



*To Make Your
Embedded Idea a Reality*



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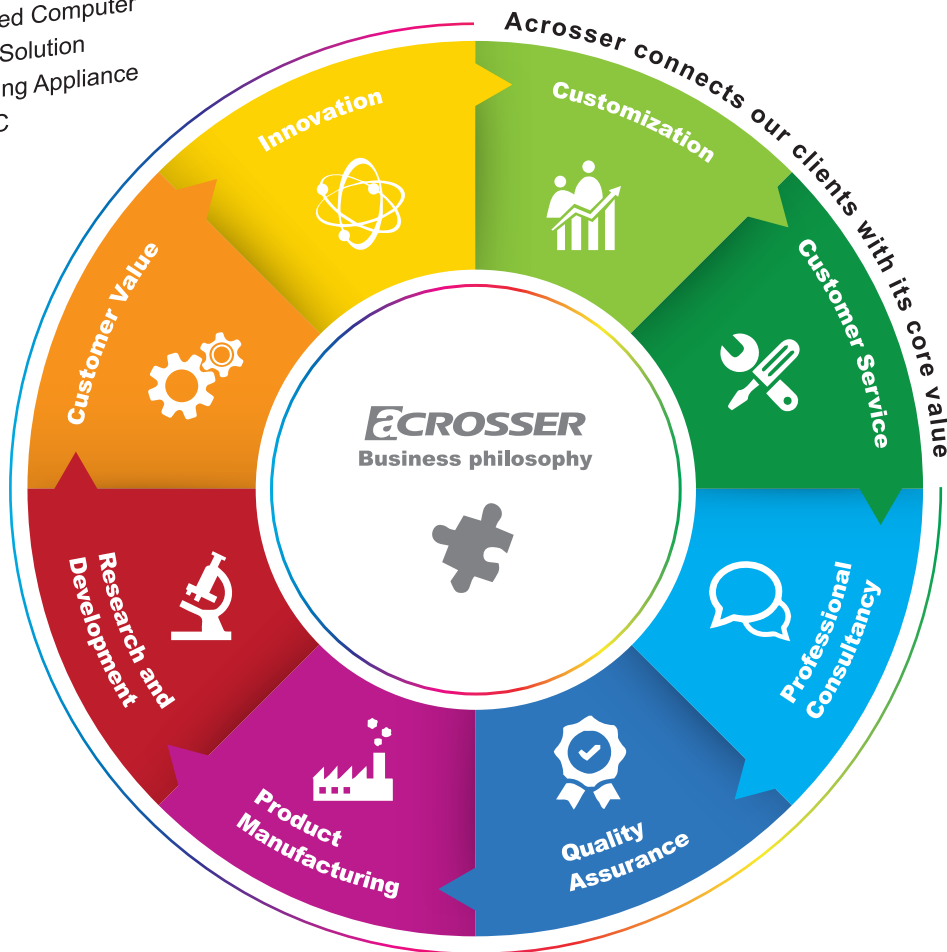
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To Make Your Embedded Idea a Reality



Our Products

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



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.

***E*CROSSER**

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Embedded SBC Intel CPU Support List

Process	Series	Processor number	Clock	L2	Socket	CPU TDP	AMB-BT45B1 Intel Bay Trail	AMB-BT19T2 Intel Bay Trail	AMB-BT19S1 Intel Bay Trail	AMB-HM76B1FL Intel HM76	AMB-HM76B1 Intel HM76
22nm	Haswell i7	i7-4470TE	3.3GHz	8MB	FCBGA1150	45W					
	Haswell i5	i5-4590T	3.0GHz	6MB	FCBGA1150	35W					
	Haswell i5	i5-4570T	3.3GHz	4MB	FCBGA1150	35W					
	Haswell i3	i3-4350T	3.1GHz	4MB	FCBGA1150	35W					
	Haswell i3	i3-4330TE	2.4GHz	4MB	FCBGA1150	35W					
	Haswell i3	i3-4340TE	2.6GHz	4MB	FCBGA1150	35W					
	Ivy Bridge i7	i7-3517UE	1.7 GHz	4MB	FCBGA1023	17W				●	●
	Ivy Bridge i7	i7-3615QE	2.3 GHz	6MB	FCBGA1023	45W					
	Ivy Bridge i7	i7-3770	3.4 GHz	8MB	FCLGA1155	77W					
	Ivy Bridge i5	i5-3550S	3 GHz	6MB	FCLGA1155	65W					
	Ivy Bridge i3	i3-3217UE	1.6 GHz	3MB	FCBGA1023	17W				●	●
	Celeron	1047UE	1.4 GHz	2MB	FCBGA1023	17W				●	●
	Celeron	J1900	2.42GHz	2MB	FCBGA1170	10W	●	●	●		
	Atom Quad-Core	E3845	1.91GHz	2MB	FCBGA1170	10W	●	●	●		
Atom Single-Core	E3815	1.46GHz	512KB	FCBGA1170	10W	●	●	●			
32nm	Sandy Bridge i3	i3-2120	3.3 GHz	3MB	FCLGA1155	65W					
	Atom Dual-Core	N2800	1.86GHz	1MB	FCBGA559	6.5W					
	Atom Dual-Core	D2550	1.86GHz	1MB	FCBGA559	10W					
45nm	Atom	D425	1.80GHz	512KB	FCBGA559	10W					
	Atom Dual-Core	D525	1.80GHz	1MB	FCBGA559	13W					
	Atom	E620	600MHz	512KB	FCBGA676	3.3W					
	Atom	N450	1.66GHz	512KB	FCBGA559	5.5W					

Processor number	AMB-IH81T1 Intel H81	AMB-IH61T3 Intel H61	ACM-B6360 QM77 w ECC	AMB-N280S1 Intel N2800 NM10	AR-B6051 Intel EG20T	AR-B6050 ICH8M	AR-B6003 Intel ICH8M					
i7-4470TE	●											
i5-4590T	●											
i5-4570T	●											
i3-4350T	●											
i3-4330TE	●											
i3-4340TE	●											
i7-3517UE		●										
i7-3615QE		●	●									
i7-3770												
i5-3550S												
i3-3217UE		●										
1047UE												
J1900												
E3845												
E3815												
i3-2120												
N2800				●								
D2550				●								
D425							●					
D525					●		●					
E620					●							
N450						●						

Product Matrix

In-Vehicle Computers



Form Factor	In-Vehicle Computer			
Model Name	AIV-QM97V1FL	AIV-HM76V1FL	AIV-HM76V0FL	AR-V6100FL
Specification				
CPU	Intel Core i7 5650U / i5 5350U / i3 5010U	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
Memory	2 x DDR3L SO-DIMM, up to 16GB	2 x DDR3L SO-DIMM, up to 16GB	2 x DDR3L SO-DIMM, Pre-install 2GB, up to 16GB	2 x DDR3L SO-DIMM, Pre-install 2GB, up to 8GB
Video				
Video Interface	1 x HDMI type A connector 1 x DVI-D connector	2 x HDMI type A connector 1 x Combo connector	1 x HDMI type A connector 1 x Combo connector 1 x DVI-D connector	1 x HDMI type A connector 1 x Combo connector 1 x DVI-D connector
Storage				
SATA	1 x SATA III port	1 x SATA III port	2 x SATA III port	2 x SATA III port
SSD	1 x M.2 SSD			
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" SDD Bay with Anit-vibration / Anit-shock	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
I/O				
Expansion Slot	1 x mini PCIe	2 x mini PCIe	2 x mini PCIe	2 x mini PCIe
Ethernet	2 x GbE LAN	2 x GbE LAN	2 x GbE LAN	2 x GbE LAN
Serial Port	2 x RS232 1 x RS422/485	3 x RS232 1 x RS232/422/485	1 x RS232 1 x RS232/422/485	1 x RS232 1 x RS232/422/485
USB	2 x USB 3.0 2 x USB 2.0	3 x USB 3.0 1 x USB 2.0 (Combo)	4 x USB 3.0 1 x USB 2.0 (Combo)	4 x USB 2.0 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
Power Requirement				
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)
Software				
OS Support	Windows 7 / Windows 8.1 Fedora 21 / Ubuntu 15.04	Windows 7 / Windows Embedded Fedora 14 / Ubuntu 10	Windows 7 / Windows XP / Fedora 14 / Ubuntu 10	Windows XP / Fedora 14 / Ubuntu 10
Mechanical & Environment				
Dimension	290 x 190 x 45 mm	290 x 190 x 35 mm	310 x 195 x 80 mm	310 x 195 x 80 mm
Weight	4 Kg	3 Kg	6 Kg	6 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			
Optional Wireless Module				
3.5G	GPRS/EDGE/WCDMA/HSUPA/HSDPA			
GPS / WiFi / Bluetooth	YES, IEEE 802.11 b/g/n, YES			
Reference				
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Product Matrix



AR-V6005FL	AR-V6002FL
Intel Atom E640	Intel Atom D525 / D425
OnBoard DDR2, Pre-install 2GB	1 x DDR3 SO-DIMM, Pre-install 1GB, up to 4GB
1 x Combo connector 1 x DVI connector	1 x VGA port
1 x SATAII port	2 x SATA II port
1 x External CF socket	1 x External CF socket
1 x Anti-shock 2.5" HDD Bay with easy swappable bracket	1 x Anti-shock 2.5" HDD Bay with easy swappable bracket
2 x mini PCIe	2 x mini PCIe
1 x GbE LAN	1 x GbE LAN
2 x RS232	2 x RS232
1 x RS232/422/485	2 x RS232/422/485
1 x USB 2.0	4 x USB 2.0
1 x USB 2.0 (Combo)	
4 In, 4 Out	4 In, 4 Out
1 x MIC in, 1 x Audio out	1 x MIC in, 1 x Audio out
1 x Remote control switch	1 x Remote control switch
1 x External SIM Slot	1 x External SIM Slot
YES	YES
1-Wire interface	-
DC 9V ~ 32V	DC 12V / 24V
DC 12V (Combo)	-
Fedora 14 / Ubuntu 10	Windows XP / XPE / Linux Fedora 12
294 x 128 x 68 mm	280 x 181.5 x 76.8 mm
2.4 Kg	2.7 Kg
0 ~ 60°C (32~ 140°F)	0 ~ 50°C (32 ~122°F)
16	18

In-Vehicle Monitors



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



Form Factor	In-Vehicle Monitors	
Model Name	AR-DP080VW	AR-DP100V / VD
Panel Size	8" Wide Screen (16:9)	10.4" Screen (4:3)
Resolution	640 x 480~1600 x 1024 pixels	640 x 480 pixels~1024 x 768 pixels
Luminance	400 nits (cd/m2)	300 nits (cd/m2)
View Angle(T/B/L/R)	40/60/60/60 deg.	50/60/75/75 deg.
Backlight Lifetime	20,000 hours	LED
Operating Temp	-30~85°C	-10~ 60°C
Power Consumption	10W	12W
I/O Combo cable (One-to-VGA / USB / Audio / DC interface)		
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)	DC Jack (12V ~ 24V)
Reference		
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AIV-QM97V1FL

All new Fanless In-Vehicle system, Intel Core i3/i5/i7 Broadwell U with smart power system, GPS/ 4G LTE/ WiFi/ Bluetooth/ M.2 SSD option module



Specification

System

CPU	Intel Core i3 5010U / i5 5350U / i7 5650U
Chipset	-
Memory	2 x DDR3L-1600MHz, SO-DIMM, up to 16GB (non-ECC)

Video

Graphic Controller	Intel® HD Graphics 6000
Video Memory	DVMT
Video Interface	1 x HDMI type A connector 1 x DVI-D connector

Storage

SATA	1 x SATA III port with power connector
SSD	1 x M.2 SSD
Disk Bay	1 x swappable 2.5" SSD bay with Anti-vibration / Anti-shock solution

Communication

Ethernet	2 x Intel GbE chip via RJ-45 connector (Intel i210IT)
USB	2 x USB 3.0, 2 x USB 2.0
Serial Port	2 x RS232 (2 x DB9) 1 x RS422/RS485 (Select by GPIO)

I/O

Expansion Slot	mini PCIe Socket supported for WiFi+BT.
GPIO	8-bit GPIO (4 In, 4 Out)
Antenna Hole	1 x SMA for GPS, 1 x SMA for 4G LTE, 2 x SMA for WiFi, 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, Windows 8.1, Fedora 21, Ubuntu 15.04
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Features

- Rugged fanless design
- Support Intel 5th generation Core i Broadwell U processors
- 2 x DDR3L-1600MHz, SO-DIMM, up to 16GB
- Support CAN 2.0A/2.0B protocol and i-Button for driver ID
- HDMI & DVI-D output
- Wide variety of wireless communication options
- M.2 SSD & M.2 4G LTE support



Others Feature

Audio	Audio Codec (Line-out & MIC)
Hardware Monitor	CPU voltage and temperature
WatchDog Timer	0~255 sec. software programmable
Indicator	Power / HDD/ Status LED

Power Requirement

Power Input	9~32 V (+/-5%) single voltage input, 3 poles terminal block
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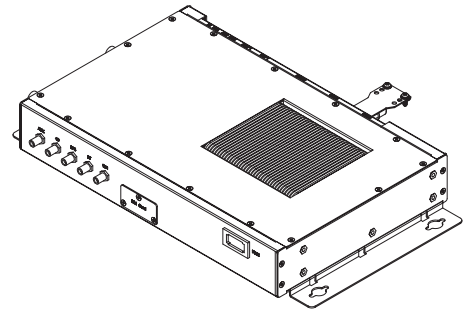
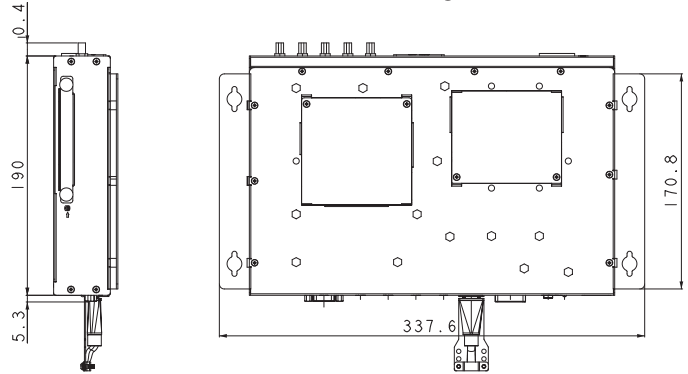
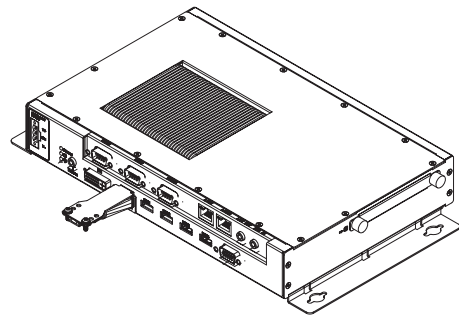
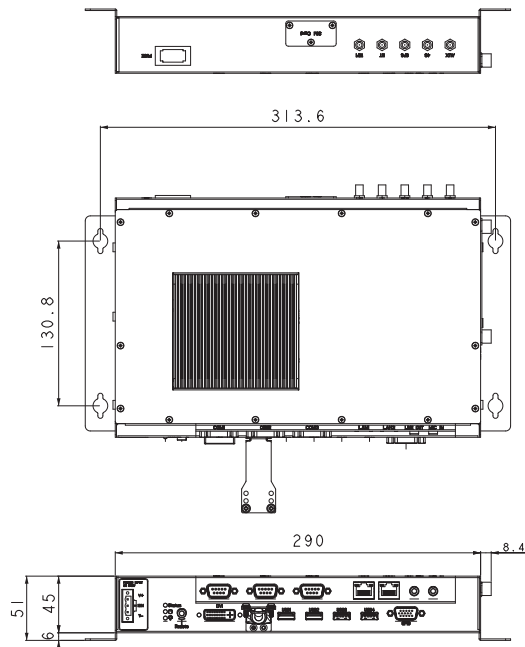
Mechanical & Environment

Thermal Design	Fanless
Chassis Material	Metal SPGC (Black printing color)+ Aluminum heatsink
Vibration	IEC 60068-2-64, 5~500Hz, 3GRMS(CF/SSD), Operating with SSD
Shock	IEC 60068-2-27, 50G 500m/s ² 11MS, Operating with SSD
Dimension	290mm x 190mm x 45mm
Weight	4 kg
Operating Temp.	0~60°C
Storage temp.	-40~80°C
Relative Humidity	0~90% @ 40°C, non-condensing
Safety	CE, FCC class B , E-Mark

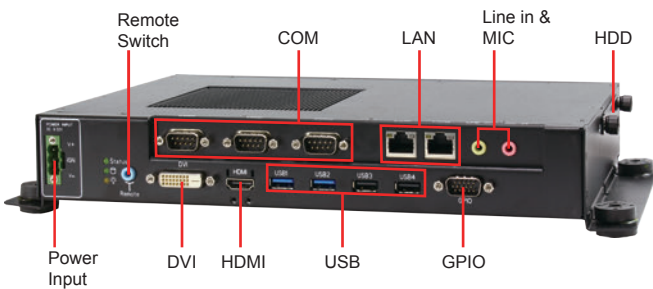
Smart In-Vehicle Power Management

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
Power on/off switches	<ul style="list-style-type: none"> • System power switch by remote cable switch • System power input serial connection to car battery and ignition switch
Car battery protection	Low battery voltage monitoring and configurable auto shutdown low battery voltage level

Dimension



I/O Connectors



Packing List

- 1 x AIV-QM97V1FL
- 1 x User Guide & System Driver CD
- 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
- HDMI locking bracket

Ordering Information

AIV-QM97V1FLCi3	AIV-QM97V1FLCi3 with Intel Core i3 5010U
AIV-QM97V1FLCi5	AIV-QM97V1FLCi5 with Intel Core i5 5350U
AIV-QM97V1FLCi7	AIV-QM97V1FLCi7 with Intel Core i7 5650U

Optional Modules

Sierra 7355/7305 4G LTE & GPS module
Sparklan 251N(BT) 802.11 WiFi+BT module
Transcend TS128GMTS800 /M.2 TYPE 2280-D2-B-M / SATA SSD / 128GB

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 DDR3L-1333/1600MHz, 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 DDR3L-1333/1600MHz, SO-DIMM, up to 16GB

Video

Graphic Controller	Integrated in Processors
Video Memory	DVMT
Video Interface	2 x HDMI type A connector 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
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 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) Fedora 17(32/64 bit)14 / Ubuntu 12.10(32/64 bit)
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Others Feature

Audio	Audio Codec (Line-out & MIC)
Hardware Monitor	CPU voltage and temperature 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, 3 pole terminal block
Out Put Voltage	12V DC, 120W

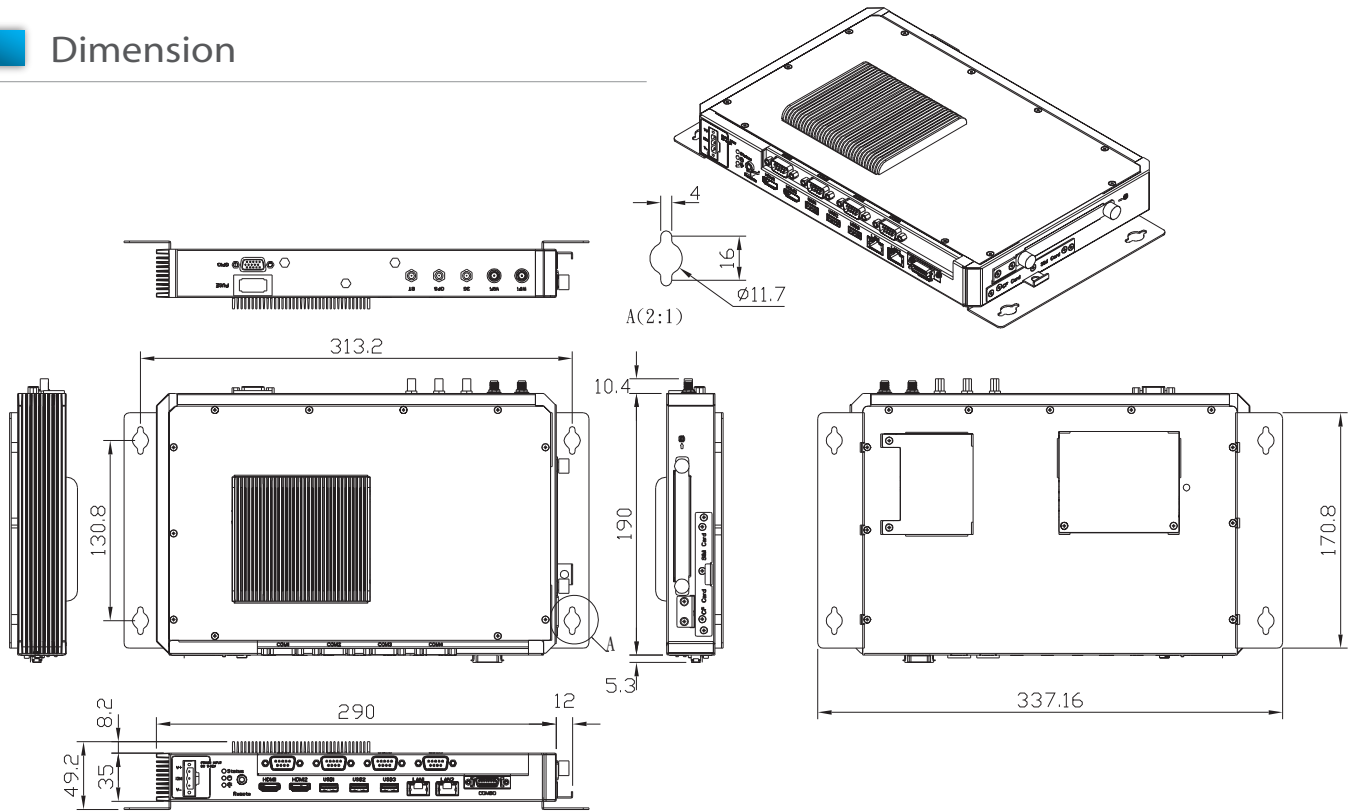
Mechanical & Environment

Thermal Design	Fanless
Chassis Material	Sheet metal(Silver, printing color with Acrosser logo)
Vibration	IEC 60068-2-64, 5~500Hz, 3GRMS(CF/SSD), Operating with SSD
Shock	IEC 60068-2-27, 50G 500m/s ² 11MS, 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

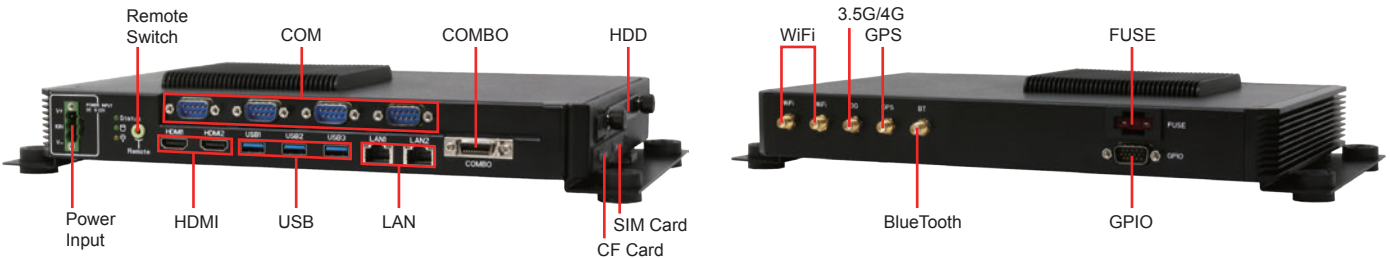
Smart In-Vehicle Power Management

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"> • System power switch by remote cable switch • System power input serial connection to car battery and ignition switch
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 DDR3L-1333/1600MHz, 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 DDR3L-1333/1600MHz, SO-DIMM, up to 16GB 2GB pre-installed

Video

Graphic Controller	Integrated in Processors
Video Memory	DVMT
Video Interface	1 x HDMI type A connector 1 x DVI-D connector 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
Serial Port	2 x RS232 (1 x DB9, 1 x pin header) for Option 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 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
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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, 3 pole terminal block
Power Consumption	Max 80W (i7 CPU)

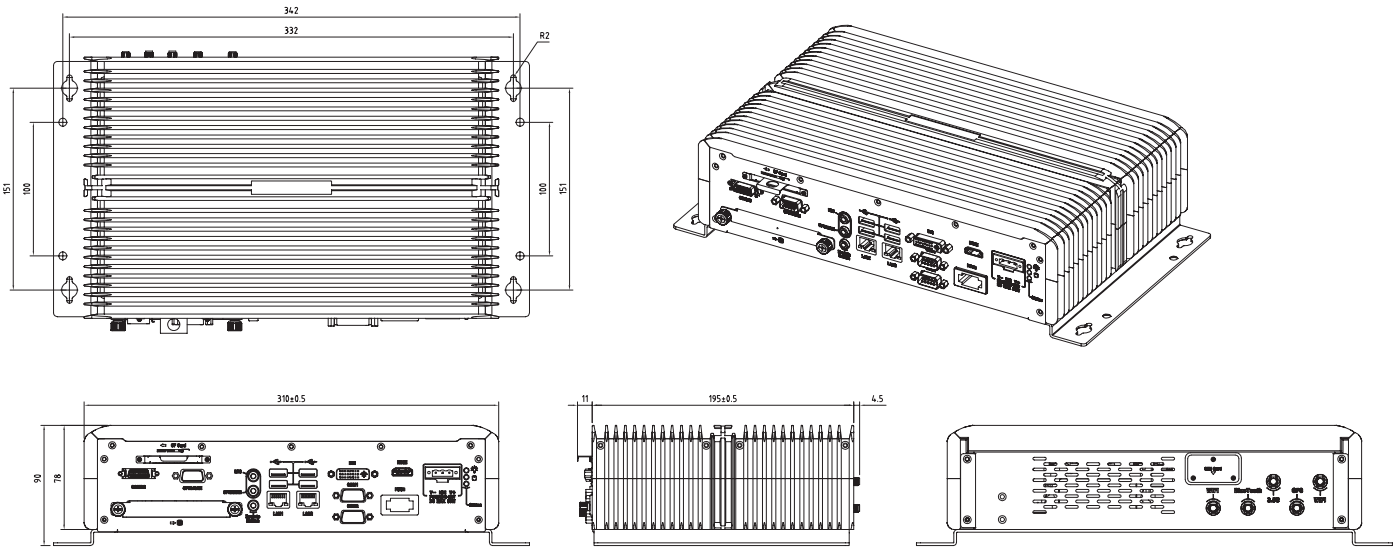
Mechanical & Environment

Thermal Design	Fanless
Chassis Material	SECC + Aluminum heatsink
Vibration	IEC 60068-2-64, 5~500Hz, 3GRMS(CF/SSD), Operating with SSD
Shock	IEC 60068-2-27, 50G 500m/s ² 11MS, 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"> • System power switch by remote cable switch • System power input serial connection to car battery and ignition switch
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 DDR3L-1333/1600MHz, 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 DDR3L-1333/1600MHz, SO-DIMM, up to 8GB 2GB pre-installed

Video

Graphic Controller	Integrated within processors
Video Memory	DVMT
Video Interface	1 x HDMI type A connector 1 x DVI-D connector 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 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, 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
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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, 3 pole terminal block
Power Consumption	Max 80W (i7 CPU)

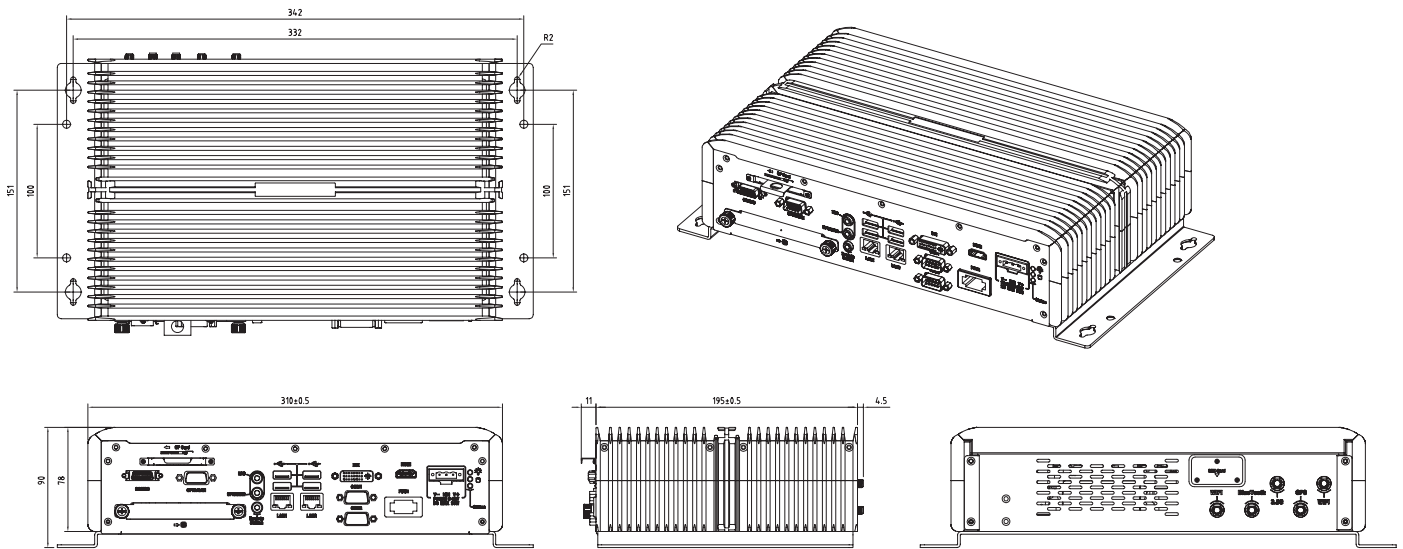
Mechanical & Environment

Thermal Design	Fanless
Chassis Material	Metal SPGC
Vibration	IEC 60068-2-64, 5~500Hz, 3Grms(CF/SSD), Operating with SSD
Shock	IEC 60068-2-27, 50G 11ms, 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

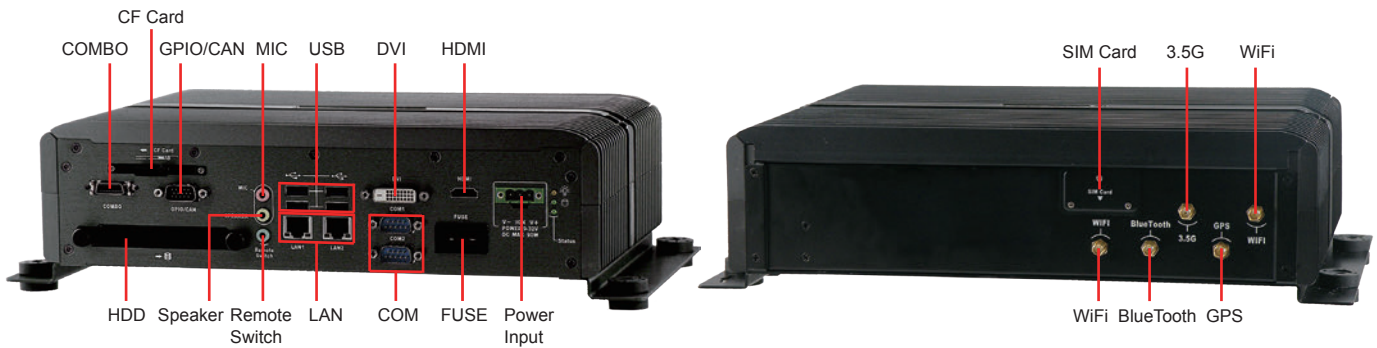
Smart In-Vehicle Power Management

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"> • System power switch by remote cable switch • System power input serial connection to car battery and ignition switch
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
- Onboard DDR2 2GB Memory
- 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	Onboard DDR2 2GB memory

Video

Graphic Controller	Integrated with Processor
Video Memory	DVMT
Video Interface	1 x DVI connector 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) 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, 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
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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, 3 pole terminal block
Power Consumption	Max 19W

