



ESM-APLM

Intel® Celeron®/ Pentium® SoC Processor COM Express Mini Size Type 10 Module

- > COM Express™ 3.0 Mini Type 10 module with Intel® Celeron®N3350 / Pentium® N4200 SoC BGA Processor
- > Onboard DDR3L memory support for up to 8 GByte at 1600&1333MHz
- > Newest Intel® Gen9 Low Power graphics, up to 4K resolution and H.265 codec
- > 1 PCIe 4 (Supports x1, x2, x4, optional 1 PCIe4 while removing Ethernet) compliant to PCIe Gen2 5.0 GT/s
- > 2 x SATAIII 6 Gb/s, 2 x USB 3.1 (Gen1) and 8 x USB 2.0,
- > eMMC 5.1 (optional)

+ Spec

-System Information-	
Processor	Intel® Pentium® N4200 2.50 GHz (Burst) 1.1 GHz Clock Quad Core L2 cache 2MB 6W TDP Intel® Celeron® N3350 2.40 GHz (Burst) 1.1 GHz Clock Dual Core L2 cache 1MB 6W TDP
Platform Controller Hub	Integrated in SoC
System Memory	Onboard DDR3L memory support for up to 8 GByte at 1600&1333MT/s
I/O Chipset	IT8528
BIOS Information	AMI UEFI BIOS, 128Mbit SPI Flash ROM
Watchdog Timer	N/A
SSD	eMMC 5.1 up to 128G (optional)
Expansion	
Expansion	1 PCIe 4 (Supports x1, x2, x4, optional 1 PCIe4 while removing Ethernet) compliant to PCIe Gen2 5.0 GT/s
I/O	
USB Port	2 x USB 3.1 (Gen1) and 8 x USB 2.0
GPIO	1 x 8bit GPIO
SATA	2 x SATA 3.0 (6 Gb/s)
MIO	1 x SMBus 1 x LPC
Display	
Graphic Chipset	Intel® Atom™ SoC Integrated
LVDS	Single channel 18/24-bit LVDS from eDP-to-LVDS IC CH7511B LVDS: up to 1920x 1080 @ 60 Hz
Digital Display Interface	DDIO supports DisplayPort/HDMI/DVI-D DisplayPort 1.2 up to 4096x2160@60Hz HDMI 1.4b: up to 3840 x 2160 @ 30 Hz
eDP	4 lane support (build option, in place of LVDS) eDP 1.3: up to 3840 x 2160 @ 60 Hz (Optional)
Audio	
Audio Codec	Intel® HD Audio integrated in SoC
Certifications	
Certification Information	CE, FCC Class B
Ethernet	
LAN Chipset	1 x LAN Intel® Ethernet I211AT
Ethernet Interface	10/100/1000 GbE connection
Mechanical & Environmental	
Operating Temperature	Standard: 0°C to 60°C (32°F ~ 140°F)
Storage Temperature	-40°C ~ 75°C (-40°F ~ 167°F)
Operating Humidity	40°C @ 95% Relative Humidity, Non-condensing
Weight	0.44lbs(0.2kg)
Power Requirement	Standard Input ATX: 4.75V~20V, 5Vsb ±5%; AT: 4.75V~20V
Power Mode	ATX/AT
Dimension (L x W)	84 x 55 mm (3.31" x 2.17")
Software Support	
OS Information	Microsoft® Windows 10 Linux (Kernel 4.6 above)
Ordering Information	
Ordering Information	ESM-APLM-N4200-A1R Intel® Pentium® SoC Processor N4200 Type10 COMe Mini Module ESM-APLM-N3350-A1R Intel® Celeron® SoC Processor N3350 Type10 COMe Mini Module EEV-EX15-B1R MiniITX Ev. Board for COMe Type 10 A1 ACC-ESMAPLM-SK-1R Heatsink for ESM-APLM W/O FAN H=26 mm

ACC-ESMAPLM-SK-2R
Heatsink for ESM-APLM W/O FAN H=26 mm with pad for eMMC

ACC-ESMAPLM-SD-1R
Heatspreader for ESM-APLM W/O FAN H=13 mm

ACC-ESMAPLM-SD-2R
Heatspreader for ESM-APLM W/O FAN H=13 mm with pad for eMMC