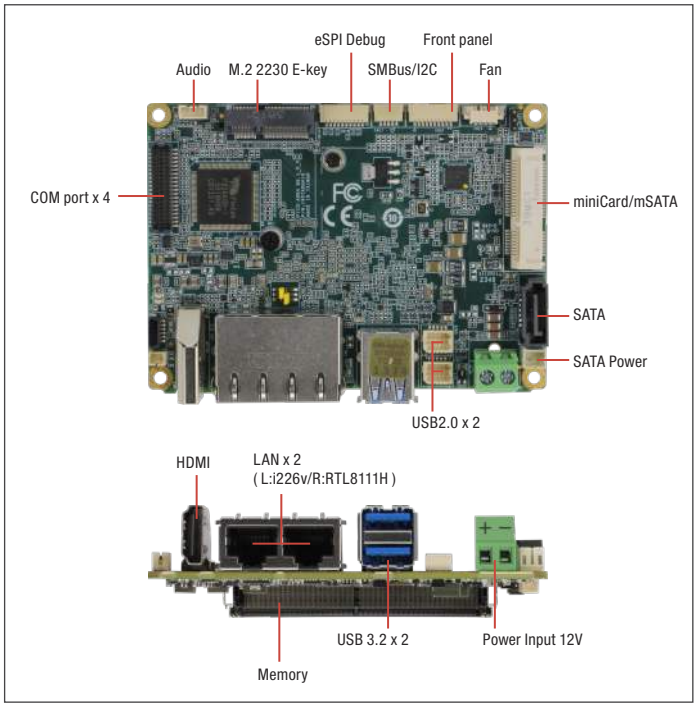
PICO-ADN4 Rev.B

Pico-ITX Board with Intel Atom® x7000E Series, Intel® Processor N-series, and Intel® Core™ i3 Processor N-series



Features

- DDR5 4800 SODIMM, up to 16GB
- HDMI 1.4 x 1, eDP 1.4b/LVDS x 1
- 2.5GbE x 1, 1GbE x 1
- Full-size mSATA/mPCIe x 1, M.2 2230 E-Key x 1
- USB 3.2 Gen 2 x 2 ports, USB 2.0 x 4
- RS-232/422/485 x 2, RS-232 x 2
- TPM 2.0, SATA 6Gb/s, 4-bit GPIO, SMBUS/I2C
- DC 9 ~ 36V input (Optional via power adapter card)

2.5GbE USB 2.0 USB 3.2 Gen 2 PCI Express

Specifications

System	
Form Factor	PICO-ITX
CPU	Intel Atom® x7000E Series, Intel® Processor N-series, and Intel® Core™ i3 Processor N-series Processors: Intel® Processor N97 (4C/4T, 2.00 GHz, 12W) Intel® Core™ i3-N305 Processor (8C/8T, 1.80 GHz, 15W) Intel Atom® x7425E Processor (4C/4T, 1.50 GHz, 12W)
Chipset	Integrated with Intel® SoC
Memory Type	DDR5 4800, Single Channel SODIMM x 1, Max.16GB, Non-ECC
BIOS	UEFI
Wake on LAN	Yes
Watchdog Timer	255 Levels
Security	TPM2.0
RTC Battery	Lithium Battery 3V/240mAh
Dimension	3.94" x 2.84" (100mm x 72mm)
Gross Weight	0.18 lbs (0.08 kg)
OS Support	Windows 10/11 (64 bit) Ubuntu 22.04.2/Kernel 5.19
Power	
Power Requirement	+12V (Optional: +9 ~ 36V, support by power adapter card)
Power Supply Type	AT/ATX
Connector	Phoenix 2-pin Connector (Default) Lockable DC Jack Connector (Optional)
Power Consumption	Intel® x7835RE, DDR5 16GB x1, 3.06A@ +12V (TYPICAL) Intel® x7835RE, DDR5 16GB x1, 4.21A@ +12V (MAX)
Display	
Controller	Intel® UHD Graphics for 12th Gen Intel® Processors
LVDS/eDP	LVDS x 1 (18/24bit 2CH) 1920 x 1200 @60Hz eDP 1.4 x 1, 3840 x 2160 @60Hz (Optional)
Display Interface	HDMI 1.4 x 1, 3840 x 2160 @30Hz
Multiple Display	Up to 2 Simultaneous Displays
Audio	
Codec	Realtek ALC256 (Optional)
Audio Interface	Line-out (Optional, no audio function in WiTAS 2)
Speaker	—
External I/O	
Ethernet	Intel® Ethernet Controller I226 2.5GbE, RJ-45 x 1 Realtek RTL8111H-CG, 1GbE, RJ-45 x 1,
USB	USB 3.2 Gen 2 x 2
Serial Port	—
Video	HDMI 1.4 x 1
Internal I/O	
USB	USB 2.0 x 4
Serial Port	COM1~2 (RS232/422/485, supports 5V/12V/RI) COM3~4 (RS232)
Video	LVDS/eDP x 1(Default: LVDS) Inverter x 1 (12V/2A)
SATA	SATA 6.0Gbps x 1 +5V SATA Power Connector x 1
Audio	Line-out header x 1 (Optional, no audio function in WiTAS 2)
DIO/GPIO	GPIO 4-bit
SMBus/I2C	SMBus/ I2C x 1 (Default: SMBus)
Fan	4pins Smart Fan x1
Front Panel	HDD LED, PWR LED, Power Button, Buzzer, Reset
Others	—
Expansion	
Mini PCIe/mSATA	Full-Sized mSATA/mPCIe x 1 (default: mSATA, select with BIOS)
M.2	M.2 2230 E-Key x 1
Others	—
Environment & Certification	
Operating Temp	-4°F ~ 158°F (-20°C ~ 70°C)
Storage Temp	-40°F ~ 185°F (-40°C ~ 85°C)
Operating Humidity	0% ~ 90% relative humidity, non-condensing
MTBF (Hours)	2,219,397
EMC	CE/FCC Class A

