Default
- Low Power Consumption
- Fanless Design
- Overlay Resistive USB Touch Screen
- Front Panel IP65
- DC 11~32V wide range power input
- Additional DB15-VGA output
- Metal Casing

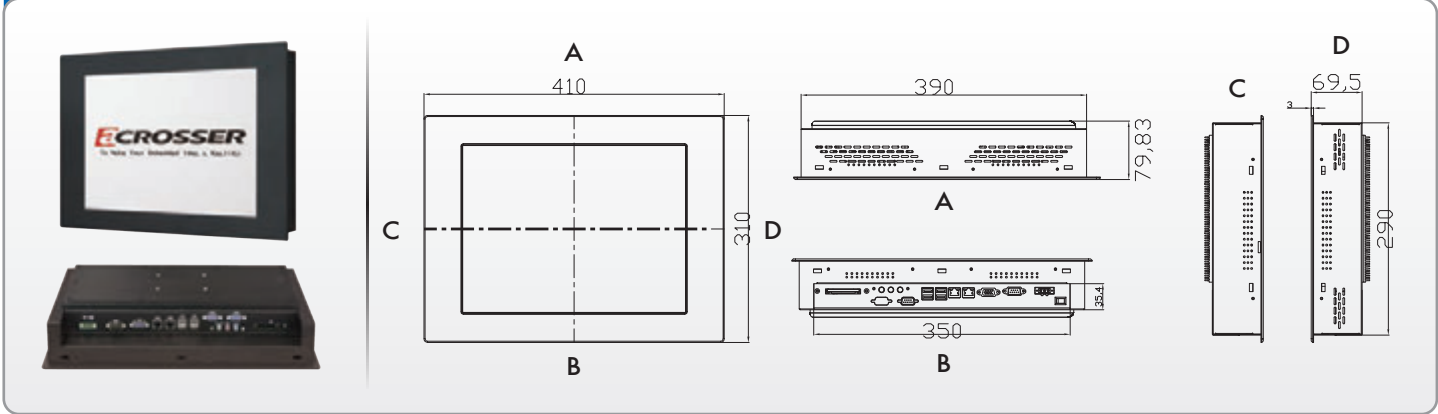


## Specification

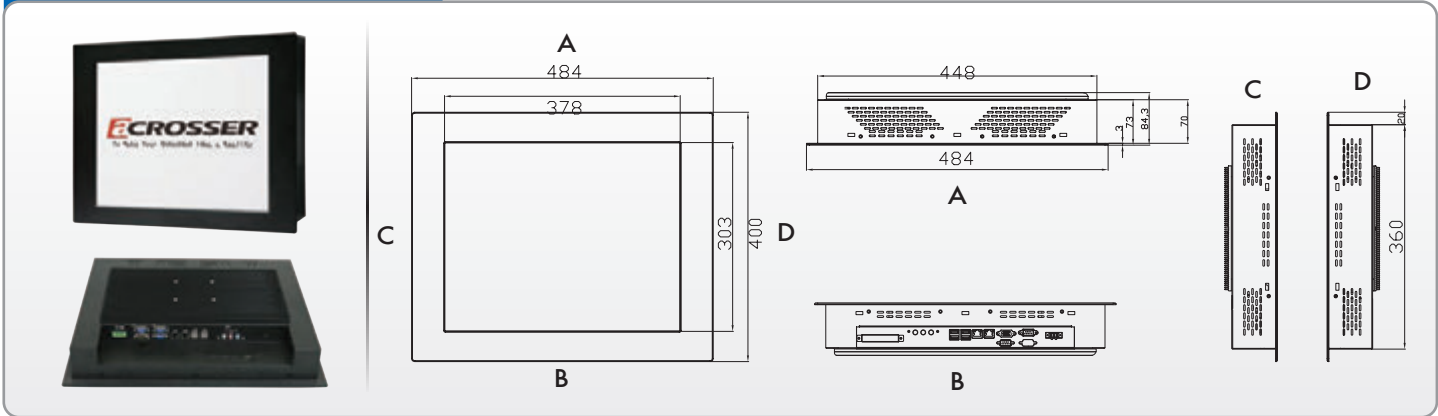
| Model Name                          | AR-H150FL-N270DT                                                                  | AR-H190FL-N270DT     |
|-------------------------------------|-----------------------------------------------------------------------------------|----------------------|
| <b>System</b>                       |                                                                                   |                      |
| CPU                                 | Intel® Atom™ N270 1.6GHz Processor built-in, FSB 533MHz                           |                      |
| Chipset                             | Intel® 945GSE + ICH7M                                                             |                      |
| Memory Type                         | 1 x 200-pin SO-DIMM socket, support 533MHz up to 2GB SDRAM                        |                      |
| Memory Pre-Installed                | Default 1GB                                                                       |                      |
| <b>LCD</b>                          |                                                                                   |                      |
| Panel Size                          | 15" TFT-LCD                                                                       | 19" TFT-LCD          |
| Max. Resolution                     | 1024 x 768                                                                        | 1280 x 1024          |
| Luminance (cd/m <sup>2</sup> )      | 300                                                                               | 300                  |
| View Angle                          | H:150° / V:140°                                                                   | H:160° / V:160°      |
| Backlight Lifetime                  | 50,000 hrs                                                                        | 50,000 hrs           |
| Touch Screen Type                   | Resistive                                                                         |                      |
| <b>Storage</b>                      |                                                                                   |                      |
| HDD                                 | 1 x 2.5" SATA HDD Bay                                                             |                      |
| CF                                  | 1 x External CF slot                                                              |                      |
| <b>I/O</b>                          |                                                                                   |                      |
| Video Interface                     | 1 x VGA                                                                           |                      |
| Ethernet                            | 2 x GbE, RJ45 with LED                                                            |                      |
| USB                                 | 4 x USB 2.0                                                                       |                      |
| Serial Port                         | 2 x RS-232 (DB9), 1 x RS-R232/422/485 (DB9, Default RS232)                        |                      |
| Audio                               | 1 x Audio Line-in / Line-out/ Mic-in                                              |                      |
| Expansion                           | N/A                                                                               |                      |
| <b>Power Requirement</b>            |                                                                                   |                      |
| Power Input                         | DC 11~32V, with Adapter                                                           |                      |
| <b>Software</b>                     |                                                                                   |                      |
| OS Support                          | Win CE 5.0/6.0, Windows XP Professional, XP Embedded, Windows Embedded Standard 7 |                      |
| <b>Mechanical &amp; Environment</b> |                                                                                   |                      |
| Thermal Design                      | Fanless                                                                           |                      |
| Chassis Material                    | Heavy-duty Metal Chassis                                                          |                      |
| Dimension (W x H x D)               | 410mm x 310mm x 80mm                                                              | 484mm x 400mm x 85mm |
| Net Weight                          | 8.5 Kgs                                                                           | 13.8 Kgs             |
| IP Rating                           | NEMA 4 / Front panel IP65                                                         |                      |
| Mounting                            | Panel Mount / VESA 75 x 75                                                        |                      |
| Operating Temp.                     | 0~50°C                                                                            |                      |
| Storage Temp.                       | -20~60°C                                                                          |                      |
| Relative Humidity                   | 10 to 90% @ 40°C, non-condensing                                                  |                      |
| Safety                              | CE, FCC class A                                                                   |                      |

