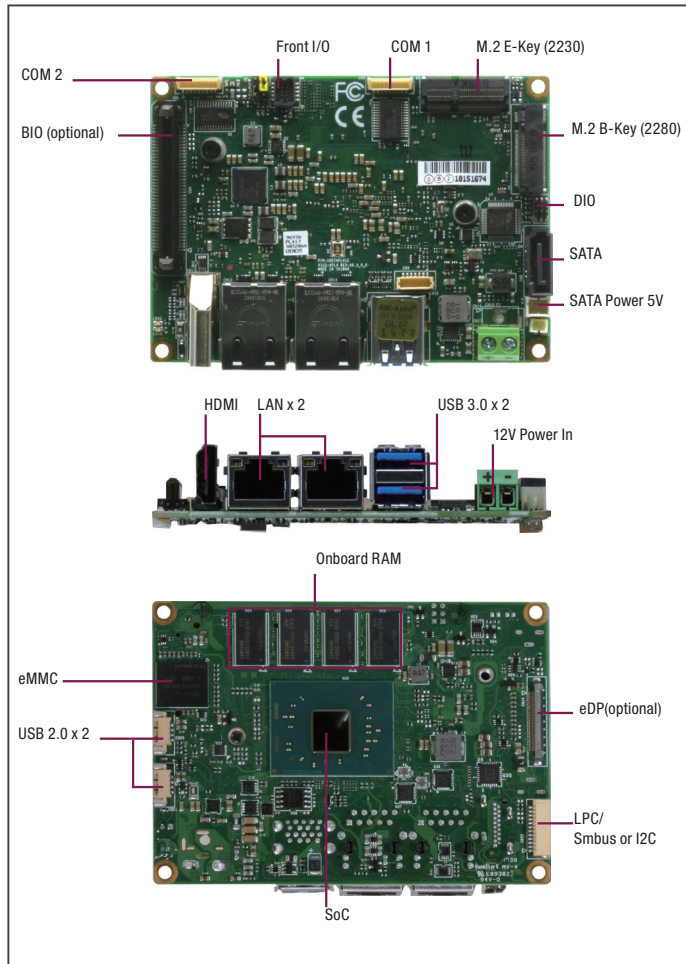# PICO-APL4

Pico-ITX Board with Intel® Atom™/ Pentium® N4200/ Celeron® N3350 Processor SoC

Features

- **Intel® Atom™/ Pentium® N4200/ Celeron® N3350 Processor SoC**
- **Onboard DDR3L 2GB (Optional to 4GB)**
- **Onboard Storage eMMC 16GB(Optional to 32GB/64GB/128GB)**
- **Dual Gigabit Ethernet Support**
- **HDMI 1.4b, eDP (Optional) for Display**
- **BIO Reserved (Optional)**
- **USB 3.0 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**

Resolution	HDMI 1.4b: 3840 x 2160@30Hz Internal eDP: 3840 x 2160@60Hz (Optional) DDI (Optional from BIO)
LCD Interface	eDP
I/O	
Storage/SSD	SATA 6.0Gb/s x 1, 5V Power reserved M.2 2280 (B Key) x 1 eMMC 16G (optional to 32/64G)
Ethernet	Realtek 8111G x 2
USB Port	USB 3.0 x 2 Rear IO USB 2.0 x 2 (Internal, co-use with FAN connector)
Serial Port	COM1: RS-232 x 1 COM2: RS-232/422/485 x 1
Audio	—
DIO	4-bit
Expansion Slot	M.2 2230 x 1 (E-Key) BIO x 1 (optional) I2C, Smbus
SIM	—
TPM	—
Touch	—

Specifications

System	
Form Factor	Pico-ITX
CPU	Intel® Pentium® N4200 (4C. 1.1 GHz, up to 2.5 GHz, TDP 6W) Intel® Celeron® N3350 (2C. 1.1 GHz, up to 2.4 GHz, TDP 6W) Intel® Atom® x7-Series (4C. 1.6GHz, up to 2.00 GHz, TDP 12W)
CPU Frequency	Up to 2.4GHz
Chipset	Intel® SoC
Memory Type	Onboard DDR3L 2G (Optional to 4G)
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®Pentium®N4200@1.1GHz,DDR3L 4GB 1.43A@+12V
System Cooling	Heat-spreader, heatsink & cooler (Optional)
Dimension	3.94" x 2.84" (100mm x 72mm)
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)	191,895
Certification	CE,FCC
Display	
Chipset	Intel® SoC