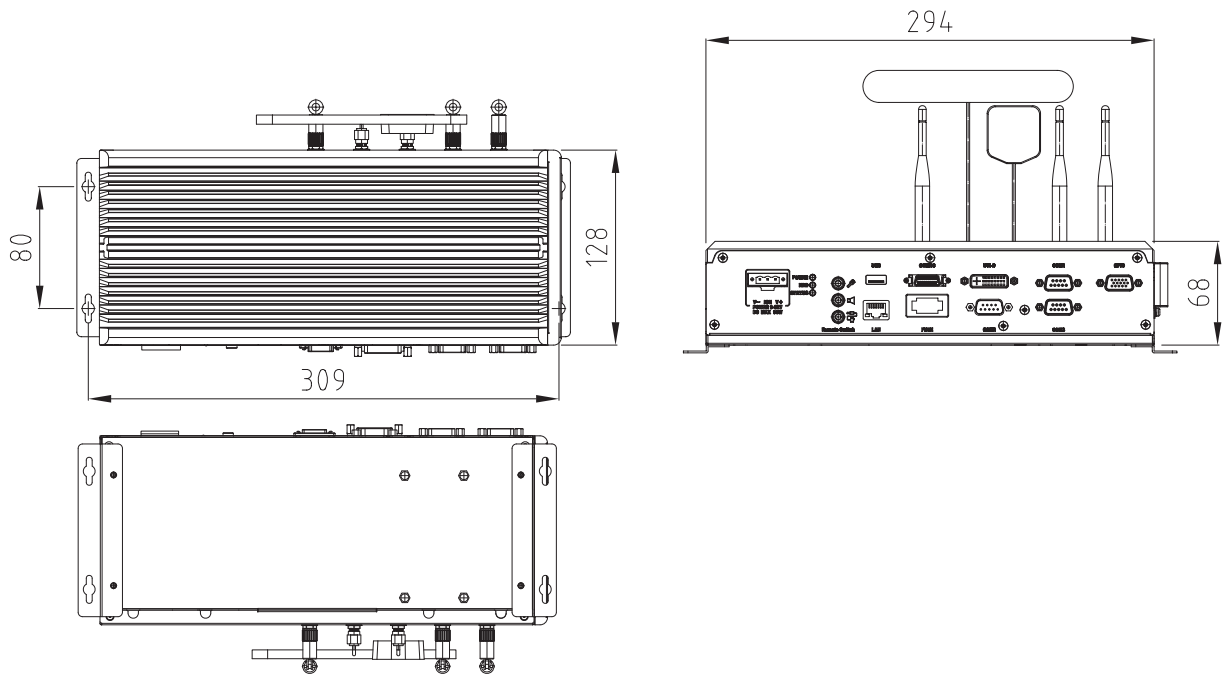
Mechanical & Environment

Thermal Design	Fanless
Chassis Material	Metal SPGC
Vibration	IEC 60068-2-64, 5~500Hz, 3GRMS(CF/SSD), Operating with SSD
Shock	IEC 60068-2-27, 50G 500m/s ² 11MS, 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"> • System power switch by remote cable switch • System power input serial connection to car battery and ignition switch
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 onboard
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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 DDR3-800MHz, 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	1 x DDR3-800MHz, SO-DIMM, up to 4GB 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 / 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, 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, 1 x SMA for Bluetooth
SIM	SIM Slot x 1, SIM card changeable without opening 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
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Others Feature

WatchDog Timer	1~255 sec. software programmable
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Power Requirement

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

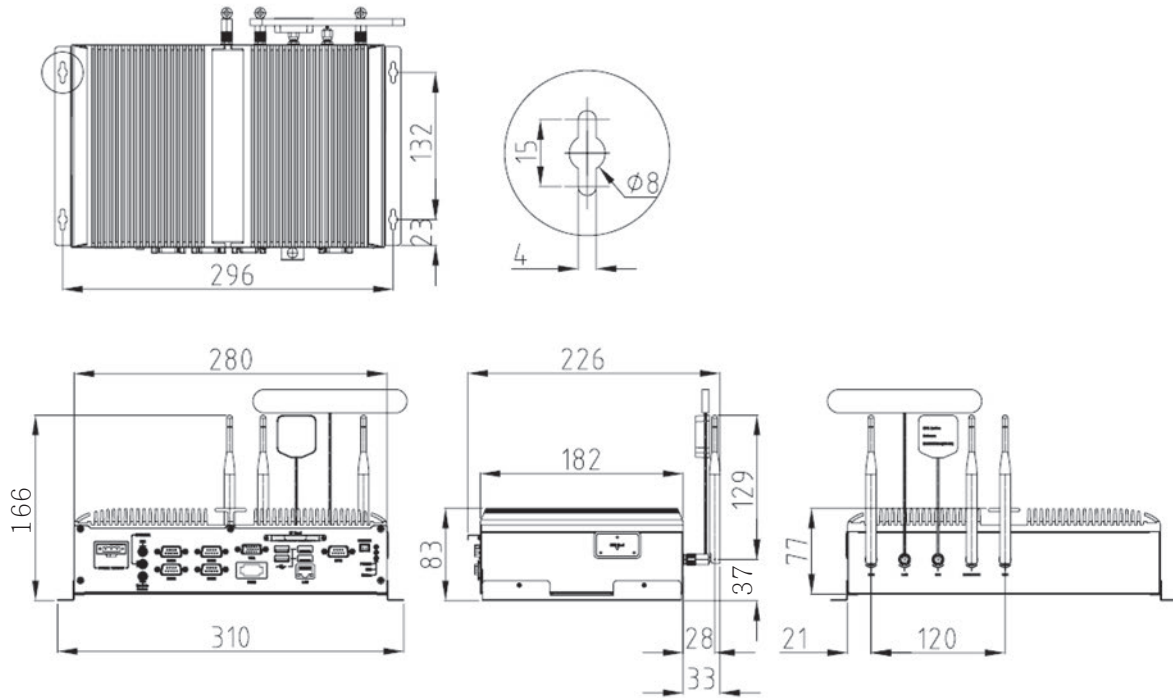
Mechanical & Environment

Thermal Design	Fanless
Vibration	IEC 60068-2-64 5~500Hz, 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

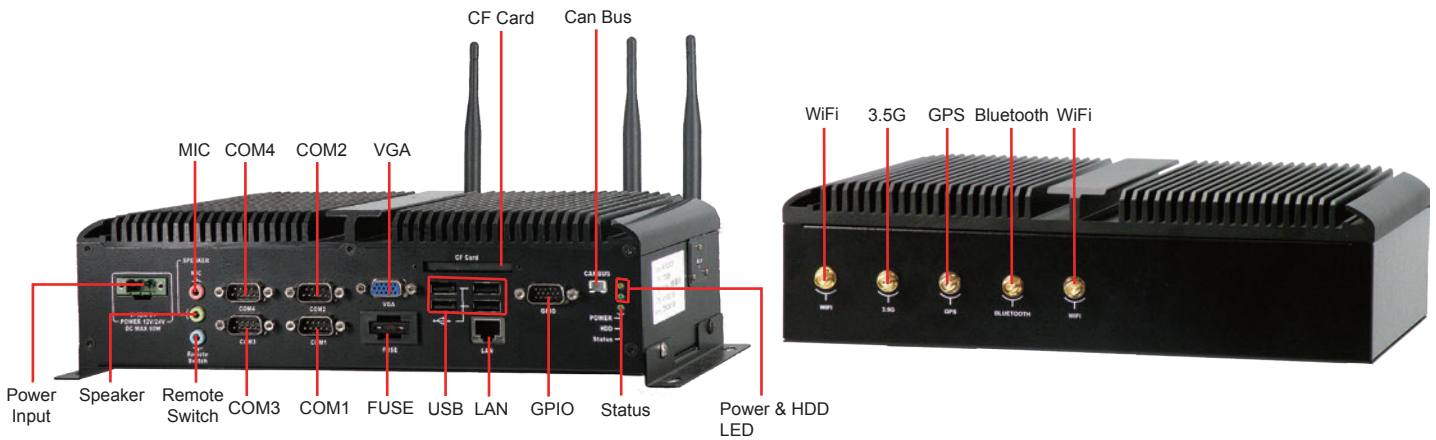
Smart In-Vehicle Power Management

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 in BIOS
System boot fail retry	3 times boot fail retry
Power on/off switches	<ul style="list-style-type: none"> • System power switch by remote cable switch • System power input serial connection to car battery and ignition switch
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
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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
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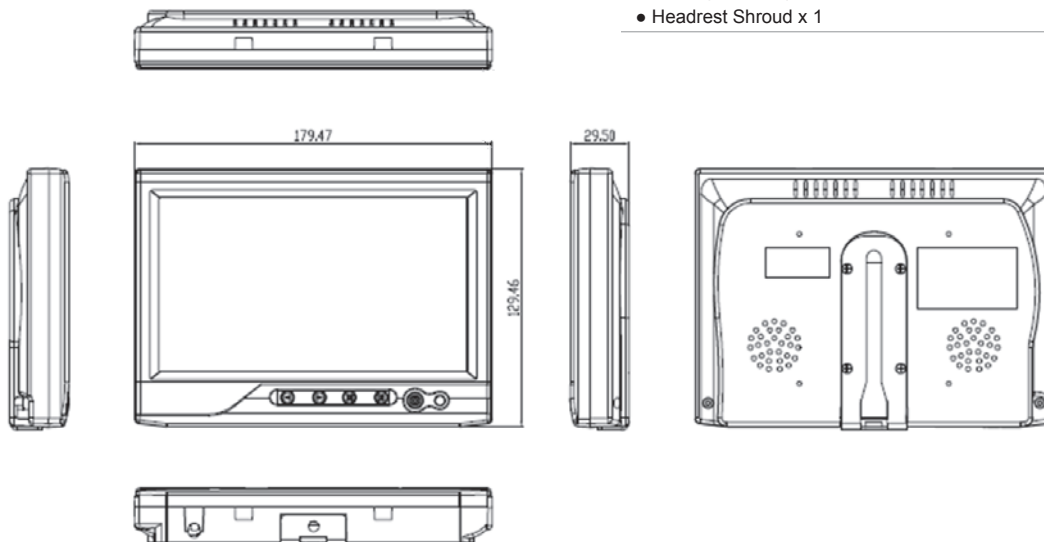
Mechanical & Environment

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

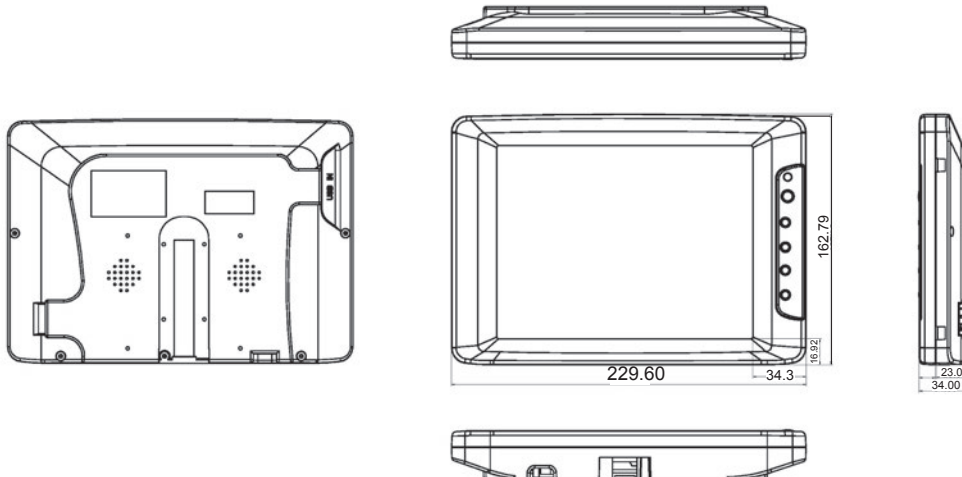
Mechanical & Environment

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

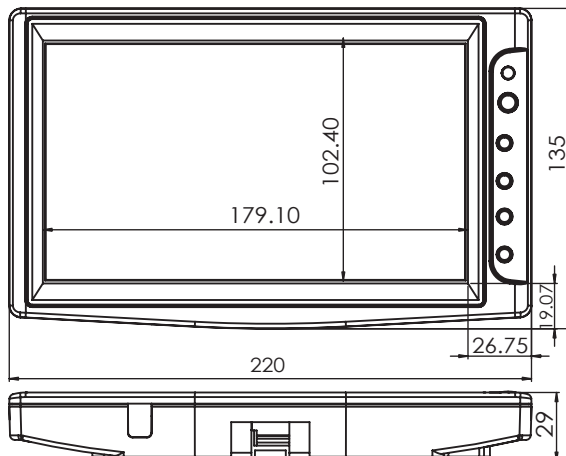
I/O

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

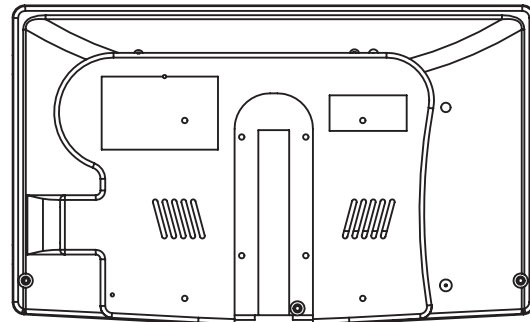
Windows: Vista, 9X, Me, NT4.0, 2000, XP, CE.net, CE 2.12, CE 3.0, Embedded, Dos.
Mac: Mac OS 9X, OS X (Intel CPU).
Linux: Linux Readme, Mandrake, Red Hat, Fedora Core, SuSE, Debian, Ubuntu, Yellow Dog

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-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



CE FCC

Specification

Panel

Panel Size	10.4-Inch Screen (4:3)
Resolution	800 x 600
Luminance (cd/m ²)	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
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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 Readme / Mandrake / Red Hat / Fedora Core / SuSE / Debian / (K)Ubuntu / Yellow Dog
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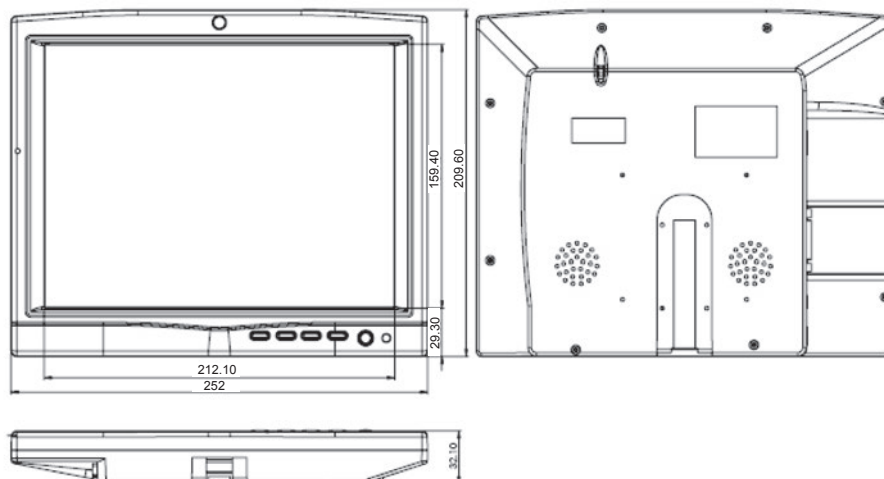
Mechanical & Environment

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(Optional)

Dimension



Product Matrix

Gaming Platform



Form Factor	Gaming Platform	
Model name	ACE-SHM76G1	AMB-A55EG1
Board	-	AMB-A55EG1
CPU	Intel Core i5 3230M	AMD Dual Core T56N 1.6GHz
Chipset	Intel HM76	AMD Fusion Control Hub A55E
System Memory	2 x DDR3L-1600MHz, SO-DIMM, up to 16GB	2 x DDR3L-1333MHz, SO-DIMM, up to 8GB
Graphic Controller	Integrated HD graphic 4000 Open GL 4.0, DirectX 11	Integrated Radeon HD 6320 Open GL 4.0, Direct X11
Display Interface	2 x VGA	1 x VGA & 1 x HDMI
Expansion Slot (PCI-E x16)	-	N/A
USB	6	4 x USB 2.0 port, 2 x USB 2.0 pin header
Ethernet	1 x GbE	1 x GbE
Audio	2.1 channel output without amplifier	5.1 channel audio without amplifier
I/O Connector	micro fit connector	Golden fingers
I/O Definition	Proprietary	Proprietary
Serial Port	4 x RS-232 DB9 connector 2 x RS-232 / 422 / 485 / SAS (8 bit IC) ccTalk DB9 connector	1 x RS232 with DB9 connector 1 x RS232/422/485 DB9 connector 1 x 4-pin ccTalk connector 1 x 10-pin ccTalk connector
Digital I/O	32 Input / 32 Output	Follow golden fingers definition
Readable DIP switch	N/A	N/A
GPIO (TTL level)	32 bits	N/A
Battery Backup SRAM	2 x 512KB	256KB (Max 1MB)
EEPROM	N/A	N/A
Jurisdiction Chip	N/A	N/A
Intrusion Logger	Yes	Yes
Secure Real Time Clock	Yes	N/A
Smart card reader	Optional	N/A
Reel Mechanism control	N/A	N/A
Hardware Random Number Generator (RNG)	YES	N/A
Page	26	28

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	2 x DDR3L-1600MHz, SO-DIMM, up to 16GB
Battery	One 220mAh CR2032 for system RTC 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 3.0 (SATA DOM)
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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) 2 x RS232 / 422 / 485 / SAS (8 bit IC) communication. (2 x male DB9 connector)

Audio

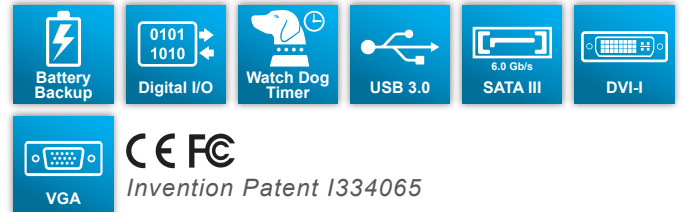
Output	2.1 channel output without amplifier Audio jack 3.5Φ (2 layers for stereo and sub-woofer)
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Other Feature

Hardware Monitoring	<ul style="list-style-type: none"> • CPU temperature • System temperature • CPU voltage
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"> • 4 x Door Switches (2 x internal & 2 external) • One switch is designed for HDD open (SATA DOM) • One switch is designed for system open • 2 x external switches connected to micro fit • Door switch connect to GPI ports for intrusion log use.
Hardware Monitoring	<ul style="list-style-type: none"> • CPU temperature • System temperature • CPU voltage

Power Requirement

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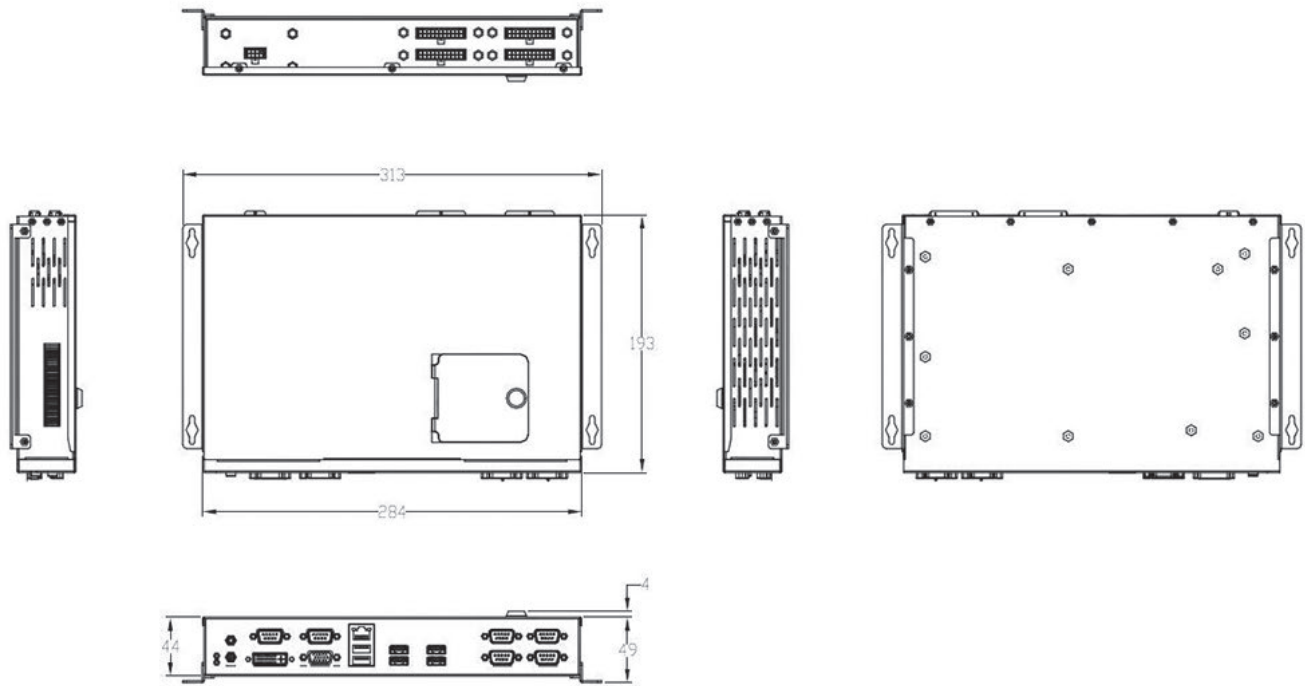
Software

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

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

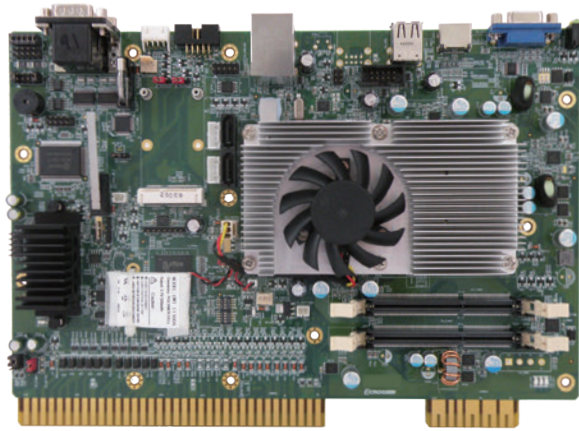


Packing List

- 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

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 DDR3L-1333MHz, SO-DIMM, 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"> 1 x VGA DB15 connector 1 x HDMI connector

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"> 1 x RS232 with DB9 connectors 1 x RS232/422/485 DB9 connector 1 x 4-pin cc-Talk 1 x 10-pin cc-Talk

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"> 14 x Button 2 x Coin 1 x Hopper
Digital Output	Follow golden fingers definition <ul style="list-style-type: none"> 10 x Lamp 5 x Meter 1 x Hopper
Intrusion Detection	<ul style="list-style-type: none"> 1 x onboard door switch 1 x pin header
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"> 5V (4.35A~5.8A) 12V (3.3A~4.4A)
Power Consumption	43W

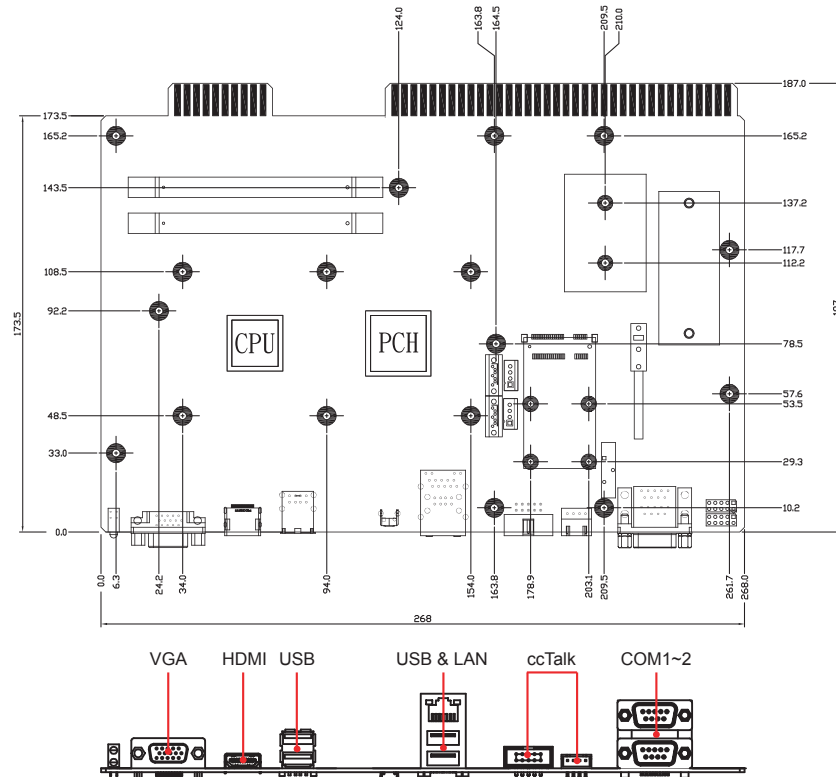
Software

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

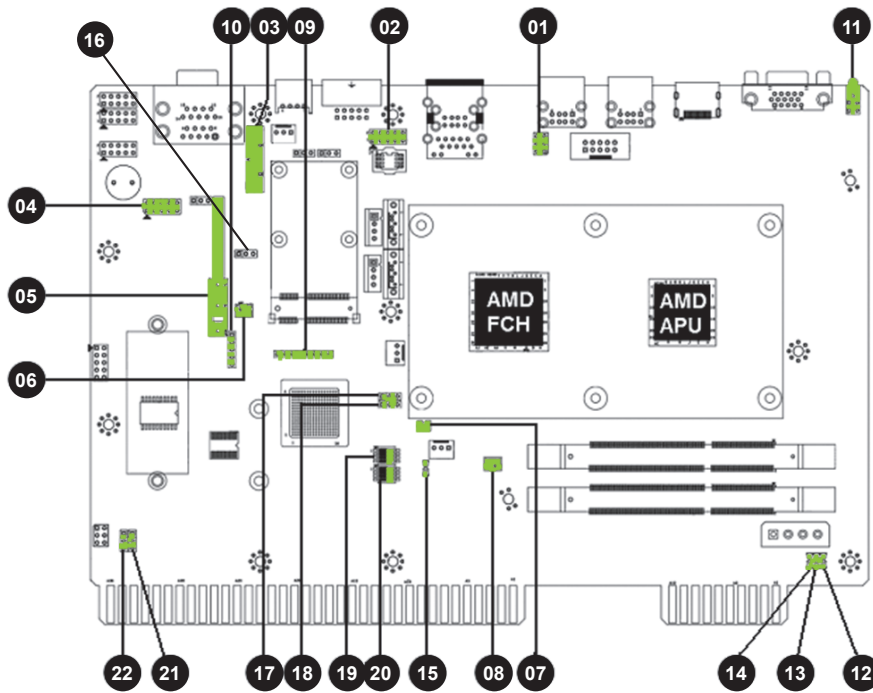
Mechanical & Environment

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 500mAhRe-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.

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 LGA1155 Processors	Intel 3rd Gen. Core i / Pentium LGA1155 Processors
	Chipset	Intel B75	Intel B75
Memory	Technology	2 x DDR3L-1333/1600MHz, UDIMM	2 x DDR3L-1333/1600MHz, UDIMM
	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		32	34

Networking Appliance



Form Factor		Rackmount	
Model Name		ANR-IH61N1/A/B	ANR-J190N1
System	CPU type	Intel 3rd Gen. Core i Duo / Quad / Pentium LGA1155 Processors	Intel Celeron Bay Trail 1800/J1900 Dual/Quad-core, clock speed 2.41GHz
	Chipset	Intel H61	Intel Bay Trail SoC
Memory	Technology	DDR3L-1333/1600MHz, UDIMM	DDR3L-1333MHz, SO-DIMM
	Maximum support	16GB	8GB
Ethernet	SFP GbE	0/2/4	-
	RJ45 GbE	6/6/6	6/6/6
	Bypass	2/2/2	1-pair
Expansion	PCI-E	-	-
	PCI	-	-
	Mini PCI	-	2
LCM	LCM	16 x 2 characters LCD module with 4 buttons	-
Storage	HDD	2 x 2.5" / SATA II	1 x 2.5" / SATA II
	CF	1	1
I/O	Console	1 x RJ45	1 x RJ45
	VGA	Option by cable	Option by cable
	USB	2 x USB 2.0 External	1 x USB 3.0, 3 x USB 2.0 External
Dimension		440mm x 371.5mm x 44mm	440mm x 371.5mm x 44mm
Thermal		Cooling Fan	Cooling Fan
Reference page		36	38

Product Matrix

Networking Appliance



Form Factor		Microbox	
Model Name		AND-J190N1	AND-G420N1
System	CPU type	Intel Celeron Bay Trail J1900	AMD G-Series GX-420MC
Chipset	Chipset	Intel Bay Trail SoC	AMD G-Series SoC
Memory	Technology	DDR3L-1333MHz, SO-DIMM	DDR3L-1600MHz, SO-DIMM
	Maximum support	8GB	16GB
Ethernet	SFP GbE	0	0
	RJ45 GbE	6	6
	RJ45 FE 10/100	-	0
	Bypass	-	2
Expansion	Mini PCIe	2	0
	PCI-E	-	1
	Mini PCI	-	0
Storage	HDD bracket	1 x 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	1 x USB 3.0, 2 x USB 2.0	2 x USB 3.0, 2 x USB 2.0 (Internal pin header)
Dimension		234mm x 151.4mm x 43.5mm	242mm x 149.5mm x 44mm
Thermal		Cooling Fan	Cooling Fan
Reference page		40	42

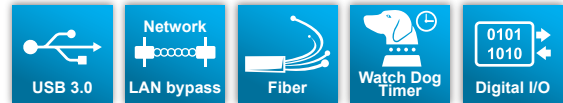
ANR-IB75N2/A/B

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



Specification

System

CPU	Intel 3rd Gen. Core i / Pentium LGA1155 Processors
Chipset	Intel B75
Memory	2 x DDR3L-1333/1600MHz, UDIMM, up to 16GB
BIOS	AMI
WatchDog Timer	Software programmable 0~255 sec.

