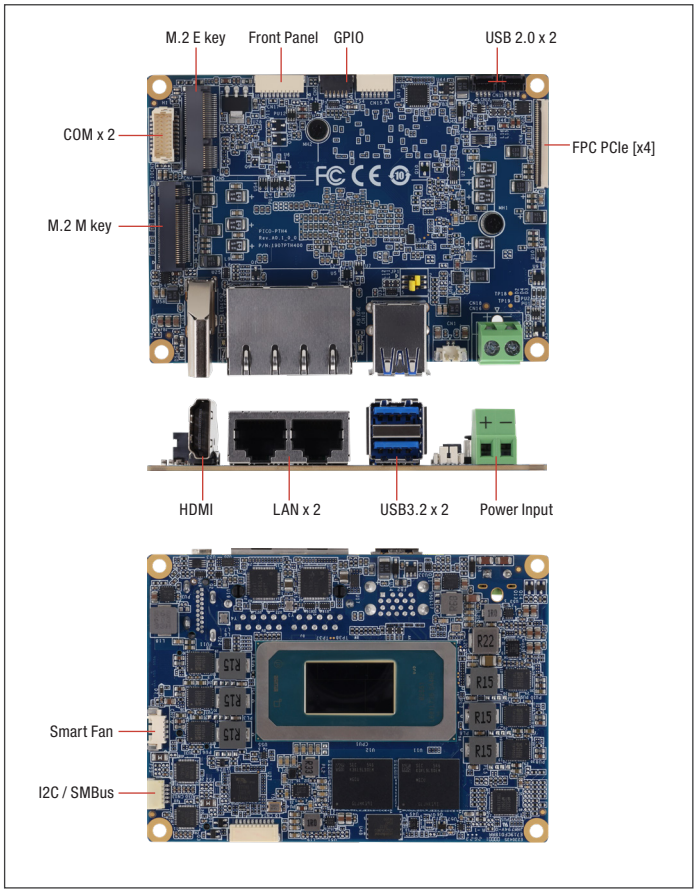
PICO-PTH4

Pico-ITX Board with Intel® Core™ Ultra Series 3 processors



Features

- **Intel® Core™ Ultra Series 3 Processors, up to 25W**
- **Onboard LPDDR5 7467 MHz x 2, up to 32GB**
- **HDMI x 1**
- **2.5GbE x 2, RS-232/422/485 x 2**
- **USB 3.2 Gen 2 x 2, USB 2.0 x 2**
- **M.2 2280 M-key x 1, M.2 2230 E-key x 1, FPC PCIe [x4] x1**
- **TPM, GPIO 4-bit, SMBus/I2C**

2.5GbE USB 2.0 USB 3.2 Gen 2

Specifications

System	
Form Factor	PICO-ITX
CPU	Intel® Core™ Ultra Series 3 processors Intel® Core™ Ultra X7 Processor 358H (16C/16T, up to 4.8 GHz, 25W) Intel® Core™ Ultra 7 Processor 355 (8C/8T, up to 4.7 GHz, 25W) Intel® Core™ Ultra 5 Processor 338H (12C/12T, up to 4.7 GHz, 25W) Intel® Core™ Ultra 5 Processor 325 (8C/8T, up to 4.5 GHz, 25W)
Chipset	Integrated with Intel® SoC
Memory Type	LPDDR5X 7467, Single Channel x 2, Max 32GB (Non ECC)
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	Windows 11 (64-bit)
OS Support	Ubuntu 26.04 kernel 7.0.0-14 generic
Power	
Power Requirement	12V Only
Power Supply Type	AT/ATX (Default : AT)
Connector	Phoenix 2-pin Connector (Default) Lockable DC Jack Connector (colay)
Power Consumption	Intel® Core™ Ultra X7 Processor 358H, LPDDR5 32GB, 4.56A @+12V (Typical) Intel® Core™ Ultra X7 Processor 358H, LPDDR5 32GB, 6.65A @+12V (Max)
Display	
Controller	Intel® Graphics
LVDS/eDP	—
Display Interface	HDMI 2.1 x 1, up to 3840 x 2160 @60Hz
Multiple Display	1 Display
Audio	
Codec	—
Audio Interface	—
Speaker	—