Packing List

- PICO-APL4

Optional Accessories

Part Number	Description	Qty
1709070500	(TF) SATA Cable, 50cm	1
1702150155	(TF) SATA Power Cable, 12cm	1
PICO-APL4-HSK01	Heat Sink.100*72*15.5mm.Silver.used with HSP	1
PICO-APL4-HSP01	Heat Spreader, 100 x 72 x 8.5 mm, Silver	1
1700040151	(TF) USB Cable, 15cm	2
1701090122	(TF)Flat Cable, D-Sub 9P(M), 9P 1.0mm Housing, 12cm	2
PICO-APL4-FAN01	CPU Cooler, 100*72*15.5mm, Silver, use w/HSP	1

*FAN Solution will be via one of internal USB port without FAN speed control.

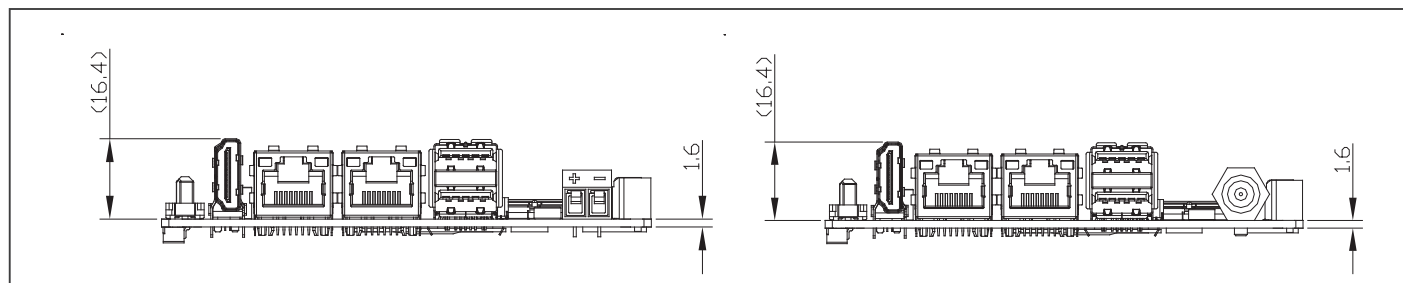*Please refer to PICO-APL4-SEMI for further option.

*eDP cable custom by required

Note: All specifications are subject to change without notice.