Video

Video Interface	VGA(on board pin header)
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Ethernet

Chipset	ANR-IB75N2: Intel I210-AT(GbE) x8
	ANR-IB75N2A: Intel I210-AT(GbE) x8 Intel 82576EB x2 (Fiber port)
Connector	ANR-IB75N2B: Intel I210-AT(GbE) x8 Intel 82576EB x4 (Fiber port)
	ANR-IB75N2: 8 x RJ45 for Copper Ethernet ANR-IB75N2A: 8 x RJ45 for Copper Ethernet 2 x SFP Slot ANR-IB75N2B: 8 x RJ45 for Copper Ethernet 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
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Software

OS Support	Win 7 32/64 bit, WEST 32bit, Fedora 14 32/64bit, Ubuntu 10.04 32/64bit
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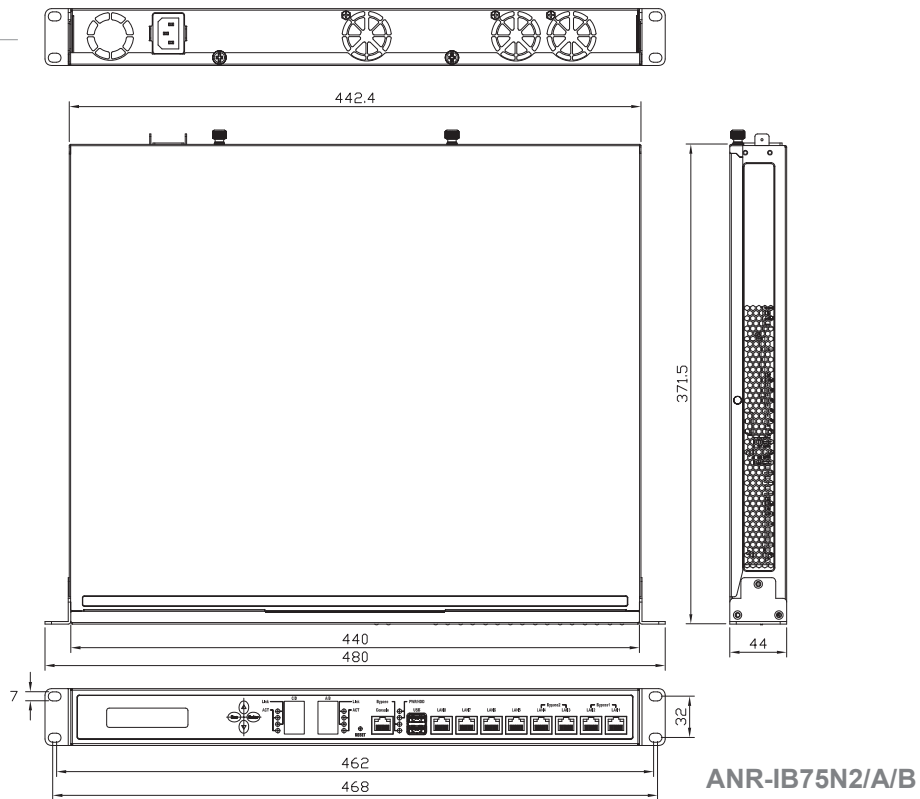
Mechanical & Environment

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

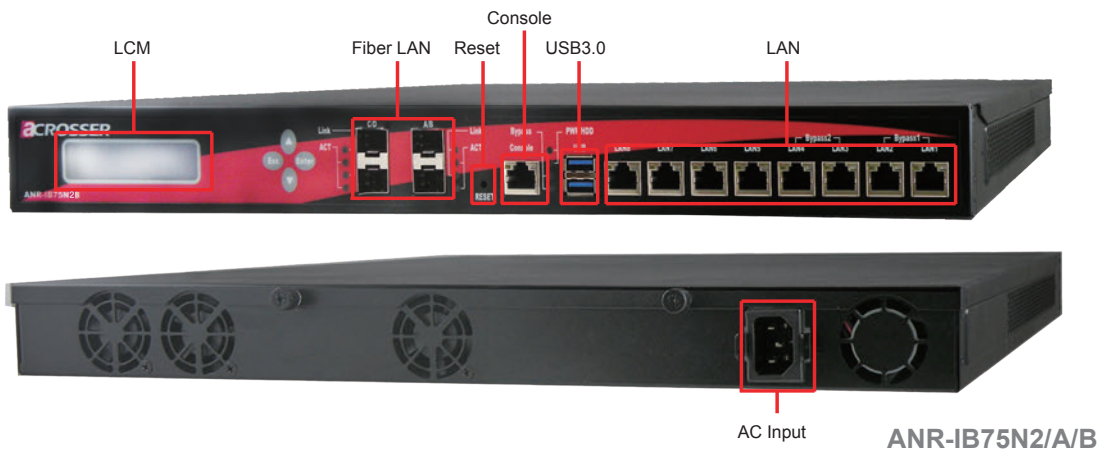
Model Name

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(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



Specification

System

CPU	Intel 3rd Gen. Core i / Pentium LGA1155 Processors
Chipset	Intel B75
Memory	2 x DDR3L-1333/1600MHz, UDIMM, up to 16GB
BIOS	AMI
WatchDog Timer	Software programmable 1~255 sec.

Video

Video Interface	VGA(on board pin header)
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Ethernet

Chipset	ANR-IB75N1: Intel 82574L(GbE) x8 ANR-IB75N1A: Intel 82574L(GbE) x8 Intel 82576EB x2 (Fiber port) ANR-IB75N1B: Intel 82574L(GbE) x8 Intel 82576EB x4 (Fiber port)
Connector	ANR-IB75N1: 8 x RJ45 for Copper Ethernet ANR-IB75N1A: 8 x RJ45 for Copper Ethernet 2 x SFP Slot ANR-IB75N1B: 8 x RJ45 for Copper Ethernet 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
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Software

OS Support	Win 7 32/64 bit, WES7 32bit, Fedora 14 32/64bit, Ubuntu 10 32/64bit
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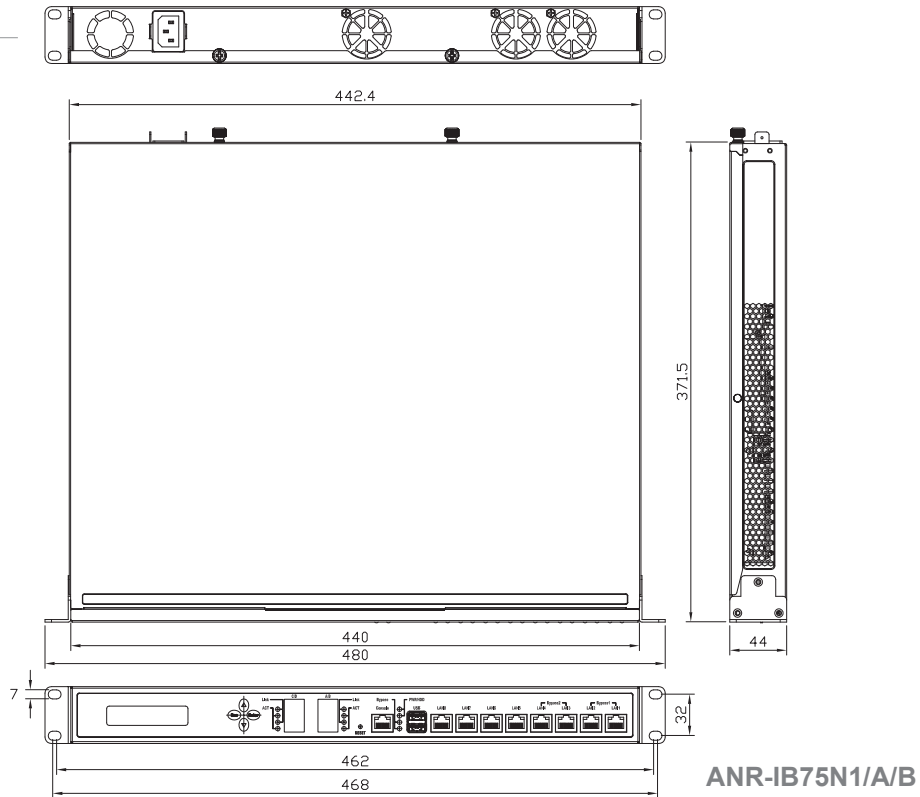
Mechanical & Environment

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

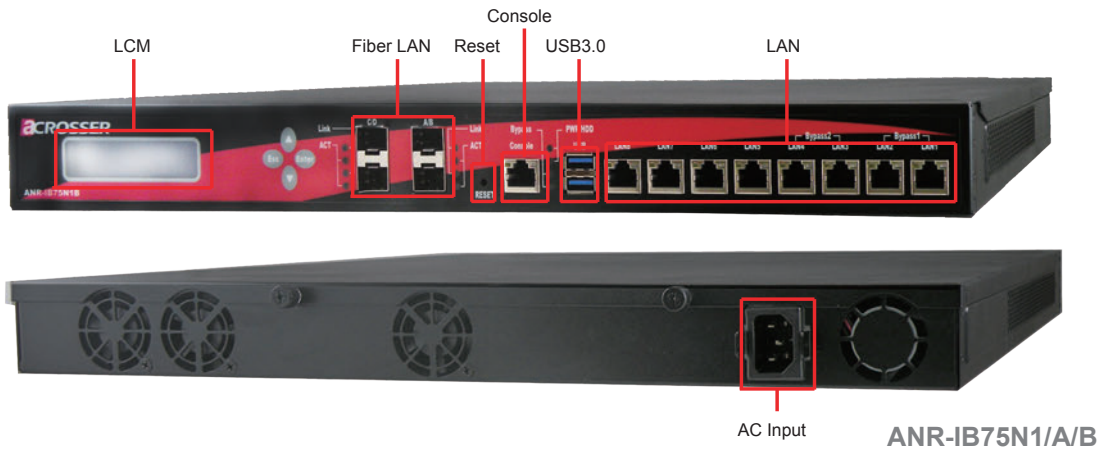
Model Name

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 x USB 2.0
- Option1: Intel GbE LAN x 6
- Option2: Intel GbE LAN x 6 + 2 Fiber
- Option3: Intel GbE LAN x 6 + 4 Fiber



Specification

System

CPU	Intel 3rd Gen. Core i Duo / Quad / Pentium LGA1155 Processors
Chipset	Intel H61
Memory	2 x DDR3L-1333/1600MHz, UDIMM, up to 16GB
BIOS	AMI
WatchDog Timer	Software programmable 1~255 sec.

Video

Video Interface	VGA(on board pin header)
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Ethernet

Chipset	ANR-IH61N1: Intel 82574L(GbE) x6 ANR-IH61N1A: Intel 82574L(GbE) x6 Intel 82576EB x2 (Fiber port) ANR-IH61N1B: Intel 82574L(GbE) x6 Intel 82576EB x4 (Fiber port)
Connector	ANR-IH61N1: 6 x RJ45 for Copper Ethernet 2 x SFP Slot ANR-IH61N1A: 6 x RJ45 for Copper Ethernet 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
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Software

OS Support	Win 7 32/64 bit, WinXP 32bit, WES7 32bit, Fedora 14 32/64 bit, Ubuntu 10 32/64 bit
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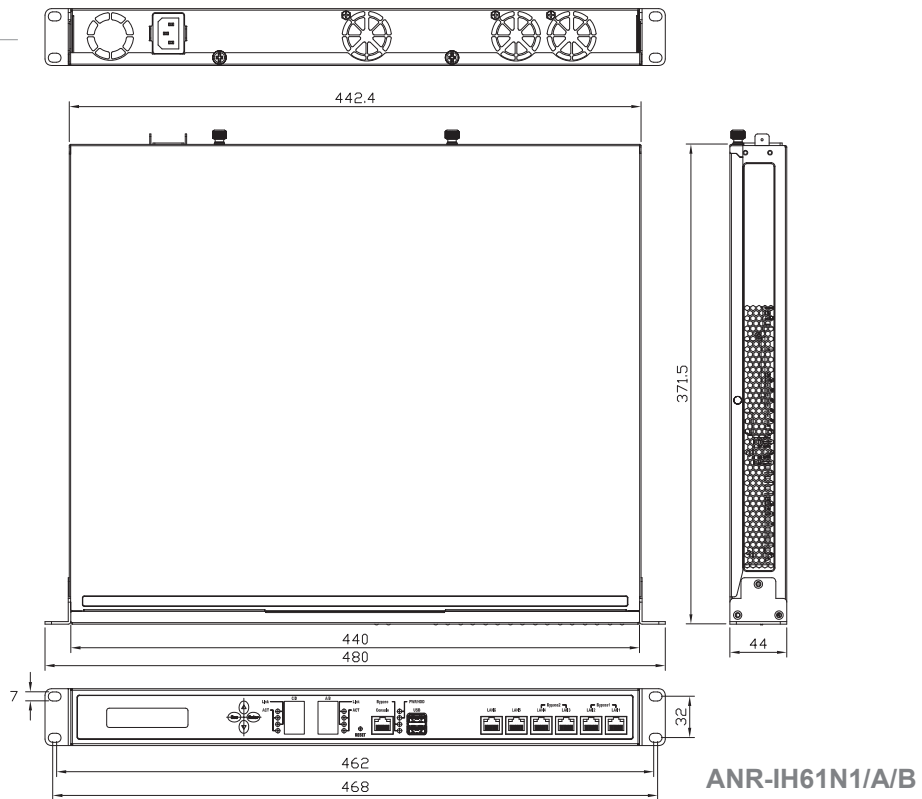
Mechanical & Environment

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

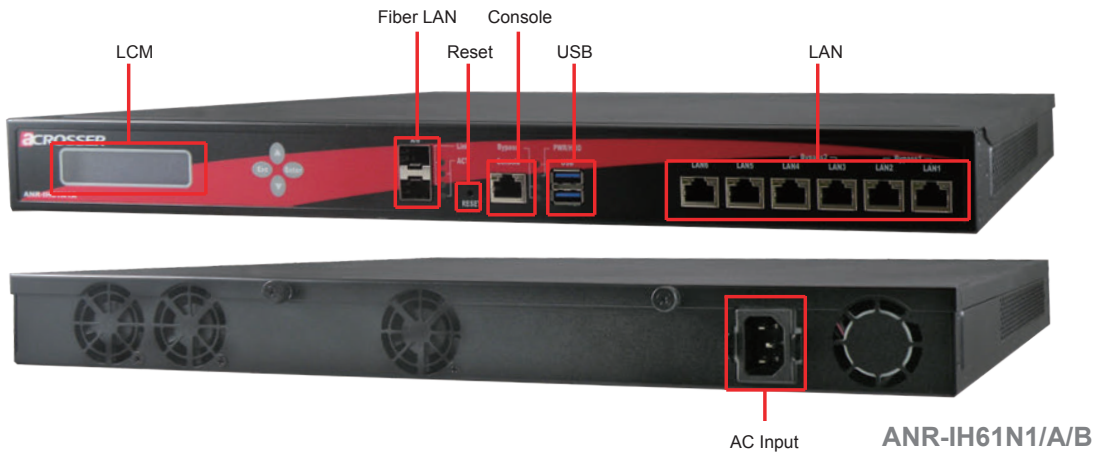
Model Name

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

ANR-J190/J180N1/2

1U Rack Mount Intel® Celeron® Bay Trail J1900/J1800 Networking,
6/4 x GbE LANs



Features

- Intel® Celeron® Bay Trail J1900/ J1800
- 6/4 x GbE, 4 x USB
- 2 x mini PCIe Expansion, 1 x SIM Slot
- 2 x COM
- 8 x GPIO



Specification

System

CPU	1. Intel® Celeron® Bay Trail J1900, Quad-core, clock speed 2.0GHz 2. Intel® Celeron® Bay Trail J1800, Dual-core, clock speed 2.41GHz
Memory	1 x DDR3L-1600MHz, SO-DIMM, up to 8GB
BIOS	AMI UEFI
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	6/4 x Intel GbE chip
Connector	6/4 x RJ45 with LED
Bypass LAN	Yes (one pair)

Storage

SATA	1 x SATAII port
Compact Flash	1 x Compact Flash Type II socket
HDD Bay	1 x 2.5" HDD Bay

I/O

Expansion	2 x mini PCIe slot
Console Port	1 x Console (1 x RJ45)
USB	1 x USB 3.0, 3 x USB 2.0 (2 x external)

Power Requirement

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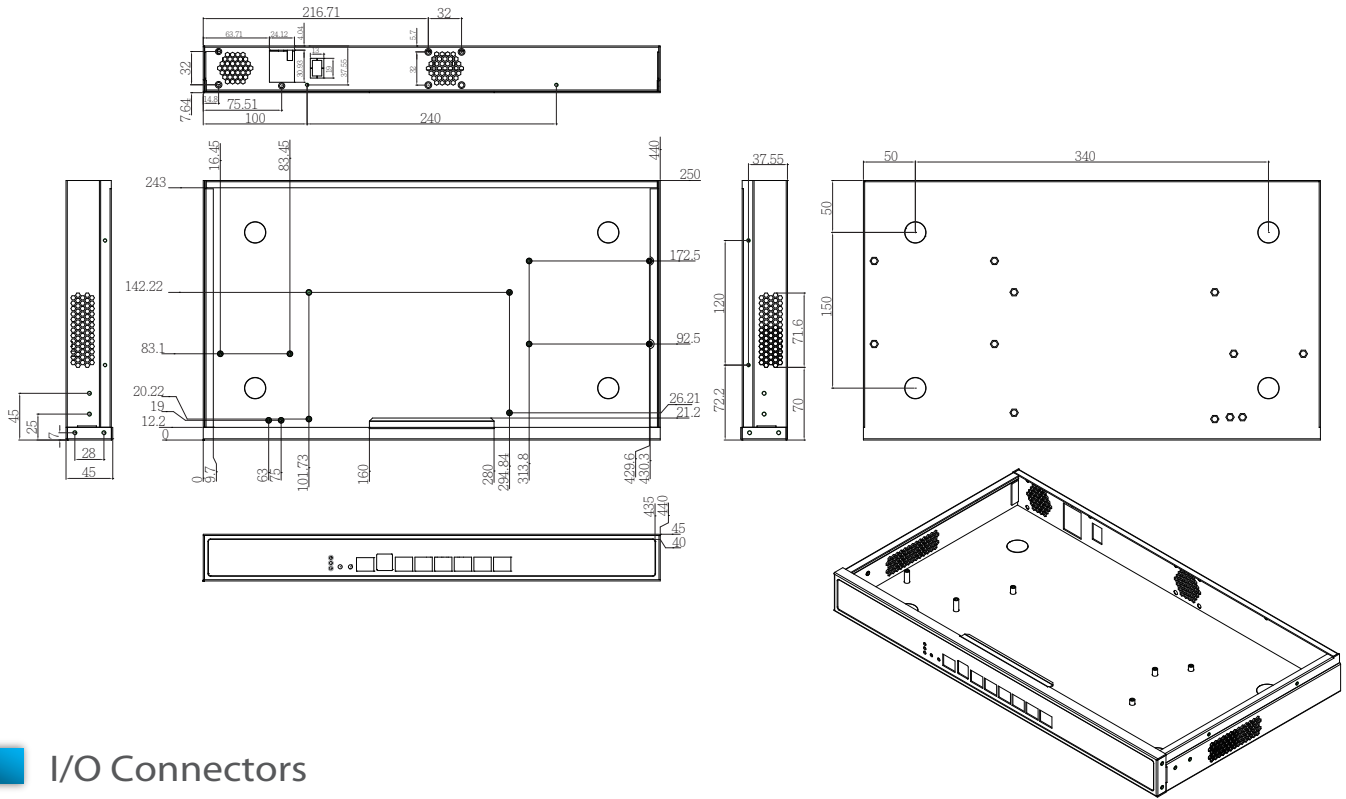
Software

OS Support	Windows 7 / Windows 8 / Linux
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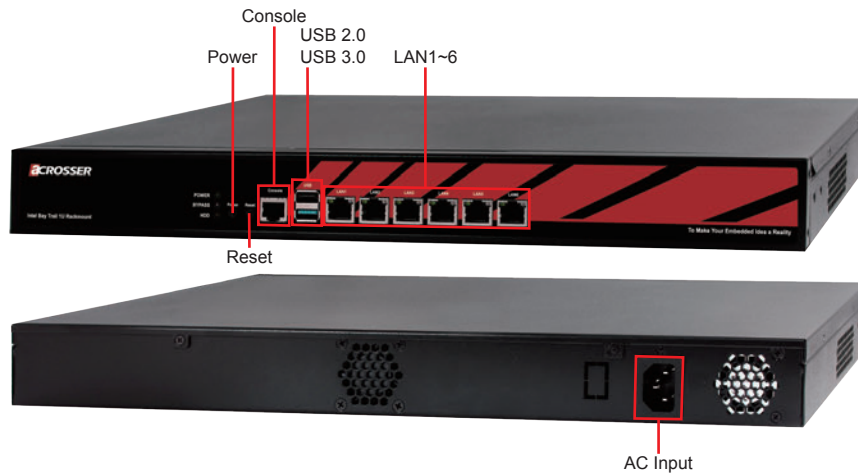
Mechanical & Environment

Dimension	440 x 250 x 44 mm
Operating Temp.	0~40°C
Storage temp.	-20~75°C
Safety	CE, FCC class A

Dimension



I/O Connectors



Packing List

- 1 x ANR-J190N1, 1 x ANR-J180N1 (6LAN SKU)
- 1 x ANR-J190N2, 1 x ANR-J180N2 (4LAN SKU)
- 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 Cord (Option for USA/UK/EU/JPN/AU/RSA)

Ordering Information

ANR-J190N1	1U Rack Mount with Intel® Celeron® Bay Trail J1900, DDR3L, 6 x GbE, USB 2.0/USB 3.0, SATA II, CF, mini PCIe
ANR-J190N2	1U Rack Mount with Intel® Celeron® Bay Trail J1900, DDR3L, 4 x GbE, USB 2.0/USB 3.0, SATA II, CF, mini PCIe
ANR-J180N1	1U Rack Mount with Intel® Celeron® Bay Trail J1800, DDR3L, 6 x GbE, USB 2.0/USB 3.0, SATA II, CF, mini PCIe
ANR-J180N2	1U Rack Mount with Intel® Celeron® Bay Trail J1800, DDR3L, 4 x GbE, USB 2.0/USB 3.0, SATA II, CF, mini PCIe

AND-J190/J180N1/2

Microbox Intel® Celeron® Bay Trail J1900/J1800 Networking,
6/4 x GbE LANs



Features

- Intel® Celeron® Bay Trail J1900/J1800
- 6/4 x GbE, 4 x USB
- 2 x SMA for Wi-Fi IEEE 802.11a/b/g/n/ac
- 2 x mini PCIe Expansion, 1 x SIM Slot
- 2 x COM
- 8 x GPIO



Specification

System

CPU	1. Intel® Celeron® Bay Trail J1900, Quad-core, clock speed 2.0GHz 2. Intel® Celeron® Bay Trail J1800, Dual-core, clock speed 2.41GHz
Memory	1 x DDR3L-1600MHz, SO-DIMM, up to 8GB
BIOS	AMI UEFI
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	6 x Intel GbE chip
Connector	6 x RJ45 with LED
Bypass LAN	Yes (one pair)

Storage

SATA	1 x SATAII port
Compact Flash	1 x Compact Flash Type II socket
HDD Bay	1 x 2.5" HDD Bay

I/O

Expansion	2 x mini PCIe slot
Console Port	1 x Console (1 x RJ45)
USB	1 x USB 3.0, 3 x USB 2.0 (2 x external)
Antenna Hole	2 x SMA for Wi-Fi (IEEE 802.11a/b/g/n/ac)

Power Requirement

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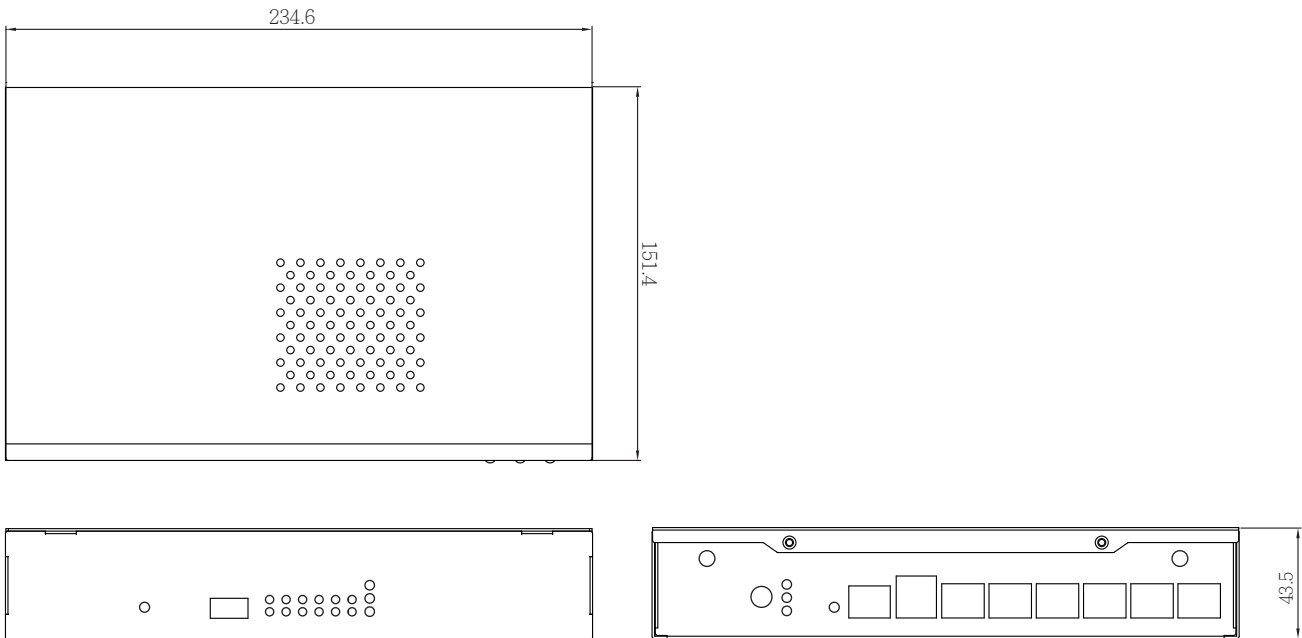
Software

OS Support	Windows 7 / Windows 8 / Linux
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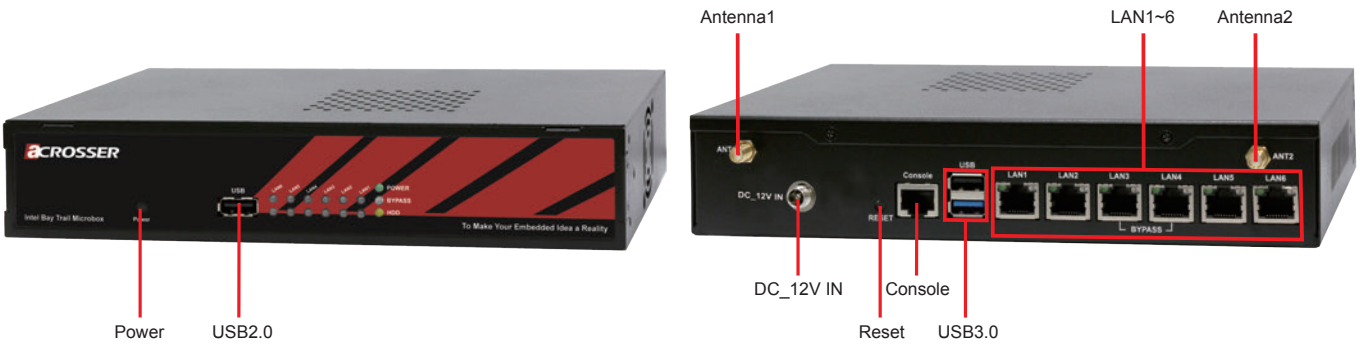
Mechanical & Environment

Dimension	234.6 x 151.4 x 43.5 mm
Operating Temp.	0~40°C
Storage temp.	-20~75°C
Safety	CE, FCC class A

Dimension



I/O Connectors



Packing List

- 1 x AND-J190N1, 1 x AND-J180N1 (6LAN SKU)
- 1 x AND-J190N2, 1 x AND-J180N2 (4LAN SKU)
- 1 x Driver CD
- 1 x Quick Guide
- 1 x Console Cable (DB9)
- 1 x SATA Cable
- 1 x SATA Power Cable
- 2 x SMA Antenna
- 1 x Power Adaptor
- 1 x Power Cord (Option for USA/UK/EU/JPN/AU/RSA)

Ordering Information

AND-J190N1	Microbox with Intel® Celeron® Bay Trail J1900, DDR3L, 6 x GbE, USB 2.0/USB 3.0, SATA II, CF, mini PCIe
AND-J190N2	Microbox with Intel® Celeron® Bay Trail J1900, DDR3L, 4 x GbE, USB 2.0/USB 3.0, SATA II, CF, mini PCIe
AND-J180N1	Microbox with Intel® Celeron® Bay Trail J1800, DDR3L, 6 x GbE, USB 2.0/USB 3.0, SATA II, CF, mini PCIe
AND-J180N2	Microbox with Intel® Celeron® Bay Trail J1800, DDR3L, 4 x GbE, USB 2.0/USB 3.0, SATA II, CF, mini PCIe

AND-G420N1

Networking Microbox, AMD® G-Series GX-420MC,
6 x Intel® GbE LAN (2-pair bypass)



Features

- AMD® G-Series GX-420MC, 4-core@2.0GHz, 2MB L2
- 2 x DDR3L-1600MHz, SO-DIMM, up to 16GB
- 6 x Intel® GbE LAN
- 2 x USB 3.0
- 2 x USB 2.0 (internal pin header)
- 1 x Console (RJ45)
- 8 x GPIO (4-In, 4-Out) internal pin header



CE FCC

Power Requirement

Power Input 1 x DC 12V/60W input

Software

OS Support Ubuntu 14.04 (32/64-bit), Linux Kernel 3.13 (32/64-bit)
Fedora 20 (32/64-bit), Linux Kernel 3.11 (32/64-bit)

Mechanical & Environment

Dimension 242 x 149.5 x 44mm
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
EMC & Safety CE, FCC class A

Specification

System

CPU	AMD® G-Series GX-420MC, 4-core@2.0GHz, 2MB L2
Memory	2 x DDR3L-1600MHz, SO-DIMM, up to 16GB
BIOS	AMI® UEFI BIOS
WatchDog Timer	Software programmable 0~255 sec. (0=Disable Timer)

Ethernet

Chipset	6 x Intel® I210-AT GbE chip
Connector	6 x RJ45 with LED
LAN Bypass	2-pair

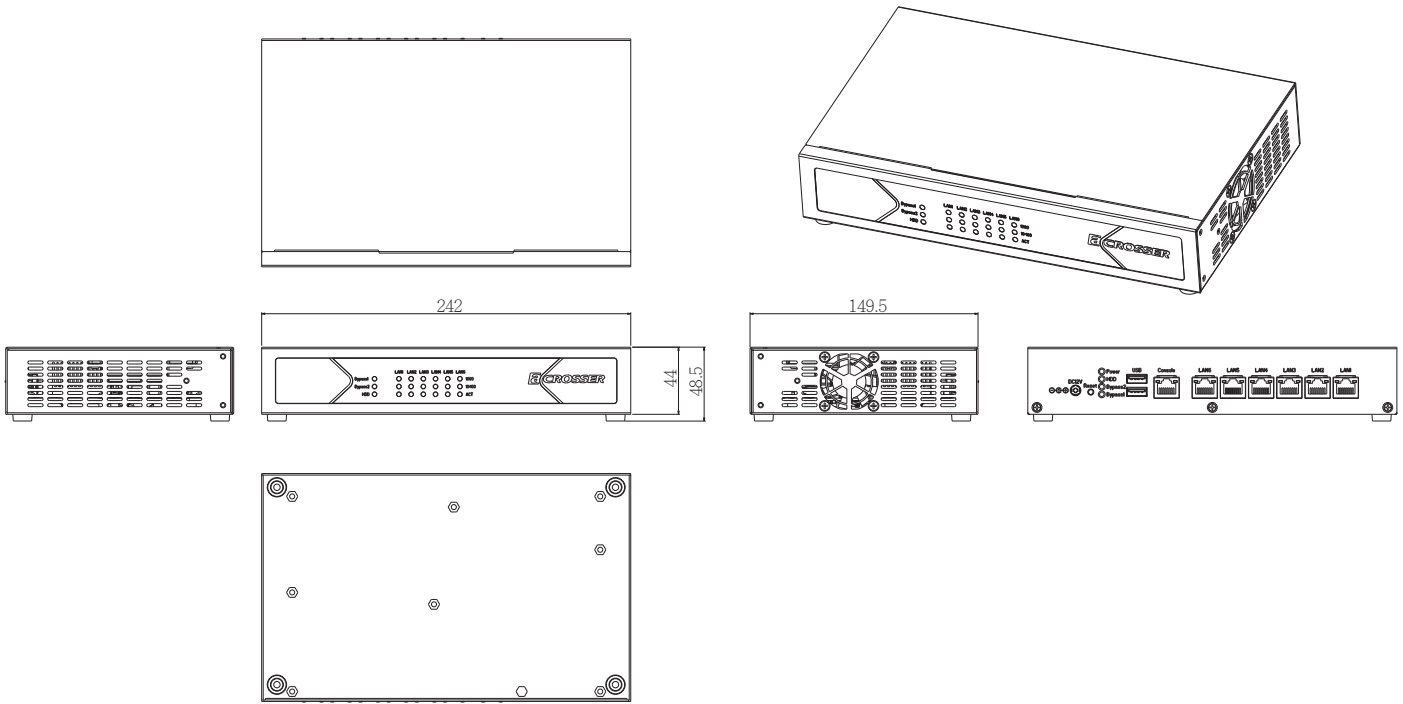
Storage

SATA	1 x SATAII port
Compact Flash	1 x Compact Flash Type-II socket (Support UDMA)
HDD Bay	1 x 2.5" HDD Bay