# Dimension

## AR-H150FL-N270DT



## AR-H190FL-N270DT



# D525DT Series

## Features

- Intel Atom D525 for main stream performance
- Intel P8400 w/ GM45 for great 3D graphics performance
- 320GB HDD & 2GB DDR3 RAM Default
- Accessible 2.5" SATA HDD Space
- Resistive USB Touch Screen
- DC 11~32V wide range power input
- Additional DB15-VGA output
- Front Panel IP65
- Fanless Design



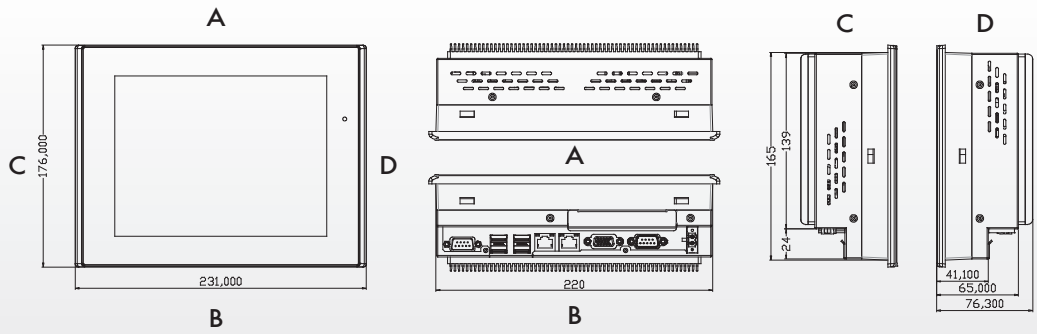
## Specification

| Model Name                          | AR-H080FL-D525DT                                                                  | AR-H120FL-D525DT                                      | AR-H150FL-D525DT     | AR-P15BFLDC-P84T                                |
|-------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------|----------------------|-------------------------------------------------|
| <b>System</b>                       |                                                                                   |                                                       |                      |                                                 |
| CPU                                 | Intel® Atom™D525 1.8GHz Built-in                                                  |                                                       |                      | Intel® P8400 2.26 GHz Default                   |
| Chipset                             | Intel® ICH8M                                                                      |                                                       |                      | Intel® GM45 + ICH9M                             |
| Memory Type                         | 1 x 204-pin SO-DIMM socket, support DDR3 800MHz                                   |                                                       |                      | 2 x 204-pin SO-DIMM socket, support DDR3 800MHz |
| Memory Pre-Installed                | Default 2 GB                                                                      |                                                       |                      |                                                 |
| <b>LCD</b>                          |                                                                                   |                                                       |                      |                                                 |
| Panel Size                          | 8" TFT-LCD                                                                        | 12.1" TFT-LCD                                         | 15" TFT-LCD          | 15" TFT-LCD                                     |
| Max. Resolution                     | 800 x 600                                                                         | 800 x 600                                             | 1024 x 768           | 1024 x 768                                      |
| Luminance (cd/m <sup>2</sup> )      | 350                                                                               | 350                                                   | 400                  | 300                                             |
| View Angle                          | H:130° / V:110°                                                                   | H:140° / V:110°                                       | H:160° / V:140°      | H:150° / V:140°                                 |
| Backlight Lifetime                  | 50,000 hrs                                                                        |                                                       |                      |                                                 |
| Touch Screen Type                   | Overlay Resistive                                                                 |                                                       | Resistive            |                                                 |
| <b>Storage</b>                      |                                                                                   |                                                       |                      |                                                 |
| HDD                                 | 1 x 2.5" SATA HDD Bay                                                             |                                                       |                      |                                                 |
| CF                                  | 1 x External CF slot                                                              |                                                       | 1 x Internal CF slot |                                                 |
| <b>I/O</b>                          |                                                                                   |                                                       |                      |                                                 |
| Video Interface                     | 1 x VGA                                                                           |                                                       |                      | 1 x VGA & 1 x HDMI                              |
| Ethernet                            | 2 x GbE, RJ45 with LED                                                            |                                                       |                      |                                                 |
| USB                                 | 4 x USB 2.0                                                                       |                                                       |                      |                                                 |
| Serial Port                         | 1 x RS-232 (DB9), 1 x RS-422/485 (DB9, Default RS485)                             | 2 x RS-232 (DB9), 1 x RS-422/485 (DB9, Default RS485) |                      |                                                 |
| Audio                               | 1 x Audio Line-out 3.5 mm Jack                                                    |                                                       |                      |                                                 |
| Expansion                           | N/A                                                                               |                                                       |                      | 1 x PCI Slot                                    |
| <b>Power Requirement</b>            |                                                                                   |                                                       |                      |                                                 |
| Power Input                         | DC 11~32V with Adapter                                                            |                                                       |                      | DC 9~32V with Adapter                           |
| <b>Software</b>                     |                                                                                   |                                                       |                      |                                                 |
| OS Support                          | Win CE 5.0/6.0, Windows XP Professional, XP Embedded, Windows Embedded Standard 7 |                                                       |                      |                                                 |
| <b>Mechanical &amp; Environment</b> |                                                                                   |                                                       |                      |                                                 |
| Thermal Design                      | Fanless                                                                           |                                                       |                      |                                                 |
| Chassis Material                    | Plastic molding front panel and metal casing                                      |                                                       | Metal Casing         |                                                 |
| Dimension (W x H x D)               | 231mm x 176mm x 77mm                                                              | 317mm x 243mm x 77mm                                  | 410mm x 310mm x 71mm | 410mm x 310mm x 90mm                            |
| Net Weight                          | 3.5 Kgs                                                                           | 5.9 Kgs                                               | 6.9 Kgs              | 7.8 Kgs                                         |
| IP Rating                           | NEMA 4 / Front panel IP65                                                         |                                                       |                      | Front Panel IP65                                |
| Mounting                            | Panel Mount / VESA 75 x 75                                                        |                                                       |                      |                                                 |
| Operating Temp.                     | 0~50°C                                                                            |                                                       |                      | -10~50°C                                        |
| Storage Temp.                       | -20~60°C                                                                          |                                                       |                      |                                                 |
| Relative Humidity                   | 10 to 90% @ 40°C, non-condensing                                                  |                                                       |                      |                                                 |
| Safety                              | CE, FCC class A                                                                   |                                                       |                      |                                                 |