Block Diagram
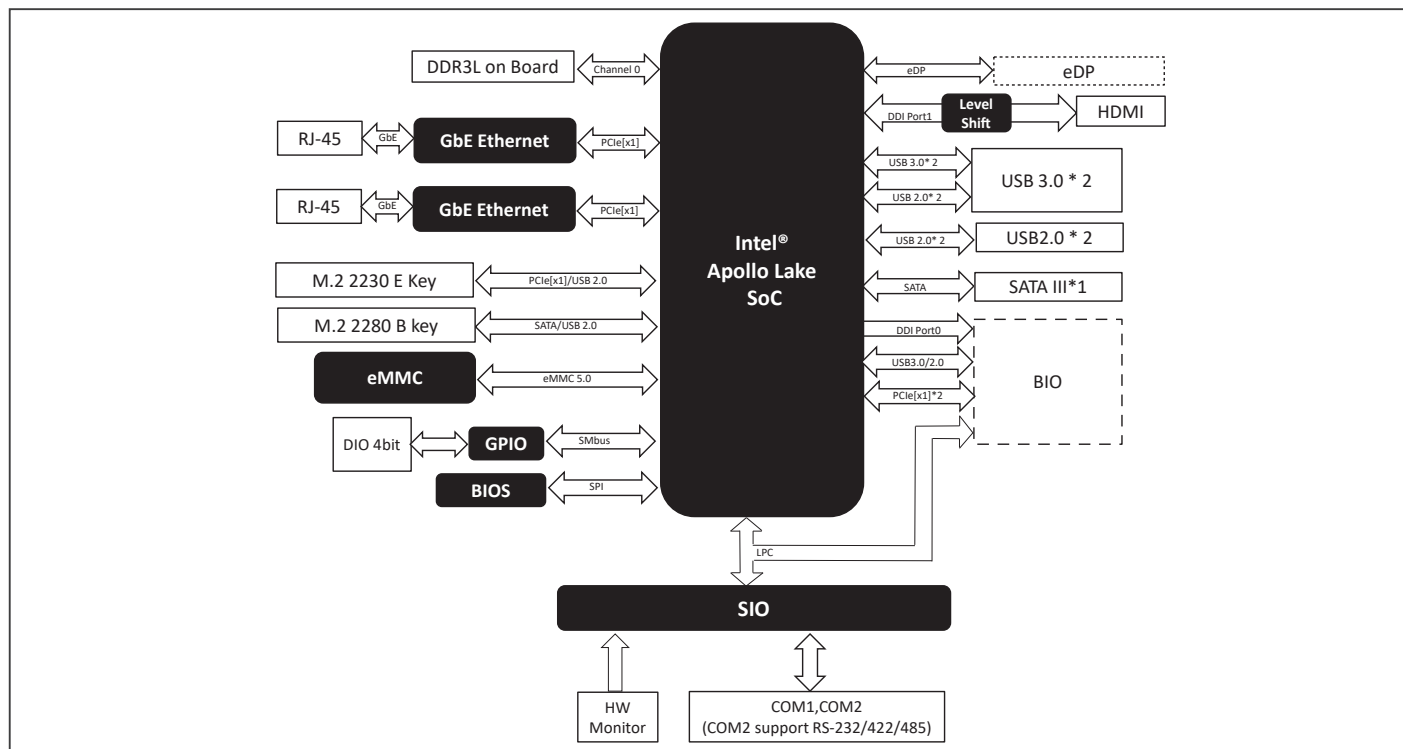
Dimension   Unit: mm

Ordering Information

Part Number	CPU	Memory	Thermal	Display	Storage	LAN	USB	RS-232	RS-232/422/485	Expansion Slot	Power	Temp.	Others
PICO-APL4-A10-0001	Celeron® N3350 (Dual Core)	Onboard DDR3L 2GB	W/o Heatspreader	HDMI x 1	SATA 6.0Gb/s x 1 M.2 2280 (B Key) x 1 eMMC 32GB	GbE x 2	USB 3.0 x 2 (Rear) USB 2.0 x 2 (Internal)	1	1	M.2 2230 (E Key) x 1	+12V (Phoenix Terminal)	0°C ~ 60°C	DIO 4 bit
PICO-APL4-A10-0002	Celeron® N3350 (Dual Core)	Onboard DDR3L 4GB	W/o Heatspreader	HDMI x 1 eDP x 1	SATA 6.0Gb/s x 1 M.2 2280 (B Key) x 1 eMMC 32GB	GbE x 2	USB 3.0 x 2 (Rear) USB 2.0 x 2 (Internal)	1	1	M.2 2230 (E Key) x 1	+12V (Phoenix Terminal)	0°C ~ 60°C	DIO 4 bit
PICO-APL4-A10-0003	Pentium® N4200 (Quad Core)	Onboard DDR3L 4GB	W/o Heatspreader	HDMI x 1	SATA 6.0Gb/s x 1 M.2 2280 (B Key) x 1 eMMC 32GB	GbE x 2	USB 3.0 x 2 (Rear) USB 2.0 x 2 (Internal)	1	1	M.2 2230 (E Key) x 1	+12V (Phoenix Terminal)	0°C ~ 60°C	DIO 4 bit
PICO-APL4-A10-DC04	Celeron® N3350 (Dual Core)	Onboard DDR3L 2GB	W/o Heatspreader	HDMI x 1	SATAIII x 1 M.2 2280 (B Key) x 1 eMMC 32GB	GbE x 2	USB 3.0 x 2 (Rear) USB 2.0 x 2 (Internal)	1	1	M.2 2230 (E Key) x 1	+12V (DC Jack)	0°C ~ 60°C	DIO 4 bit

Remark: cooler is recommended as the thermel solution.