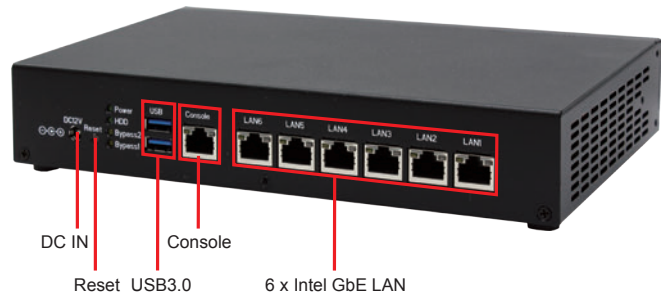
I/O

Console Port	1 x Console (RJ45)
USB	2 x USB 3.0
USB	2 x USB 2.0 (internal pin header)
GPIO	8-bit GPIO (4-In, 4-Out) internal pin header

Dimension



I/O Connectors



Packing List

- 1 x AND-G420N1 System
- 1 x Console Cable
- 1 x Quick User Manual
- 1 x CD with Driver and Manual
- 1 x Power Adaptor
- 1 x Power Cord (Option for US/EU/UK/JPN)
- 1 x Screw Pack
- 1 x Pull-tab Opener

Ordering Information

AND-G420N1 Networking Microbox, AMD® G-Series GX-420MC, 6 x Intel GbE LAN (2-pair bypass)

Product Matrix

Embedded SBC



Form Factor	Mini-ITX	
Model Name	AMB-BT45B1 Series	AMB-BT19T1 Series
CPU	Intel Celeron J1900 / Intel Atom E3845 / E3815	Intel Celeron J1800 / J1900 Intel Atom E3845 / E3815
Chipset	Intel Bay Trail SoC	Intel Bay Trail SoC
Memory	2 x DDR3L-1333MHz, SO-DIMM, up to 8GB (AMB-BT19B1 / AMB-BT45B1 / AMB-BT45B1W) 1 x DDR3L-1066MHz, SO-DIMM, up to 4GB (AMB-BT15B1)	1 x DDR3L-1333MHz, SO-DIMM, up to 8GB
Graphics	Intel GMA 3650	Intel HD Graphics
Video Interface	1 x VGA, 1 x HDMI, 1 x 24-bit LVDS	1 x VGA, 1 x HDMI, 1 x 24-bit LVDS
E-IDE(44pin) / IDE(40pin)	- / -	- / -
SATA	1 x SATA II	1 x SATA II, 1 x mSATA
CF	-	-
Expansion Slot	1 x mini PCIe, 1 x SIM Slot	1 x mini PCIe, 1 x SIM Slot
Ethernet	1 x GbE LAN	1 x GbE LAN
USB	6 x USB 2.0	9 x USB 2.0
GPIO	8-bit Digital I/O	8-bit Digital I/O
Serial Port	2 x RS-232/485, 4 x RS-232	1 x RS-232/485, 4 x RS-232, 1 x RS232/TTL
Parallel Port	1	1
Audio	Realtek ALC888	Realtek ALC662
WatchDog Timer	1 ~ 255 seconds	1 ~ 255 seconds
Hardware Monitor	YES	YES
Page	48	50

Embedded SBC



Form Factor			COM Express type 6
Model Name	AMB-IH81T1	AMB-IH61T3	ACM-B6360
CPU	Intel Core i7 / i5 / i3, Pentium, Celeron	Intel Core i7 / i5 / i3, Pentium, Celeron	Intel Core i7-3615QE
Chipset	Intel H81	Intel H61	Intel QM77
Front Side Bus	-	-	-
Memory	2 x DDR3L-1333/1600MHz, UDIMM, up to 16GB	2 x DDR3L-1333/1066MHz, UDIMM, up to 16GB	2 x DDR3L-1333/1600MHz, SO-DIMM, up to 16GB
Graphics	Intel® HD Graphics	Intel Processor Integrated GMA	Intel GMA Integrated in Processor
Video Interface	2 x VGA	2 x VGA 1 x LVDS	Provide Signal to Connector, 1 x VGA, 1 x DVI-D, 1 x Dual Ch. 18-bit LVDS, 1 x TV-Out, 1 x S-Video Component Video
E-IDE(44pin) / IDE(40pin)	- / -	- / -	-
SATA	1 x SATA II, 2 x SATA III	2 x SATA II	4
CF	-	-	-
Expansion Slot	1 x PCIe x16, 1 x mini PCIe	1 x PCIe x16, 1 x mini PCIe	Signal only 1 x PCIe x16, 6 x PCIe x1
Ethernet	2 x GbE LAN	2 x GbE LAN	1 x Intel 82574L
USB	8 x USB 2.0, 2 x USB 3.0	8 x USB 2.0	4 x USB 3.0, 8 x USB 2.0
GPIO	8-bit Digital I/O	8-bit Digital I/O	4-bit DI and 4-bit DO
Serial Port	1 x RS-232/485, 11 x RS-232	1 x RS-232/485, 9 x RS-232	2 x COM Interface (TX/RX only)
Audio	Realtek ALC662	Realtek ALC662	-
WatchDog Timer	1 ~ 255 seconds	1 ~ 255 seconds	1 ~ 255 seconds
Hardware Monitor	YES	YES	Yes
Page	52	54	56

Product Matrix

Embedded SBC



Form Factor	COM Express type 6		COM Express Baseboard
Model Name	AMB-HM76B1FL	AMB-HM76B1	ACM-B4080
CPU	Intel Core i7/ i3/ Celeron	Intel Core i7/ i3/ Celeron	-
Chipset	Intel HM76	Intel HM76	-
Front Side Bus	-	-	-
Memory	2 x DDR3L-1333/1600MHz, SO-DIMM, up to 16GB	2 x DDR3L-1333/1600MHz, SO-DIMM, up to 16GB	-
Graphics	Intel HD / HD 4000	Intel HD / HD 4000	-
Video Interface	1 x Analog RGB Display, 1 x HDMI Port 1 x Dual Channel LVDS, 3 x Display Port 1 x SDVO/Display Port	1 x Analog RGB Display, 1 x HDMI Port 1 x Dual Channel LVDS, 3 x Display Port 1 x SDVO/Display Port	1 x VGA, 1 x Dual Ch. LVDS, 2 x HDMI connectors, 1 x DVO/HDMI/DVI/Display Port
SATA	4	4	2
CF	-	-	-
Floppy	-	-	-
Expansion Slot	1 x PCIe x16 Gen.3, 6 x PCIe x1	1 x PCIe x16 Gen.3, 6 x PCIe x1	1 x PCIe x16, 1 x PCIe x4 , 3 x PCIe x1
Ethernet	1 x RJ45	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	8
GPIO	8-bit Digital I/O 4-bit DI and 4-bit DO	8-bit Digital I/O 4-bit DI and 4-bit DO	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)
Parallel Port	-	-	-
Audio	Intel HD Audio Channel	Intel HD Audio Channel	Realtek ALC662
WatchDog Timer	0 ~ 255 seconds	0 ~ 255 seconds	-
Hardware Monitor	Yes	Yes	-
Page	57	58	59

Embedded SBC



Form Factor	PCI-104	3.5"	
Model Name	AR-B1622	AMB-BT19S1	AMB-N280S1
CPU	AMD GeodeLX800 500 MHz	Intel® Celeron® J1900 2.42 GHz	Intel Atom N2800 1.86GHz
Chipset	AMD Geode LX800 + CS5536	Intel Bay Trail SoC	Intel NM10
Front Side Bus	500MHz	-	-
Memory	1 x DDR-200MHz, SO-DIMM, up to 1GB	1 x DDR3L-1333MHz, SO-DIMM, up to 8GB	1 x DDR3L-800/1066MHz, SO-DIMM, up to 4GB
Graphics	AMD Gdode LX800Integrated GPU	-	Intel Atom N2800
Video Interface	1 x VGA 1 x 24-bit TTLinterface for TFT LCD	1 x VGA, 1 x 24-Bit LVDS	1 x VGA, 1 x HDMI 1 x 18-bit LVDS
E-IDE(44pin) / IDE(40pin)	1 / -	- / -	- / -
SATA	-	1 x SATA II, 1 x mSATA	1
CF	-	-	-
Floppy	-	-	-
Expansion Slot	1 x PCI-104	2 x mini PCIe	2 x mini PCIe, 1 x SIM slot
Ethernet	1 x 10/100 MB LAN	2 x GbE LAN	2 x GbE LAN
USB	4	7	4
GPIO	8-bit Digital I/O	8-bit Digital I/O	8-bit Digital I/O
Serial Port	2 x RS-232	COM1(DB9), COM1~COM5(RS232) COM6(RS232/485)	5 x RS-232 (2 x TX/RX only) 1 x RS-232/485
Parallel Port	-	-	1
Audio	-	Realtek ALC888	Realtek ALC662
WatchDog Timer	1 ~ 63 seconds	1 ~ 255 seconds	1 ~ 255 seconds
Hardware Monitor	YES	YES	YES
Page	60	61	62

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	Onboard DDR2-800MHz, 1GB	1 x DDR2-400/533/667MHz, SO-DIMM, up to 2GB	2 x DDR3-800MHz, SO-DIMM, up to 4GB
Graphics	Intel Atom E600	Intel Atom N450	Intel Atom D525/D425
Video Interface	1 x VGA 1 x 18/24-bit LVDS	1 x VGA 18-bit LVDS	1 x VGA, 1 x 18-bit LVDS
E-IDE(44pin) / IDE(40pin)	- / -	- / -	- / -
SATA	1	2	2
CF	1	1	1
Floppy	-	-	-
Expansion Slot	1 x mini PCIe	1 x PCI-104, 1 x mini PCIe	1 x mini PCIe, 1 x PCIe x16
Ethernet	1 x CAN Bus, 2 x GbE	2 x GbE	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	63	64	66

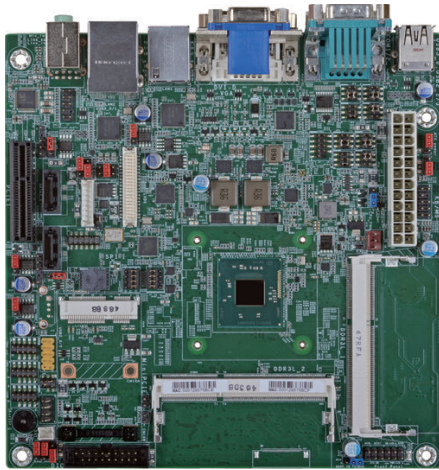
Embedded SBC



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	Onboard 256MB DDR2 SDRAM	Onboard 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	67	68

AMB-BT45B1/W (Wide Temperature)

Intel Bay Trail SoC, 1 x VGA, 1 x DVI, 1 x LVDS, 2 x GbE, 6 x COM, 1 x USB3.0, 6 x USB2.0, 1 x PCIe x4, 1 x mini PCIe



Features

- Intel Bay Trail SoC, low power consumption.
- 2 x DDR3L-1066/1600MHz, SO-DIMM, up to 8GB
- 1 x USB3.0, 6 x USB2.0, 1 x PCIe x4, 1 x mini PCIe
- Wide Temperature(AMB-BT45B1W : -40~85°C)



Specification

Specification

CPU	<ol style="list-style-type: none"> 1. Intel Atom E3815, Single Core, 0.5M Cache, 1.46GHz, 5W (AMB-BT15B1) 2. Intel Celeron J1900, Quad Core, 2M Cache, 2GHz (2.41GHz), 10W(AMB-BT19B1) 3. Intel Atom E3845, Quad Core, 2M Cache, 1.91GHz, 10W (AMB-BT45B1/ AMB-BT45B1W)
Chipset	Intel Bay Trail SoC
Memory	<ul style="list-style-type: none"> • 2 x DDR3L-1600MHz, SO-DIMM, (AMB-BT19B1/AMB-BT45B1/AMB-BT45B1W) up to 8GB system memory • 1 x DDR3L-1066MHz, SO-DIMM, (AMB-BT15B1) up to 4GB system memory

Video

Graphic Controller	Intel® HD Graphics
Video Memory	Shared Memory
Video Interface	<ul style="list-style-type: none"> • 1 x VGA (DB15) resolution up to 2560x1600 @ 60Hz • 1 x DVI-D resolution up to 1920x1080 @ 60Hz • 1 x LVDS (24 Bit Dual channel LVDS, resolution up to 1920x1200 @ 60Hz)

Storage

SATA	2 x SATA II ports
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I/O

Ethernet	2 x GbE, Intel I210AT PCIe Ethernet controllers
Expansion Slot	<ul style="list-style-type: none"> • 1 x PCIe x4 slot (x1 Signal) • 1 x mini PCIe slot
Serial Port	<ul style="list-style-type: none"> • 1 x RS232/485 (DB9) • 1 x RS232 (DB9) • 1 x RS232/485 (Pin Header) • 3 x RS232 (Pin Header)
USB	<ul style="list-style-type: none"> 3 x USB 2.0 port on rear I/O 1 x USB 3.0 Port on rear I/O 3 x USB 2.0 pin header
GPIO	8-bit Digital I/O
Audio	Realtek ALC888 5.1-channel High Definition Audio 1xLine in, 1x Line out

Hardware Feature

Hardware Monitoring	<ol style="list-style-type: none"> 1.CPU voltage 2.CPU and System Temperature 3.System fan speed
WatchDog Timer	Software programmable 1~255 Sec.

Power Requirement

Power Input	1 x ATX 24-Pin ATX power connector
Power State	S0, S1, S3, S4
Power Consumption	TBD

Software

OS Support	Window 7 (32bit/64bit), windows 8.1(32bit/64 bit)
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Mechanical & Environment

Dimension	170mm x 170mm (6.69" x 6.69")
Weight	TBD
Operating Temp.	<ul style="list-style-type: none"> • -20~70°C - (AMB-BT45B1) • -40~85°C - (AMB-BT45B1W) • 0~60°C - (AMB-BT19B1) • 0~60°C - (AMB-BT15B1)
Storage Temp.	-40~85°C
Relative Humidity	5 to 90% , non-condensing
Safety	CE, FCC class A

Packing List

<ul style="list-style-type: none"> • 1 x AMB-BT45B1 main board • 1 x Driver CD • 1 x Quick Guide • 1 x IO Shield • 1 x SATA Cable • 1 x Heatsink
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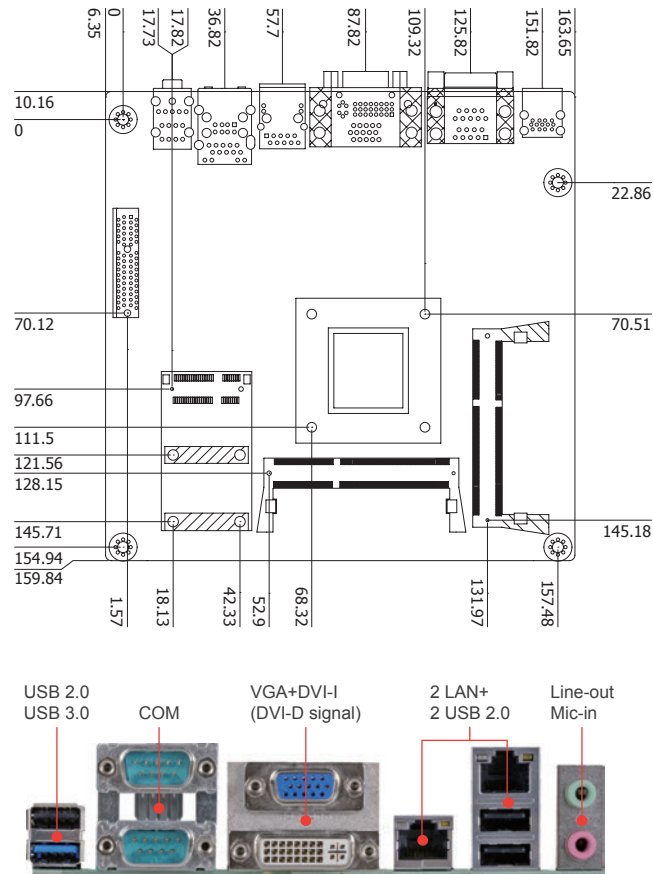
Ordering Information

AMB-BT45B1	Intel Atom E3845, Quad Core, 2M cache, 1.91GHz, 10W (2 x LAN, 2 x COM)
AMB-BT45B1W	Intel Atom E3845, Quad Core, 2M cache, 1.91GHz, 10W (2 x LAN, 6 x COM)
AMB-BT19B1	Intel Celeron J1900, Quad Core, 2M cache, 2GHz (2.41GHz), 10W (2 x LAN, 6 x COM)
AMB-BT15B1	Intel Atom Atom E3815, Single Core, 0.5M cache, 1.46GHz, 5W (2 x LAN, 6 x COM)

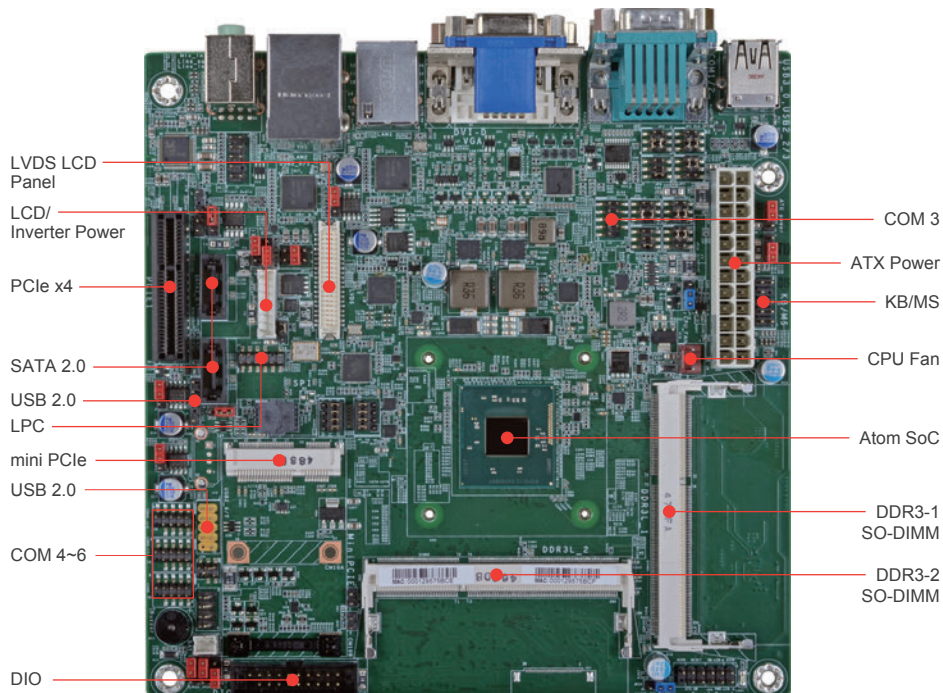
Optional Cable

<ul style="list-style-type: none"> • USB port cable (2.54mm) • USB port cable (2.0mm) • COM port cable • Serial ATA data cable
--

Dimension



I/O Connectors



AMB-BT19T2

Intel Bay Trail SoC, 1 x VGA, 1 x HDMI, 1 x LVDS, 2 x GbE, 6 x COM, 9 x USB 2.0, 1 x mini PCIe, 1 x SATA II, 1 x mSATA



Features

- Intel Bay Trail SoC, low power consumption.
- 1 x DDR3L-1333MHz, SO-DIMM, up to 8GB
- 9 x USB 2.0
- 4 x RS232, 1 x RS232/485, 1 x RS232/TTL
- 2 x GbE LAN, 1 x mini PCIe, 1 x SIM slot
- 1 x SATAII, 1 x mSATA
- 12V Input
- Fanless design



Specification

Specification

CPU	1. Intel® Celeron® J1800, Dual-Core, 1M Cache, 2GHz (2.41GHz), 10W(AMB-BT18T2)
	2. Intel® Celeron® J1900, Quad Core, 2M Cache, 2GHz (2.41GHz), 10W(AMB-BT19T2)
	3. Intel® Atom™ E3815, Single Core, 0.5M Cache, 1.46GHz, 5W (AMB-BT15T2)
	4. Intel® Atom™ E3845, Quad Core, 2M Cache, 1.91GHz, 10W (AMB-BT45T2)
Chipset	Intel Bay Trail SoC
Memory	1 x DDR3L-1333MHz, SO-DIMM, up to 8GB
BIOS	AMI UEFI BIOS
Real Time Clock	1 x System RTC

Video

Graphic Controller	Intel® HD Graphics
Video Interface	<ul style="list-style-type: none"> • 1 x VGA, resolution up to 2560x1600 @ 60Hz • 1 x HDMI, resolution up to 1920x1080 @ 60Hz • 1 x LVDS (24 Bit Dual channel LVDS, resolution up to 1920x1200 @ 60Hz)

Storage

SATA	1 x SATA II Port + 1 x mSATA
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I/O

Ethernet	2 x GbE LAN
Expansion Slot	1 x mini PCIe
Ethernet Chip	2 x Realtek GbE LAN Chip (8105E/8111E)
Serial Port	4 x RS232 + 1 x RS232/RS485 + 1 x RS232/TTL
Parallel Port	1 x Parallel Port
USB	9 x USB2.0 (4XReal I/O + 5 x Pin Header.)
Audio	Realtek ALC662 5.1-channel High Definition Audio 1 x Line-out, 1 x MIC-in
GPIO	8 x GPIO
Keyboard	1 x PS/2 connector for Key Board/Mouse
SIM	1 x SIM slot

Power Requirement

Power Input	2 x 4-Pin AT power connector
Power Output	DC 12V/5V power output Connector, System Fan & CPU Fan connector

Software

OS Support	Window 7 (32bit/64bit), windows 8.1(32bit/64 bit)
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Mechanical & Environment

Dimension	170mm x 170mm (6.69" x 6.69")
Operating Temp.	0~60°C
Storage Temp.	-20~75°C
Safety	RoHS

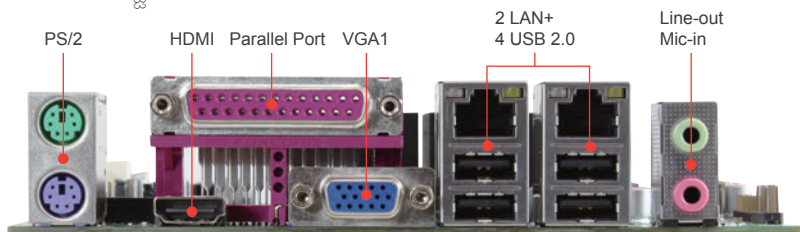
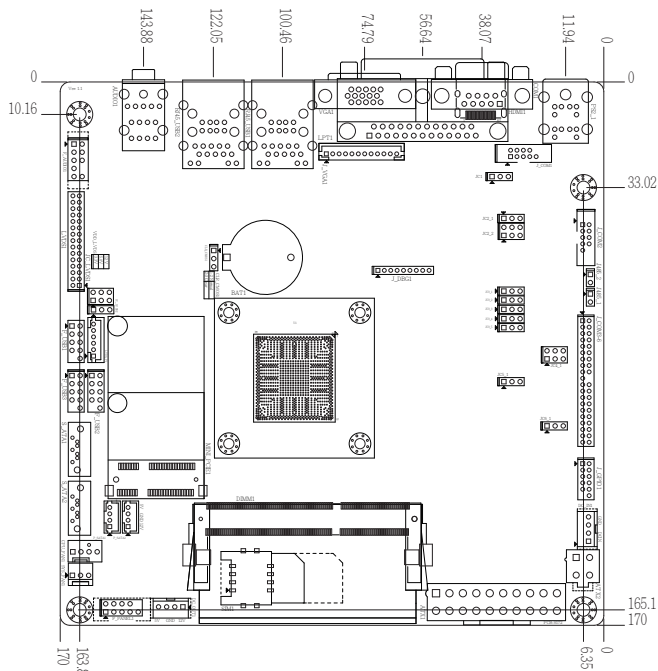
Packing List

- AMB-BT18T2
- Quick User Guide
- Driver CD
- SATA Cable
- SATA Power Cable
- 3 x COM Cable
- VGA Cable

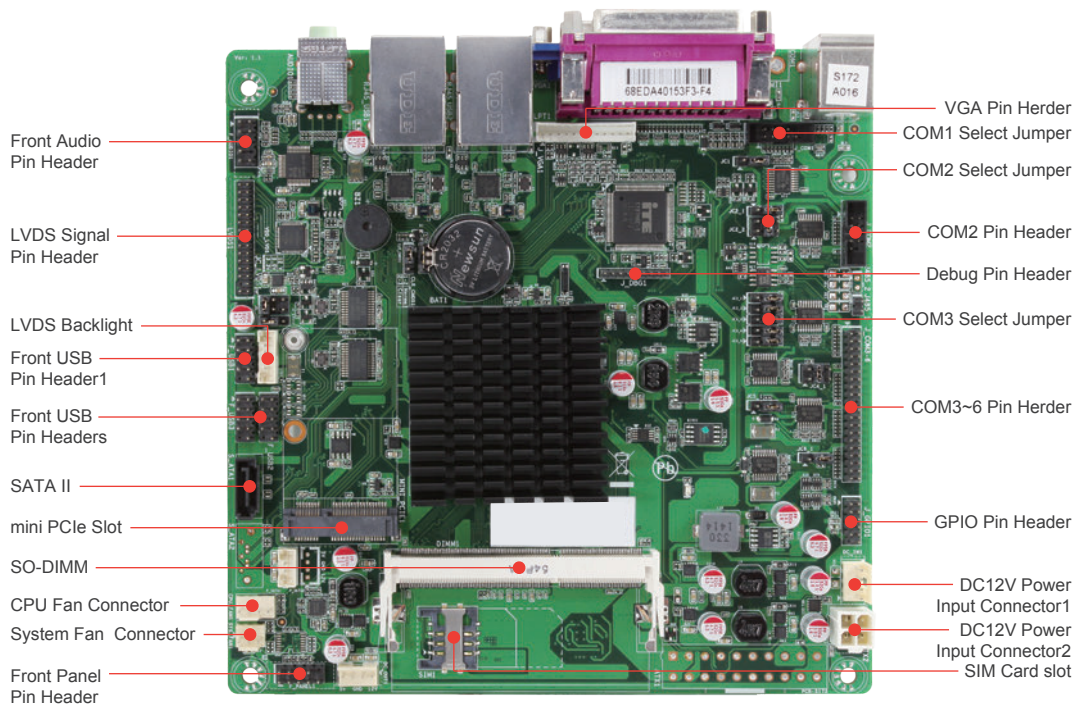
Ordering Information

AMB-BT18T2	Intel Celeron J1800, Dual Core, 1M cache, 2GHz (2.41GHz), 1 x VGA, 1 x HDMI, 1 x LVDS, 2 x GbE, 6 x COM, 9 x USB2.0, 1 x mini PCIe, 1 x SATA, 1 x mSATA
AMB-BT19T2	Intel Celeron J1900, Quad Core, 2M cache, 2GHz (2.41GHz), 1 x VGA, 1 x HDMI, 1 x LVDS, 2 x GbE, 6 x COM, 9 x USB2.0, 1 x mini PCIe, 1 x SATA, 1 x mSATA
AMB-BT15T2	Intel Atom E3815, Single Core, 0.5M cache, 1.46GHz, 1 x VGA, 1 x HDMI, 1 x LVDS, 2 x GbE, 6 x COM, 9 x USB2.0, 1 x mini PCIe, 1 x SATA, 1 x mSATA
AMB-BT45T2	Intel Atom E3845, Quad Core, 2M cache, 1.91GHz, 1 x VGA, 1 x HDMI, 1 x LVDS, 2 x GbE, 6 x COM, 9 x USB2.0, 1 x mini PCIe, 1 x SATA, 1 x mSATA

Dimension



I/O Connectors



AMB-IH81T1

Intel® H81 Chipset with Intel Pentium/ Celeron/ 4th Generation Core i3/i5/i7,
2 x GbE, 2 x COM, 8 x USB2.0, 2 x USB3.0, 1 x PCIe x16, 1 x mini PCIe,



Features

- Support Intel 4th Gen Pentium/ Celeron/ Core i3/ i5/ i7 CPU
- 2 x DDR3L-1333/1600MHz, UDIMM, up to 16GB
- 1 x PCIe x16
- 1 x mini PCIe, 1 x SIM slot
- 2 x GbE, 12 x COM
- 2 x USB 3.0, 8 x USB 2.0
- 2 x SATA 3.0, 1 x SATA 2.0



Specification

Specification

CPU	Support Intel LGA1150 socket • Intel Pentium/ Celeron • Intel 4th Generation Core i3/ i5/ i7
Chipset	Intel® H81
Memory	2 x DDR3L-1333/1600MHz, UDIMM, up to 16GB
BIOS	AMI UEFI BIOS

Video

Graphic Controller	Intel® HD Graphics
Video Memory	Shared Memory
Video Interface	2 x VGA

Storage

SATA	1 x SATA 2.0 Port + 2 x SATA 3.0 Ports
------	--

I/O

Expansion Slot	• 1 x PCIe x16 slot • 1 x mini PCIe (PCIe + USB signal)
Ethernet	2 x GbE LAN
Ethernet Chip	2 x Realtek PCI-E NIC RTL8111F
Serial Port	• COM1: RS232 • COM2: RS232/RS485 • COM3~10: RS232 • COM11~12: RS232
USB	• 6 x Header(USB2.0) • 2 x Rear I/O(USB2.0) • 2 x Rear I/O(USB3.0/USB2.0)
GPIO	8-bit Digital I/O
Audio	Realtek ALC662 5.1 Channel HDA Code 1 x MIC-in, 1 x Line out
Parallel Port	1 x Parallel Port
SIM	1 x SIM Card Slot
Keyboard	1 x PS/2 Header for Key Board/Mouse

Hardware Feature

WatchDog Timer	Software programmable from 1~255 seconds
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Power Requirement

Power Input	1 x ATX 20-Pin + 12V 4-Pin power connector
Power Output	System Fan & CPU Fan connector

Software

OS Support	Window 7 (32bit/64bit), Windows 8.1(32bit/64 bit)
------------	--

Mechanical & Environment

Dimension	170mm x 170mm (6.69" x 6.69")
Weight	TBD
Operating Temp.	0~60°C
Storage Temp.	-20~ 70°C
Relative Humidity	5 to 90% , non-condensing
Safety	RoHS