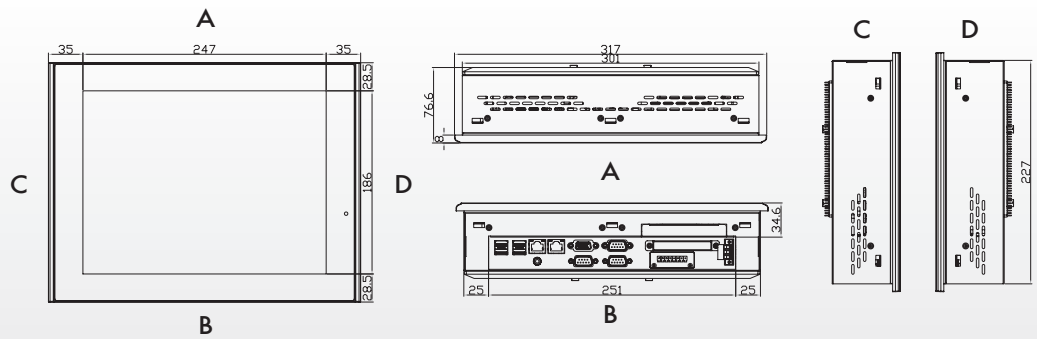


# Dimension

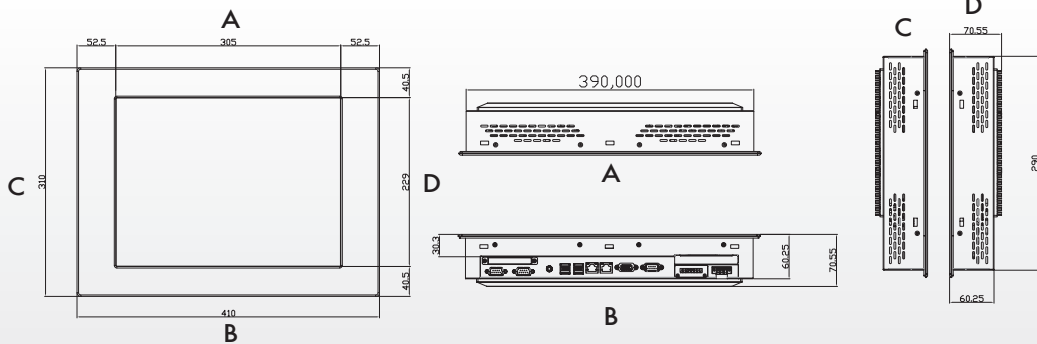
## AR-H080FL-D525DT



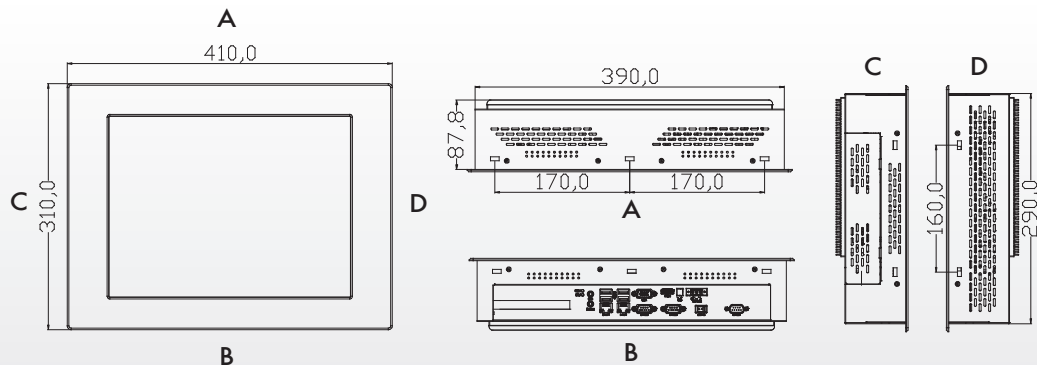
## AR-H120FL-D525DT



## AR-H150FL-D525DT



## AR-P15BFLDC-P84T



# Stainless-D525DT Series

## Features

- Intel Atom D525 1.8GHz built-in
- 320GB HDD & 2GB DDR3 RAM Default
- Mainstream Performance
- Fanless Design
- Resistive USB Touch Screen
- Front panel IP65 / 6 sides IP42 with waterproof kit
- DC 11~32V wide range power input
- Stainless Steel Casing
- OSD LED Light at right side

