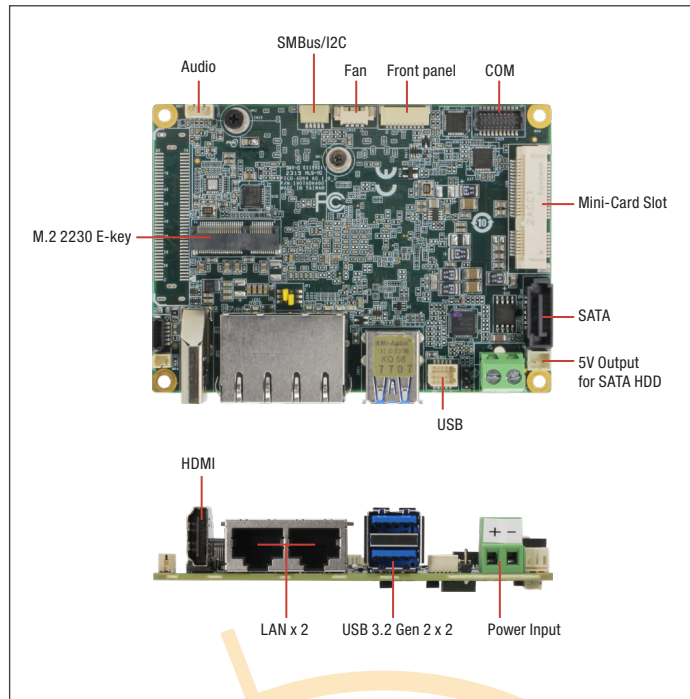


PICO-ADN4

Intel Atom® x7000E Series, N-series, Core™ i3-N305 Processor (formerly Alder Lake N)



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 N50 (2C/2T, 1.00 GHz, 6W) Intel® Processor N97 (4C/4T, 2.00 GHz, 12W) Intel® Core™ i3-N305 (8C/8T, 1.80 GHz, 15W) Intel Atom® x7425E (4C/4T, 1.50 GHz, 12W)
Chipset	Integrated with Intel® SoC
Memory Type	Onboard LPDDR5, Single Channel (Max. 16GB)
BIOS	UEFI
Wake on LAN	Yes
Watchdog Timer	255 Levels
Security	TPM 2.0
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
Power Supply Type	AT/ATX
Connector	2-pin Phoenix Connector (Default) Lockable DC Jack Connector (Optional)
Power Consumption	Intel® Core™ i3-N305, LPDDR5 16GB x1, 2.97A@ +12V (TYPICAL) Intel® Core™ i3-N305, LPDDR5 16GB x1, 4.46A@ +12V (MAX)
Display	
Controller	Intel® UHD Graphics
LVDS/eDP	LVDS x 1 (18/24bit 2CH) 1920 x 1200 @60Hz eDP 1.4 x 1, 7680 x 4320 (Optional)
Display Interface	HDMI 1.4 x 1, 3840 x 2160 @30Hz DDI (Via BIO, Optional)
Multiple Display	Up to 3 Simultaneous Displays
Audio	
Codec	Realtek ALC256 (Optional)
Audio Interface	Line-Out (Audio function not available for WITAS SKU)
Speaker	—
External I/O	
Ethernet	Intel® I226 2.5GbE, RJ-45 x 1 Realtek RTL8111H-CG, 1GbE, RJ-45 x 1
USB	USB 3.2 Gen2 x 2

Features

- Onboard LPDDR5 4800, Single Channel (Max.16GB)
- HDMI1.4 x 1, eDP1.4/LVDS x 1
- Intel® i226v 2.5GbE, RJ-45 x 1
- REALTEK.RTL8111H-CG 1GbE, RJ-45 x 1
- Full-Size mSATA/mPCIe x 1, M.2 2230 E-key x1
- USB 3.2 Gen2 x 2, USB2.0 x 2, RS-232/422/485 x 2
- TPM2.0, SATA 6.0Gbps x 1, GPIO 4-bit, SMBUS/I2C x 1
- BIO support (Optional), Audio: Line out (Optional)
- DC 9~36V input (Optional, support by power adapter card)



Serial Port	—
Video	HDMI 1.4 x 1
Internal I/O	
USB	USB 2.0 x 2
Serial Port	COM 1~2 (RS-232/422/485, supports 5V/12V/RI)
Video	LVDS/eDP x 1 (Default: LVDS) Inverter x 1 (12V/2A)
SATA	SATA 6Gb/s x 1 +5V SATA Power Connector x 1
Audio	Line-out header x 1 (Optional, audio function not available for WITAS SKU)
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-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, need customized BIOS, USB2.0, SMBUS, DDI, LPC, PCIe [x1] x 1)
Environment & Certification	
Operating Temp	-4°F ~ 158°F (-20°C ~ 70°C) WITAS 2: -40°F ~ 185°F (-40°C ~ 85°C)
Storage Temp	-40°F ~ 185°F (-40°C ~ 85°C)
Operating Humidity	0% ~ 90% relative humidity, non-condensing
MTBF (Hours)	1,087,822
EMC	CE/FCC Class A