Packing List

- AMB-IH81T1
- Quick User Guide
- Driver CD
- SATA Cable
- I/O Shielding

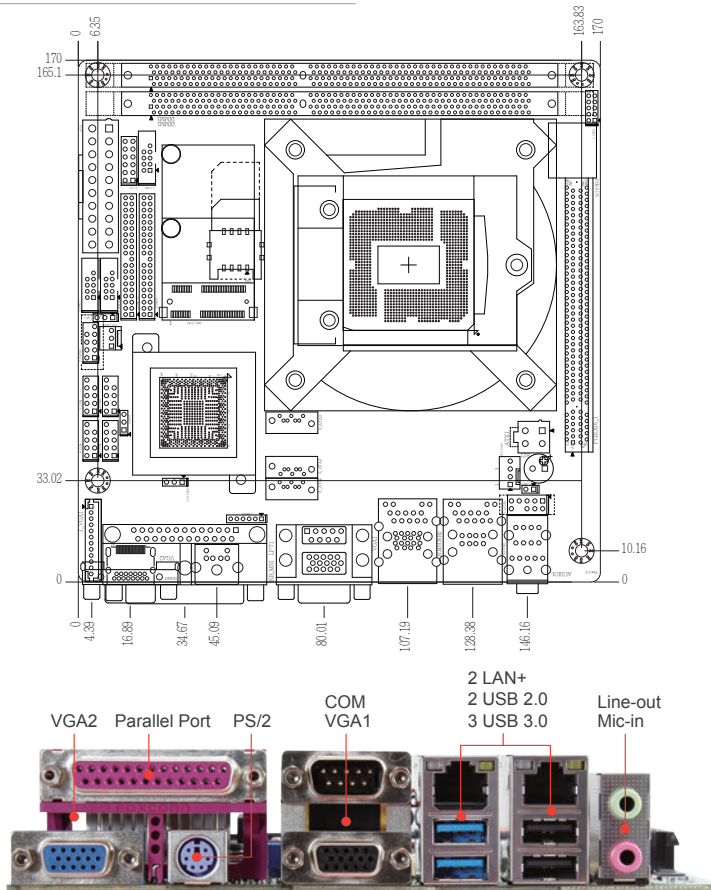
Ordering Information

AMB-IH81T1	Intel® H81 Chipset with Intel Pentium/ Celeron/ 4th Generation Core i3/i5/i7, 2 x GbE, 2 x COM, 8 x USB2.0, 2 x USB3.0, 1 x PCIe x16, 1 x Mini PCI-e,
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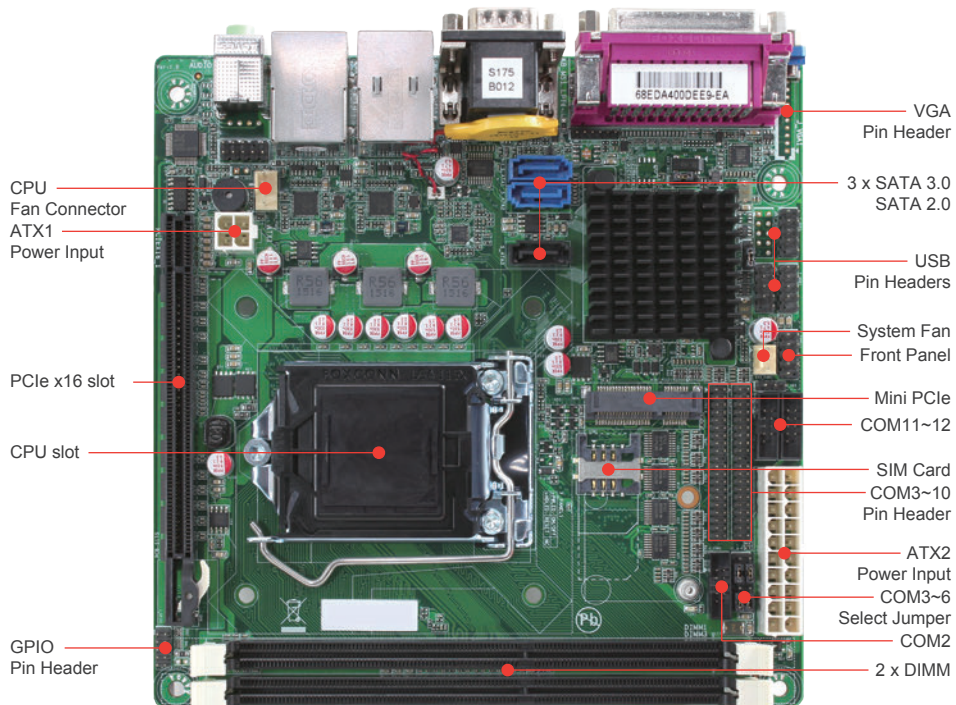
Optional Cable

- USB port cable (2.54mm)
- USB port cable (2.0mm)
- COM port cable
- Serial ATA data cable

Dimension



I/O Connectors



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 PCIe 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)
- 2 x DDR3L-1333/1066MHz, UDIMM, up to 16GB
- 2 x VGA, 2 x GbE, 10 x COM, 8 x USB2.0, 1 x PCIe 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	2 x DDR3L-1333/1600MHz, UDIMM, 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"> • 2 x VGA (DB15) • 1 x LVDS

Storage

SATA	2 x SATA II ports
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I/O

Ethernet	2 x GbE RJ45 with LED, Realtek RTL8111E GbE
Expansion Slot	<ul style="list-style-type: none"> • 1 x PCIe x16 slot • 1 x mini PCIe slot
Serial Port	<ul style="list-style-type: none"> • 1 x RS232 (DB9) • 1 x RS232/485 (Pin Header) • 8 x RS232 (Pin Header)
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 1 x 4-pin ATX 12V Power Connector
Power Consumption	TBD

Software

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



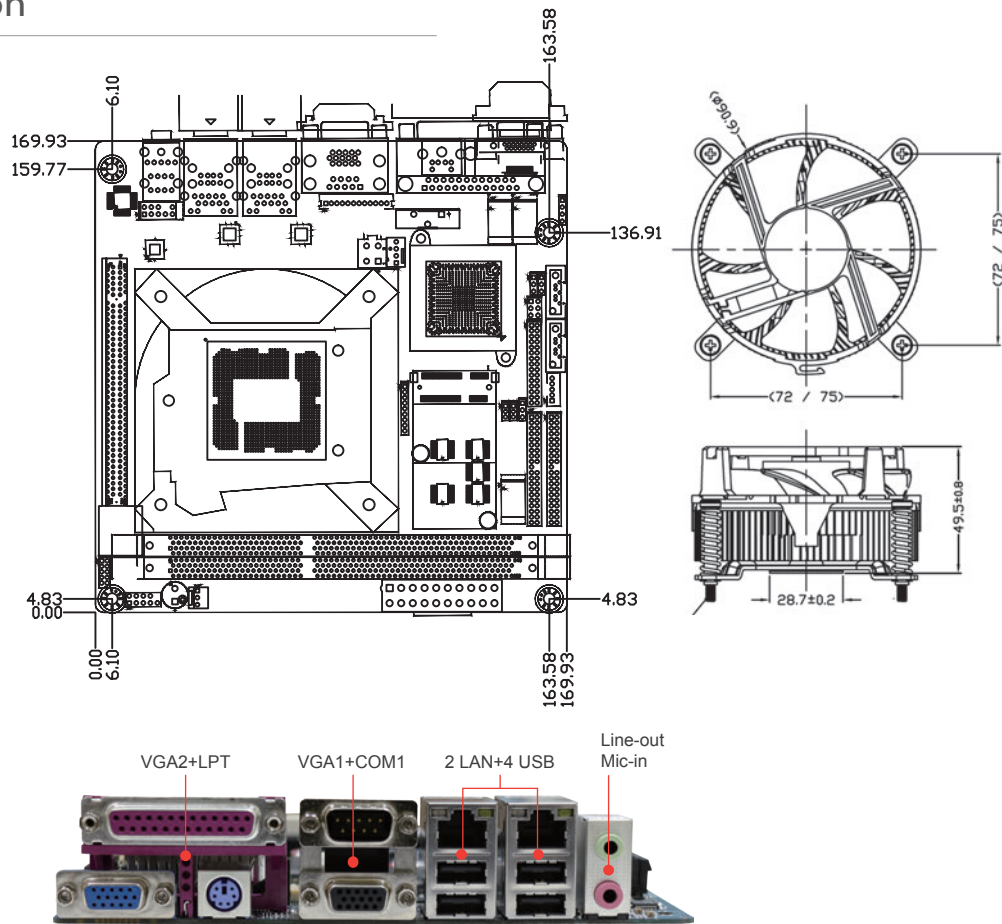
Ordering Information

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
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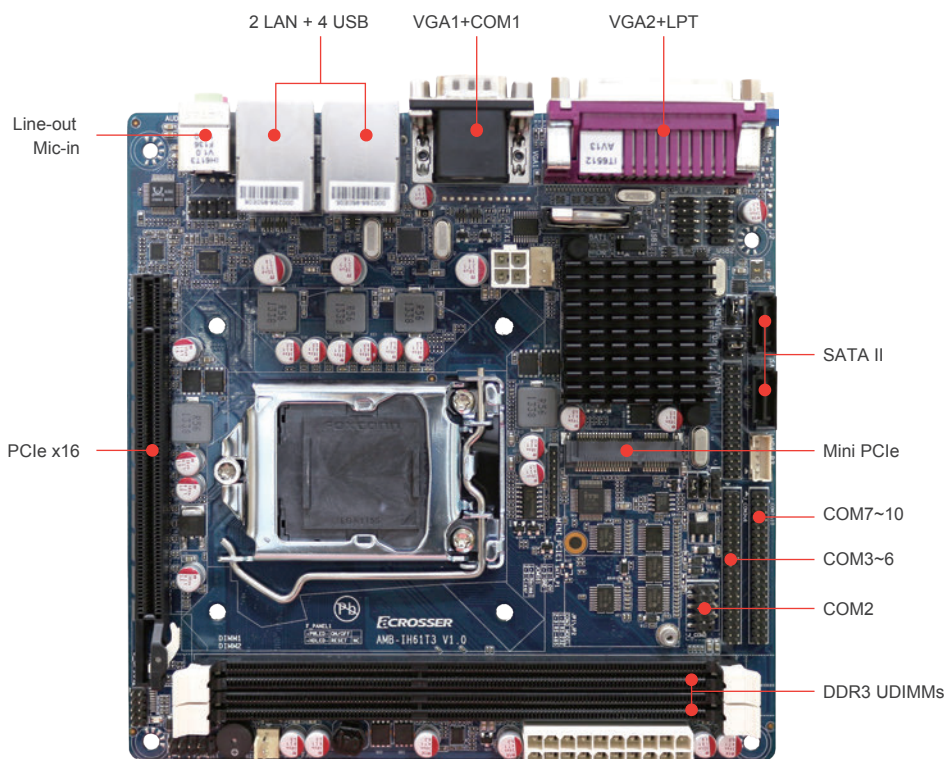
Accessory

ACC-IH61T3-H500	W90 x L90 x H50 mm, 3600RPM, 38dB A
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Dimension

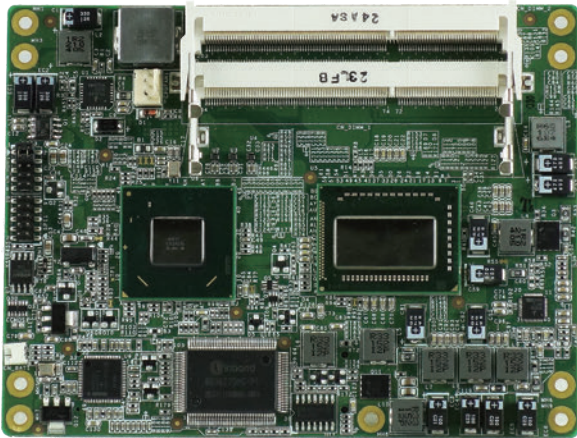


I/O Connectors



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
- 2 x DDR3L-1600MHz, SO-DIMM, up to 16GB



Specification

System

CPU	Intel Core i7-3615QE (Quad Core, 2.3GHz, 6MB L2 cache, TDP 45W)
Chipset	Intel 7 Series Mobile Express Chipset, QM77 Chipset
Memory	2 x DDR3L-1600MHz, SO-DIMM, 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"> • 1 x Analogic RGB Display Output, supports max resolution 2048 x 1536@75Hz • 1 x Dual Channel LVDS Output • 2 x DisplayPort 1.1 Output • 1 x SDVO/DisplayPort 1.1 Output

Storage (Support by Carrier Board)

SATA	<ul style="list-style-type: none"> • 2 x SATA III with 6Gb/s • 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	<ul style="list-style-type: none"> • 1 x PCIe x16 Gen.3 • 6 x PCIe 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	<ul style="list-style-type: none"> • 1 x 24-pin ATX Power Connector • 1 x 4-pin ATX 12V Power Connector
Power Consumption	TBD

Software

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

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

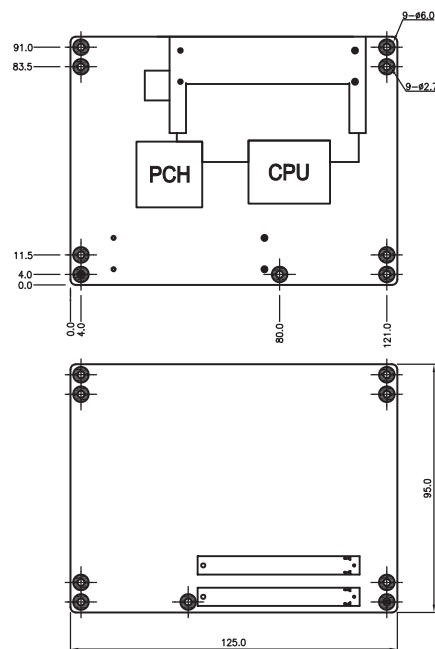
Packing List

- 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



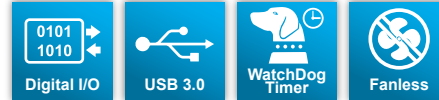
AMB-HM76B1FL

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
- 2 x DDR3L-1600MHz, SO-DIMM, up to 16GB



Specification

System

CPU	• Intel Core i7 3517UE (Dual Core, 1.7GHz, 4MB cache, TDP 17W)
	• Intel Core i3 3217UE (Dual Core, 1.6GHz, 3MB cache, TDP 17W)
	• Intel Core Celeron 1047UE (Dual Core, 1.4GHz, 2MB cache, TDP 17W)
Chipset	Intel HM76
Memory	2 x DDR3L-1600MHz, SO-DIMM, up to 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 • 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 PCIe x16 Gen.3 • 6 x PCIe 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 • 1 x 4-pin ATX 12V Power Connector
Power Consumption	TBD

Software

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

Mechanical & Environment

Dimension	125 mm x 95 mm (4.92" x 3.74"), 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

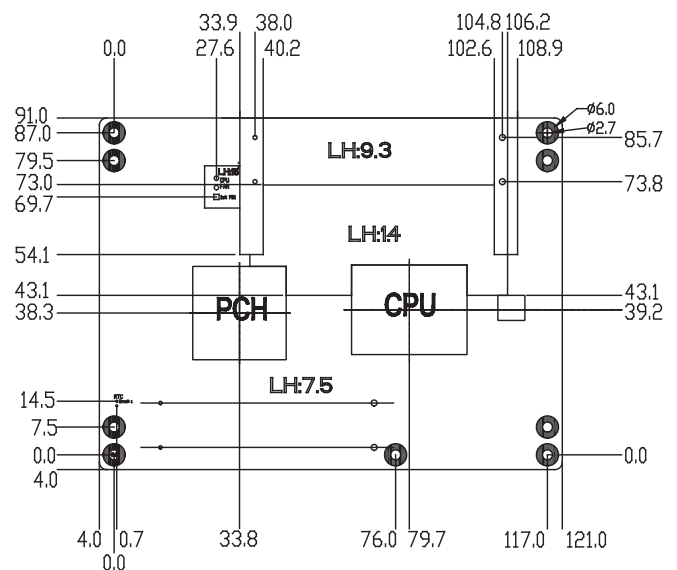
Packing List

- 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
- 2 x DDR3L-1600MHz, SO-DIMM, up to 16GB



Specification

System

CPU	<ul style="list-style-type: none"> • Intel Core i7 3517UE (Dual Core, 1.7GHz, 4MB cache, TDP 17W) • Intel Core i3 3217UE (Dual Core, 1.6GHz, 3MB cache, TDP 17W) • Intel Core Celeron 1047UE (Dual Core, 1.4GHz, 2MB cache, TDP 17W)
Chipset	Intel HM76
Memory	2 x DDR3L-1600MHz, SO-DIMM, up to 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"> • 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	<ul style="list-style-type: none"> • 2 x SATA III with 6Gb/s • 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	<ul style="list-style-type: none"> • 1 x PCIe x16 Gen.3 • 6 x PCIe 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	<ul style="list-style-type: none"> • 1 x 24-pin ATX Power Connector • 1 x 4-pin ATX 12V Power Connector
Power Consumption	TBD

Software

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

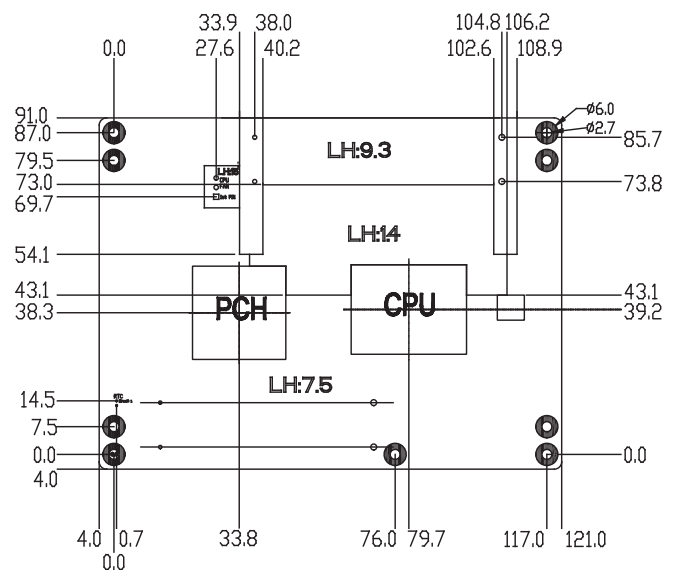
Packing List

- 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

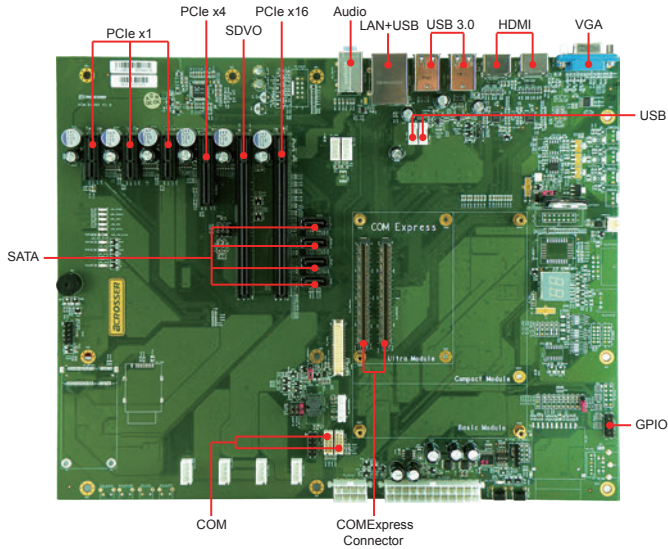
AMB-HM76B1i71	Intel HM76 with Core i7-3517UE COM Express Basic Type 6 Module
AMB-HM76B1i31	Intel HM76 with Core i3-3217UE COM Express Basic Type 6 Module
AMB-HM76B1CE1	Intel HM76 with Core Celeron 1047UE COM Express Basic Type 6 Module

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 PCIe x16 slot, 1 x PCIe x4 slot, 3 x PCIe x1 slots
- ATX form factor to meet most standard mounting space



Specification

System

COM Express Module	Acrosser COM Express Type 6 Modules Supports Basic, Compact and COM-Ultra Modules
--------------------	--

Video

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

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

I/O

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

Power Requirement

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

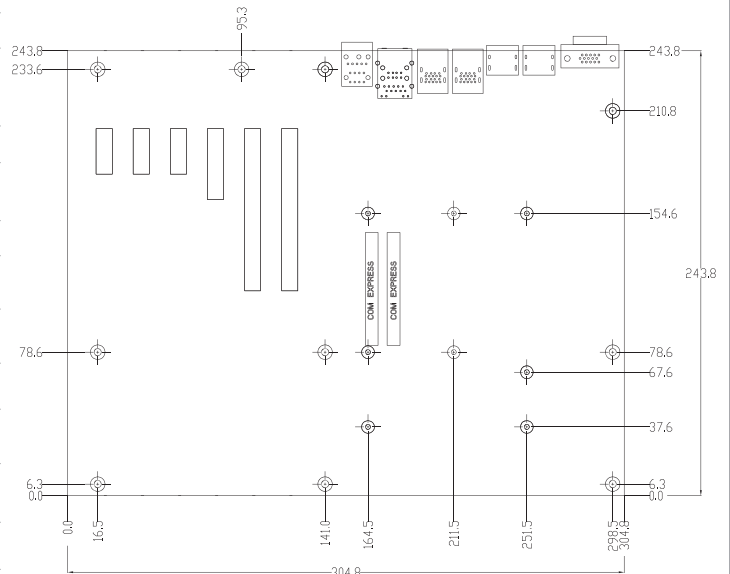
Packing List

- 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

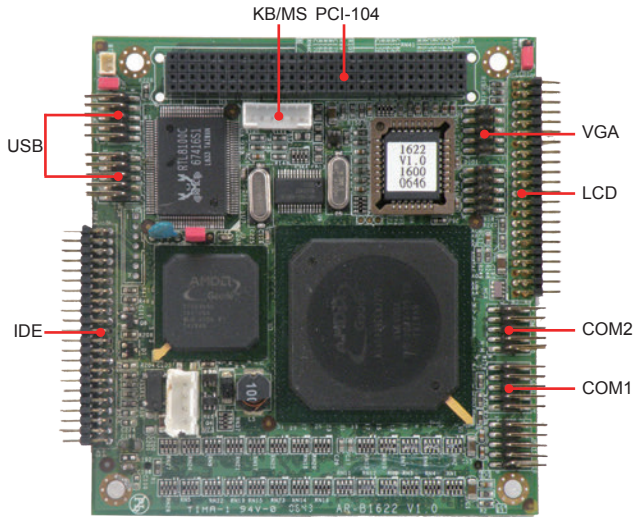
ACM-B4080	ATX Form-factor Carrier Board for COM Express Basic
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Dimension



AR-B1622

PCI-104 AMD LX 800 SBC



Features

- AMD LX 800 + CS5536
- Fanless Design
- Memory support 1 x DDR-400MHz, SO-DIMM, 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 DDR-400MHz, SO-DIMM, 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"> • 1 x VGA (Pin header) • 1 x 24-bit TTL interface for TFT LCD panel, "LCD inverter power connector and ON/OFF control support 3.3V and 5V LCD"

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
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Software

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

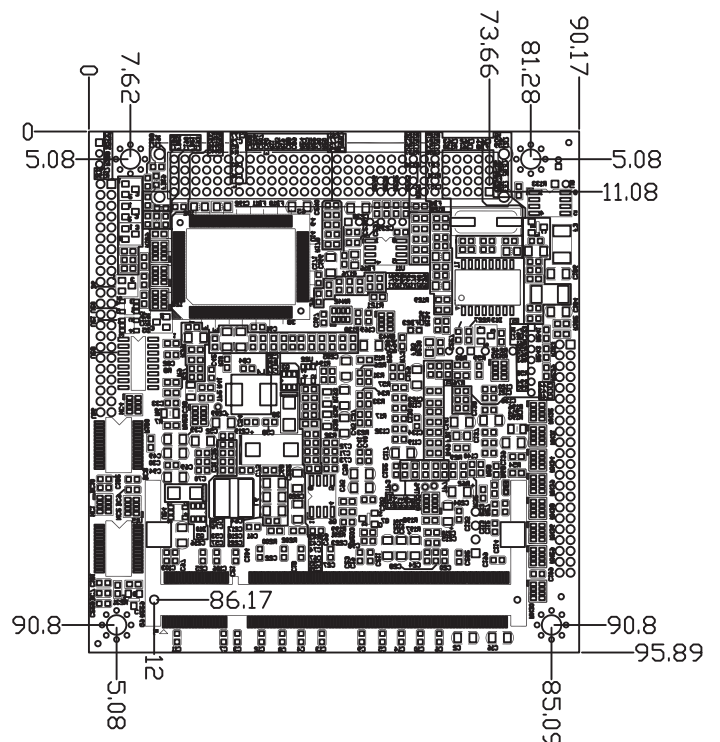
Packing List

- 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

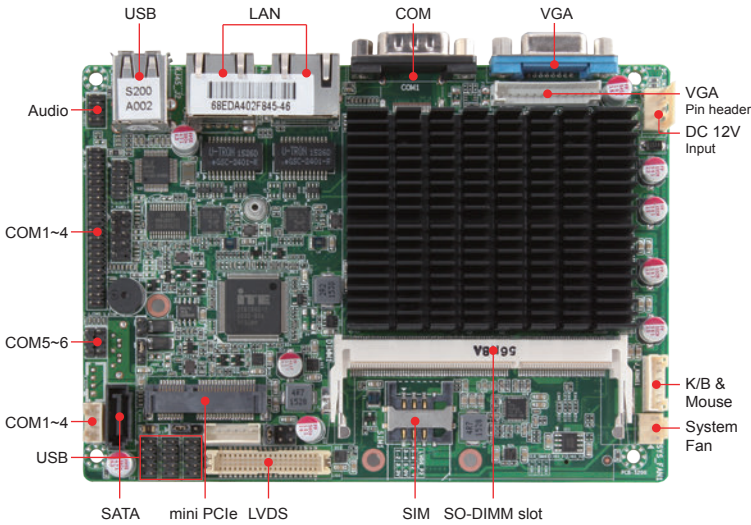
AR-B1622	1 x AR-B1622
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Dimension



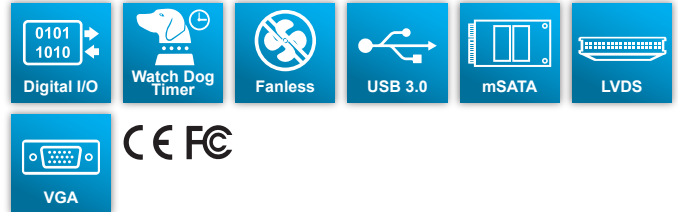
AMB-BT19S1

Intel Bay Trail SoC, 1 x VGA, 1 x LVDS, 2 x GbE, 6 x COM, 7 x USB 2.0, 2 x mini PCIe, 1 x SATA II, 1 x mSATA



Features

- Intel Bay Trail SoC, low power consumption.
- 1 x DDR3L-1333MHz, SO-DIMM, up to 8GB
- 2 x USB 3.0, 6 x USB 2.0, 6 x COM
- 2 x GbE LAN, 2 x mini PCIe, 1 x SIM slot
- 1 x SATA II, 1 x mSATA
- 12V Input
- Fanless design



Specification

Specification

CPU	1. Intel® Celeron® J1800, Dual-Core, 1M Cache, 2GHz (2.41GHz), 10W(AMB-BT18S1)
	2. Intel® Celeron® J1900, Quad-Core, 2M Cache, 2GHz (2.41GHz), 10W(AMB-BT19S1)
	3. Intel® Atom™ E3815, Single-Core, 0.5M Cache, 1.46GHz, 5W (AMB-BT15S1)
	4. Intel® Atom™ E3845, Quad-Core, 2M Cache, 1.91GHz, 10W (AMB-BT45S1)
Chipset	Intel Bay Trail SoC
Memory	1 x DDR3L-1333MHz, SO-DIMM, up to 8GB (AMB-BT19S1)
BIOS	AMI UEFI BIOS

Video

Graphic Controller	Intel® HD Graphics
Video Memory	Shared Memory
Video Interface	<ul style="list-style-type: none"> • 2 x VGA (Resolution up to 2560 x 1600 @ 60Hz) • 1 x LVDS (24-Bit Dual channel LVDS, Resolution up to 1920x1200 @ 60Hz)

Storage

SATA	1 x SATA II Port + 1 x mSATA
------	------------------------------

I/O

Ethernet	2 x GbE LAN(Optional)
Expansion Slot	2 x mini PCIe
Ethernet Chip	2 x Realtek GbE LAN Chip
Serial Port	<ul style="list-style-type: none"> • COM1(DB9 connector) • COM6(RS232/485) • COM1~COM5 x RS232 2.0 pitch pin header
USB	<ul style="list-style-type: none"> • 2 x USB 2.0 port on rear I/O • 5 x USB 2.0 pin header
GPIO	8 bit Digital I/O
Audio	Realtek ALC888 5.1-channel High Definition Audio 1 x Line in, 1 x Line out
Keyboard	1 x PS/2 Header for Key Board/Mouse
SIM	1 x SIM slot

Power Requirement

Power Input	4-Pin power connector
Power Output	1 x System FAN 3-Pin Power connector

Software

OS Support	Windows 7 (32 bit/64 bit), Windows 8.1 (32 bit/64 bit) Linux (by request)
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Mechanical & Environment

Dimension	146 x 105 mm (5.7" x 4")
Operating Temp.	0~60°C
Storage Temp.	-20~75°C
Safety	RoHS

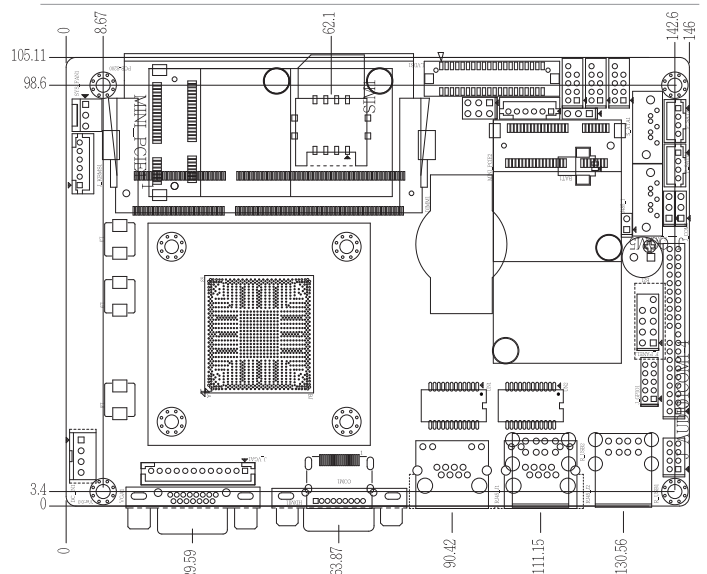
Packing List

- AMB-BT19S1
- Quick User Guide
- Driver CD
- SATA Cable

Ordering Information

AMB-BT18S1	Intel Celeron J1800, Dual Core, 1M cache, 2GHz (2.41GHz), 10W (2 x LAN, 6 x COM)
AMB-BT19S1	Intel Celeron J1900, Quad Core, 2M cache, 2GHz (2.41GHz), 10W (2 x LAN, 6 x COM)
AMB-BT15S1	Intel Atom E3815, Single Core, 0.5M cache, 1.46GHz, 5W (2 x LAN, 6 x COM)
AMB-BT45S1	Intel Atom E3845, Quad Core, 2M cache, 1.91GHz, 10W (2 x LAN, 6 x COM)

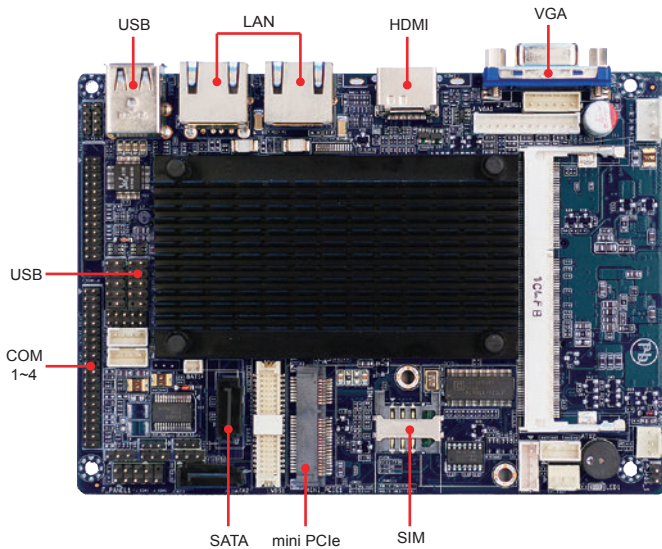
Dimension



Specifications are subject to change without notice.

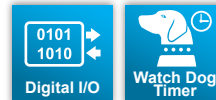
AMB-N280S1

3.5" Intel N2800 SBC



Features

- Intel N2800 Processor with NM10 Chipset
- 1 x DDR3L-1066MHz, SO-DIMM, up to 4GB, non-ECC
- 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 DDR3L-1066MHz, SO-DIMM, up to 4GB, non-ECC
BIOS	AMI
Hardware Monitoring	CPU voltage and temperature.
WatchDog Timer	Software programmable 1~255 sec.

