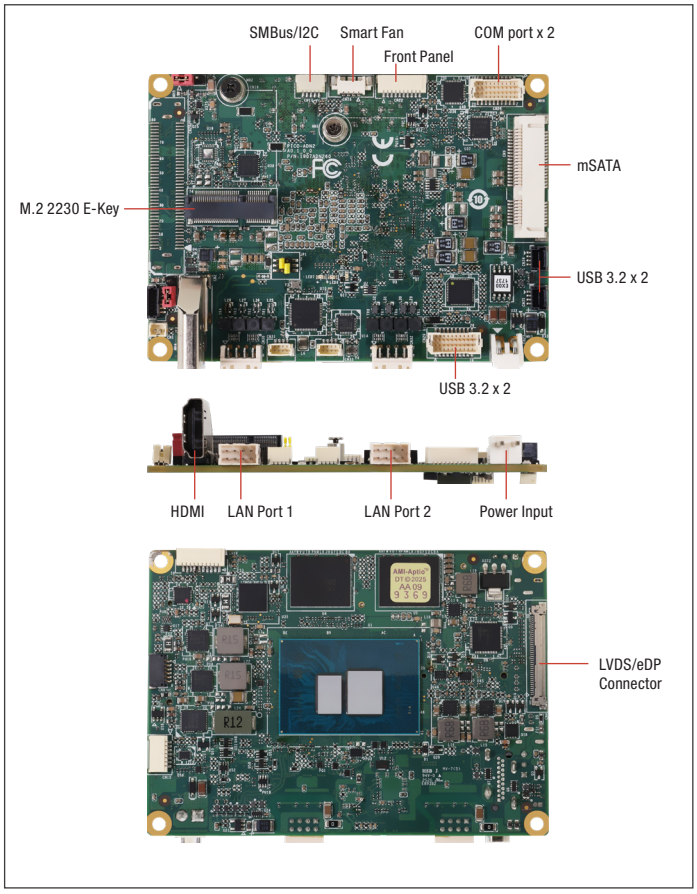
PICO-ADN2

Pico-ITX Board with Intel® Processor N-series/Core™ Processor N-series SoC



Features

- Intel® Processor N-series SoC
- Onboard LPDDR5, up to 16GB
- 1GbE x 2
- HDMI 1.4 + LVDS
- M.2 2230 E-Key x 1 (PCIe 3.0 [x1] + USB 2.0)
- USB 3.2 Gen 1 x 2 + USB 2.0 x 2
- RS-232/422/485 x 2
- TPM, GPIO 4-bit, SATA 6Gb/s x 1
- SMBus/I2C (Default: SMBus)
- Intel® AMT Support

2.5GbE USB 2.0 USB 3.2 Gen 2

Specifications

System	
Form Factor	PICO-ITX
CPU	Intel Atom® x7000E Series, Intel® Processor N-series, and Intel® Core™ i3 Processor N-series: Intel® Processor N97 (4C, 2.00 GHz, 12W) Intel® Core™ i3-N305 Processor (8C, 1.80 GHz, 15W)
Chipset	Integrated with Intel® SoC
Memory Type	Onboard Single-Channel LPDDR5, up to 16GB
BIOS	UEFI
Wake on LAN	Yes
Watchdog Timer	255 Levels
Security	TPM 2.0
RTC Battery	Lithium Battery 3V/240mAh 2-pin Header for external supercapacitor (Optional) Note: Capacitance of the capacitor must be large enough to achieve a running time of at least 48 hours.
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 24.04.2
Power	
Power Requirement	12V only
Power Supply Type	AT/ATX
Connector	JST.S2P-VH(LF)(SN) (Default)
Power Consumption	Intel® Processor N97, LPDDR5 8GB, 2.43A @+12V (Typical) Intel® Processor N97, LPDDR5 8GB, 2.91A @+12V (Max)
Display	
Controller	Intel® UHD Graphics
LVDS/eDP	LVDS x 1 (18/24-bit 2CH), 1920 x 1200 @60Hz eDP 1.4 x 1, 3840 x 2160 @60Hz (Optional) LVDS Signal Voltage: 3.3 V / 5 V, 1.5 A (selectable via jumper) LVDS Backlight Voltage: 5 V / 12 V, 2.5 A (selectable via jumper)
Display Interface	HDMI 1.4 x 1, 3840 x 2160 @30Hz DDI x1 (Via BIO, Optional)
Multiple Display	Up to 3 Simultaneous Displays

