

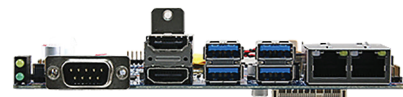
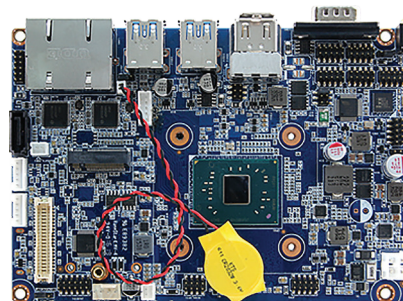
ECM-APL

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 x USB2.0, 6 COM, 1 x Mini-PCIe, 1 x M.2, 8-bit GPIO
- +12 ~ 26V Wide Power Range
- TPM 2.0 (Both optional)
- Support Wide temp. -40~+85 degrees (Optional)



Specifications

System

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

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

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

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

Ethernet

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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Ordering Info

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



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