Video

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

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) 1 x RS-232(1 x 3-pin header, only TX/RX) 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"> • Realtek ALC662 Audio Codec • MIC-in / Line-out (1 x pin header)

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
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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

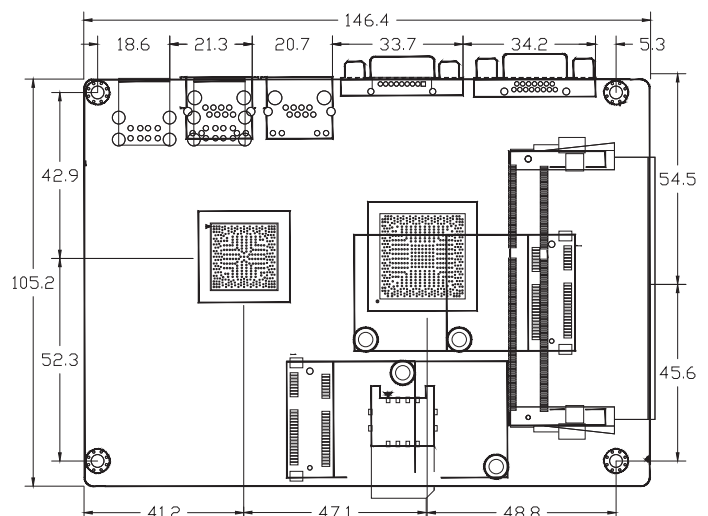
Packing List

- 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

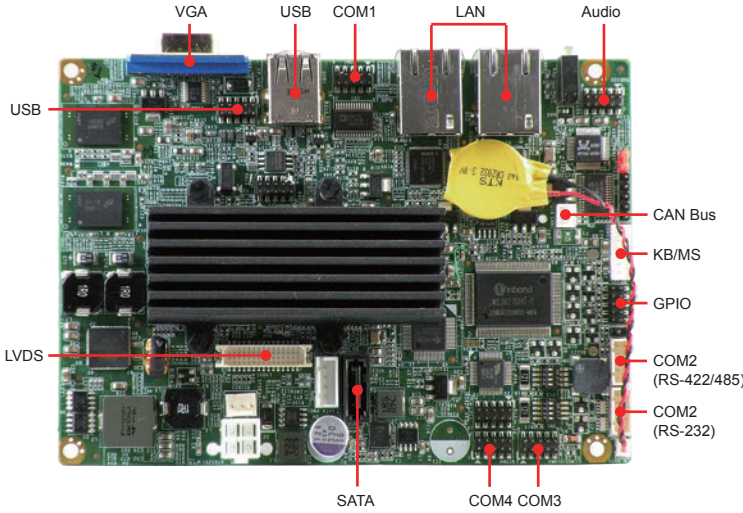
AMB-N280S1	3.5" SBC with Intel N2800, NM10, DDR3, GbE, SATA II, USB 2.0, COM
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Dimension



AR-B6051

3.5" Intel Atom E640 1GHz SBC



Features

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

Video

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

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"> • 1 x mini PCIe slot • 1 x CAN Bus
Serial Port	<ul style="list-style-type: none"> • 3 x RS-232 (3 x pin header) • 1 x RS-232/422/485 (JST, COM2)
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
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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

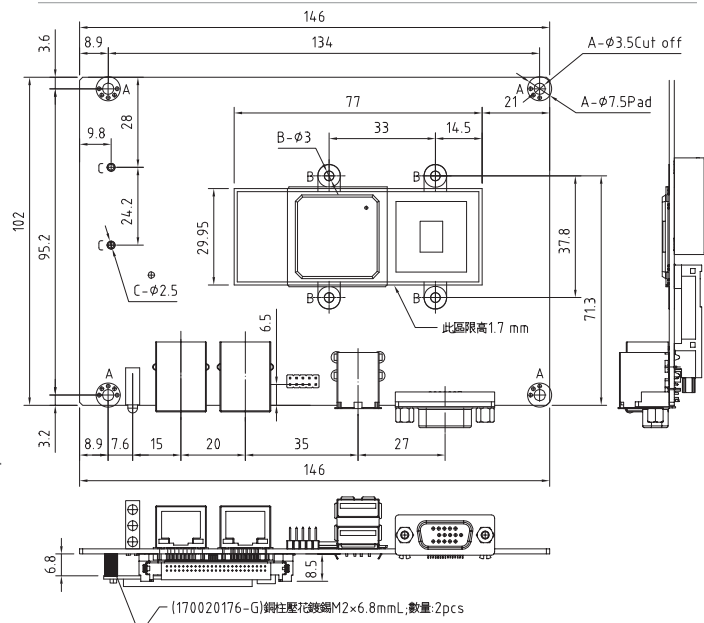
Packing List

- 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"> • 1 x SATA + SATA Power cable • 3 x COM cable (for COM1, COM3 & COM4) • 1 x COM cable (JST, for COM2 RS-232) • 1 x COM cable (JST, for COM2 RS-422/485) • 1 x USB cable • 1 x KB/MS Y cable
Accessory (Optional)	

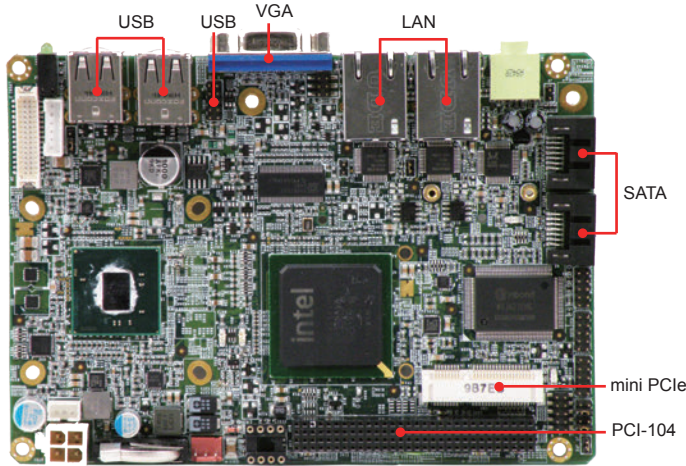
Dimension



Specifications are subject to change without notice.

AR-B6050

3.5" Intel Atom N450 SBC



Features

- Medical Solution
- Intel Atom N450 1.66GHz
- Memory Support 1 x DDR2-400/533/667MHz, up to 2GB
- VGA/LVDS
- 6 x USB 2.0, 2 x COM, CF Socket, PCI-104, mini PCIe



EN60601

Specification

System

CPU	Intel Atom N450 1.66GHz
Chipset	Intel ICH8M
Front Side Bus	667MHz
Memory	1 x DDR2-400/533/667MHz, SO-DIMM, up to 2GB
BIOS	Insyde
Hardware Monitoring	<ul style="list-style-type: none"> • CPU voltage and temperature • CPU and system fan speed
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"> • 1 x VGA port (DB15) • 1 x 18-bit LVDS (Pin header)

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
Expansion Slot	<ul style="list-style-type: none"> • 1 x PCI-104 slot • 1 x mini PCIe
Serial Port	2 x RS-232 (2 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 Audio Codec

Power Requirement

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

OS Support	Windows XP/XP Embedded/CE 5.0 & 6.0, Linux kernel 2.6.31
------------	--

Mechanical & Environment

Dimension	146mm x 102mm (5.7" x 4")
Operating Temp.	0~60°C (32~140°F)
Storage Temp.	-20~80°C (-4~176°F)
Relative Humidity	0 to 95% @ 40°C, non-condensing
Safety	CE, FCC compliant, meet EN60601

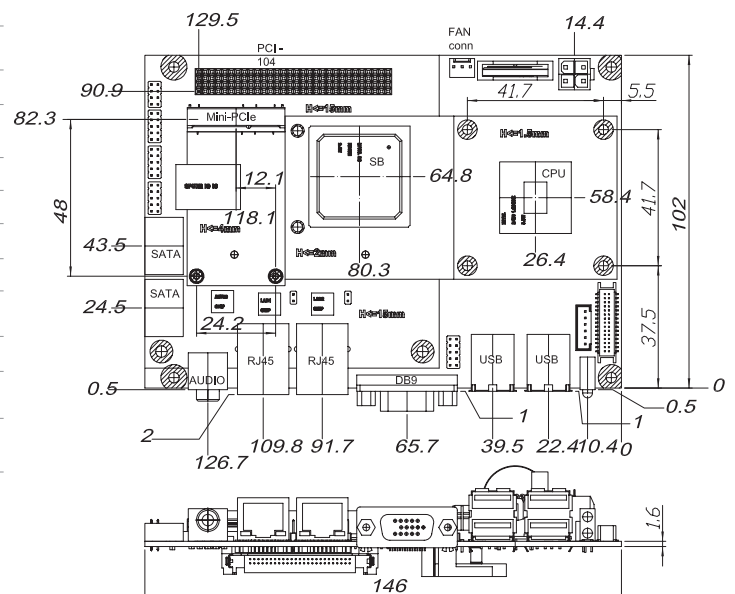
Packing List

- 1 x AR-B6050
- 1 x Driver CD
- 1 x User manual

Ordering Information

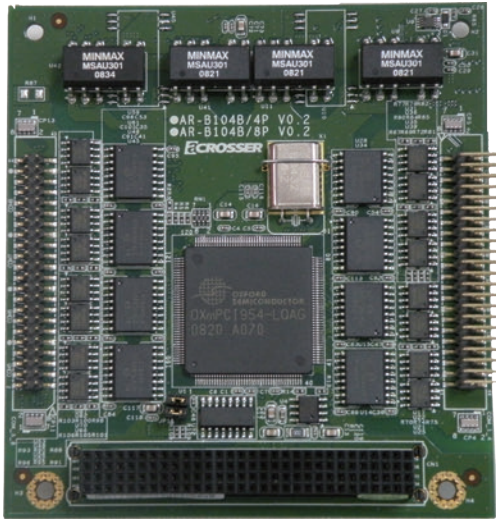
AR-B6050	1 x AR-B6050
Accessory	ACC-6050: <ul style="list-style-type: none"> • 1 x USB cable • 1 x COM cable

Dimension



AR-B104B

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



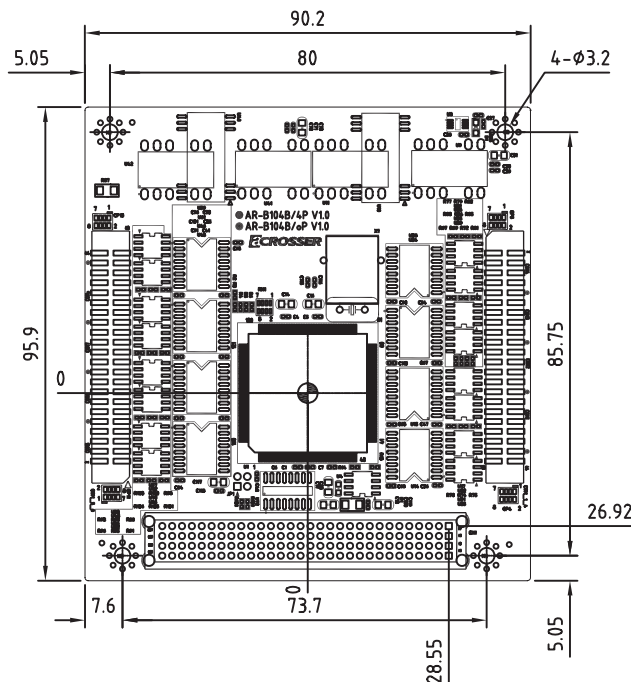
AR-B104B/8P
AR-B104B/4P

Specification (Non-Isolation)

General

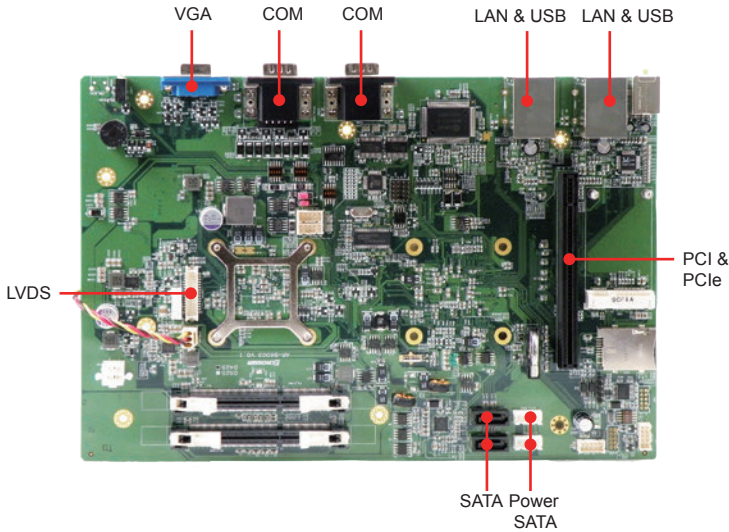
Description	PCI-104 with 4/8 COM
Interface	PCI-104
RS-232/422/485	Isolation 1KV and ESD 12KV protect
OS	Windows 2000/XP, Linux FC6
Dimension	95.9mm x 90.2mm
Operating Temp.	0~60°C (32~140°F)
Storage Temp.	-20~80°C (-4~176°F)
Function Selectable	RS-232/485/422 selectable by jumper/API

Dimension



AR-B6003

Intel Atom D525/D425 SBC



Features

- Support Intel Atom D525 (Dual Core) and D425 (Single Core)
- 2 x DDR3-800MHz, SO-DIMM, up to 4GB
- Dedicated / selectable PCI & PCIe 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



Specification

System

CPU	Intel Atom Dual Core D525 and Single Core D425
Chipset	Intel ICH8M
Memory	2 x DDR3-800MHz, SO-DIMM, 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) 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 PCIe x 1 expansion slots)
AR-RS21	Riser Card (1 x PCI + 1 x PCIe x 1 expansion slots)
Mini PCIe	1 x mini PCIe
Serial Port	3 x RS232 (DB9) 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

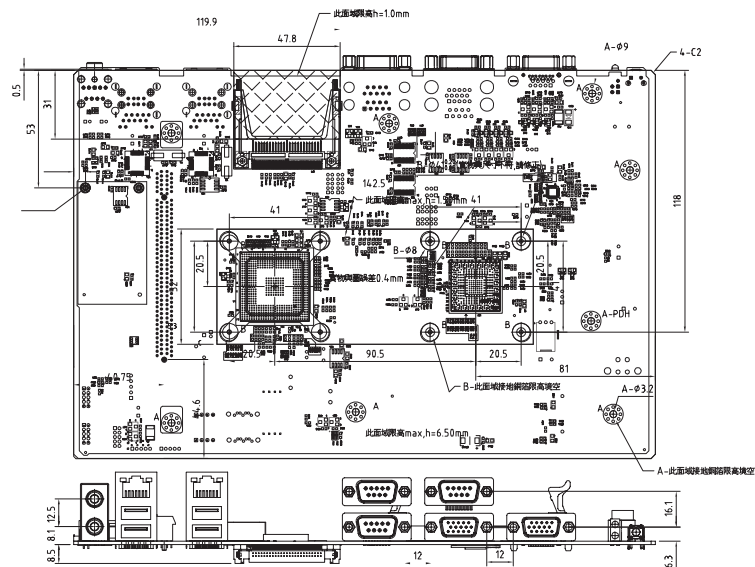
Optional (Purchase Separately)

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

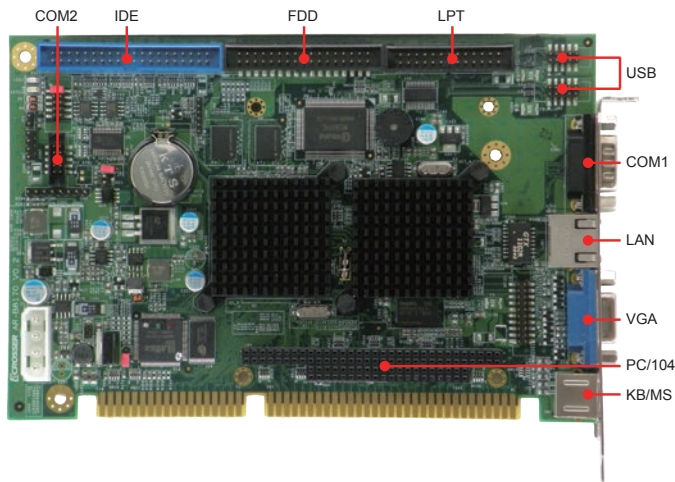
AR-B6003D525	1 x AR-B6003D525
AR-B6003D425	1 x AR-B6003D425
ACC-6003	• 1 x USB cable • 1 x SATA cable • 1 x SATA power cable

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"> • 1 x RS-232 (DB9) • 1 x RS-232/422/485 (Pin header)
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"> • AT : 12V single voltage input (default set as AT mode) • ATX : power switch pin header and pin head for external 5V stand-by input
-------------	---

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

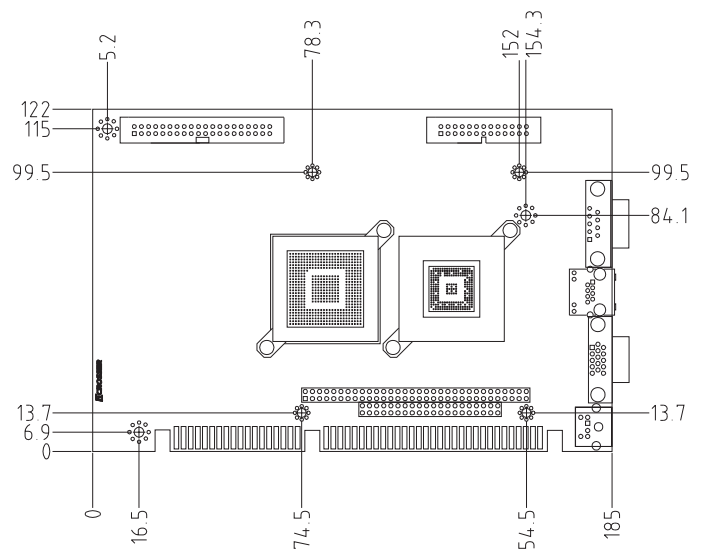
Packing List

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

Ordering Information

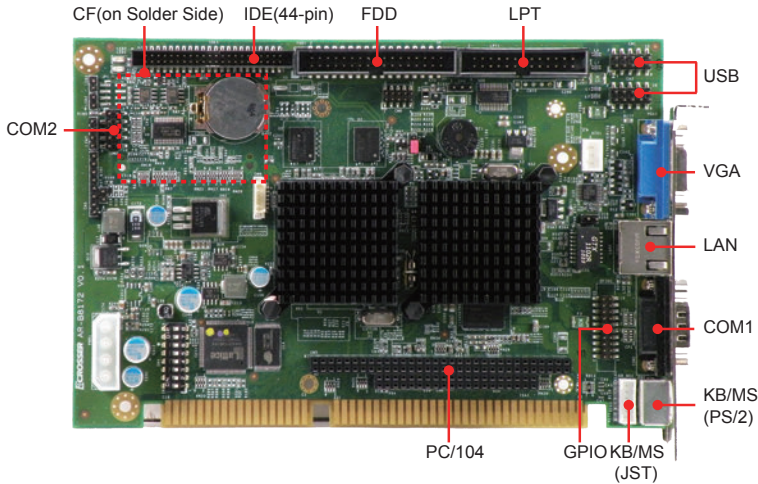
AR-B8170	1 x AR-B8170
Accessory	ACC-8170: <ul style="list-style-type: none"> • 1 x IDE cable (40-pin) • 1 x PS/2 keyboard and mouse cable • 1 x 2 ports USB cable with bracket • 1 x COM + LPT cable with bracket • 1 x FDD cable

Dimension



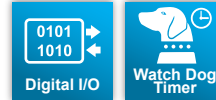
AR-B8172

Fanless ISA Bus DM&P Vortex86DX 800MHz SBC



Features

- Fanless Design
- Onboard DM&P Vortex86DX 800MHz
- Onboard 256MB DDR2 SDRAM
- IDE, CF
- 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 DDR2 256MB 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 (44-pin)
CF	1 x Compact Flash Type I/II socket
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"> • 1 x RS-232 (DB9) • 1 x RS-232/422/485 (Pin header)
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	<ul style="list-style-type: none"> • 1 x PS/2 • 1 x JST

Power Requirement

Power Input	AT : 5V + 12V input
-------------	---------------------

Software

OS Support	Windows XP, 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

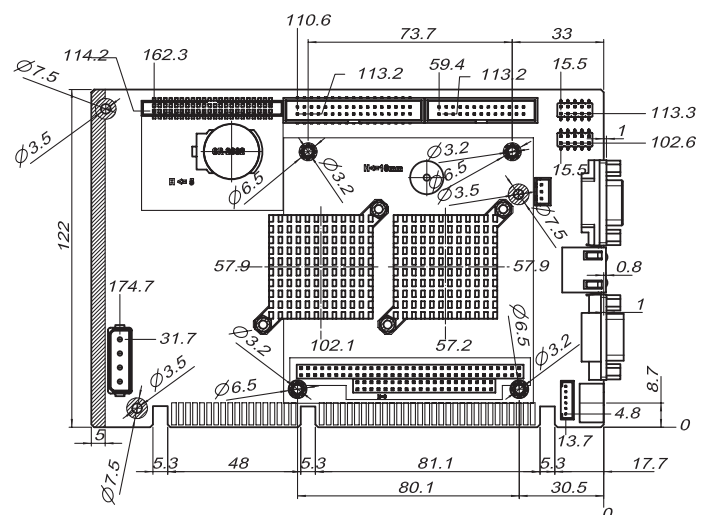
Packing List

- 1 x AR-B8172
- 1 x Quick user guide
- 1 x Driver CD

Ordering Information

AR-B8172	1 x AR-B8172
Accessory	ACC-8172: <ul style="list-style-type: none"> • 1 x IDE cable (44-pin) • 1 x PS/2 keyboard and mouse cable • 1 x 2 ports USB cable with bracket • 1 x COM + LPT cable with bracket • 1 x FDD cable

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/ Celeron Processor	Intel Atom D425 / D525
Memory	Type	2 x DDR3L-1333/1600MHz, SO-DIMM	2 x DDR3-800MHz, SO-DIMM
	Installed / Max. 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 2 x RS-422/485	3 x RS-232 1 x RS-232/422/485
	USB Port (ext/int)	3/-	4/2
	Expansion Slot	2 x PCI / PCIe x1, 1 x mini PCIe	2 x PCI / PCIe x1, 1 x mini PCIe
Operating Temp.		0~45°C (32~113°F)	0~55°C (32~131°F)
Page		70	72

Embedded System



Form Factor		Fanless Embedded System	
Model		AR-ES6050FLD-W	
Chipset		Intel ICH8M	
CPU Type		Intel Atom N450	
Memory	Type	1 x DDR2-400/533/667MHz, SO-DIMM	
	Installed / Max. 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		74	

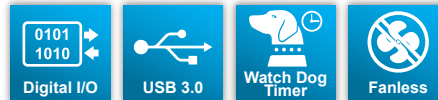
AES-HM76Z1FL

Fanless and Ultra Slim Intel HM76 Embedded System



Features

- Fanless and ultra slim design
- Support Intel Ivy Bridge CPU with HM76 chipset
- 2 x DDR3L-1600MHz, 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)



Specification

System

CPU	Intel Core i7 3517UE 1.7GHz Intel Core i3 3217UE 1.6GHz Intel Celeron Processor 1047UE 1.4GHz Intel Celeron Processor 927UE 1.5GHz
Chipset	Intel HM76
Memory	2 x DDR3L-1600MHz, SO-DIMM, 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"> • 2 x HDMI (HDMI Type A connector) • 1 x VGA (Combo connector)

Ethernet

Ethernet	<ul style="list-style-type: none"> • 2 x GbE (RJ45 with LED) • Realtek RTL8111F
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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"> • 3 x USB 3.0 (USB 3.0 Type A connector) • 2 x USB 2.0 (1 for Mini PCIe / 1 for Combo connector)
Serial Port	<ul style="list-style-type: none"> • 2 x RS-232 (DB9 connector) • 2 x RS-422/485 (DB15 connector, shared with GPIO)
Audio	<ul style="list-style-type: none"> • 1 x Line-Out (Combo connector) • Realtek ALC662
GPIO	<ul style="list-style-type: none"> • 8 x GPI (DB15 connector, shared with RS-422/485) • 8 x GPO (DB15 connector, shared with RS-422/485)

Power Requirement

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

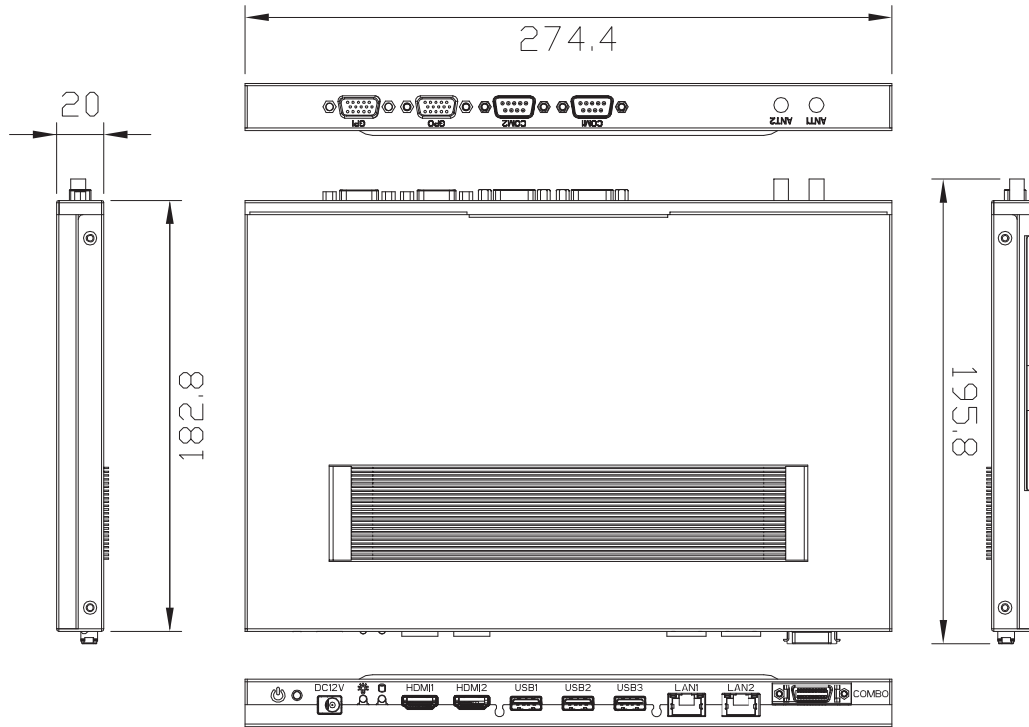
Software

OS Support	Windows 7 (32), Windows 7 Embedded (32bit), Fedora 17 (32/64bit), Ubuntu 12.10 (32/64bit)
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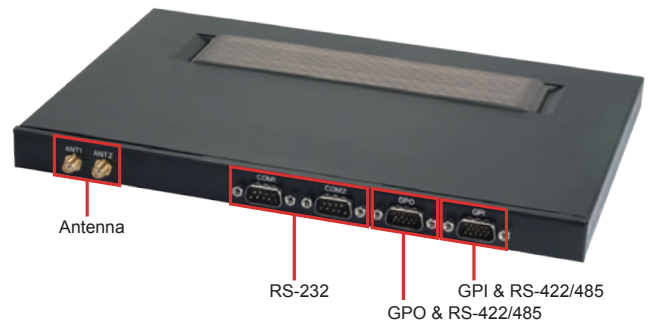
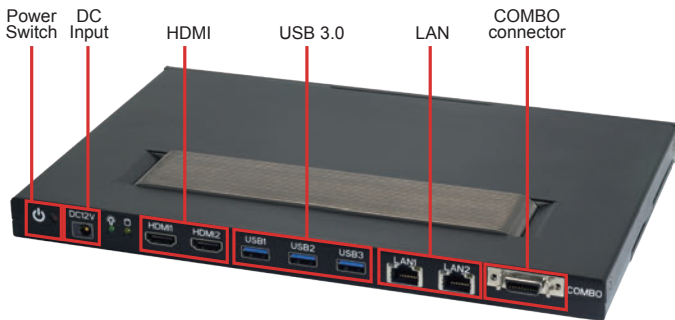
Mechanical & Environment

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 DDR3-800MHz, SO-DIMM, up to 4GB
- Dedicated / selectable PCI & PCIe 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">• 2 x DDR3-800MHz, SO-DIMM, up to 4GB• 1GB DDR3 pre-installed
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">• 1 x VGA port (DB15)• 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
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">• 3 x RS232 (DB9)• 1 x RS232/422/485 (DB9, switch selectable)
Audio	Realtek Audio Codec (Line-out & MIC-in)
GPIO	4 x TTL input 4 x 500mA digital output

Expansion

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

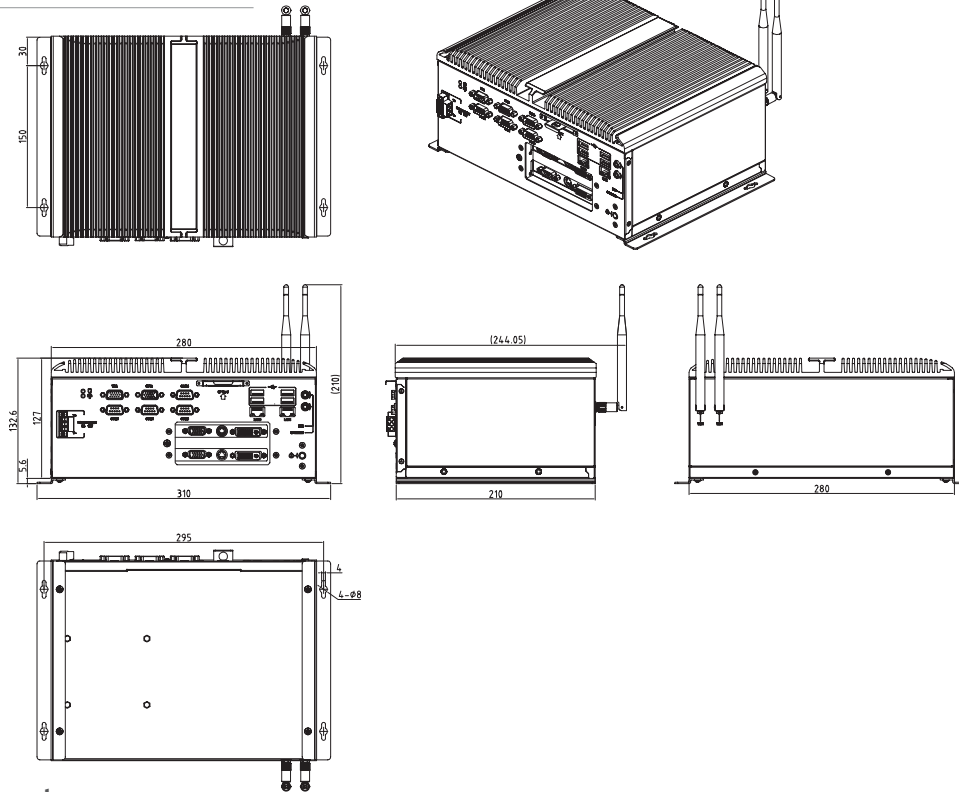
Software

OS Support	Windows XP, Windows 7, Fedora 14, Ubuntu 10
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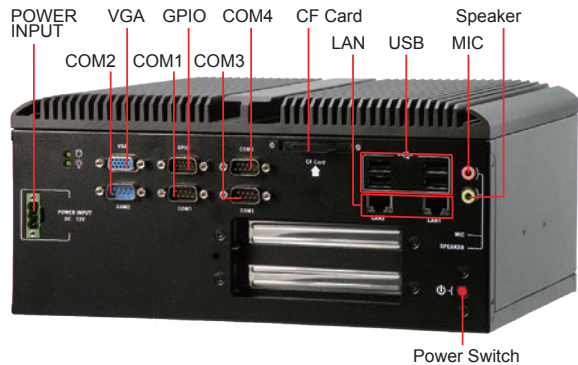
Mechanical & Environment

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 PCIe Expansion Slot
AR-ES6003FLD425	Intel Atom D425 Embedded System with 1GB DDR3 memory, PCI and PCIe 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 1 x DDR2-400/533/667MHz, SO-DIMM, 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">• 1 x DDR2-400/533/667MHz, SO-DIMM, up to 2GB• 1GB pre-installed
BIOS	Insyde
Hardware Monitoring	<ul style="list-style-type: none">• CPU voltage and temperature• CPU and system fan speed
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">• 1 x VGA port (DB15)• 1 x 18-bit LVDS (Pin header)