Packing List

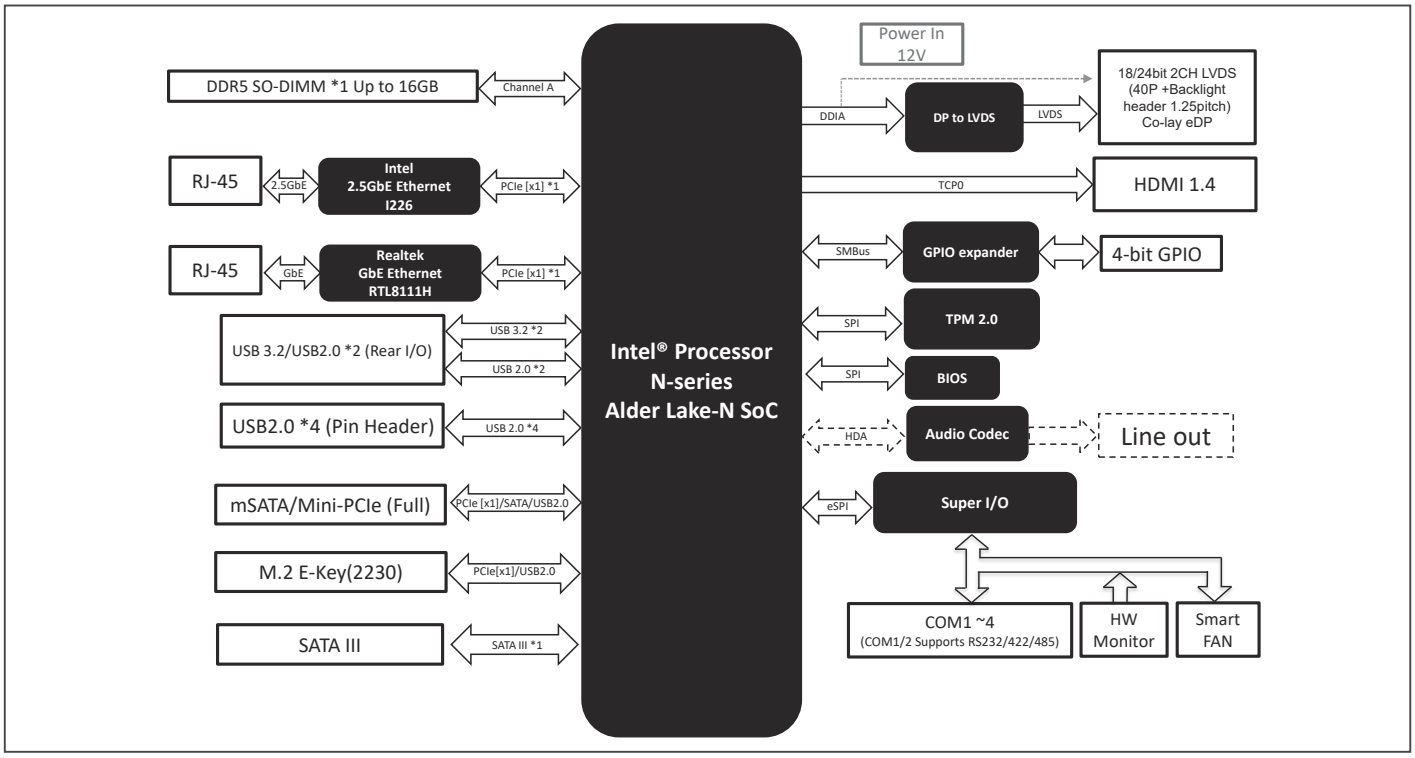
- PICO-ADN4 Rev.B

Optional Accessories

Part Number	Description	Qty.
170X000287	Front Panel cable.10cm	1
170X000317	Quad COM cable.15cm	1
170010010D	Dual USB2.0 cable.10cm	2
170X000593	SATA CABLE.15cm	1
1702150155	SATA power cable.15cm	1
170X000779	Audio cable.25cm	1
1702030200	Power cable (Phoenix type to DC Jack).20cm	1
PICO-ASL4-FAN01	Cooler.100*72*25.5mm.for PICO-ASL4 Rev.B/PICO-ADN4 Rev.B	1
PICO-ASL4-HSK01	Heat Sink.100*72*25.5mm (Heat spreader-less, all in one HSK).for PICO-ASL4 Rev.B/PICO-ADN4 Rev.B	1
PICO-ASL4-HSP01	Heat Spreader.AL.100*72*12mm.for PICO-ASL4 Rev.B/PICO-ADN4 Rev.B	1