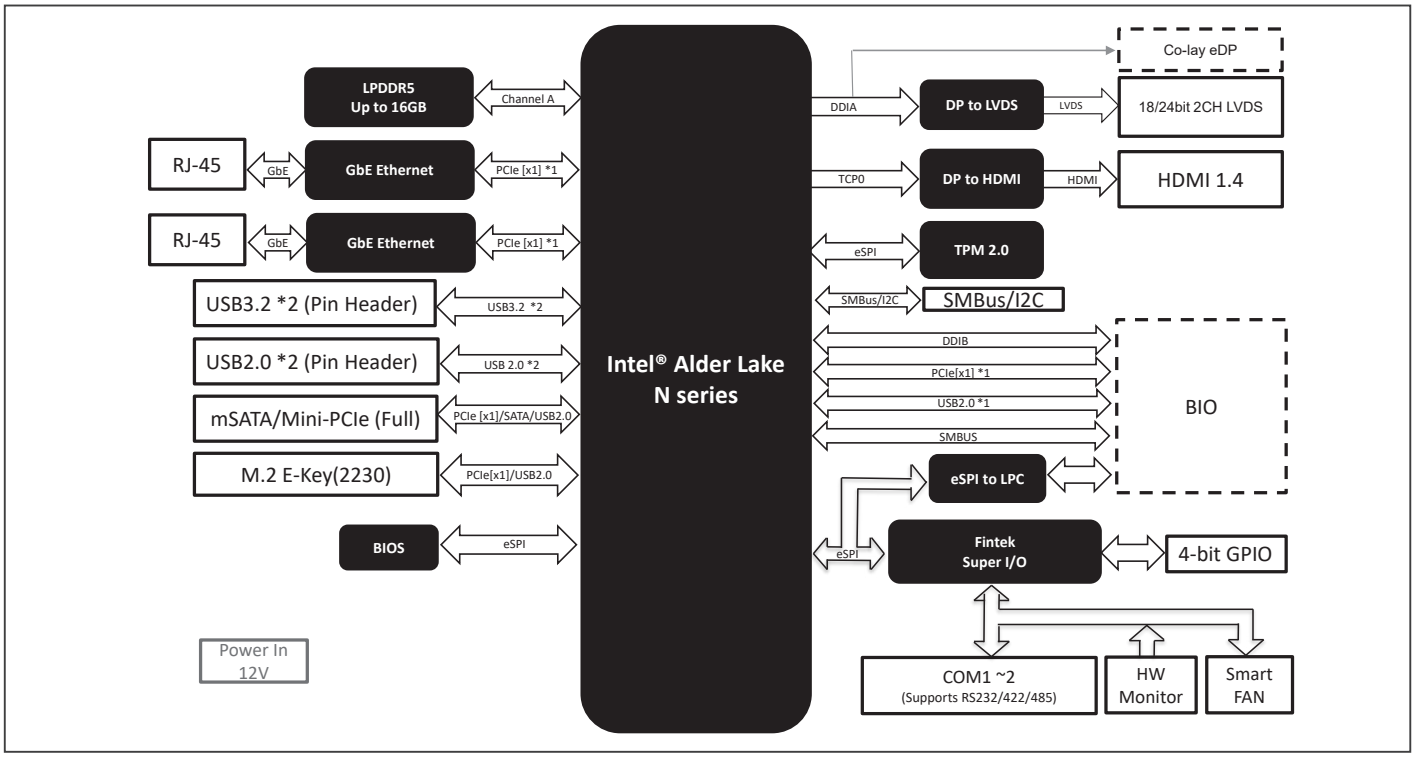
Audio	
Codec	—
Audio Interface	—
Speaker	—
External I/O	
Ethernet	8-Pin Header for 1GbE x 2, (Intel® Ethernet Controller I226-IT x 1, Realtek RTL8111H-CG x 1)
USB	—
Serial Port	—
Video	HDMI 1.4 x 1
Internal I/O	
USB	USB 3.2 Gen 1 Pin Header x 2 USB 2.0 x 2
Serial Port	COM 1, COM 2 (RS-232/422/485, supports 5V/12V/RI, by BOM)
Video	LVDS / eDP x 1 (Default: LVDS) Backlight Voltage Control (5/12V @2.5A)
SATA	—
Audio	—
DIO/GPIO	GPIO 4-bit
SMBus/I2C	I2C/SMBus (Default: SMBus)
Fan	4pins Smart Fan x 1
Front Panel	HDD LED, PWR LED, Power Button, Buzzer, Reset
Others	—
Expansion	
Mini PCIe/mSATA	Full-size mSATA/mPCIe x 1 (default: mSATA, select with BIOS)
M.2	M.2 2230 E-Key x 1 (PCIe 3.0 [x1] + USB 2.0)
Others	BIO (Optional, PCIe [x1] x 1, USB2.0, SMBUS, DDI, LPC)
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)	1,636,770
EMC	CE/FCC Class A