Packing List

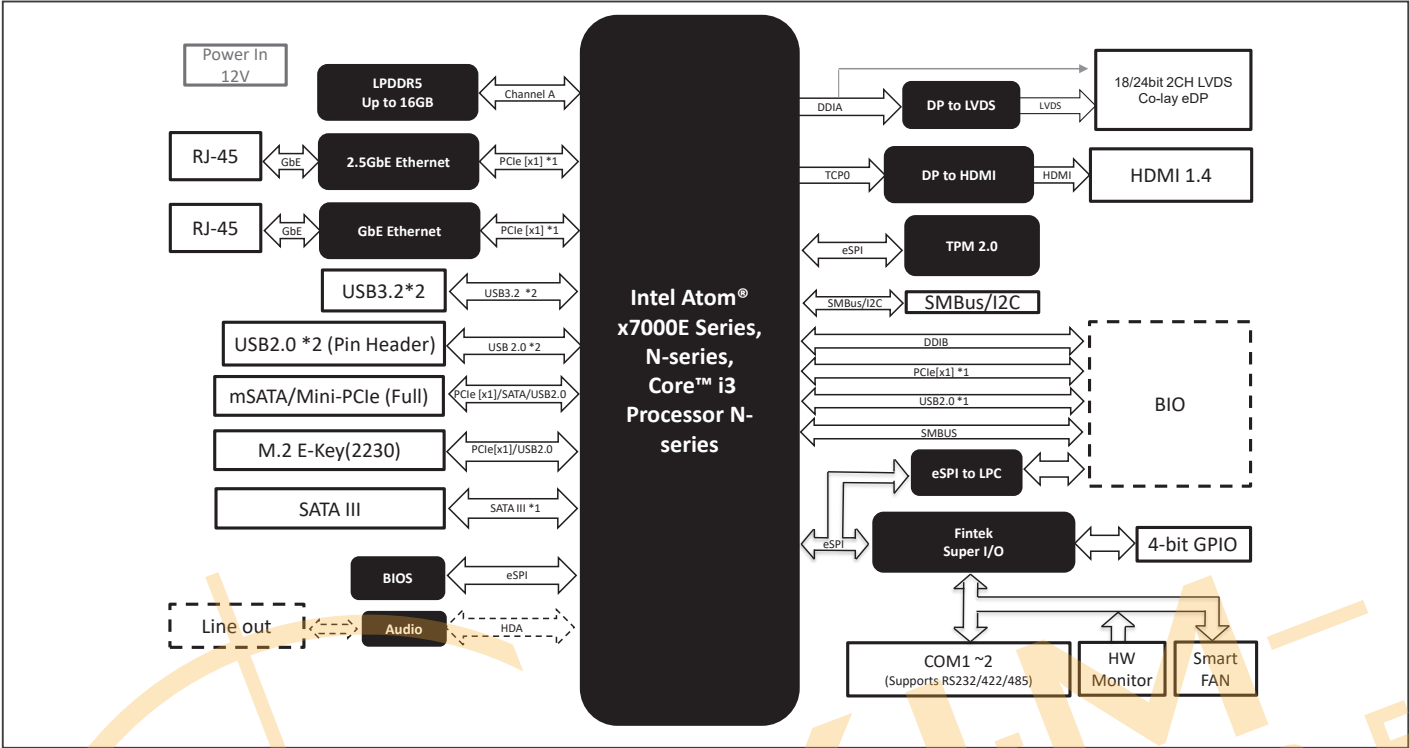
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Optional Accessories

Part Number	Description	Qty.
170X000287	Front Panel cable.10cm	1
170X000231	Dual COM cable.30cm	1
170010010D	Dual USB2.0 cable.10cm	1
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-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
PICO-ADN4-FAN01	Cooler.100*72*20.3mm.for PICO-ADN4	1
PER-P30D-A10-0001	120W, DC-DC Converter, 9~36V input, 12V output, Rev A1.0, 30 x 72mm	1