Storage

CF	1 x Compact Flash Type I/II slot support UDMA 33
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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

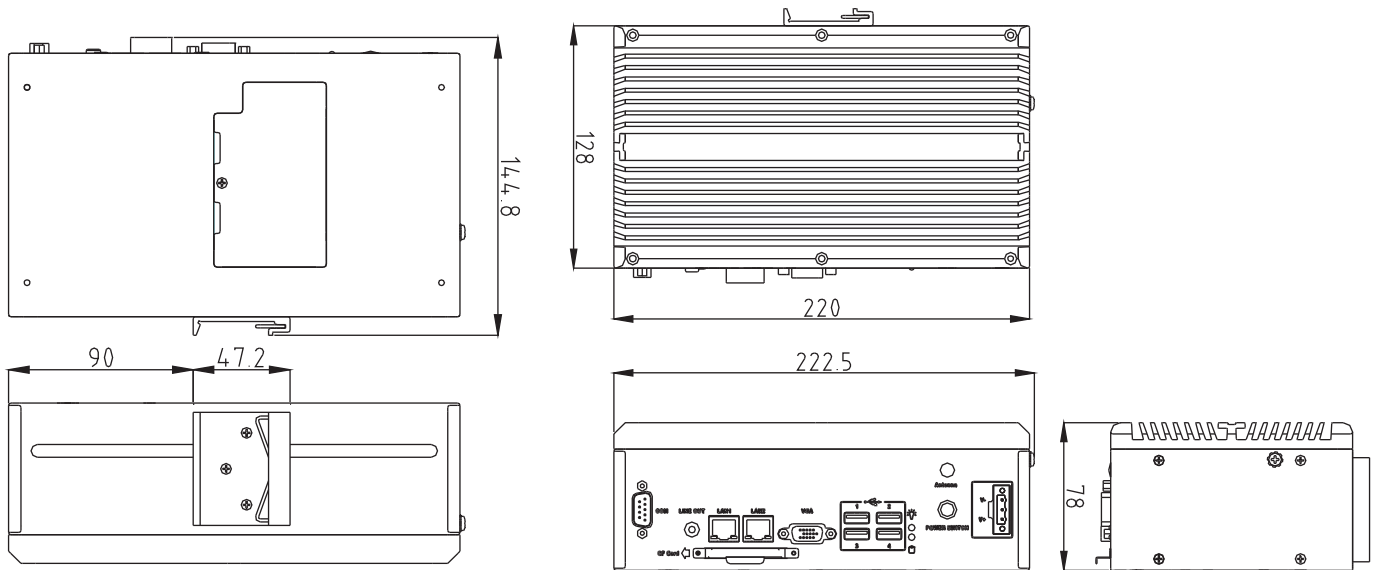
Software

OS Support	Windows XP/XP Embedded, Linux kernel 2.6.31
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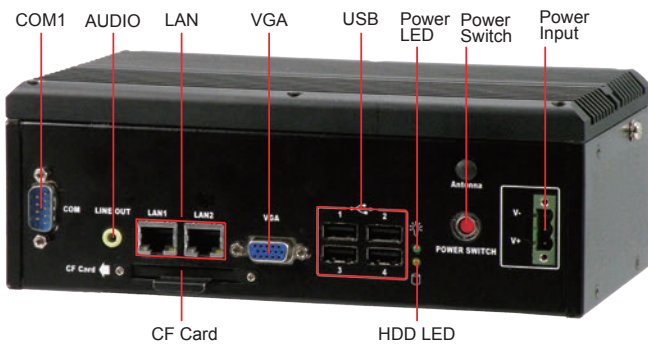
Mechanical & Environment

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

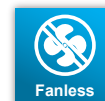
Panel PC

CPU	LCD Size	Feature	Casing	Model Name	Page
Intel Atom D2550 / N2600	7"	Industrial Panel PC	Aluminum Front / Metal Chassis	AR-PA707(P)FL	78
Intel Atom D2550 / N2600	8"	Industrial Panel PC	Aluminum Front / Metal Chassis	AR-PA708(P)FL	78
Intel Atom D2550 / N2600	10"	Industrial Panel PC	Aluminum Front / Metal Chassis	AR-PA710(P)FL	78
Intel Atom D2550 / N2600	12"	Industrial Panel PC	Aluminum Front / Metal Chassis	AR-PA712(P)FL	80
Intel Atom D2550 / N2600	15"	Industrial Panel PC	Aluminum Front / Metal Chassis	AR-PA715(P)FL	80
Intel Atom D2550 / N2600	17"	Industrial Panel PC	Aluminum Front / Metal Chassis	AR-PA717(P)FL	82
Intel Atom D2550 / N2600	21"	Industrial Panel PC	Aluminum Front / Metal Chassis	AR-PA721(P)FL	82
Intel Atom E3845 / Celeron N2930	7"	Industrial Panel PC	Aluminum Front / Metal Chassis	AR-PA807(P)FL	84
Intel Atom E3845 / Celeron N2930	8"	Industrial Panel PC	Aluminum Front / Metal Chassis	AR-PA808(P)FL	84
Intel Atom E3845 / Celeron N2930	10"	Industrial Panel PC	Aluminum Front / Metal Chassis	AR-PA810(P)FL	86
Intel Atom E3845 / Celeron N2930	12"	Industrial Panel PC	Aluminum Front / Metal Chassis	AR-PA812(P)FL	86
Intel Atom E3845 / Celeron N2930	15"	Industrial Panel PC	Aluminum Front / Metal Chassis	AR-PA815(P)FL	88
Intel Atom E3845 / Celeron N2930	17"	Industrial Panel PC	Aluminum Front / Metal Chassis	AR-PA817(P)FL	88
Intel Atom E3845 / Celeron N2930	21"	Industrial Panel PC	Aluminum Front / Metal Chassis	AR-PA821(P)FL	90
	8"	Industrial Touch Display	Plastic	AR-DP080-12T	92
	10"	Industrial Touch Display	Plastic Front / Metal Chassis	AR-DP100-12T	92
	12"	Industrial Touch Display	Plastic Front / Metal Chassis	AR-DP120-12T	92
	15"	Industrial Touch Display	Metal	AR-DP150-AT	92
	15"	Projected Industrial Touch Display	Aluminum Front / Metal Chassis	AR-DP150-PDT	94
	19"	Projected Industrial Touch Display	Aluminum Front / Metal Chassis	AR-DP190-PDT	94

AR-PA7XXFL-N2600/D2550

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-N2600/D2550	AR-PA708(P)FL-N2600/D2550	AR-PA710(P)FL-N2600/D2550
System			
CPU	Intel Atom N2600/D2550 processor, Dual Core Low Power Fanless System		
System Chipset	Intel NM10		
System Memory	Onboard 4GB DDR3-800MHz		
Display			
Display Type	7" TFT-LCD	8" TFT-LCD	10.1" TFT-LCD
Max. Resolution	800 x 480	800 x 600	1280 x 800
Max. Color	262 K	262 K	262 K
Luminance (cd/m ²)	350	350	350
View angle(H°/V°)	H:140° / V:110°	H:140° / V:125°	H:160° / V:160°
Backlight Lifetime	40,000(hrs)	40,000(hrs)	40,000(hrs)
Touch screen			
Type	Resistive Touch / Projected Capacitive Touch (for P model)		
Interface	RS-232(Resistive Touch Window) / USB (Projected Capacitive Touch)		
Light Transmission(%)	Resistive touch window : 80% / Projected Capacitive Touch : 90%		
Storage			
HDD	1 x 1.8" SATA2 half size(MO-297)		1 x 2.5" SATA2
Movable device	1 x Internal SD slot		1 x Internal SD slot
I/O Port			
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		
Expansion			
On board expansion bus	1 x Internal mini PCIe half size		
Power Requirement			
Power Input	9~36V DC		
Power Consumption	Max:12.8W Max:13.0W(P)	Max:15.2W	Max: 11W
Software			
OS Support	Windows XP pro / Embedded / CE6.0 / Windows 7 pro for Embedded / Windows Embedded standard 7 (Win 7 support 3D Graphic function)		
Mechanical			
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 40	231 x 176 x 50	285 x 189 x 48.9
Net Weight (Kgs)	1.2 kg	1.8 kg	2.1 kg

Environmental

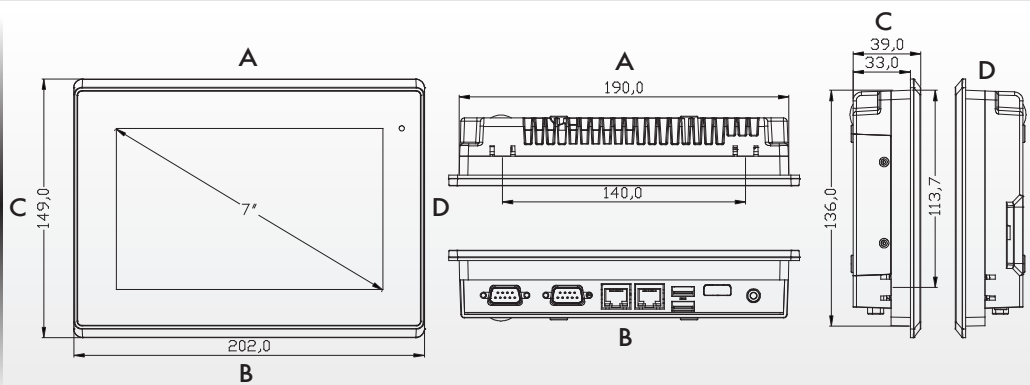
Operating temperature(°C)	0~50°C (option)
Storage temperature(°C)	-20~60°C
Storage humidity	10 to 90% @ 40°C, non- condensing
Certification	CE / FCC Class A

Ordering Information

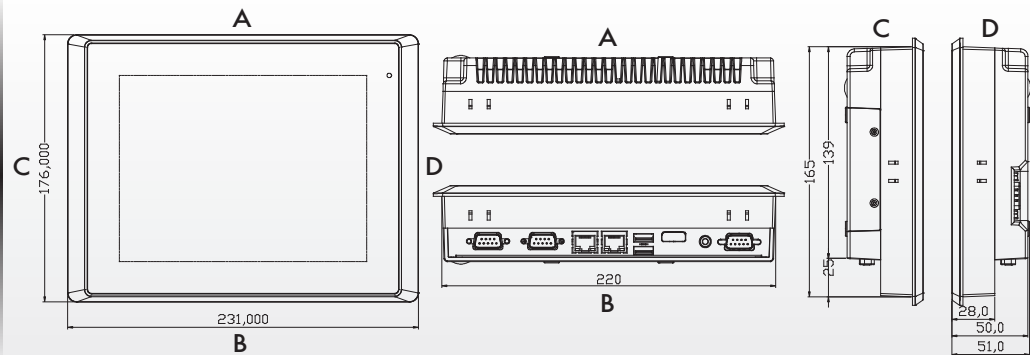
AR-PA707(P)FL	7" WVGA 800 x 480 fanless HMI With Atom D2550 1.86 GHz CPU (or with Atom N2600 1.6 GHz CPU), 2GB DDR3 memory, touch window resistive touch screen / projected capacitive touch screen, 9~36VDC input with adapter, Aluminum chassis.
AR-PA708(P)FL	8" SVGA 800 x 600 fanless HMI With Atom D2550 1.86 GHz CPU (or with Atom N2600 1.6 GHz CPU), 2GB DDR3 memory, touch window resistive touch screen / projected capacitive touch screen, 9~36VDC input with adapter, Aluminum chassis.
AR-PA710(P)FL	10.1" WVGA 1280 x 800 fanless HMI With Atom D2550 1.86 GHz CPU (or with Atom N2600 1.6 GHz CPU), 2GB DDR3 memory, touch window resistive touch screen / projected capacitive touch screen, 9~36VDC input with adapter, Aluminum chassis.

Dimension

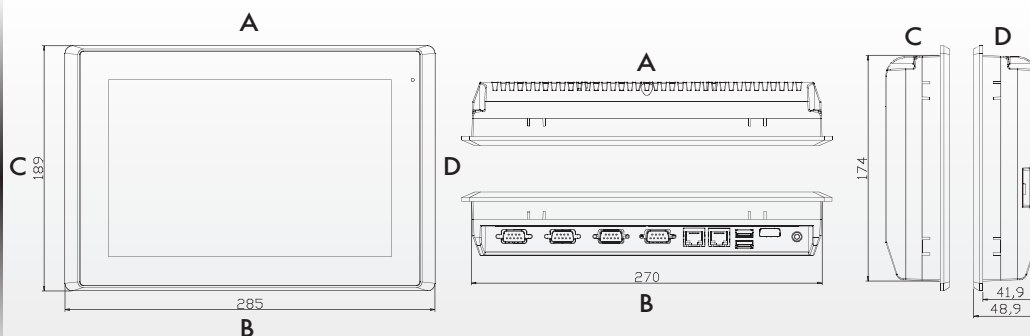
AR-PA707(P)FL



AR-PA708(P)FL



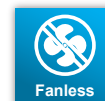
AR-PA710(P)FL



AR-PA7XXFL-N2600/D2550

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-N2600/D2550	AR-PA715(P)FL-N2600/D2550
System		
CPU	Intel Atom N2600/D2550 processor, Dual Core Low Power Fanless System	
System Chipset	Intel NM10	
System Memory	Onboard 4GB DDR3-800MHz	
Display		
Display Type	12.1" TFT-LCD	15" TFT-LCD
Max. Resolution	800 x 600	1024 x 768
Max. Color	262 K	262 K
Luminance (cd/m ²)	450	300
View angle(H°/V°)	H:160° / V:140°	H:160° / V:145°
Backlight Lifetime	50,000(hrs)	50,000(hrs)
Touch screen		
Type	Resistive Touch Window / Projected Capacitive Touch (for P model)	
Interface	RS-232(Resistive Touch Window) / USB (Projected Capacitive Touch)	
Light Transmission(%)	Resistive touch window : 80% / Projected Capacitive Touch : 90%	
Storage		
HDD	1 x 2.5" SATA2	
Movable device	1 x Internal SD slot	
I/O Port		
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	
Expansion		
On board expansion bus	1 x Internal mini PCIe half size	
Power Requirement		
Power Input	9~36V DC	
Power Consumption	Max:18W	Max:19.2W
Software		
OS Support	Windows XP pro / Embedded / CE6.0 / Windows 7 pro for Embedded / Windows Embedded standard 7 (Win 7 support 3D Graphic function)	
Mechanical		
Construction	Aluminum Die-casting Front Bezel and Chassis	
IP Rating	IP65 Compliant Front Bezel	
Mounting	Panel mounting, VESA 100 x 100	
Dimension (mm)	319 x 245 x 51.7	410 x 310 x 54.7
Net Weight (Kgs)	2.5 kg	4.4 kg

Environmental

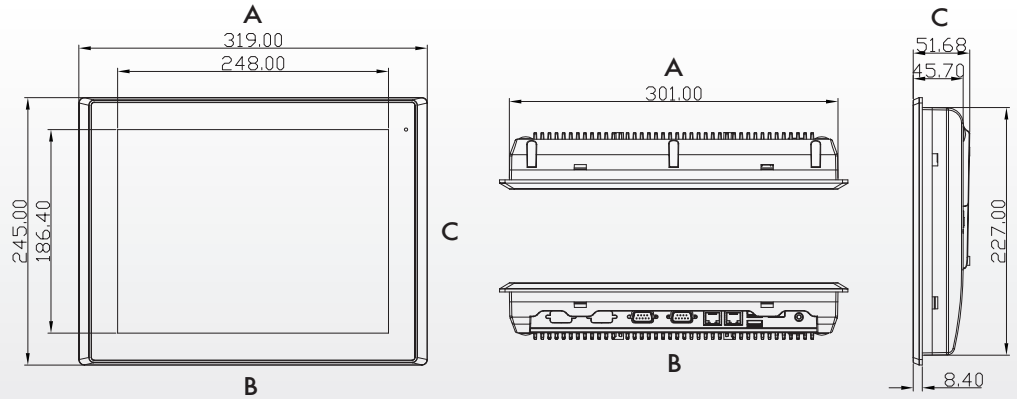
Operating temperature(°C)	0~50°C (option)
Storage temperature(°C)	-20~60°C
Storage humidity	10 to 90% @ 40°C, non- condensing
Certification	CE / FCC Class A

Ordering Information

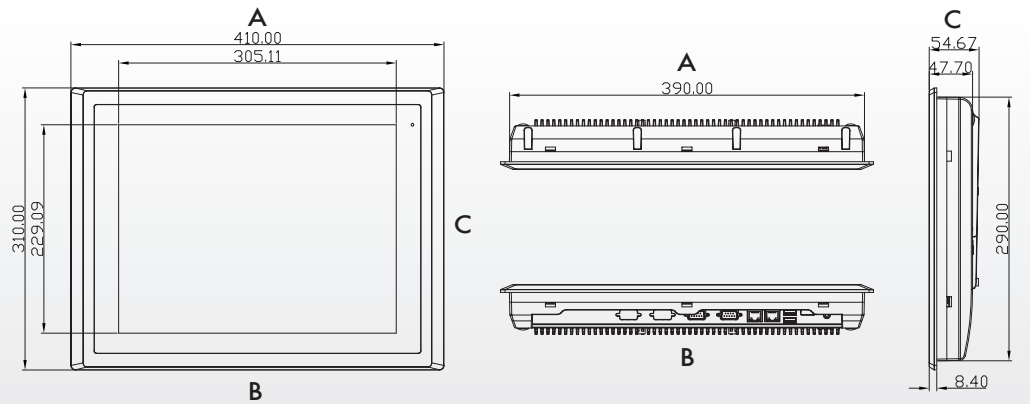
AR-PA712(P)FL	12.1" WVGA 800 x 600 fanless HMI With Atom D2550 1.86 GHz CPU (or with Atom N2600 1.6 GHz CPU), 2GB DDR3 memory, touch window resistive touch screen / projected capacitive touch screen, 9~36VDC input with adapter, Aluminum chassis.
AR-PA715(P)FL	15" SVGA 1024 x 768 fanless HMI With Atom D2550 1.86 GHz CPU (or with Atom N2600 1.6 GHz 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



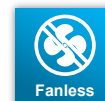
AR-PA715(P)FL



AR-PA717(P)FL-N2600/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 DDR3-800MHz
- 9~36VDC wide-ranging power input
- IP65 compliant front panel
- Optional projected capacitive touchscreen support 7H anti-scratch surface



Specification

Model Name	AR-PA717(P)FL-N2600/D2550	AR-PA721(P)FL-N2600/D2550
System		
CPU	Intel Atom N2600/D2550 processor, Dual Core Low Power Fanless System	
System Chipset	Intel NM10	
System Memory	Onboard 4GB DDR3-800MHz	
Display		
Display Type	17" TFT-LCD	21.5" TFT-LCD
Max. Resolution	1280 x 1024	1920 x 1080
Max. Color	16.2M	16.7 M
Luminance (cd/m ²)	350	250
Contrast Ratio	1000 : 1	3000 : 1
View angle(H°/V°)	H:160° / V:170°	H:178° / V:178°
Backlight Lifetime	30,000 (hrs)	30,000(hrs)
Touch screen - Resistive Touch Screen / Projected Capacitive Touch Screen		
Type	Resistive Touch Window / Projected Capacitive Touch (for P model)	
Interface	USB	
Light Transmission(%)	Resistive touch window : 80% / Projected Capacitive Touch : 90%	
Storage		
HDD	1 x 2.5" SATA HDD bay for SATA HDD (Easy Accessible)	
Movable device	1 x SD card slot, up to 32GB	
I/O Port		
USB	2 x USB 2.0 type A	
Serial / Parallel	1 x RS-232 DB-9 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 Terminal Block connector 1 x 2-pin power switch connector	
LED light	1 x Power LED Light	
Option	2 x RS-232 DB-9 + 1 x mini PCIe slot via TB-528C2ME1 2 x CAN bus via TB-528CAN2 2 x USB 2.0 type A + 1 x mini PCIe slot + 1xRS-232 DB-9 via TB-528C1U2P1 2 x USB 2.0 type A + via TB-528U2	
Power Requirement		
Power Input	9~36V DC	
Power Consumption	Max:34.7 W	AR-PA721 Max:30.0 W / Max:38.8 W(P)
Software		
OS Support	Windows XP pro / Embedded / CE6.0 / Windows 7 pro for Embedded / Windows Embedded standard 7	

Expansion

Expansion slot 1 x Internal mini PCIe half size

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 Bezel

Mounting Panel Mounting VESA 100 x 100

Dimension (mm) 439 x 348 x 64.8 mm | 557 x 362 x 64.8 mm

Net Weight (KG) 5.1 Kg | 7.8 Kg

Environmental

Operating temperature(°C) 0~50°C (option)

Storage temperature(°C) -20~60°C

Storage humidity 10 to 90% @ 40°C, non- condensing

Certification CE / FCC Class A, CB, UL

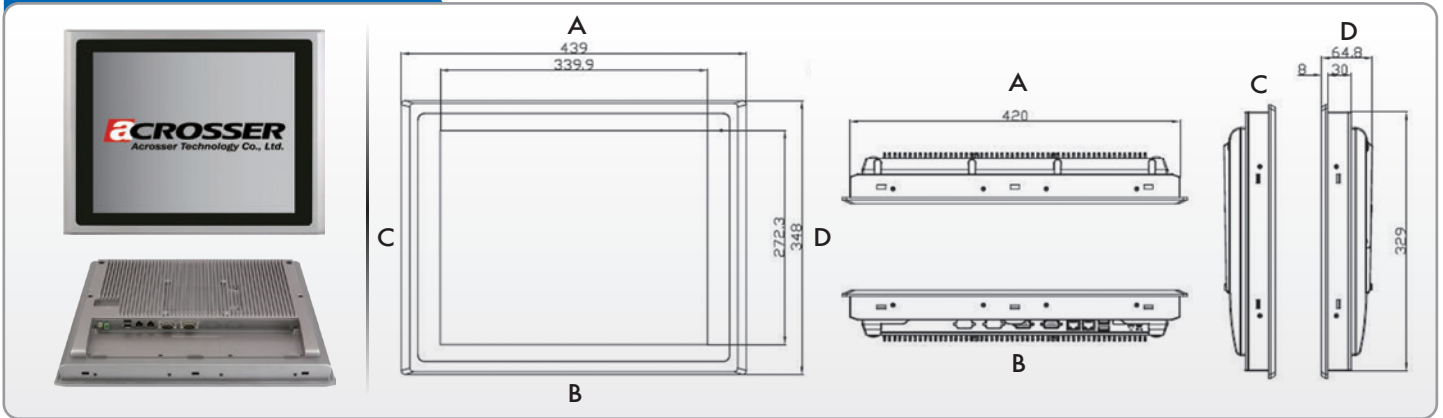
Ordering Information

AR-PA717(P)FL 17" SXGA 1280 x 1024 fanless HMI With Atom D2550 1.86 GHz CPU (or with Atom N2600 1.6 GHz CPU), 4GB DDR3 memory, touch window resistive touch screen / projected capacitive touch screen, 9~36VDC input with adapter, Aluminum chassis.

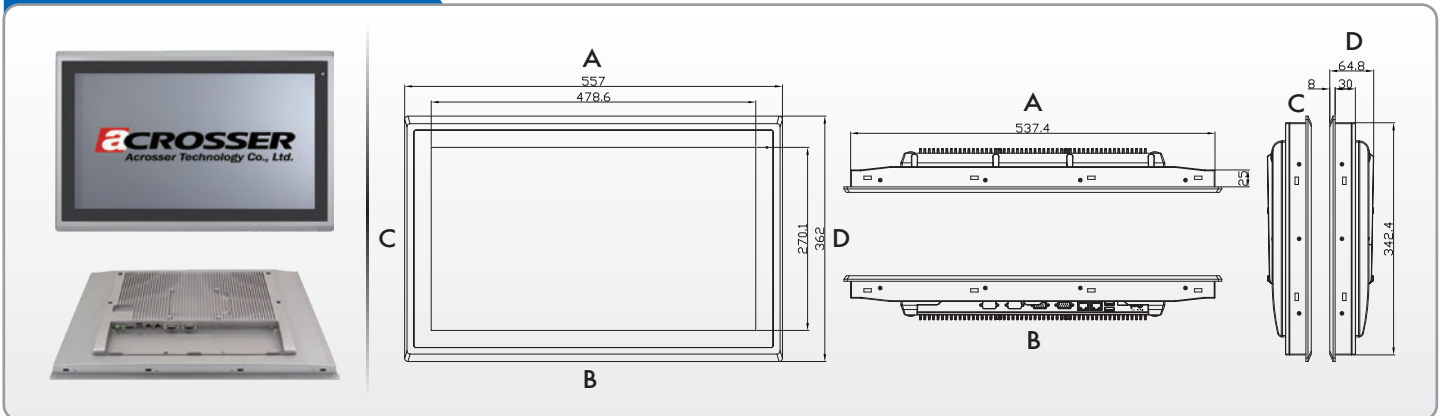
AR-PA721(P)FL 21.5" FHD 1280 x 1024 fanless HMI With Atom D2550 1.86 GHz CPU (or with Atom N2600 1.6 GHz CPU), 4GB DDR3 memory, touch window resistive touch screen / projected capacitive touch screen, 9~36VDC input with adapter, Aluminum chassis.

Dimension

AR-PA717(P)FL



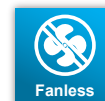
AR-PA721(P)FL



AR-PA8XXFL-E3845/N2930

Features

- 7"/8"/10.1"/12.1"/15" Industrial Compact Size Panel PC
- Flat front panel touch screen
- Fanless design
- Intel Bay Trail N2930(1.83GHz) CPU built-in/E3845(1.91GHz) for option
- Onboard 2GB DDR3L-1600MHz / 4GB(option)
- 9~36VDC wide-ranging power input
- IP65 compliant front panel
- Optional projected capacitive touchscreen support 7H anti-scratch surface



Specification

Model Name	AR-PA807(P)FL-E3845 / N2930	AR-PA808(P)FL-E3845 / N2930
System		
CPU	Onboard Intel Bay Trail N2930(1.83GHz) Processor / E3845(1.91GHz) for option	
System Chipset	Intel Bay Trail SoC	
System Memory	Onboard 2GB DDR3L-1600MHz / 4GB(option)	
Display		
Display Type	7"	8"
Max. Resolution	800 x 480	800 x 600
Max. Color	262 K	262 K
Luminance (cd/m ²)	350	350
Contrast Ratio	400 : 1	500 : 1
View angle(H°/V°)	H:140° / V:110°	H:140° / V:125°
Backlight Lifetime	40,000(hrs)	40,000(hrs)
Touch screen - Resistive Touch Window Type		
Type	Resistive Touch Windows	
Interface	USB	
Light Transmission	Resistive Touch Windows: 80%	
Touch screen - Projected Capacitive Type		
Type	Projected Capacitive Touch(For P Model)	
Interface	USB	
Light Transmission	Projected Capacitive Touch: 90%	
I/O Port		
USB	1 x USB 2.0 type A + 1 x USB 3.0 type A	
Serial/Parallel	1 x RS-232 DB-9(COM2) + 1 x DB-9 RS-232/422/485 (Default RS-232)(COM1)	
Audio/HDMI	1 x Audio Line Out / 1 x HDMI Port (reserved, no printing)	
LAN	2 x GbE LAN RJ-45	
Power	1 x 3-pin Terminal Block DC Power input + 1 x 2-pin connector for power on/off button	
Storage		
HDD	1 x SATA MO-297 SSD bay (Easy Accessible)	
Movable device	1 x SD card slot, up to 32GB	
Expansion		
On board expansion bus	1 x Internal mini PCIe slot (full size)	
Power Requirement		
Power Input	9~36V DC	
Power Consumption	Max:14.1W / 13.7W(P)	Max:10.8W / 13.9W(P)
Software		
OS Support	Windows Embedded Compact 7, Windows Embedded Standard 7, Windows Embedded 8 Standard, Windows Embedded 8.1 Industry	

Mechanical

Color	RAL 9007	
Construction	Aluminum Die-casting Front Bezel and Chassis	
Mounting	Panel Mounting, VESA 75 x 75	
Dimension (mm)	202 x 149 x 40	231 x 176 x 50
Net Weight (KG)	1.2 Kg	1.9 Kg

Environmental

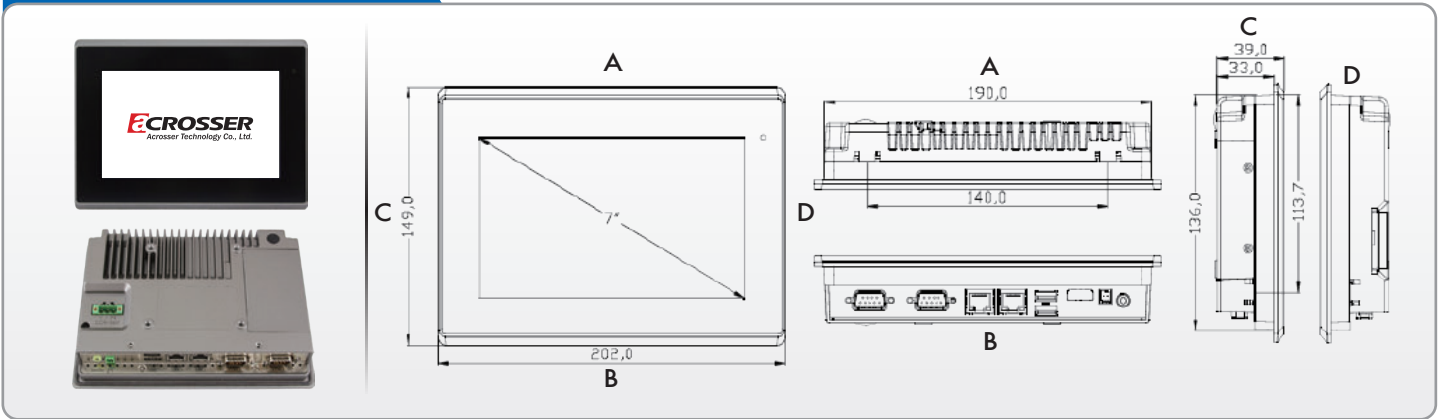
Operating temperature(°C)	0~50°C
Storage temperature(°C)	-20~60°C
Storage humidity	10 to 90% @ 40°C, non- condensing
Certification	CE, FCC CLASS A, CB, UL

Ordering Information

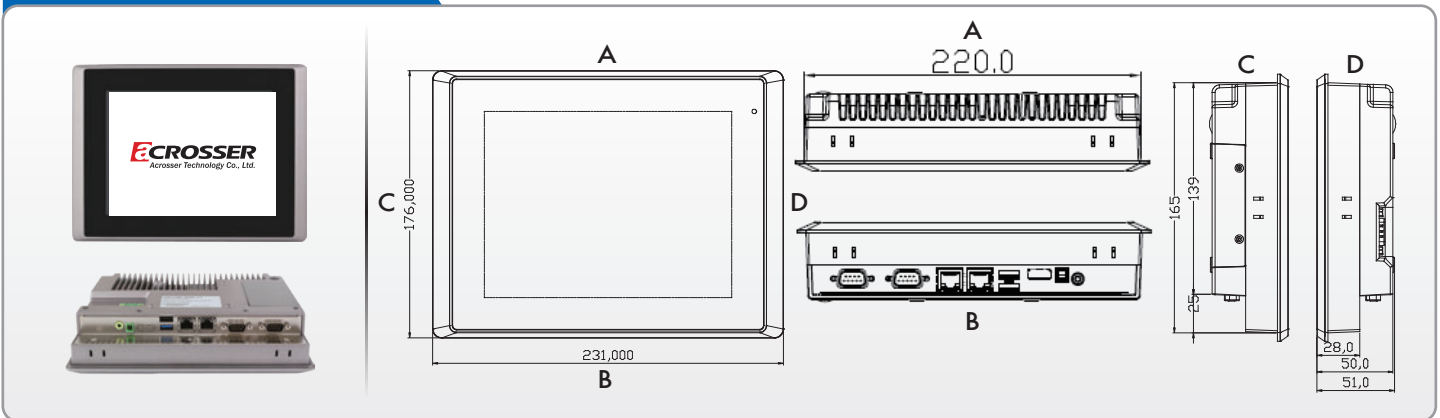
AR-PA807(P)FL	7" WVGA Fanless HMI barebone with Intel N2930 / E3845 CPU, 2GB DDR3 RAM, Resistive touch screen, 9~36V DC input with adapter / Projected Capacitive touch screen, Aluminum chassis
AR-PA08(P)FL	8" SVGA Fanless HMI barebone with Intel N2930 / E3845 CPU, 2GB DDR3 RAM, Resistive touch screen, 9~36V DC input with adapter / Projected Capacitive touch screen, Aluminum chassis