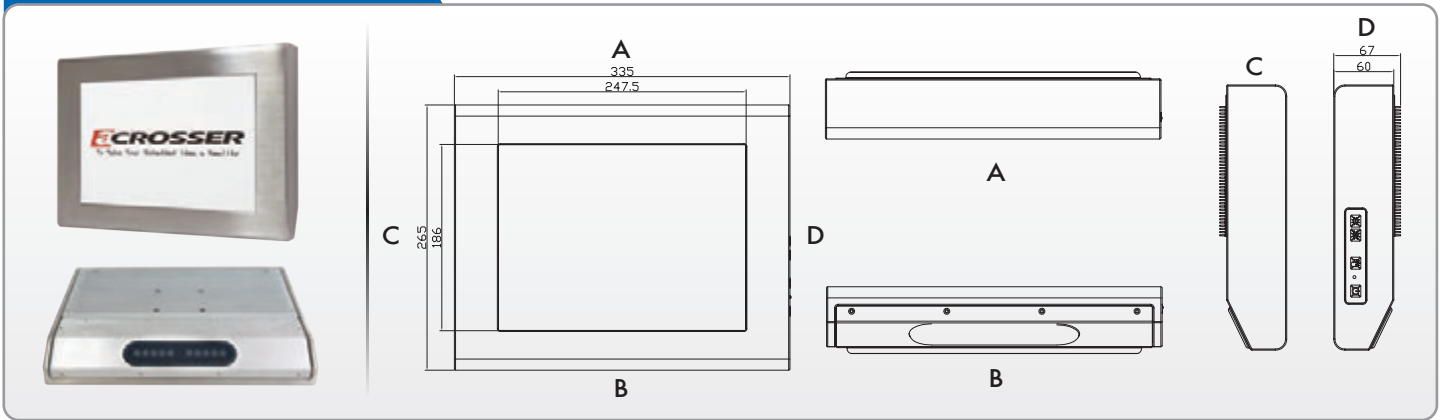


## Specification

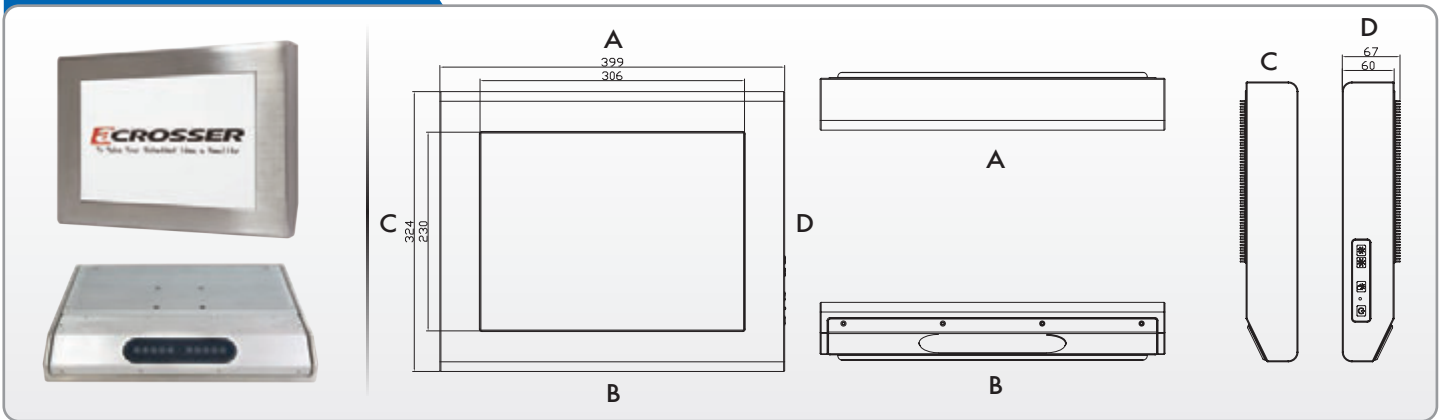
| Model Name                          | AR-S120FL-D525DT                                                               | AR-S150FL-D525DT                           |
|-------------------------------------|--------------------------------------------------------------------------------|--------------------------------------------|
| <b>System</b>                       |                                                                                |                                            |
| CPU                                 | Intel® Atom™ D525 1.8GHz built-in                                              |                                            |
| Chipset                             | Intel® ICH8M                                                                   |                                            |
| Memory Type                         | 1 x 204 Pin DDR3 800MHz SO-DIMM slot                                           |                                            |
| Memory Pre-Installed                | 2GB Default                                                                    |                                            |
| <b>LCD</b>                          |                                                                                |                                            |
| Panel Size                          | 12.1" TFT-LCD                                                                  | 15" TFT-LCD                                |
| Max. Resolution                     | 800 x 600                                                                      | 1024 x 768                                 |
| Luminance (cd/m <sup>2</sup> )      | 350                                                                            | 400                                        |
| View Angle                          | H:170° / V:160°                                                                |                                            |
| Backlight Lifetime                  | 50,000hrs                                                                      |                                            |
| Touch Screen Type                   | Resistive                                                                      |                                            |
| <b>Storage</b>                      |                                                                                |                                            |
| HDD                                 | 1 x 2.5" SATA HDD Bay                                                          |                                            |
| CF                                  | 1 x Internal CF slot                                                           | 1 x Internal CF slot, 1 x External CF slot |
| <b>I/O</b>                          |                                                                                |                                            |
| Video Interface                     | N/A                                                                            |                                            |
| Ethernet                            | 2 x 10/100Mbps RJ45 with LED                                                   |                                            |
| USB                                 | 4 x USB 2.0                                                                    |                                            |
