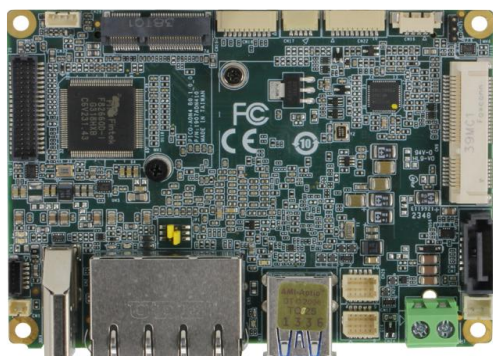


# AMB-1TI0

Pico-ITX Board  
with Intel® Processor N150 & Intel® Core™ 3 Processor N355



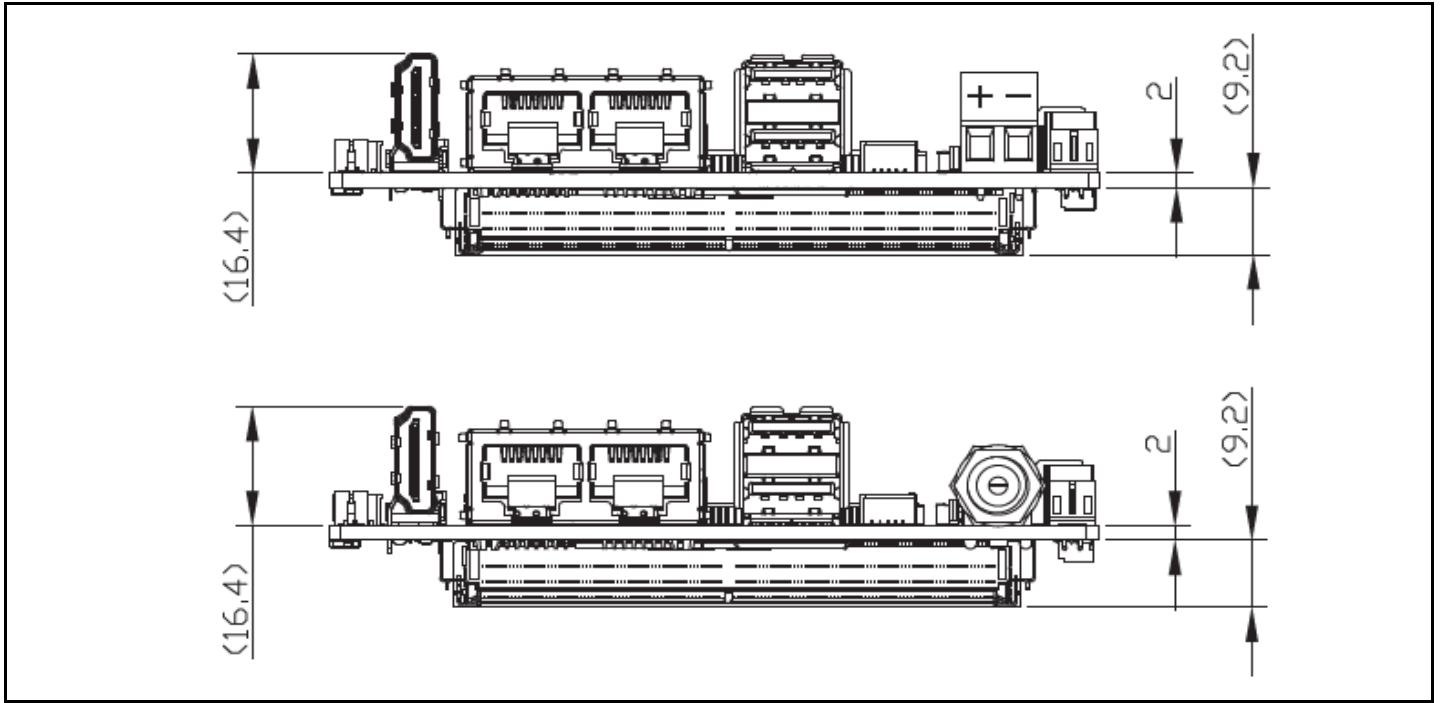
## Features

- Intel® Processor N150 & Intel® Core™ 3 Processor N355
- DDR5 4800MHz SODIMM x 1, up to 16GB
- HDMI 1.4 x 1, eDP 1.4b/LVDS x 1
- Intel® Ethernet Controller I226, 2.5GbE RJ-45 x 1, Realtek RTL8111H, 1GbE RJ-45 x 1
- Full-size mSATA/mPCIe x 1, M.2 2230 E-Key x 1
- USB 3.2 Gen2[x1] x 2, USB 2.0 x 4
- RS-232/422/485 x 2, RS-232 x 2
- TPM 2.0, SATA 6Gb/s x 1, 4-bit GPIO, SMBus/I2C x 1

