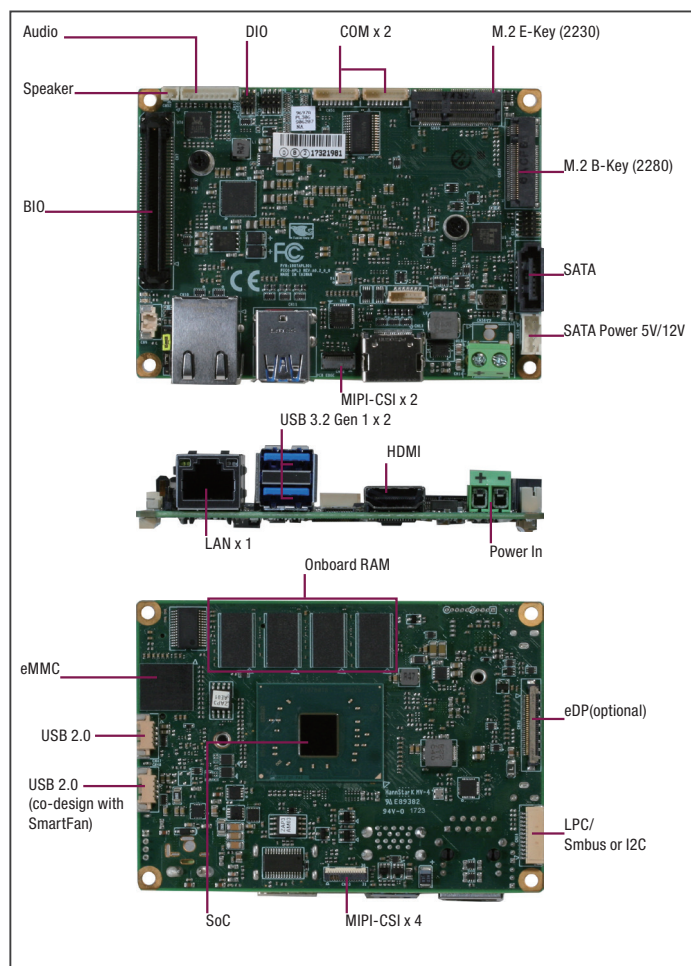




## Specifications

| System                      |                                                                                                     |
|-----------------------------|-----------------------------------------------------------------------------------------------------|
| Form Factor                 | Pico-ITX                                                                                            |
| CPU                         | Intel® Atom™ Processor SoC                                                                          |
| CPU Frequency               | Up to 2.4 GHz                                                                                       |
| Chipset                     | Intel® Atom™ Processor SoC                                                                          |
| Memory Type                 | Onboard DDR3L 2GB (Optional to 4GB)                                                                 |
| Max. Memory Capacity        | Up to 4GB                                                                                           |
| BIOS                        | AMI/SPI                                                                                             |
| Wake On LAN                 | Yes                                                                                                 |
| Watchdog Timer              | 255 Levels                                                                                          |
| Power Requirement           | +12V, AT/ATX                                                                                        |
| Power Supply Type           | Lockable & phoenix Terminal co-lay                                                                  |
| Power Consumption (Typical) | Intel® N4200 processor, DDR3L 4GB, 1.1A@12V                                                         |
| System Cooling              | Heat-spreader, heatsink & cooler (Optional)                                                         |
| Dimension                   | 3.94" x 2.84" (100 mm x 72 mm)                                                                      |
| Gross Weight                | 0.55 lb (0.25 kg)                                                                                   |
| Operating Temperature       | 32°F ~ 140°F (0°C ~ 60°C)                                                                           |
| Storage Temperature         | -40°F ~ 176°F (-40°C ~ 80°C)                                                                        |
| Operating Humidity          | 0% ~ 90% relative humidity, non-condensing                                                          |
| MTBF (Hours)                | 110,000                                                                                             |
| Certification               | CE,FCC                                                                                              |
| Display                     |                                                                                                     |
| Chipset                     | Intel® Atom™ Processor SoC                                                                          |
| Resolution                  | HDMI 1.4b: 3840 x 2160@30Hz<br>Internal eDP: 3840 x 2160@60Hz (Optional)<br>DDI (Optional from BIO) |
| LCD Interface               | eDP                                                                                                 |

## Features

- Intel® Pentium® N4200/ Celeron® N3350/ Atom™ Processor SoC
- Onboard Storage eMMC 32GB (Optional to 16GB/64GB/128GB)
- Onboard DDR3L 2GB or 4GB
- Single Gigabit Ethernet Support
- HDMI 1.4b, eDP for Display
- BIO Reserved (Optional)
- USB 3.2 Gen 1 x 2, USB 2.0 x 2, SATA 6.0Gb/s x 1
- M.2 B Key (2280) x 1, M.2 E Key (2230) x 1
- Onboard HDA Audio Supports (Line in, Line-out, MIC)
- MIPI-CSI 2 Lanes x 1 for 2M Camera (Optional)
- MIPI-CSI 4 Lanes x 1 for 8M Camera (Optional)



