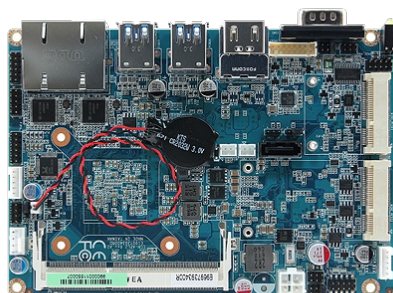


## ECM-APL2-A

Intel® Apollo Lake 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, VGA)
- > Dual Expansion Slot, 2-mCPL
- > Dual Gigabit Ethernet, HD Audio Code
- > TPM 2.0

### + Spec

#### System Information

|                    |                                                                                    |
|--------------------|------------------------------------------------------------------------------------|
| Processor          | Intel® Celeron® Processor J3455E (2M Cache, up to 2.30 GHz)                        |
| System Memory      | 1 x 204-Pin SO-DIMM Socket, Max. Up to 8GB DDR3L 1600&1333MT/s                     |
| I/O Chipset        | EC IT8528E/ IT8528I                                                                |
| BIOS Information   | AMI uEFI BIOS, 128Mbit SPI Flash ROM                                               |
| Watchdog Timer     | H/W Reset, 1sec. ~ 65535sec. and 1sec./step                                        |
| H/W Status Monitor | Monitoring System Temperature, Voltage and FAN Status with Auto Throttling Control |

#### Expansion

|           |                                            |
|-----------|--------------------------------------------|
| Expansion | 1 x Full Size mPCle<br>1 x Half Size mPCle |
|-----------|--------------------------------------------|

#### Storage

|         |                         |
|---------|-------------------------|
| Storage | 1 x mSATA (Shared mCPL) |
|---------|-------------------------|

#### I/O

|          |                            |
|----------|----------------------------|
| USB Port | 4 x USB 3.0<br>2 x USB 2.0 |
| COM Port | 2 x RS-232/422/485         |
| SATA     | 1 x SATA III               |
| DIO      | 1 x 8bit GPIO              |
| MIO      | 1 x LPC<br>1 x SPI         |

#### Display

|                    |                                                                                              |
|--------------------|----------------------------------------------------------------------------------------------|
| Graphic Chipset    | Intel® HD Graphics 500 (E3930, E3940, J3455, N3350)<br>Intel® HD Graphics 505 (E3950, N4200) |
| Spec. & Resolution | 2 x HDMI 1.4: Max. Resolution 3840x2160 @ 30Hz<br>1 x VGA: Max. Resolution 1920x1200 @ 60Hz  |
| Multiple Display   | Triple Display                                                                               |

#### Audio

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

#### Certifications

|                           |                   |
|---------------------------|-------------------|
| Certification Information | CE<br>FCC Class B |
|---------------------------|-------------------|

#### Ethernet

|                    |                                       |
|--------------------|---------------------------------------|
| LAN Chipset        | 2 x Intel® I211AT/ I210IT             |
| Ethernet Interface | 10/100/1000 Base-Tx GbE compatible    |
| LAN Port           | 2 x RJ45 with ACT/LINK and SPEED LEDs |

#### Mechanical & Environmental

|                       |                                                 |
|-----------------------|-------------------------------------------------|
| Operating Temperature | 0°C ~ 60°C (32°F ~ 140°F), with 0.2m/s air flow |
| 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     | Typical 12/24Vdc (+12V ~ +26V )                 |
| Power Mode            | AT/ATX                                          |
| Dimension (L x W)     | 5.7" x 4" (146mm x 101mm)                       |



|                      |                                                                                                                        |
|----------------------|------------------------------------------------------------------------------------------------------------------------|
| Vibration Protection | With SSD: 5Gms, 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<br>Linux                                                                                                        |
| Ordering Information |                                                                                                                        |
| Ordering Information | ECM-APL2-J3455-C1R<br>3.5" W/J3455/6USB/2COM/2LAN/C1<br><br>ACC-ECMAPL2-SD-2R<br>Heat spreader for ECM-APL2 N/J series |