| Serial Port                         | 1 x RS-232 (DB9), 1 x RS-232/422/485 (DB9, Default RS485)                      |                                            |
| Audio                               | 1 x 7 pin terminal block for 2 in/out , 1 ground, 1 switch ±1 x DC power input |                                            |
| Expansion                           | OSD keypad Brightness / Screen and Touch on/off / Power on/off At right side   |                                            |
| <b>Power Requirement</b>            |                                                                                |                                            |
| Power Input                         | DC 11~32V with Adapter                                                         |                                            |
| <b>Software</b>                     |                                                                                |                                            |
| OS Support                          | Windows XP, XP Embedded, Window 7, Windows Embedded Standard 7                 |                                            |
| <b>Mechanical &amp; Environment</b> |                                                                                |                                            |
| Thermal Design                      | Fanless                                                                        |                                            |
| Chassis Material                    | Stainless Steel                                                                |                                            |
| Dimension (W x H x D)               | 335 mm x 265 mm x 67mm                                                         | 399 mm x 324 mm x 67mm                     |
| Net Weight                          | 4 kgs                                                                          | 7.5 kgs                                    |
| IP Rating                           | Front panel IP65 / 6 sides IP42 with waterproof kit                            |                                            |
| Mounting                            | VESA 75 x 75                                                                   |                                            |
| Operating Temp.                     | 0~50°C                                                                         |                                            |
| Storage Temp.                       | -20~60°C                                                                       | -30~80°C                                   |
| Relative Humidity                   | 10 to 90% @ 40°C, non-condensing                                               |                                            |
| Safety                              | CE, FCC class A                                                                |                                            |

# Dimension

## AR-S120FL-D525DT



## AR-S150FL-D525DT



# Display Panel-12T Series

## Features

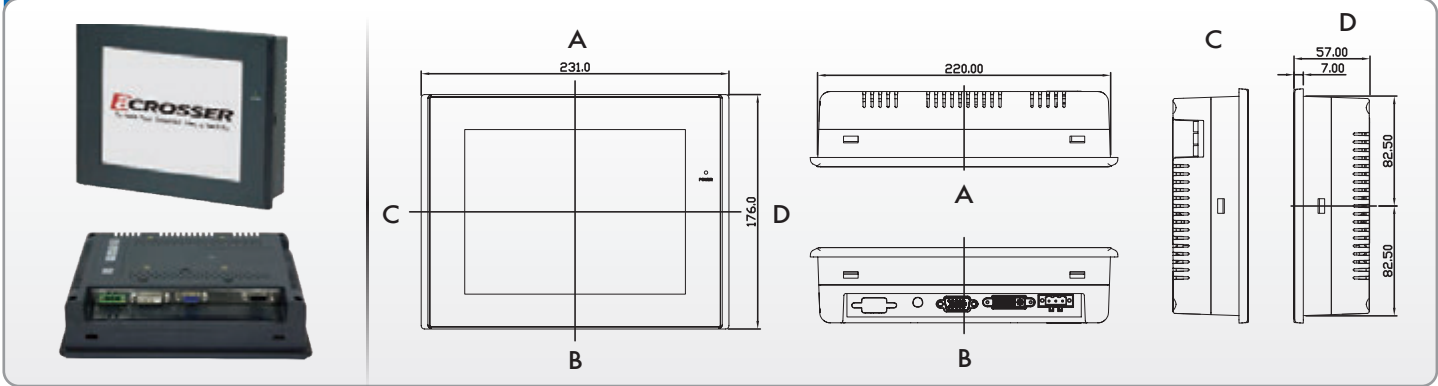
- Industrial Display
- 8", 10, & 12" with overlay (sealed) USB resistive touch
- 15" with USB resistive touch
- 8", 10, & 12" Monitor is with DC 12V power input & adapter
- 15" Monitoris with AC 100~240V input
- Default VGA input, optional for VGA/DVI input
- OSD at rear side
- Front Panel IP65