| I/O            |                                                                                                                                 |
|----------------|---------------------------------------------------------------------------------------------------------------------------------|
| Storage/SSD    | SATA 6.0Gb/s x 1, 5V/12V Power reserved<br>M.2 2280 (B Key) x 1<br>eMMC 16GB (optional to 32GB/64GB/128GB)                      |
| Ethernet       | Realtek 8111G x 1                                                                                                               |
| USB Port       | USB 3.2 Gen 1 x 2 Rear IO<br>USB 2.0 x 2 (Internal, co-use with FAN connector)                                                  |
| Serial Port    | COM1: RS-232<br>COM2: RS-232                                                                                                    |
| Audio          | ALC269 (Included Amp)                                                                                                           |
| DIO            | 4-bit                                                                                                                           |
| Expansion Slot | M.2 2230 x 1 (E-Key)<br>BIO x 1 (Optional)<br>I2C, Smbus, I2S<br>MIPI-CSI x 2 Lanes (Optional)<br>MIPI-CSI x 4 Lanes (Optional) |
| SIM            | —                                                                                                                               |
| TPM            | TPM2.0 (Optional)                                                                                                               |
| Touch          | —                                                                                                                               |

## Packing List

- PICO-APL3

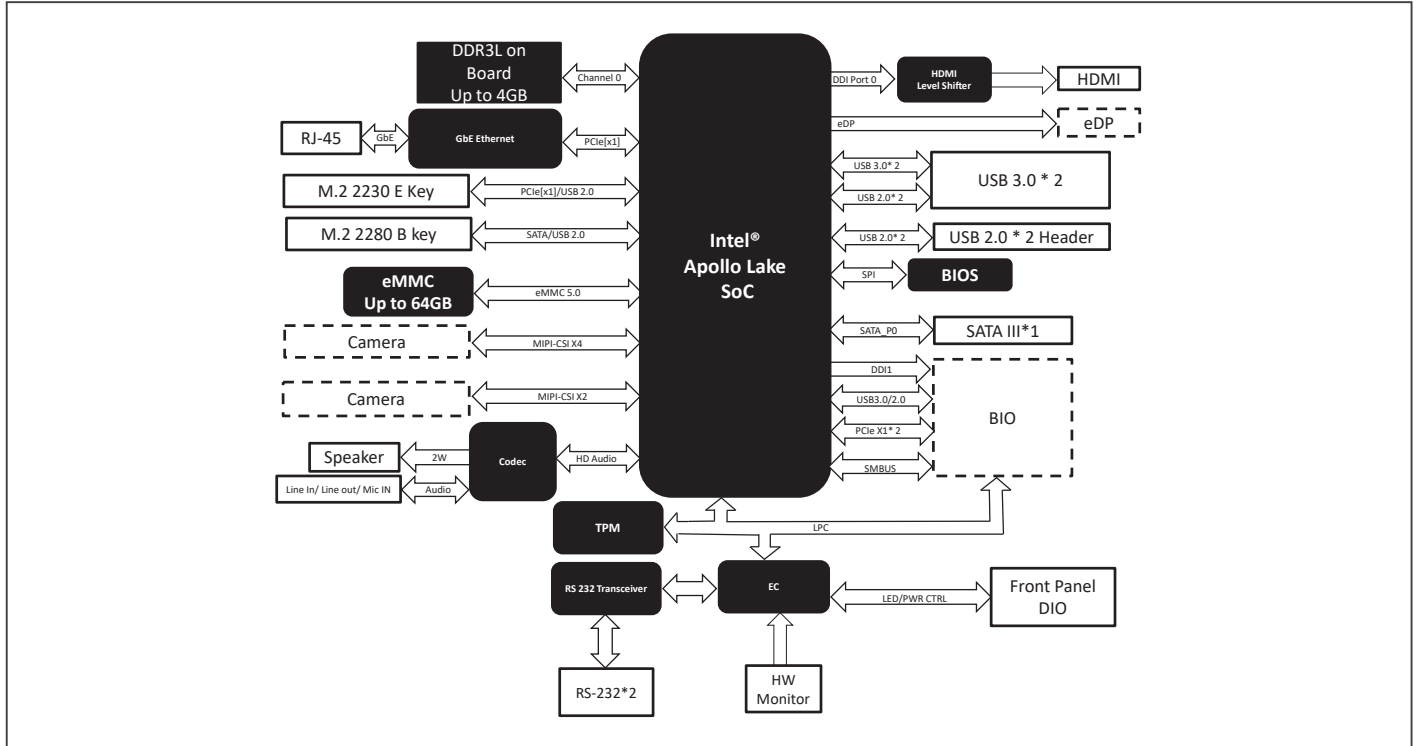
## Optional Accessories

| Part Number     | Description                                                     | Qty |
|-----------------|-----------------------------------------------------------------|-----|
| 1709070500      | (TF) SATA Cable, 50cm                                           | 1   |
| 1702150155      | (TF) SATA Power Cable, 15cm                                     | 1   |
| PICO-APL3-HSK01 | Heatsink, used with heat spreader                               | 1   |
| PICO-APL3-HSP01 | Heat Spreader                                                   | 1   |
| 1700040151      | (TF) USB Cable, 15cm                                            | 2   |
| 1701090122      | (TF) Flat Cable, D-Sub 9P(M), 9P 1.0mm Housing, 12cm            | 2   |
| 1709100254      | (TF) Phone Jack Cable, 25cm                                     | 1   |
| 1255300408      | (TF) Power Adapter, 12V, 40W, FSP, FSP040-RHAN2.9NA0404990, ESD | 1   |
| 1702030176      | (TF) Power Cable, 3P DC jack, TERMINAL*2.17cm, TKS-G21-LN05     | 1   |

