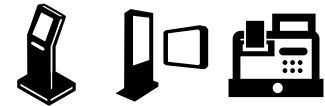


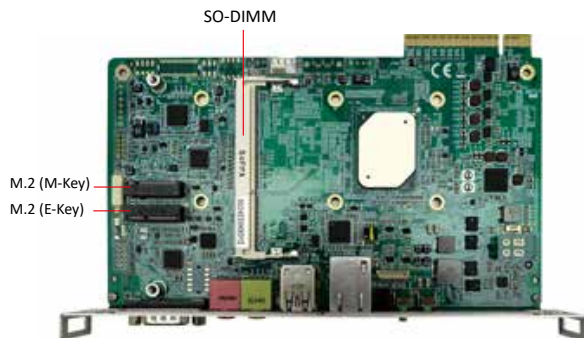
## ASDM-APL5

Intel® Atom® / Pentium® / Celeron® Series SoC based  
Smart Display Module Large Size (SDM-L) with  
COM, 2 USB, M.2 E-Key 2230/M.2 M-Key 2242, Intel® GbE LAN.



Wifi  
Support

SDM Module



### Key Features

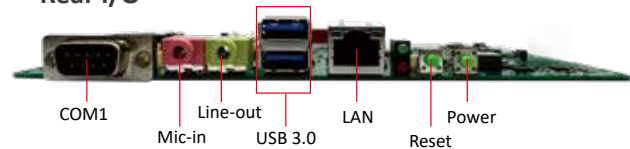
- Intel® Atom® / Pentium® / Celeron® (ApolloLake SoC) onboard processor
- One 204-pin SO-DIMM up to 8GB DDR3L 1866MT/s SDRAM
- One Intel® Gigabit Ethernet ports
- 1 M.2 E-Key 2230 (WiFi/BT), 1 M.2 M-Key 2242 (SSD) expansion slots
- 1 COM (RS-232/422/485), 2 USB 3.0 ports

