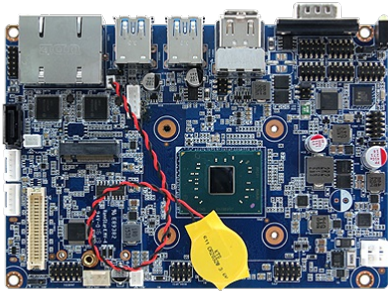




## ECM-APL

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



- > Onboard Intel® Pentium®/Celeron® /Atom™ SoC BGA Processor
- > 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)

#### + Spec

System	
<b>Processor</b>	Intel® Pentium®/Celeron® /Atom™ SoC BGA Processor
<b>System Chipset</b>	Apollo SoC integrated
<b>System Memory</b>	1 x 204-Pin DDR3L 1866MHz SO-DIMM, supports 4G/8G & up to 8GB DDR3L 1866MTs SDRAM (Non-ECC)
<b>I/O Chip</b>	EC (IT8528E), I-series CPU use EC (IT8528I) for WT
<b>BIOS</b>	AMI uEFI BIOS, 128Mbit SPI Flash ROM
<b>Watchdog Timer</b>	H/W Reset, 1sec. ~ 65535sec. and 1sec./step
<b>H/W Status Monitor</b>	Monitoring System Temperature, Voltage and FAN Status with Auto Throttling Control
Expansion	
<b>Expansion</b>	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	
<b>Storage</b>	1 x M.2
Touch Screen	
<b>Built-in Touch controller(optional)</b>	EETI ETP-CP-MER4485XRU 1 x 5-pin 2.54mm Pin Header
I/O	
<b>USB</b>	4 x USB 3.0 1 x USB 2.0
<b>SATA</b>	1 x SATA III
<b>COM Port</b>	1 x RS-232/422/485 5 x RS-232
<b>DIO</b>	1 x 8bit GPIO
<b>MIO</b>	1 x LPC 1 x SPI
<b>Other</b>	1 x Micro SIM Card Slot
Display	
<b>Chipset</b>	Intel® Apollo Lake SoC integrated Gen9 LP Graphics Supports triple display
<b>Resolution</b>	HDMI: Max. resolution 3840x2160 @ 30Hz LVDS: Max. resolution 1920x1080 @ 60Hz Dual HDMI + LVDS Dual channel 18/24-bit LVDS (via 7511)
Audio	
<b>Chipset</b>	Realtek ALC892 supports 5.1-CH
<b>Audio Interface</b>	Mic-In, Line-In, Line-Out
Ethernet	
<b>Chipset</b>	2 x Intel® I211AT Intel I210IT for WT
<b>Ethernet Interface</b>	10/100/1000 Base-Tx GbE compatible
<b>LAN Port</b>	2 x RJ-45
Mechanical & Environmental	
<b>Power Requirement</b>	+12V ~ +26V
<b>Power Type</b>	AT/ATX
<b>Operating Temp</b>	0°C ~ 60°C (32°F ~ 140°F) -40°C ~ 85°C (-40°F ~ 185°F)(Optional for Wide Temperature Model)
<b>Storage Temp</b>	-40°C ~ 75°C (-40°F ~ 167°F)
<b>Operating Humidity</b>	0% ~ 90% Relative Humidity, Non-condensing
<b>Dimension (L x W)</b>	5.7" x 4" (146mm x 101mm)
<b>Weight</b>	0.44lbs (0.2kg)
Certifications	



<b>Certification Information</b>	CE FCC Class B
<b>Software Support</b>	
<b>OS Information</b>	Win 10 Linux