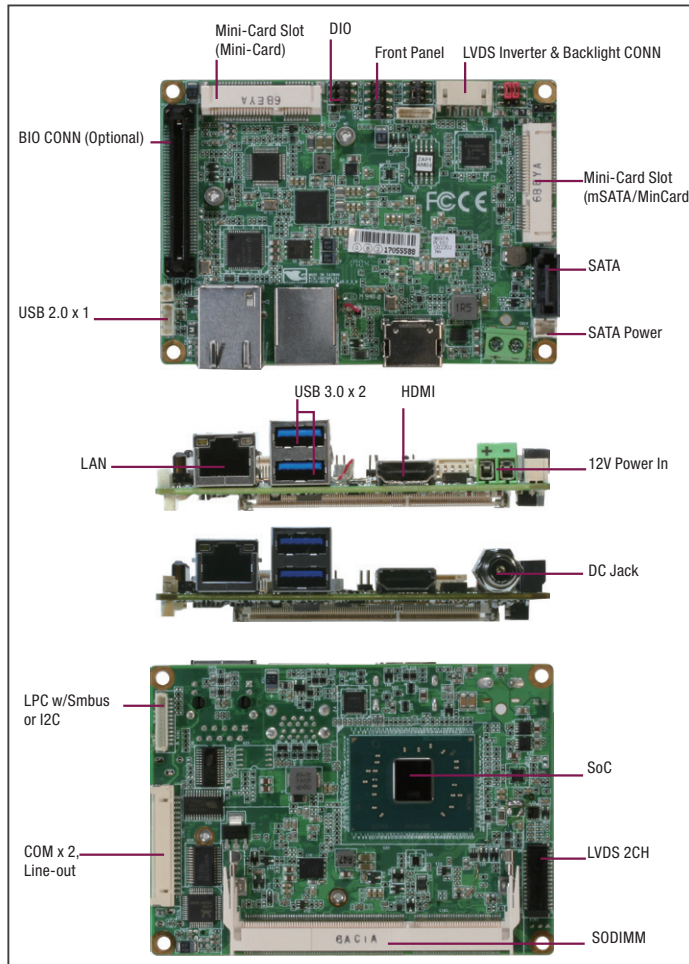


Pico-ITX Board with Intel® Atom™ E3900/ Pentium® N4200/ Celeron® N3350 Processor SoC



Specifications

| System | |
|-----------------------------|--|
| Form Factor | Pico-ITX |
| CPU | Intel® Atom™ E3900/ Pentium® N4200/ Celeron® N3350 Processor SoC |
| CPU Frequency | up to 2.0GHz |
| Chipset | Intel® Atom™ E3900/ Pentium® N4200/ Celeron® N3350 Processor SoC |
| Memory Type | 204-pin DDR3L SODIMM x 1, DDR3L 1867MHz, Max. 8GB |
| Max. Memory Capacity | Up to 8GB |
| BIOS | AMI/SPi |
| Wake On LAN | Yes |
| Watchdog Timer | 255 Levels |
| Power Requirement | +12V AT/ATX (default) |
| Power Supply Type | AT/ATX (default) |
| Power Consumption (Typical) | Intel® N3350 Processor, DDR3L 8GB 0.91A@+12V |
| System Cooling | Heat-spreader/ heatsink optional |
| Dimension | 3.94" x 2.84" (100mm x 72mm) |
| Gross Weight | 0.55 lb (0.25 kg) |
| Operating Temperature | 32 °F ~ 140 °F (0°C ~ 60°C), |
| Storage Temperature | -40 °F ~ 176 °F (-40°C ~ 80°C) |
| Operating Humidity | 0% ~ 90% relative humidity, non-condensing |
| MTBF (Hours) | 170,000 |
| Certification | CE, FCC |
| Display | |
| Chipset | Intel® Atom™ E3900/ Pentium® N4200/ Celeron® N3350 Processor SoC |
| Resolution | LVDS (18/24bit 2CH) 1920 x 1200 (optional) HDMI 1.4b up to 3840 x 2160 DDI (BIO) |
| LCD Interface | 18/24bit 2CH LVDS |

