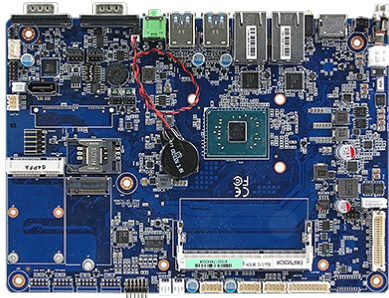




## EBM-APL

Intel® Pentium®/Celeron®/Atom™ SoC BGA  
Processor 5.25" Mini Module



- > Onboard Intel® Pentium®/Celeron®/Atom™ SoC BGA Processor
- > One 204-pin DDR3L SODIMM Socket, supports 4G/8G & up to 8GB DDR3L 1866MTs SDRAM (Non-ECC)
- > Dual display (LVDS & HDMI)
- > 1 SATA III, 1 Mini PCIe, 1 M.2, 4 USB 3.0, 4 USB 2.0, 16-bit GPIO
- > +12 ~ 26V Wide Power Range
- > TPM 2.0 & TPM 1.2 (Both optional)
- > Support Wide temp. -40~+85 degrees

### + Spec

System	
<b>Processor</b>	Onboard Intel® Pentium®/Celeron®/Atom™ SoC BGA Processor (Apollo Lake Platform)
<b>System Chipset</b>	Apollo SoC integrated
<b>System Memory</b>	One 204-pin DDR3L SODIMM Socket, 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, 64Mbit 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 connector (for PCIe & USB2.0 & SIM Card) 1 x M.2(2242)B-Key
Storage	
<b>Storage</b>	1xM.2 (2242) support SATA/PClex1/USB 1 x 7+15 SATA connector (Factory Option & Alternation of M.2 SATA Gen 3)
Touch Screen	
<b>Built-in Touch controller(optional)</b>	EETIETP-CP-MER4485XRU 1 x 5-pin 2.54mm Pin Header (90 Degree Right Angle Pin Header)
I/O	
<b>USB</b>	4 x USB3.0 4 x USB 2.0
<b>SATA</b>	1 x SATA III
<b>COM Port</b>	2 x RS-232/422/485 4 x RS-232 (Optional)
<b>DIO</b>	16bit GPIO
<b>MIO</b>	1 x LPC 1 x SPI
<b>Other</b>	1 x SIM Card Slot
Display	
<b>Chipset</b>	Intel® Apollo Lake SoC Processor integrated Gen9 LP graphics
<b>Resolution</b>	LVDS: 1920x1080@60Hz HDMI: 3840x2160@30Hz eDP: 4096x2160@60Hz HDMI + LVDS LVDS co-lay with eDP 1 x eDP via CH7511 Supports 24-bit Dual Channel LVDS 2x20 pin Hirose Connector for (Optional BOM for 1 x internal eDP or default 1 x CH7511B LVDS for 2 x 24-bit. )
<b>LVDS</b>	Dual channel 24-bit LVDS
Audio	
<b>Chipset</b>	Realtek ALC892
<b>Audio Interface</b>	Mic-In, Line-In and Line-Out 5W Audio Amp
Ethernet	
<b>Chipset</b>	2 x Intel I211AT GbE controller (I-series CPU use Intel I210T 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>	+ 11.4V~+26V
<b>ACPI</b>	Single power ATX Support S0,S3, S4, S5 ACPI 5.0 Compliant
<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) for I-series CPU
<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>	8" x 5.75" (203mm x 146mm)
<b>Weight</b>	TBD
<b>Certifications</b>	
<b>Certification Information</b>	CE FCC Class B
<b>Software Support</b>	
<b>OS Information</b>	Win10 (64) Linux Android