

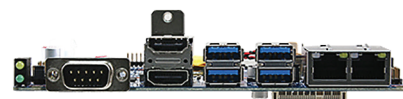
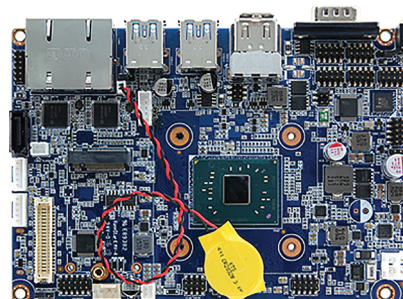
ECM-APL

3.5" Single Board Computer

Intel® Pentium®/Celeron®/Atom™ SoC Processor
3.5" Micro Module

Features

- Onboard Intel® Pentium®/Celeron® /Atom™ SoC BGA Processor (Apollo Lake Platform)
- 1 x 204-Pin DDR3L 1866MHz SO-DIMM, supports 4G/8G & up to 8GB DDR3L 1866MTs SDRAM (Non-ECC)
- Triple Display (Dual HDMI, LVDS)
- 1 x SATA III, 4 x USB3.0 ,1 xUSB2.0, 6 COM ,1x Mini-PCIe,1x M.2, 8-bit GPIO
- +12 ~ 26V Wide Power Range
- TPM 2.0 (Both optional)
- Support Wide temp. -40~+85 degrees (Optional)



Specifications

System

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|--------------------|---|
| CPU | Intel Pentium N4200 4-Core Processor 2.5 GHz (Max Speed) Intel Celeron N3350 2-Core Processor 2.4 GHz (Max Speed) |
| BIOS | AMI uEFI BIOS, 128Mbit SPI Flash ROM |
| System Chipset | SoC |
| System Memory | 1 x 204-Pin DDR3L 1866MHz SO-DIMM, supports 4G/8G & up to 8GB DDR3L 1866MTs SDRAM (Non-ECC) |
| I/O Chip | EC(IT8528E), I-series CPU use EC (IT8528I) for WT |
| Expansion | 1 x Mini PCIe (for PCIe & USB2.0) 1 x M.2 (B-Key, 2242) (M.2 support SATA/PClex1/USB interface & with Micro SIM card connector) for SSD/3G/4G |
| Storage | 1 x M.2 and 1 x Micro SIM Card Slot |
| OS Info | Win 10, Linux |
| Watchdog Timer | H/W Reset, 1sec. ~ 65535sec. |
| H/W Status Monitor | Monitoring System Temperature and Voltage with Auto Throttling Control |

I/O

| | |
|----------|-------------------------------|
| USB | 4 x USB 3.0 1 x USB 2.0 |
| SATA | 1 x SATA III |
| COM Port | 1 x RS-232/422/485 5 x RS-232 |
| DIO | 1 x 8-bit GPIO |
| MIO | 1 x LPC, 1 x SPI |

Touch Screen

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|-------------------------------------|---|
| Built-in Touch controller(optional) | EETI ETP-CP-MER4485XRU 1 x 5-pin 2.54mm Pin Header |
|-------------------------------------|---|

Display

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|------------------|--|
| Chipset | Intel® Apollo Lake SoC integrated Gen9 LP Graphics Supports triple display |
| Resolution | HDMI: Max. resolution 3840x2160 @ 30Hz LVDS: Max. resolution 1920x1080 @ 60Hz |
| Multiple Display | Dual HDMI + LVDS |
| LCD Interface | Dual channel 18/24-bit LVDS (via 7511) |

Audio

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|-----------------|-----------------------------------|
| HD Codec | Realtek ALC892 supports 5.1-CH |
| Audio Interface | Mic-In, Line-In, Line-Out |

Ethernet

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|--------------------|--|
| LAN Chip | 2 x Intel® I211AT Intel I210IT for WT |
| Ethernet Interface | 10/100/1000 Base-Tx GbE compatible |
| LAN Port | 2 x RJ-45 |

Mechanical & Environment

| | |
|--------------------|--|
| Power Requirement | +12V ~ +26V |
| Power Type | AT/ATX |
| Operating Temp | 0°C ~ 60°C (32°F ~ 140°F) -40°C ~ 85°C (-40°F ~ 185°F)(Optional for Wide Temperature Model) |
| Storage Temp | -40°C ~ 75°C (-40°F ~ 167°F) |
| Operating Humidity | 0% ~ 90% Relative Humidity, Non-condensing |
| Certification | CE, FCC Class B |
| Dimension (L x W) | 5.7" x 4" (146mm x 101mm) |
| Weight | 0.44lbs (0.2kg) |
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| Weight | 0.44lbs (0.2kg) |

Ordering Info

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|---------------|--|
| ECM-APL-N4200 | 3.5" SBC Intel® ApolloLake N4200 Quad Core Processor |
| ECM-APL-N3350 | 3.5" SBC Intel® ApolloLake N3350 Dual Core Processor |

* All product specifications and images are subject to change without notice.
Last update: 9/29/2017