## Specification

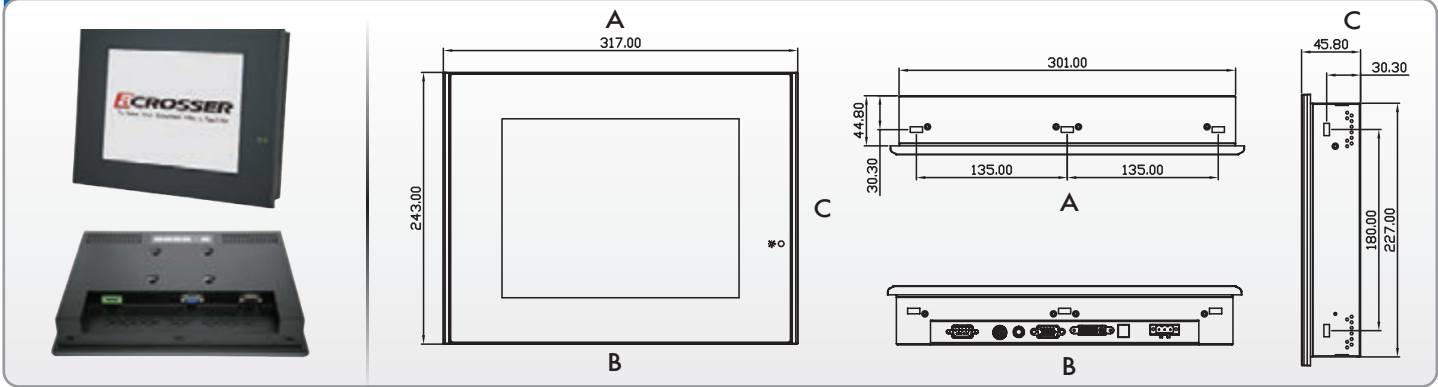
| Model Name                          | AR-DP080-12T                     | AR-DP100-12T                                | AR-DP120-12T           | AR-DP150-AT            |
|-------------------------------------|----------------------------------|---------------------------------------------|------------------------|------------------------|
| <b>LCD</b>                          |                                  |                                             |                        |                        |
| Panel Size                          | 8" TFT-LCD                       | 10.4" TFT-LCD                               | 12.1" TFT-LCD          | 15" TFT-LCD            |
| Max. Resolution                     | 800 x 600                        |                                             |                        | 1024 x 768             |
| Luminance (cd/m <sup>2</sup> )      | 350                              | 250                                         | 400                    | 350                    |
| Backlight Lifetime                  | 40,000hrs                        | 30,000hrs                                   | 50,000hrs              | 50,000hrs              |
| Viewing Angle                       | H:130° / V:110°                  |                                             |                        | H:160° / V:140°        |
| <b>Touch Screen</b>                 |                                  |                                             |                        |                        |
| Type                                | Overlay Resistive Touch          |                                             |                        | Resistive Touch        |
| Light Transmittion                  | 80%                              |                                             |                        |                        |
| <b>I/O</b>                          |                                  |                                             |                        |                        |
| Video Interface                     | 1 x VGA input                    |                                             |                        |                        |
| Video Optional                      | 1 x DVI                          | 1 x DVI, 1 x S-Video                        |                        |                        |
| USB                                 | 1 x USB 2.0 for Touch            |                                             |                        |                        |
| OSD                                 | At Rear Side                     |                                             |                        |                        |
| <b>Power Requirement</b>            |                                  |                                             |                        |                        |
| Power Input                         | 12 V DC input with adapter       |                                             |                        | AC 100-240V            |
| <b>Mechanical &amp; Environment</b> |                                  |                                             |                        |                        |
| Chassis Material                    | Plastic Casing                   | Heavy-duty metal chassis with plastic front |                        | Metal Enclosure        |
| Dimension (W x H x D)               | 231 mm x 176 mm x 57mm           | 317 mm x 243 mm x 45 mm                     | 390 mm x 264 mm x 63mm | 410 mm x 310 mm x 60mm |
| Net Weight                          | 1.5 kgs                          | 3.5 kgs                                     | 4.14 kgs               | 8.25kgs                |
| IP Rating                           | Front panel IP65                 |                                             |                        |                        |
| Mounting                            | Panel Mount / VESA 75 x 75       |                                             |                        |                        |
| Operating Temp.                     | 0~50°C                           |                                             |                        |                        |
| Storage Temp.                       | -20~60°C                         |                                             |                        |                        |
| Relative Humidity                   | 10 to 90% @ 40°C, non-condensing |                                             |                        |                        |
| Safety                              | CE, FCC class A                  |                                             |                        |                        |