PER-P30D-A10-0001	120W, DC-DC Converter, 9~36V input, 12V output, Rev A1.0, 30 x 72mm	1

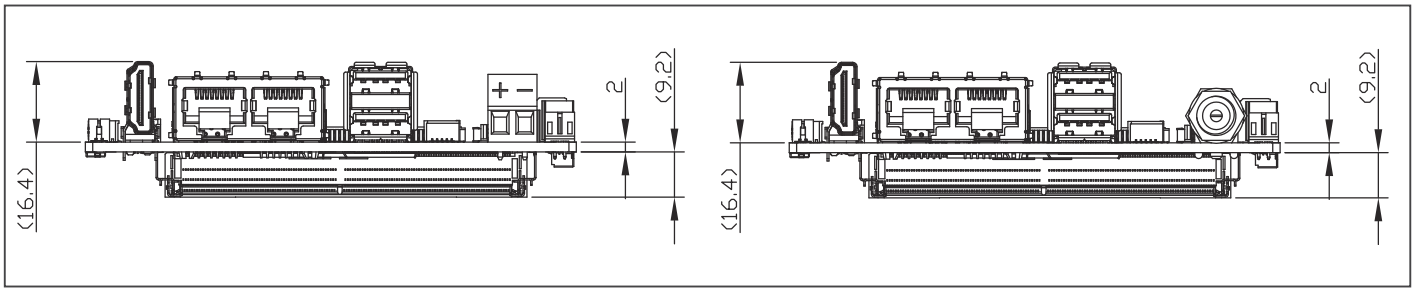
Note: All specifications are subject to change without notice.

Block Diagram



Dimension

Unit: mm



Ordering Information

Part number	CPU	Memory	Display	Storage	LAN	USB	COM	Expansion slot	Power	Operating Temp	Audio	Others
PICO-ADN4-B10-0001	Intel® Processor N97	SD-DIMM	HDMI x 1 LVDS x 1	SATAIII x 1	GbE x 1 2.5GbE x 1	USB 2.0 x 4 USB3.2 Gen 2 x 2	RS232/422/485 x 2 RS232 x 2	M.2 2230 E-key x 1 miniCard (Full) x 1	+12V (Terminal block)	-20°C ~ 70°C	—	SMBus x 1, TPM2.0, GPIO