



ECM-APL2-B

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

- > Bottom layer soldered
- > Intel® Pentium®/Celeron®/Atom™ BGA Processor
- > Intel® HD Graphics 500/505
- > Single DRAM Socket, Max. Up to 8GB DDR3L 1600&1333MHz
- > Triple Display: Dual HDMI, LVDS
- > Dual mPCIe Expansion Slot
- > Dual Gigabit Ethernet, HD Audio Code
- > TPM 2.0

+ Spec

System Information

Processor	Intel® Pentium®/Celeron®/Atom™ BGA Processor
System Memory	1 x 204-Pin DDR3L 1600&1333MTs SO-DIMM up to 8GB
I/O Chipset	EC (IT8528VG)
BIOS Information	AMI uEFI BIOS, 128Mbit SPI Flash ROM

Expansion

Expansion	1 x Full size Mini PCIe Supports mSATA 1 x Half size Mini PCIe
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Storage

Storage	1 x mSATA support from Mini PCIe
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I/O

USB Port	4 x USB 3.1 (Gen1 5Gbps) 2 x USB 2.0
COM Port	1 x RS-232 1 x RS232 (Default)(JCOM2) or 1 x RS422/485 by GPIO (J422_485)
SATA	1 x SATA III
DIO	1 x 8bit GPIO
MIO	1 x LPC 1 x SPI
Other	1 x LVDS 2 x LAN

Display

Graphic Chipset	Intel® Apollo Lake SoC Processor integrated Gen9 LP graphics
Spec. & Resolution	HDMI: Max. Resolution 3840 x 2160 @ 30Hz LVDS: Max. Resolution 1920 x 1080 @ 60Hz 2 x HDMI (1.4b)
Multiple Display	Triple Display: Dual HDMI, LVDS
LVDS	1 x LVDS

Audio

Audio Codec	Realtek ALC888S, supports 5.1-CH
Audio Interface	1 x Mic-In 1 x Line-In 1 x Line-Out

Certifications

Certification Information	CE FCC Class B
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Ethernet

LAN Chipset	1 x Intel® I211AT 1 x Intel® I210IT
Ethernet Interface	10/100/1000 Base-Tx GbE compatible
LAN Port	2 x RJ-45

Mechanical & Environmental

Operating Temperature	0°C ~ 60°C (32°F ~ 140°F) for N & J series
Storage Temperature	-40°C ~ 75°C (-40°F ~ 167°F)
Operating Humidity	40°C @ 95% Relative Humidity, Non-condensing
Weight	0.041lbs (0.03kg)
Power Requirement	+12V ~ +26V
ACPI	Single Power ATX Support S0, S3, S4, S5 ACPI 5.0 Compliant

Power Mode	AT/ATX
Dimension (L x W)	5.7" x 4" (146mm x 101mm)
Vibration Protection	With SSD: 5Grms, IEC 60068-2-64, Random, 10 ~ 500Hz, 30min/Axis, 3 Axis
Shock Protection	With SDD : 50G, IEC 60068-2-27, Half Sine, 11ms, Z Axis
Drop	ISTA 2A, IEC-60068-2-32 Test : Ed, 1 Corner, 3 Edges, 6 Faces
Software Support	
OS Information	Win 10 Linux