# Dimension

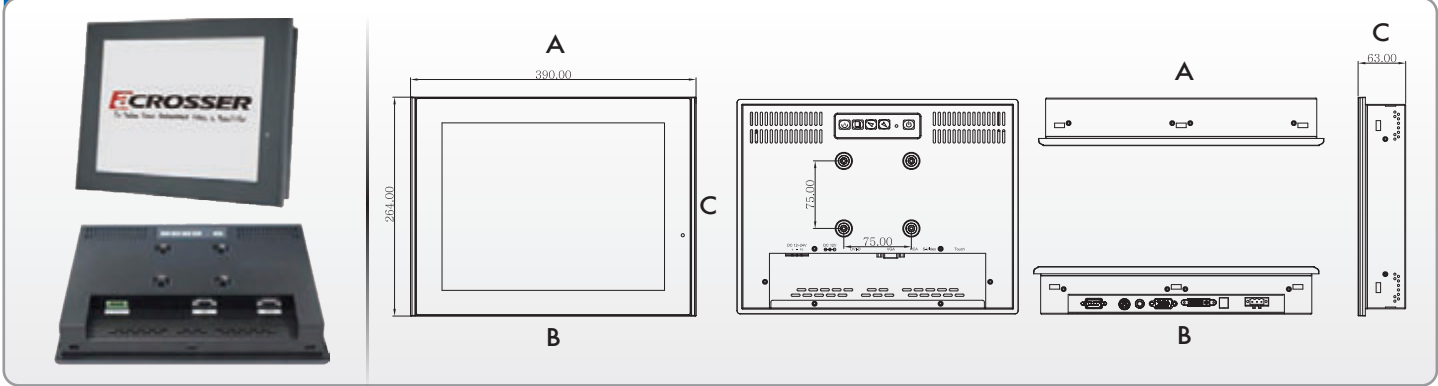
## AR-DP080-12T



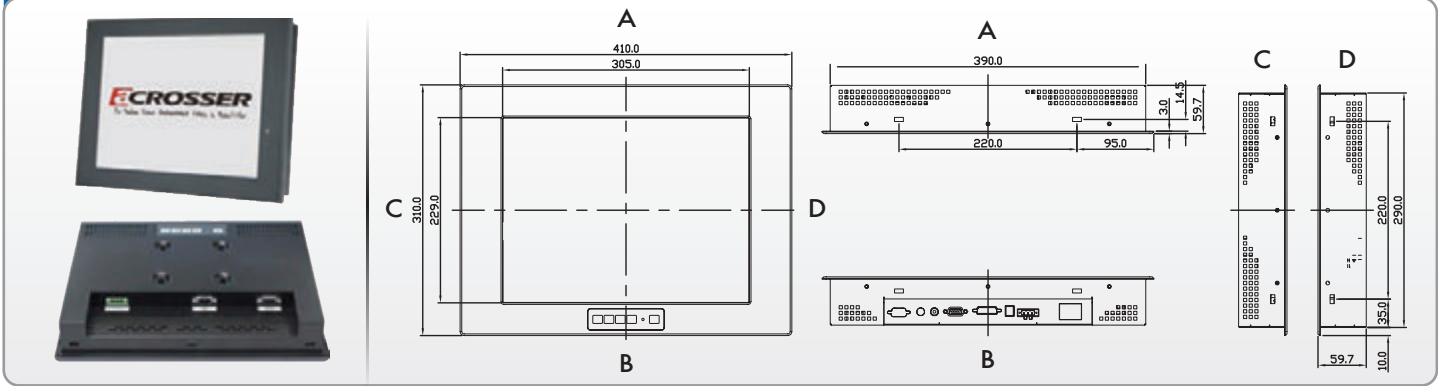
## AR-DP100-12T



## AR-DP120-12T



## AR-DP150-AT



In-Vehicle Computer

Gaming Platform

Networking Appliance

Embedded SBC

Embedded System

Panel PC

# Projected Display-PDT Series

## Features

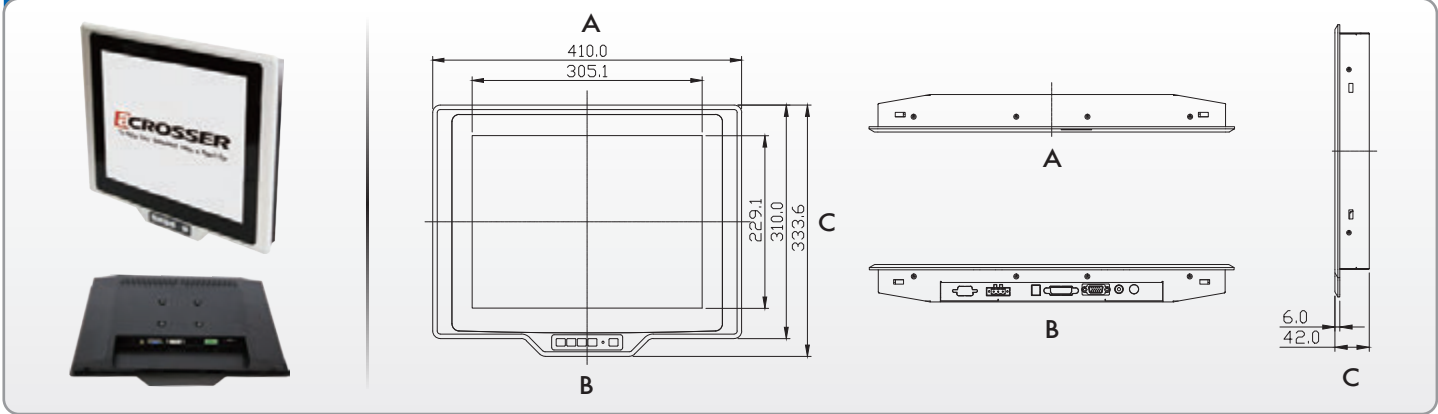
- 15" & 19" Industrial Display
- P-Cap touch screen for Multi-touch (Window Base)
- OSD at rear side
- Front Panel IP65
- DC 11~32V input with adapter
- Flat Panel Design
- VGA / DIV / S-video input