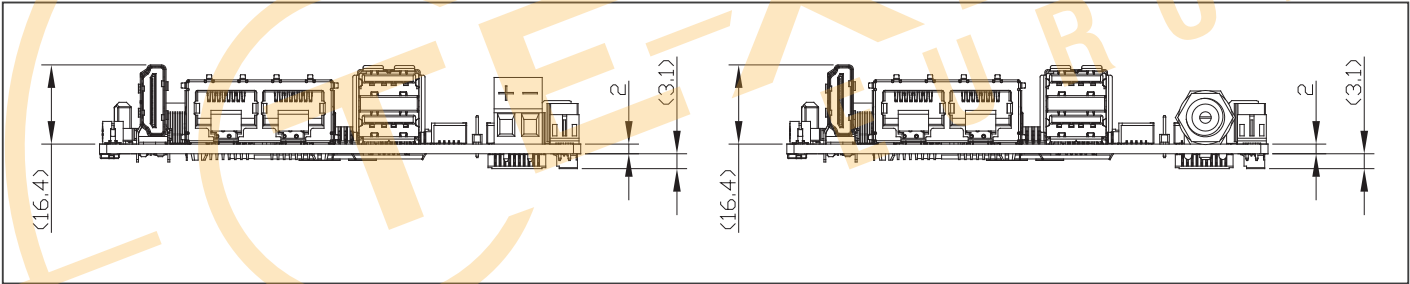


Block Diagram



Dimension

Unit: mm



Ordering Information

Part number	CPU	Memory	Display	Storage	LAN	USB	COM	Expansion slot	Power	Operating Temp	Audio	Others
PICO-ADN4-A10-0001	Intel® Processor N50	LPDDR5 8GB	HDMI x1 LVDS x1	SATA 6Gb/s x1	GbE x1 2.5GbE x1	USB 2.0 x2 USB3.2 Gen 2 x2	2	M.2 2230 E-key x1 miniCard (Full) x1	+12V (Terminal block)	-20°C ~ 70°C	—	GPIO, SMBUS, TPM
PICO-ADN4-A10-0002	Intel® Processor N97	LPDDR5 8GB	HDMI x1 LVDS x1	SATA 6Gb/s x1	GbE x1 2.5GbE x1	USB 2.0 x2 USB3.2 Gen 2 x2	2	M.2 2230 E-key x1 miniCard (Full) x1	+12V (Terminal block)	-20°C ~ 70°C	—	GPIO, SMBUS, TPM
PICO-ADN4-A10-0003	Intel Atom® x7425E	LPDDR5 8GB	HDMI x1 LVDS x1	SATA 6Gb/s x1	GbE x1 2.5GbE x1	USB 2.0 x2 USB3.2 Gen 2 x2	2	M.2 2230 E-key x1 miniCard (Full) x1	+12V (Terminal block)	-20°C ~ 70°C	—	GPIO, SMBUS, TPM
PICO-ADN4-A10-0004	Intel® Core™ i3-N305	LPDDR5 16GB	HDMI x1 LVDS x1	SATA 6Gb/s x1	GbE x1 2.5GbE x1	USB 2.0 x2 USB3.2 Gen 2 x2	2	M.2 2230 E-key x1 miniCard (Full) x1	+12V (Terminal block)	-20°C ~ 70°C	—	GPIO, SMBUS, TPM
PICO-ADN4W2-A10-0002	Intel® Processor N97	LPDDR5 8GB	HDMI x1 LVDS x1	SATA 6Gb/s x1	GbE x1 2.5GbE x1	USB 2.0 x2 USB3.2 Gen 2 x2	2	M.2 2230 E-key x1 miniCard (Full) x1	+12V (Terminal block)	-40~85°C	—	GPIO, SMBUS, TPM

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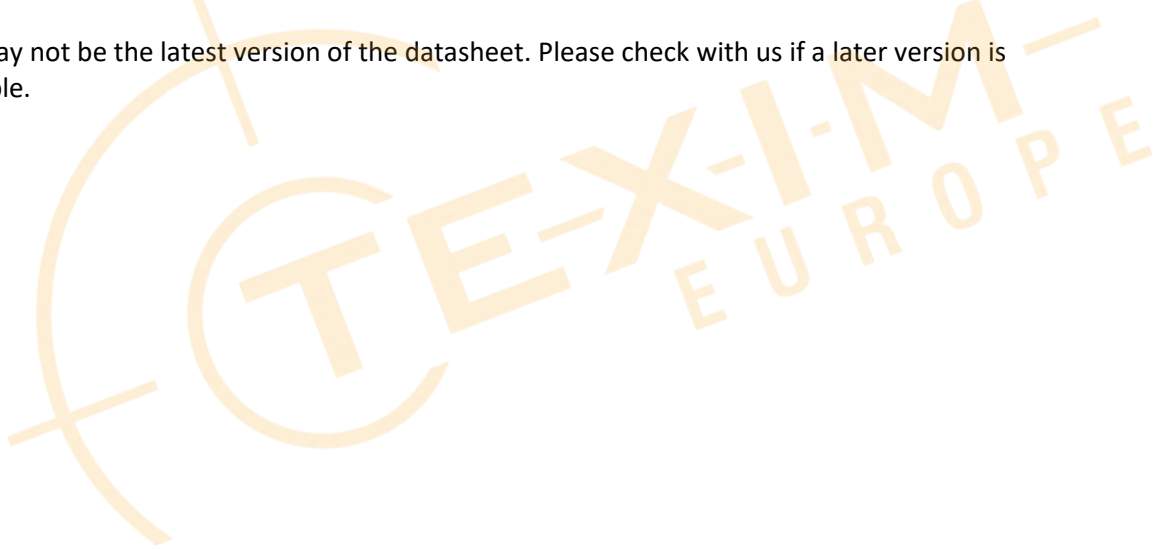
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Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary over time.

All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts.

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