\*Please refer to PICO-APL3-SEMI page for further option.

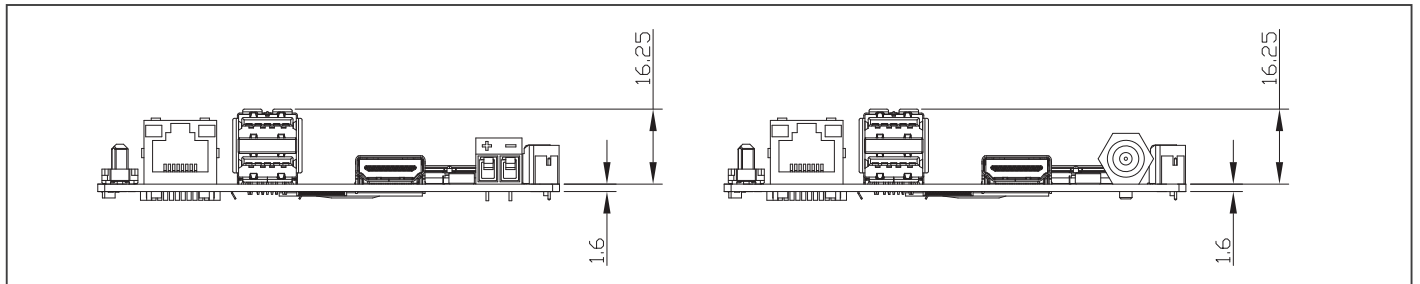
\*eDP cable custom by required.

### Block Diagram



### Dimension

Unit: mm



### Ordering Information

| Part Number        | CPU                        | Memory             | Thermal          | Display             | Storage                                           | LAN     | USB                                                | RS-232 | RS-232/422/485 | Expansion Slot       | Power                   | Temp.      | Others                           |
|--------------------|----------------------------|--------------------|------------------|---------------------|---------------------------------------------------|---------|----------------------------------------------------|--------|----------------|----------------------|-------------------------|------------|----------------------------------|
| PICO-APL3-A10-F001 | Celeron® N3350 (Dual Core) | Onboard DDR3L 2GB  | W/o Heatspreader | HDMI x 1            | SATA 3.0 x 1<br>M.2 2280 (B Key) x 1<br>eMMC 32GB | GbE x 1 | USB 3.2 Gen 1 x 2 (Rear)<br>USB 2.0 x 2 (Internal) | 2      | —              | M.2 2230 (E Key) x 1 | +12V (Phoenix Terminal) | 0°C ~ 60°C | DIO 4 bit<br>Full Audio with Amp |
| PICO-APL3-A10-F002 | Celeron® N3350 (Dual Core) | Onboard DDR3L 4GB  | W/o Heatspreader | HDMI x 1<br>eDP x 1 | SATA 3.0 x 1<br>M.2 2280 (B Key) x 1<br>eMMC 32GB | GbE x 1 | USB 3.2 Gen 1 x 2 (Rear)<br>USB 2.0 x 2 (Internal) | 2      | —              | M.2 2230 (E Key) x 1 | +12V (Phoenix Terminal) | 0°C ~ 60°C | DIO 4 bit<br>Full Audio with Amp |
| PICO-APL3-A10-F003 | Pentium® N4200 (Quad Core) | Onboard DDR3L 4GB  | W/o Heatspreader | HDMI x 1            | SATA 3.0 x 1<br>M.2 2280 (B Key) x 1<br>eMMC 32GB | GbE x 1 | USB 3.2 Gen 1 x 2 (Rear)<br>USB 2.0 x 2 (Internal) | 2      | —              | M.2 2230 (E Key) x 1 | +12V (Phoenix Terminal) | 0°C ~ 60°C | DIO 4 bit<br>Full Audio with Amp |
| PICO-APL3-A10-FD04 | Celeron® N3350 (Dual Core) | On board DDR3L 2GB | W/o Heatspreader | HDMI x 1            | SATAIII x 1 M.2 2280 (B Key) x 1 eMMC 32GB        | GbE x 1 | USB 3.2 Gen 1 x 2 (Rear)<br>USB 2.0 x 2 (Internal) | 2      | —              | M.2 2230 (E Key) x 1 | +12V (DC Jack)          | 0°C ~ 60°C | DIO 4 bit<br>Full Audio with Amp |