## Specifications

| System            |  |
|-------------------|--|
| Form Factor       | PICO-ITX   |
| CPU               | Intel® Processor N150 (4C, 0.80GHz, 6W)<br>Intel® Core™ 3 Processor N355 (8C, 1.90GHz, 15W)  |
| Chipset           | Integrated with Intel® SoC   |
| Memory            | DDR5 4800, Single Channel SODIMM x 1,<br>Max.16GB, Non-ECC   |
| BIOS              | UEFI   |
| Wake on LAN       | Yes  |
| Watchdog Timer    | 255 Levels   |
| Security          | TPM 2.0  |
| RTC Battery       | Lithium Battery 3V/240mAh  |
| Dimension         | 3.94" x 2.84" (100mm x 72mm)   |
| Gross Weight      | 0.18 lb (0.08 kg)  |
| OS Support        | Windows 10/11 (64-bit)<br>Ubuntu 22.04.2/Kernel 5.19   |
| Power Requirement |  |
| Power Requirement | +12V (Optional: +9 ~ 36V, support by power adapter card)   |
| Power Type        | AT/ATX   |
| Connector         | Phoenix 2-pin Connector (Default)<br>Lockable DC Jack Connector (Optional)   |
| Power Consumption | Intel® Core™ 3 Processor N355, DDR5 16GB x 1,<br>3.53A @+12V (Typical)<br>Intel® Core™ 3 Processor N355, DDR5 16GB x 1,<br>5.25A @+12V (Max) |
| Display           |  |
| Controller        | Intel® UHD Graphics for 12th Gen Intel® Processors   |
| LVDS/eDP          | LVDS x 1 (18/24bit 2CH) 1920 x 1200 @60Hz<br>eDP 1.4 x 1, 3840 x 2160 @60Hz (Optional)   |
| Display Interface | HDMI 1.4 x 1, 3840 x 2160 @30Hz  |
| Multiple Display  | Up to 2 Simultaneous Displays  |

| Audio                       |  |
|-----------------------------|--|
| Codec                       | Realtek ALC256 (Optional)  |
| Audio Interface             | Line-out (Optional, audio function not available for WITAS SKU)                            |
| External I/O                |  |
| Ethernet                    | Intel® Ethernet Controller I226, 2.5GbE, RJ-45 x 1<br>Realtek RTL8111H-CG, 1GbE, RJ-45 x 1 |
| USB                         | USB 3.2 Gen2[x1] x 2 ports   |
| Video                       | HDMI 1.4 x 1   |
| Internal I/O                |  |
| USB                         | USB 2.0 x 4  |
| Serial Port                 | COM 1~2 (RS-232/422/485, supports 5V/12V/RI)<br>COM 3~4 (RS-232)                           |
| Video                       | LVDS/eDP x 1 (Default: LVDS)<br>Inverter x 1 (12V/2A)                                      |
| SATA                        | SATA 6Gb/s x 1<br>+5V SATA Power Connector x 1   |
| Audio                       | Line-out header x 1 (Optional, audio function not available for WITAS SKU)                 |
| DIO/GPIO                    | GPIO 4-bit   |
| SMBus/I2C                   | SMBus/ I2C x 1 (Default: SMBus)  |
| Fan                         | 4pins Smart Fan x1   |
| Front Panel                 | HDD LED, PWR LED, Power Button, Buzzer, Reset  |
| Others                      | —  |
| Expansion                   |  |
| Mini PCIe/mSATA             | Full-size mSATA/mPCIe x 1 (default: mSATA, select with BIOS)                               |
| M.2                         | M.2 2230 E-Key x 1   |
| Environment & Certification |  |
| Operating Temperature       | 32°F ~ 140°F (0°C ~ 60°C)  |
| Storage Temperature         | -40°F ~ 185°F (-40°C ~ 85°C)   |
| Operating Humidity          | 0% ~ 90% relative humidity, non-condensing   |
| MTBF (Hours)                | 2,219,397  |
| EMC                         | CE/FCC Class A   |



## Ordering Information

**Part Number / Item**

|              |                               |
|--------------|-------------------------------|
| AMB-1TI0-001 | Intel® Processor N150         |
| AMB-1TI0-002 | Intel® Core™ 3 Processor N355 |