Features

- Intel® Atom™ E3900/ Pentium® N4200/ Celeron® N3350 Processor SoC
- DDR3L 1866 MHz SODIMM x 1, Up to 8 GB
- 18/24-bit Dual Channel LVDS LCD (Optional)
- Supports Triple Display (Optional)
- HDMI 1.4b Supports 3840 x 2160 (4K x 2K)
- SATA 6.0Gb/s x 1, mSATA (Full Size) x 1
- Intel® Gigabit Ethernet x 1, RJ-45 x1
- USB 3.0 x 2, USB 2.0 x 1
- RS-232 x 1, RS-232/422/485 x 1 (Optional by Cable)
- Mini-Card x 1 (Half-Size)
- Digital I/O 4-bit
- BIO Connector for Daughter Board (Optional)



| I/O | |
|----------------|---|
| Storage/SSD | SATA 6.0Gb/s x 1, mSATA or Mini-PCIe by BOM (Full size) x 1 |
| Ethernet | Intel® Gigabit Ethernet i210AT, 10/100/1000Base-TX, RJ-45 x 1 |
| USB Port | USB 3.0 x 2, Rear IO, USB 2.0 x 1 |
| Serial Port | COM1: RS-232 x 1, COM2: RS-232/422/485 x 1 (Ring/ +5V/ +12V) |
| Audio | Line-out x1 |
| DIO | 4-bit (2-in, 2-out) |
| Expansion Slot | Mini Card (Half-size) x 1, BIO (optional) x 1, I2C or SMBus x 1 |
| SIM | — |
| TPM | — |
| Touch | — |

Packing List

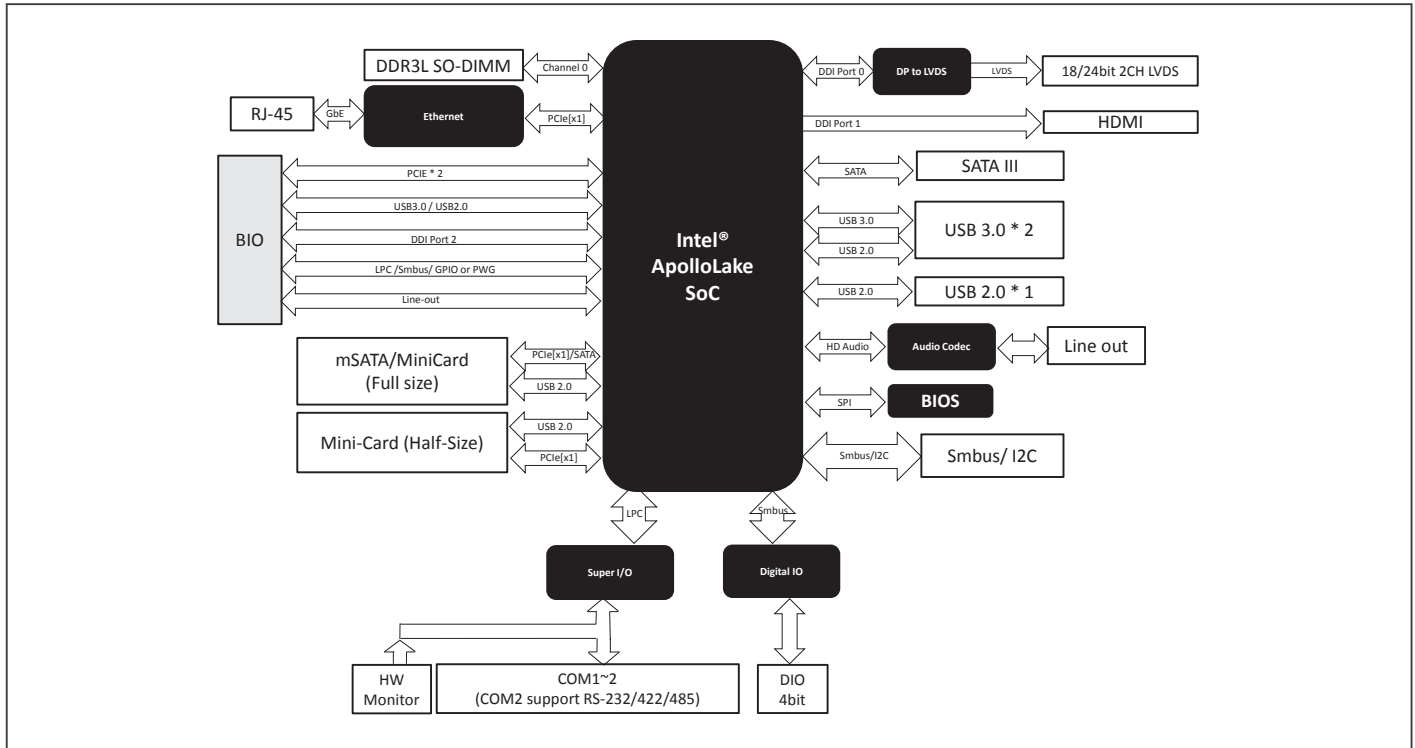
- 1703200153 (Optional by model)
COM x 2, Line-out Cable
- Product DVD
- PICO-APL1