Dimension

AR-PA807(P)FL



AR-PA808(P)FL



AR-PA8XXFL-E3845/N2930

Features

- 7"/8"/10.1"/12.1"/15" Industrial Compact Size Panel PC
- Flat front panel touch screen
- Fanless design
- Intel Bay Trail N2930(1.83GHz) CPU built-in/E3845(1.91GHz) for option
- Onboard 2GB DDR3L-1600MHz / 4GB(option)
- 9~36VDC wide-ranging power input
- IP65 compliant front panel
- Optional projected capacitive touchscreen support 7H anti-scratch surface



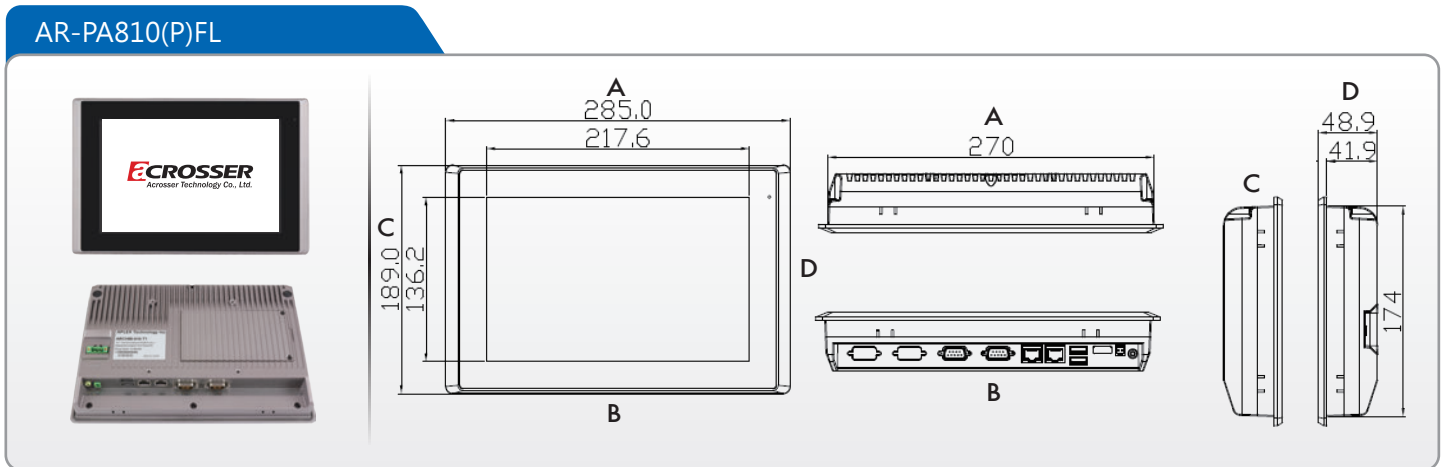
Specification

Model Name	AR-PA810(P)FL-E3845 / N2930	AR-PA812(P)FL-E3845 / N2930
System		
CPU	Onboard Intel Bay Trail N2930(1.83GHz) Processor / E3845(1.91GHz) for option	
System Chipset	Intel Bay Trail SoC	
System Memory	Onboard 2GB DDR3L-1600MHz / 4GB(option)	
Display		
Display Type	10.1"	12.1"
Max. Resolution	1280 x 800	800 x 600
Max. Color	262 K	262 K
Luminance (cd/m ²)	350	450
Contrast Ratio	800 : 1	800 : 1
View angle(H°/V°)	H:160° / V:160°	H:160° / V:140°
Backlight Lifetime	40,000 (hrs)	50,000 (hrs)
Touch screen - Resistive Touch Window Type		
TS Control IC	Resistive Touch Windows	
Interface	USB	
Light Transmission	Resistive Touch Windows: 80%	
Touch screen - Projected Capacitive Type		
TS Control IC	Projected Capacitive Touch(For P Model)	
Interface	USB	
Light Transmission	Projected Capacitive Touch: 90%	
I/O Port		
USB	1 x USB 2.0 type A + 1 x USB 3.0 type A	
Serial/Parallel	1 x RS-232 DB-9(COM2) + 1 x DB-9 RS-232/422/485 (Default RS-232)(COM1)	
Audio/HDMI	1 x Audio Line Out / 1 x HDMI Port (reserved, no printing)	
LAN	2 x GbE LAN RJ-45	
Power	1 x 3-pin Terminal Block DC Power input + 1 x 2-pin connector for power on/off button (Only for AR-PA810(P)FL, AR-PA812(P)FL, and AR-PA815(P)FL)	
Option	2 x RS-232 DB-9 + 1 x mini PCIe slot via TB-528C2ME1 / 2 x CAN bus via TB-528CAN2 / 2 x USB 2.0 type A Via TB-528U2 2 x USB 2.0 type A + 1 x mini PCIe slot + 1 x RS-232 DB-9 via TB-528C1U2P1 for AR-PA812(P)FL 2 x USB 2.0 type A + 1 x mini PCIe slot + 1 x RS-232 DB-9 via TB-528C1U2 for AR-PA810(P)FL	
Storage		
HDD	1 x 2.5" SATA HDD bay for SATA HDD (Easy Accessible)	
Movable device	1 x SD card slot, up to 32GB	
Software		
OS Support	Windows Embedded Compact 7, Windows Embedded Standard 7, Windows Embedded 8 Standard, Windows Embedded 8.1 Industry	

Expansion	
On board expansion bus	1 x Internal mini PCIe slot full size
Power Requirement	
Power Input	9~36V DC
Power Consumption	Max:11.2W / 14W(P) Max:14.6W / 15.2W(P)
Mechanical	
Color	RAL 9007
Construction	Aluminum Die-casting Front Bezel and Chassis
Mounting	Panel Mounting, VESA 100 x 100
Dimension (mm)	285 x 189 x 48.9 319 x 245 x 51.7
Net weight (Kg)	1.9 Kg 2.5 Kg
Environmental	
Operating temperature(°C)	0~50°C
Storage temperature(°C)	-20~60°C
Storage humidity	10 to 90% @ 40°C, non- condensing
Certification	CE, FCC CLASS A, CB, UL
Ordering Information	
AR-PA810(P)FL	10.1" WVGA Fanless HMI barebone with Intel N2930 / E3845 CPU, 2GB DDR3 RAM, Resistive touch screen / Projected Capacitive touch screen, 9~36V DC input with adapter Aluminum chassis
AR-PA12(P)FL	12.1" SVGA Fanless HMI barebone with Intel N2930 / E3845 CPU, 2GB DDR3 RAM, Resistive touch screen / Projected Capacitive touch screen, 9~36V DC input with adapter Aluminum chassis

Dimension

AR-PA810(P)FL

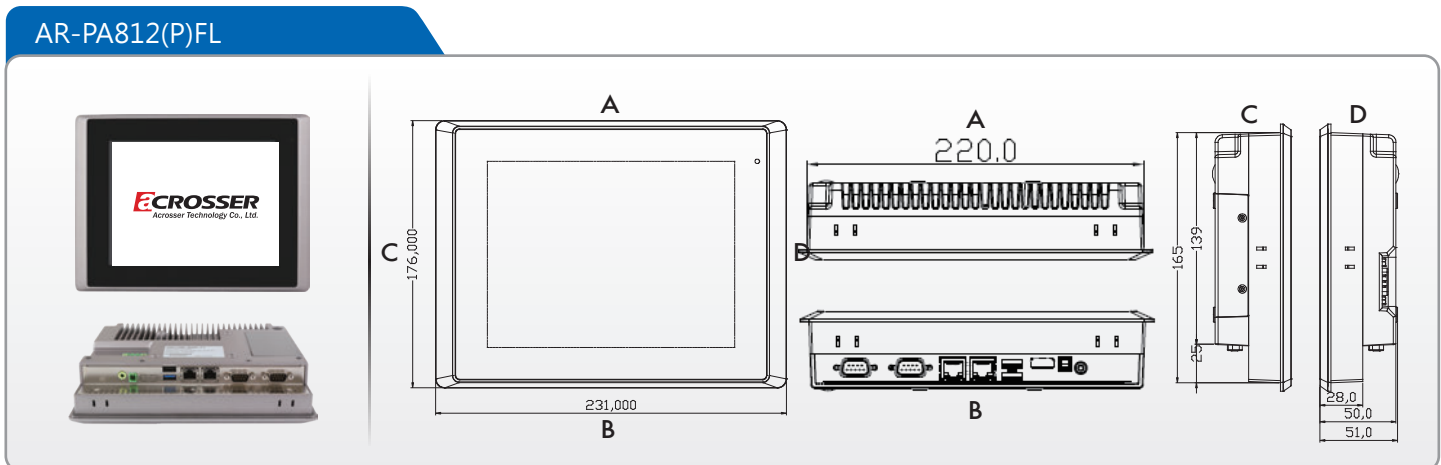


Product images showing the front view of the HMI with the ECROSSER logo and the back view of the chassis.

Dimensions (mm):

- Top view: A = 285.0, B = 189.0, C = 136.2
- Front view: A = 270, B = 174
- Side view: C = 48.9, D = 41.9

AR-PA812(P)FL



Product images showing the front view of the HMI with the ECROSSER logo and the back view of the chassis.

Dimensions (mm):

- Top view: A = 319.0, B = 245.0, C = 176.0
- Front view: A = 220.0, B = 174
- Side view: C = 51.7, D = 41.9

AR-PA8XXFL-E3845/N2930

Features

- 15"/17"/21" Industrial Compact Size Panel PC
- Flat front panel touch screen
- Fanless design
- Intel Bay Trail N2930(1.83GHz) CPU built-in/E3845(1.91GHz) for option
- Onboard 2GB DDR3L-1600MHz / 4GB(option)
- 9~36VDC wide-ranging power input
- IP65 compliant front panel
- Optional projected capacitive touchscreen support 7H anti-scratch surface



Specification

Model Name	AR-PA815(P)FL-E3845 / N2930	AR-PA817(P)FL-E3845 / N2930
System		
CPU	Onboard Intel Bay Trail N2930(1.83GHz) Processor / E3845(1.91GHz) for option	
System Chipset	Intel Bay Trail SoC	
System Memory	Onboard 2GB DDR3L-1600MHz / 4GB(option)	
Display		
Display Type	15" color TFT LCD	17"
Max. Resolution	1024 x 768	1280 x 1024
Max. Color	262 K	16.2 M
Luminance (cd/m ²)	350	350
Contrast Ratio	800 : 1	1000 : 1
View angle(H°/V°)	H:160° / V:145°	H:160° / V:170°
Backlight Lifetime	50,000 hrs	30,000 hrs
Touch screen		
Type	Resistive Touch Windows / Projected Capacitive Touch(For P Model)	
Interface	USB	
Light Transmission	Resistive Touch Windows: 80% / Projected Capacitive Touch: 90%	
I/O Port		
USB	1 x USB 2.0 type A + 1 x USB 3.0 type A	
Serial/Parallel	1 x RS-232 DB-9(COM2) + 1 x DB-9 RS-232/422/485 (Default RS-232)(COM1)	
Audio/HDMI	1 x Audio Line Out / 1 x HDMI Port (Reserved, no printing)	
LAN	2 x GbE LAN RJ-45	
Power	1 x 3-pin DC Power input terminal + 1 x 2-pin connector for power on/off button	
Option	(Only for AR-PA815(P)FL, AR-PA817(P)FL) 2 x RS-232 DB-9 + 1 x mini PCIe slot via TB-528C2ME1 2 x CAN bus via TB-528CAN2 2 x USB 2.0 type A Via TB-528U2 2 x USB 2.0 type A + 1 x mini PCIe slot + 1 x RS-232 DB-9 via TB-528C1U2P1 for AR-PA815(P)FL 2 x USB 2.0 type A + 1 x mini PCIe slot + 1 x RS-232 DB-9 via TB-528C1U2P1	
Storage		
HDD	1 x 2.5" SATA HDD bay for SATA HDD (Easy Accessible)	
Movable device	1 x SD card slot, up to 32GB	
Software		
OS Support	Windows Embedded Compact 7, Windows Embedded Standard 7, Windows Embedded 8 Standard, Windows Embedded 8.1 Industry	

In-Vehicle Computer

Gaming Platform

Networking Appliance

Embedded SBC

Embedded System

Panel PC

Expansion

On board expansion bus 1 x Internal mini PCIe slot (full size)

Power Requirement

Power Input 9~36V DC

Power Consumption Max:17.8W | Max:20.3W / 18.1W(P)

Mechanical

Chassis Color RAL 9007

Front Bezel Metal Aluminum / Panel Mounting

Rear Panel Metal Aluminum / VESA Mount 100 x 100

IP Rating IP65 Compliant Front Panel

Dimension (mm) 410 x 310 x 54.7 | 412 x 277.5 x 60.4

Net Weight (KG) 4.4 Kg | 4.8 Kg

Environmental

Operating temperature(°C) 0~50°C

Storage temperature(°C) -20~60°C

Storage humidity 10 to 90% @ 40°C, non- condensing

Certification CE, FCC CLASS A, CB, UL

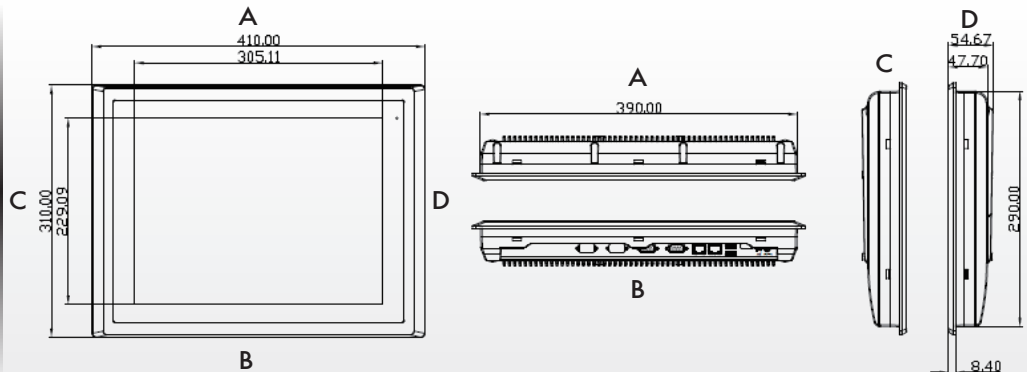
Ordering Information

AR-PA815(P)FL 15.6" WXGA Fanless HMI barebone with Intel N2930 / E3845 CPU, 2GB DDR3 RAM, Resistive touch screen / Projected Capacitive touch screen, 9~36V DC input with adapter Aluminum chassis

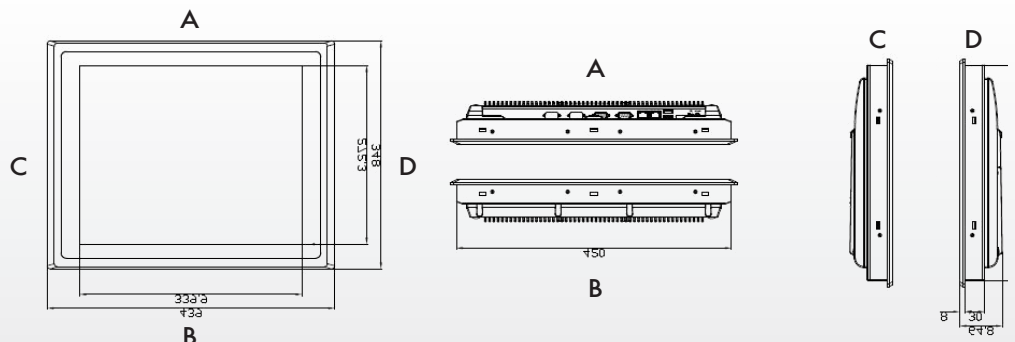
AR-PA17(P)FL 17" SXGA Fanless HMI barebone with Intel N2930 / E3845 CPU, 2GB DDR3 RAM, Resistive touch screen / Projected Capacitive touch screen, 9~36V DC input with adapter Aluminum chassis

Dimension

AR-PA815(P)FL



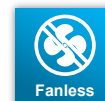
AR-PA817(P)FL



AR-PA821FL-E3845/N2930

Features

- 15"/17"/21" Industrial Compact Size Panel PC
- Flat front panel touch screen
- Fanless design
- Intel Bay Trail N2930(1.83GHz) CPU built-in/E3845(1.91GHz) for option
- Onboard 2GB DDR3L-1600MHz / 4GB(option)
- 9~36VDC wide-ranging power input
- IP65 compliant front panel
- Optional projected capacitive touchscreen support 7H anti-scratch surface



Specification

Model Name	AR-PA821(P)FL-E3845 / N2930
System	
CPU	Onboard Intel Bay Trail N2930(1.83GHz) Processor / E3845(1.91GHz) for option
System Chipset	Intel Bay Trail SoC
System Memory	Onboard 2GB DDR3L-1600MHz / 4GB(option)
Display	
Display Type	21.5"
Max. Resolution	1920 x 1080
Max. Color	16.7 M
Luminance (cd/m ²)	250
Contrast Ratio	3000 : 1
View angle(H°/V°)	H:178° / V:178°
Backlight Lifetime	30,000 hrs
Touch screen	
Type	Resistive Touch Windows / Projected Capacitive Touch(For P Model)
Interface	USB
Light Transmission	Resistive Touch Windows: 80% / Projected Capacitive Touch: 90%
I/O Port	
USB	1 x USB 2.0 type A + 1 x USB 3.0 type A
Serial/Parallel	1 x RS-232 DB-9(COM2) + 1 x DB-9 RS-232/422/485 (Default RS-232)(COM1)
Audio/HDMI	1 x Audio Line Out / 1 x HDMI Port (Reserved, no printing)
LAN	2 x GbE LAN RJ-45
Power	1 x 3-pin DC Power input terminal + 1 x 2-pin connector for power on/off button
Option	2 x RS-232 DB-9 + 1 x mini PCIe slot via TB-528C2ME1 2 x CAN bus via TB-528CAN2 2 x USB 2.0 type A Via TB-528U2 2 x USB 2.0 type A + 1 x mini PCIe slot + 1 x RS-232 DB-9 via TB-528C1U2P1 for AR-PA815(P)FL 2 x USB 2.0 type A + 1 x mini PCIe slot + 1 x RS-232 DB-9 via TB-528C1U2P1
Storage	
HDD	1 x 2.5" SATA HDD bay for SATA HDD (Easy Accessible)
Movable device	1 x SD card slot, up to 32GB
Software	
OS Support	Windows Embedded Compact 7, Windows Embedded Standard 7, Windows Embedded 8 Standard, Windows Embedded 8.1 Industry

Expansion

On board expansion bus 1 x Internal mini PCIe slot full size

Power Requirement

Power Input 9~36V DC

Power Consumption Max:26.7W

Mechanical

Chassis Color RAL 9007

Front Bezel Metal Aluminum / Panel Mounting

Rear Panel Metal Aluminum / VESA Mount 100 x 100

IP Rating IP65 Compliant Front Panel

Dimension (mm) 557 x 362 x 64.8

Net Weight (KG) 7.8 Kg

Environmental

Operating temperature(°C) 0~50°C

Storage temperature(°C) -20~60°C

Storage humidity 10 to 90% @ 40°C, non- condensing

Certification CE, FCC CLASS A, CB, UL

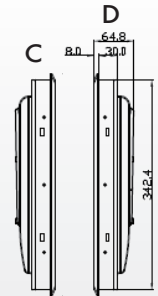
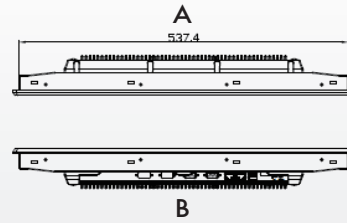
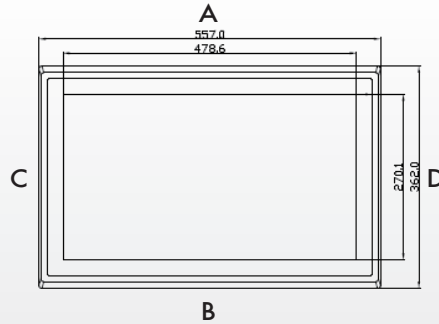
Ordering Information

AR-PA821(P)FL

21.5" FHD Fanless HMI barebone with Intel N2930 / E3845 CPU, 2GB DDR3 RAM, Resistive touch screen / Projected Capacitive touch screen, 9~36V DC input with adapter Aluminum chassis

Dimension

AR-PA821(P)FL



Display Panel-12T Series

Features

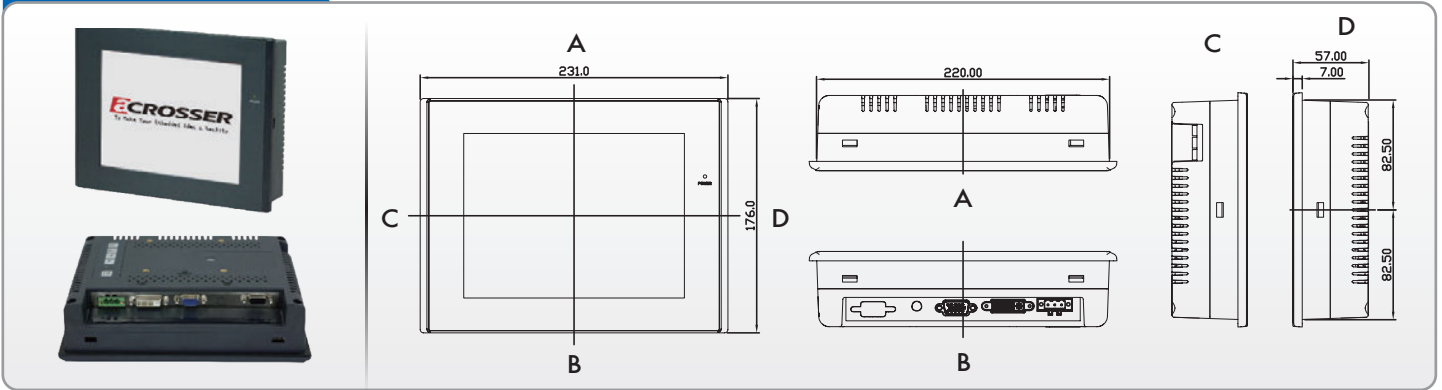
- Industrial Display
- 8", 10, & 12" with overlay (sealed) USB resistive touch
- 15" with USB resistive touch
- 8", 10, & 12" Monitor is with DC 12V power input & adapter
- 15" Monitoris with AC 100~240V input
- Default VGA input, optional for VGA/DVI input
- OSD at rear side
- Front Panel IP65

Specification

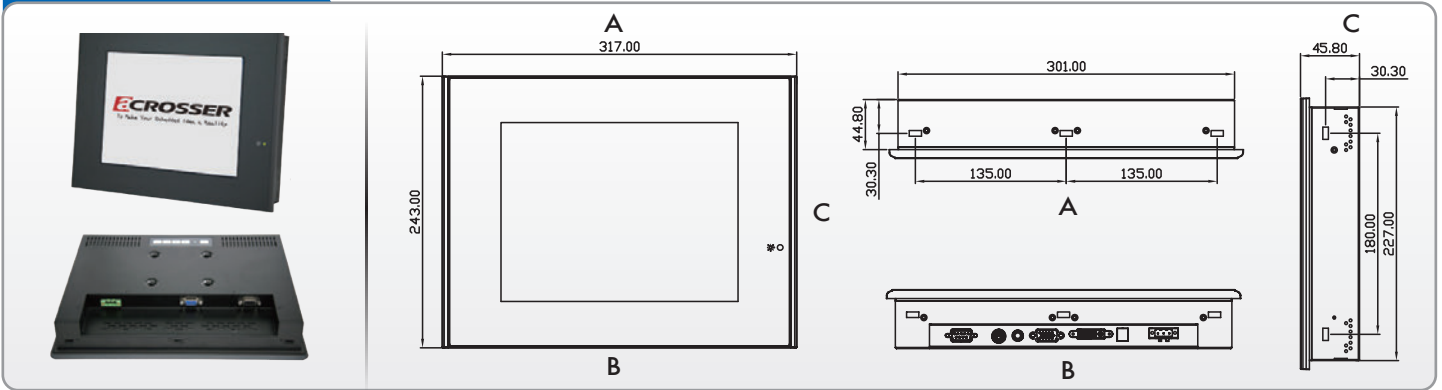
Model Name	AR-DP080-12T	AR-DP100-12T	AR-DP120-12T	AR-DP150-AT
LCD				
Panel Size	8" TFT-LCD	10.4" TFT-LCD	12.1" TFT-LCD	15" TFT-LCD
Max. Resolution	800 x 600			1024 x 768
Luminance (cd/m ²)	350	250	400	350
Backlight Lifetime	40,000hrs	30,000hrs	50,000hrs	50,000hrs
Viewing Angle	H:130° / V:110°			H:160° / V:140°
Touch Screen				
Type	Overlay Resistive Touch			Resistive Touch
Light Transmittion	80%			
I/O				
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			
Power Requirement				
Power Input	12 V DC input with adapter			AC 100-240V
Mechanical & Environment				
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

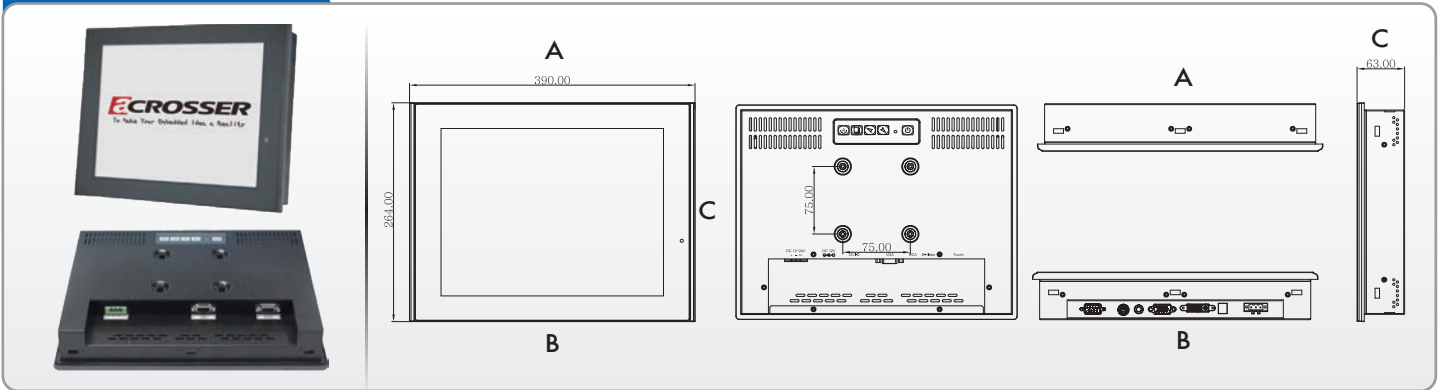
AR-DP080-12T



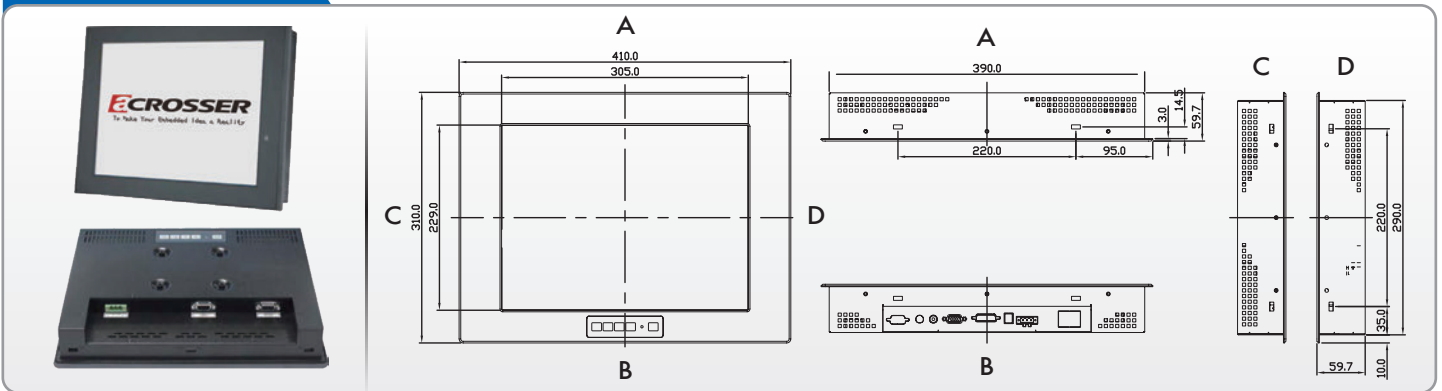
AR-DP100-12T



AR-DP120-12T



AR-DP150-AT



Projected Display-PDT Series

Features

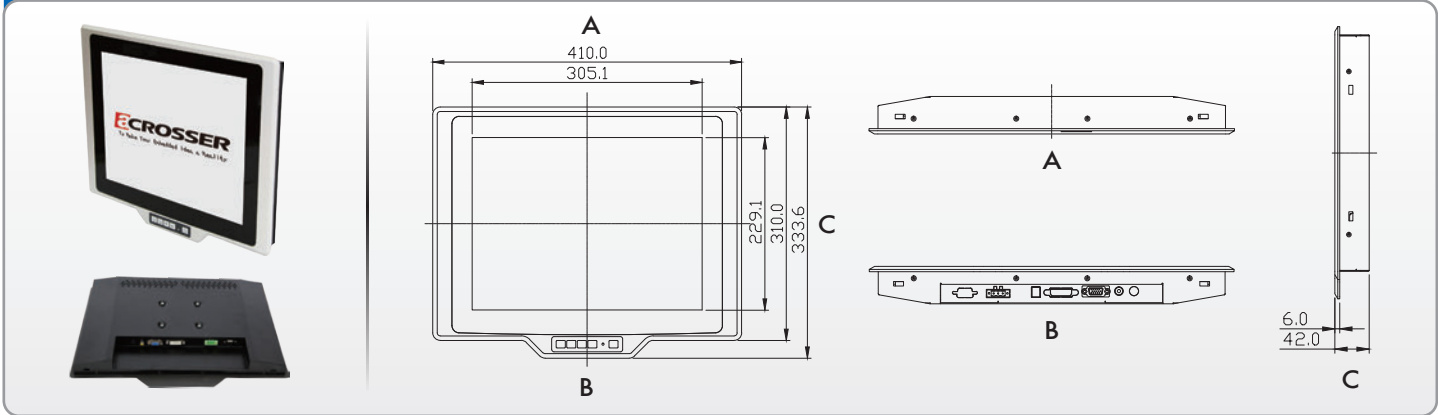
- 15" & 19" Industrial Display
- P-Cap touch screen for Multi-touch (Window Base)
- OSD at rear side
- Front Panel IP65
- DC 11~32V input with adapter
- Flat Panel Design
- VGA / DVI / S-video input

Specification

Model Name	AR-DP150-PDT	AR-DP190-PDT
LCD		
Panel Size	15" TFT-LCD	19" TFT-LCD
Max. Resolution	1024 x 768	1280 x 1024
Luminance (cd/m ²)	400	300
Backlight Lifetime	50,000hrs	
Viewing Angle	H:160° / V:145°	H:170° / V:160°
Touch Screen		
Type	Projected Capacitive Touch	
Light Transmittion	80%	
I/O		
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	
Power Requirement		
Power Input	DC 11~32V with Adapter	
Mechanical & Environment		
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