### Product Specification

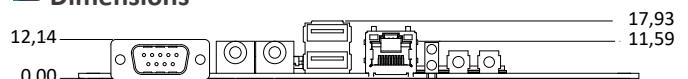
| System Processor/Chipset     |                                                                                                                                                                                                                                                                                            |
|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Processor                    | Intel® Apollo Lake series SoC onboard<br>Atom® x7-E3950 (1.6GHz/2.0GHz, QC, 18EU, 12W)<br>Atom® x5-E3940 (1.6GHz/1.8GHz, QC, 12EU, 9.5W)<br>Atom® x5-E3930 (1.3GHz/1.8GHz, DC, 12EU, 6.5W)<br>Pentium® N4200 (1.1GHz/2.5GHz, QC, 18EU, 6W)<br>Celeron® N3350 (1.1GHz/2.4GHz, DC, 12EU, 6W) |
| Chipset                      | Intel® Apollo Lake SoC integrated                                                                                                                                                                                                                                                          |
| BIOS                         | AMI UEFI SPI Flash ROM                                                                                                                                                                                                                                                                     |
| Memory                       |                                                                                                                                                                                                                                                                                            |
| Technology                   | DDR3L up to 1866MHz SDRAM                                                                                                                                                                                                                                                                  |
| Max. capacity                | Up to 8GB                                                                                                                                                                                                                                                                                  |
| Socket                       | 1 x 204-pin SO-DIMM                                                                                                                                                                                                                                                                        |
| Display                      |                                                                                                                                                                                                                                                                                            |
| Graphics                     | Intel® HD Gen 9-LP Graphics                                                                                                                                                                                                                                                                |
| Display interface            | DP / HDMI (Golden Finger)                                                                                                                                                                                                                                                                  |
| Multi-display                | HDMI + DP (Golden Finger)                                                                                                                                                                                                                                                                  |
| Resolution                   | DP : Up to 4096 x 2160 @ 60Hz<br>HDMI : Up to 3840 x 2160 @ 30Hz                                                                                                                                                                                                                           |
| Ethernet                     |                                                                                                                                                                                                                                                                                            |
| Interface                    | 10/100/1000 Mbps                                                                                                                                                                                                                                                                           |
| Controller                   | Intel® I211 GbE                                                                                                                                                                                                                                                                            |
| Connector                    | 1 x RJ45 (rear I/O)                                                                                                                                                                                                                                                                        |
| Audio                        |                                                                                                                                                                                                                                                                                            |
| Interface                    | Line-out, MIC-in (rear I/O)                                                                                                                                                                                                                                                                |
| CODEC                        | Realtek ALC662 HD Audio Codec                                                                                                                                                                                                                                                              |
| Expansion Slot               |                                                                                                                                                                                                                                                                                            |
| M.2                          | 1 x M.2 E-Key 2230 (WiFi/BT)<br>1 x M.2 M-Key 2242 (SSD)                                                                                                                                                                                                                                   |
| I/O                          |                                                                                                                                                                                                                                                                                            |
| Audio                        | MIC-in, Line-out (rear I/O)                                                                                                                                                                                                                                                                |
| USB                          | 2 x USB 3.0 (rear I/O)                                                                                                                                                                                                                                                                     |
| COM                          | 1 x RS-232/422/485 (rear I/O)                                                                                                                                                                                                                                                              |
| SDM Features (Golden Finger) |                                                                                                                                                                                                                                                                                            |
| Display                      | HDMI , DP                                                                                                                                                                                                                                                                                  |
| I/O                          | USB 3.0, USB 2.0, PCIe x1, UART, I2C                                                                                                                                                                                                                                                       |
| Power Requirement            |                                                                                                                                                                                                                                                                                            |
| Power connector              | N/A                                                                                                                                                                                                                                                                                        |
| Power type                   | N/A                                                                                                                                                                                                                                                                                        |
| Power mode                   | N/A                                                                                                                                                                                                                                                                                        |
| Watchdog Timer               |                                                                                                                                                                                                                                                                                            |
| Interval                     | Programmable 1~255 sec/min                                                                                                                                                                                                                                                                 |
| Output                       | System reset                                                                                                                                                                                                                                                                               |

| Environment           |                                                                                                                     |
|-----------------------|---------------------------------------------------------------------------------------------------------------------|
| Operating temperature | 0°C ~ 60°C (32°F ~ 140°F) standard<br>-20°C ~ 70°C (-4°F ~ 158°F) optional<br>-40°C ~ 70°C (-40°F ~ 158°F) optional |
| Storage temperature   | -40°C ~ 80°C (-40°F ~ 176°F)                                                                                        |
| Relative humidity     | 0% ~ 95% (non-condensing)                                                                                           |
| Form Factor           |                                                                                                                     |
| Dimensions (L x W)    | Smart Display Module Board (SDM-L)<br>175 mm x 100 mm                                                               |

### Rear I/O



### Dimensions



### Ordering Information

| Part Number          | Description                                            |
|----------------------|--------------------------------------------------------|
| ASDM-APL5-3950 (MOQ) | SDM-L, Intel Atom x7-E3950 12W, COM/2USB/LAN, DC(12V)  |
| ASDM-APL5-3940 (MOQ) | SDM-L, Intel Atom x5-E3940 9.5W, COM/2USB/LAN, DC(12V) |
| ASDM-APL5-3930 (MOQ) | SDM-L, Intel Atom x5-E3930 6.5W, COM/2USB/LAN, DC(12V) |
| ASDM-APL5-4200       | SDM-L, Intel Pentium N4200 6W, COM/2USB/LAN, DC(12V)   |
| ASDM-APL5-3350       | SDM-L, Intel Celeron N3350 6W, COM/2USB/LAN, DC(12V)   |

### Optional Accessories

| Part Number | Description               |
|-------------|---------------------------|
| TBD         | Heatsink                  |
| TBD         | Heatsink with air cooling |

## Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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