Optional Accessories

| Part Number | Description | Qty. |
|------------------|--|------|
| 1709070500 | SATA CABLE.7P Pitch 1.27mm.50cm | 1 |
| 1702150155 | SATA Power Cable | 1 |
| 1700050207 | USB cable 20cm | 1 |
| 1703200153 | COM x 2, line-out cable | 1 |
| PICO-APL1-HSP01 | Heat-spreader | 1 |
| PICO-APL1-HSK01 | Heat-sink, to be used with Heat-spreader | 1 |
| *BIO-ST05-C14D32 | BIO Board w/LAN, 14COM, 32 DIO, USB 3.0, 2 USB 2.0 | 1 |

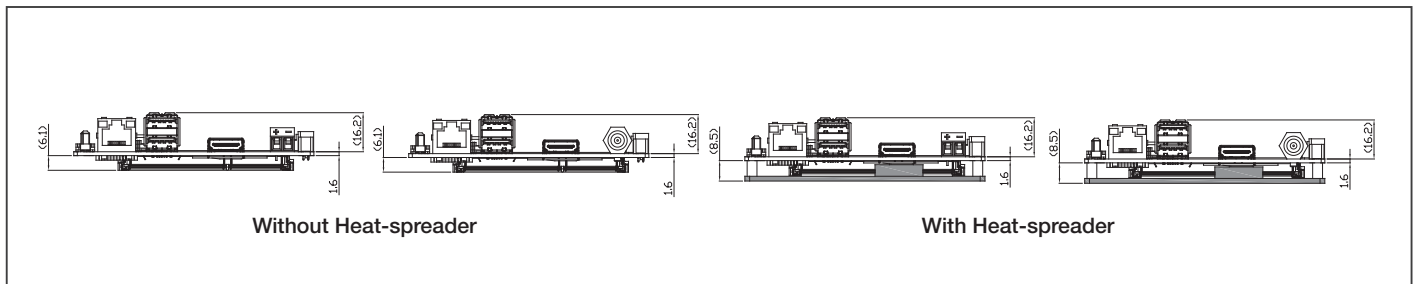
* Customized BIOS is required

Block Diagram



Dimension

Unit: mm



Ordering Information

| Part Number | CPU | Fan/Fanless | Display | LVDS | Storage | LAN | USB | RS-232 | RS-232/422/485 | Expansion Slot | Power | Temp. | Others |
|--------------------|-------|-------------------|---------------|-----------|---------------------------------|---------|----------------------------|--------------------------|--------------------------|--------------------------|----------------------|------------|------------------------|
| PICO-APL1-A10-0002 | N3350 | w/o Heat-spreader | HDMI | — | SATA x 1, mSATA x 1 (Full-size) | GbE x 1 | USB 3.0 x 2 USB 2.0 x 1 | (Optional the COM cable) | (Optional the COM cable) | miniCard x 1 (Half-size) | 12V DC-Jack | 0°C ~ 60°C | DIO x 4 |
| PICO-APL1-A10-0003 | N3350 | w/o Heat-spreader | LVDS/ HDMI | 24bit,2CH | SATA x 1, mSATA x 1 (Full-size) | GbE x 1 | USB 3.0 x 2 USB 2.0 x 1 | 1 | 1 | miniCard x 1 (Half-size) | 12V Phoenix Terminal | 0°C ~ 60°C | DIO x 4, Line-out, BIO |

Remark: Heatspreader and cooler is recommended as the thermal solution.