## Specification

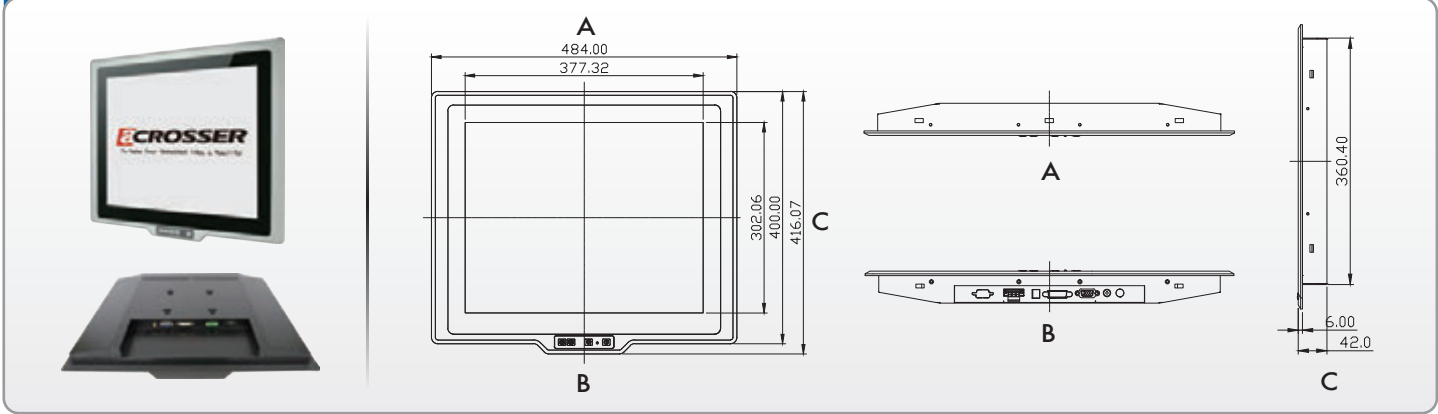
| Model Name                          | AR-DP150-PDT                                                              | AR-DP190-PDT                 |
|-------------------------------------|---------------------------------------------------------------------------|------------------------------|
| <b>LCD</b>                          |                                                                           |                              |
| Panel Size                          | 15" TFT-LCD                                                               | 19" TFT-LCD                  |
| Max. Resolution                     | 1024 x 768                                                                | 1280 x 1024                  |
| Luminance (cd/m <sup>2</sup> )      | 400                                                                       | 300                          |
| Backlight Lifetime                  | 50,000hrs                                                                 |                              |
| Viewing Angle                       | H:160° / V:145°                                                           | H:170° / V:160°              |
| <b>Touch Screen</b>                 |                                                                           |                              |
| Type                                | Projected Capacitive Touch                                                |                              |
| Light Transmittion                  | 80%                                                                       |                              |
| <b>I/O</b>                          |                                                                           |                              |
| Video Interface                     | 1 x VGA, 1 x DVI, 1 x AV, 1 x S-Video                                     |                              |
| USB                                 | 1 x USB 2.0 for Touch                                                     |                              |
| Power Input                         | 1 x 3 Pin DC power input terminal block, 1 x DC 11~32V input with adapter |                              |
| OSD                                 | At rear side                                                              |                              |
| <b>Power Requirement</b>            |                                                                           |                              |
| Power Input                         | DC 11~32V with Adapter                                                    |                              |
| <b>Mechanical &amp; Environment</b> |                                                                           |                              |
| Chassis Material                    | Aluminum front bezel and Metal Casing                                     |                              |
| Dimension (W x H x D)               | 410 mm x 331 mm x 42 mm                                                   | 484 mm x 416 mm x 47 mm      |
| Net Weight                          | 4.2 kgs                                                                   | 5.9 kgs                      |
| IP Rating                           | Front panel IP65                                                          |                              |
| Mounting                            | Panel Mount / VESA 75 x 75                                                | Panel Mount / VESA 100 x 100 |
| Operating Temp.                     | -20~60°C                                                                  | 0~50°C                       |
| Storage Temp.                       | -20~70°C                                                                  | -20~60°C                     |
| Relative Humidity                   | 10 to 90% @ 40°C, non-condensing                                          |                              |
| Safety                              | CE, FCC class A                                                           |                              |

# Dimension

## AR-DP150-PDT



## AR-DP190-PDT







# Note