Packing List

- **PICO-ADN2**

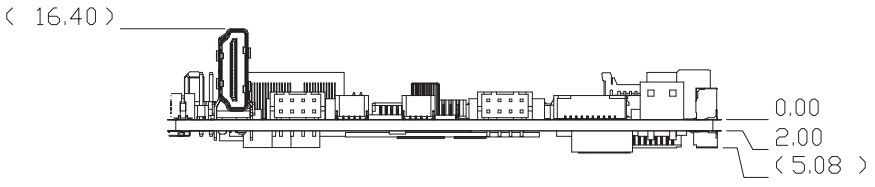
Note: All specifications are subject to change without notice.

Block Diagram



Dimension

Unit: mm



Ordering Information

Part number	CPU	Memory	Display	Storage	LAN	USB	COM	Expansion slot	Power	Operating Temp	Audio	Others
PICO-ADN2-A10-0001	Intel® Processor N97	LPDDR5x 8GB	HDMI x 1 LVDS x 1	—	GbE x 2	USB 2.0 x 2 USB3.2 Gen 1 x 2	RS232/422/485 x 2	M.2 2230 E-key x 1 miniCard (Full) x 1	+12V	-20°C ~ 70°C	—	SMBus x 1, TPM2.0, GPIO
PICO-ADN2-A10-0002	Intel® Core™ i3-N305	LPDDR5x 16GB	HDMI x 1 LVDS x 1	—	GbE x 2	USB 2.0 x 2 USB3.2 Gen 1 x 2	RS232/422/485 x 2	M.2 2230 E-key x 1 miniCard (Full) x 1	+12V	-20°C ~ 70°C	—	SMBus x 1, TPM2.0, GPIO

Optional Accessories

Part Number	Description	Qty.
170X000609	12V Power Input Header, 10cm	1
170X000231	COM Port 1/Port 2 Header, 30cm	1
170X000285	USB 3.2 Gen 1 Header (2-Port), 12cm	1
170X000767	LAN Port Header, 10cm	1
170X000634	LAN Port LED Header, 10cm	1
170X000880	USB 2.0 Port Header, 20cm	1
PICO-ADN4-HSP01	Heat Spreader.AL.100*72*6.8mm	1
PICO-ADN4-HSK01	Heat Sink.100*72*15.5mm.Silver.To be used with HSP	1