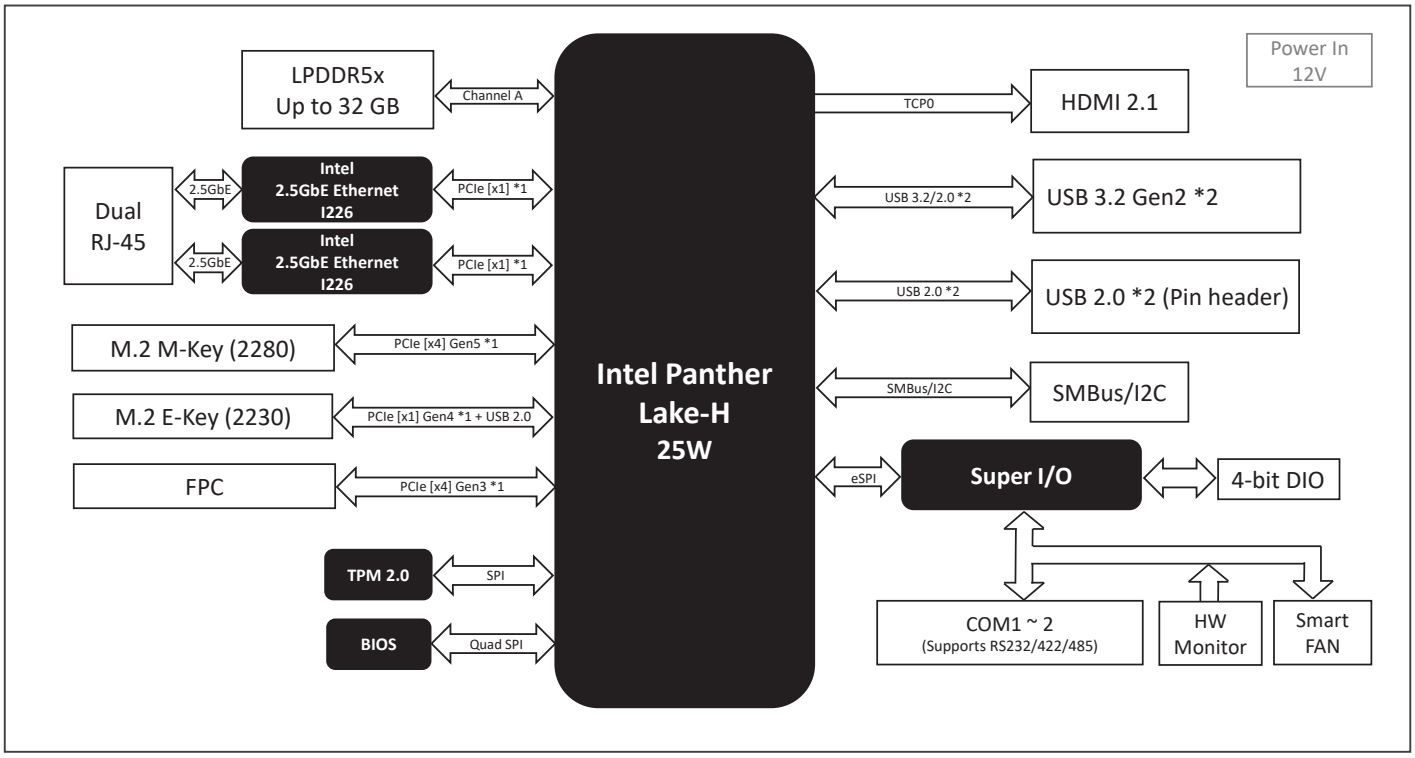
External I/O	
Ethernet	Intel® Ethernet Controller I226, 2.5GbE RJ-45 x 2 (PXE Support x 1)
USB	USB 3.2 Gen 2 x 2
Serial Port	—
Video	HDMI 2.1 x 1
Internal I/O	
USB	USB 2.0 x 2
Serial Port	COM 1, COM 2 (RS-232/422/485, support 5V/12V/RI, change by BOM)
Video	—
SATA	—
Audio	—
DIO/GPIO	GPIO 4-bit
SMBus/I2C	SMBus/I2C/Timed GPIO (Default: SMBus, change by BOM)
Fan	4-pin smart fan
Front Panel	Power Button, Reset Button, Power LED, SSD LED, Buzzer
Others	—
Expansion	
Mini PCIe/mSATA	M.2 2280 M-Key x 1 (PCIe 5.0 [x4])
M.2	M.2 2230 E-Key x 1 (PCIe 4.0 [x1] + USB 2.0)
Others	FPC PCIe 3.0 [x4] x1
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)	1,300,259
EMC	CE/FCC Class A

Packing List

- **PICO-PTH4**

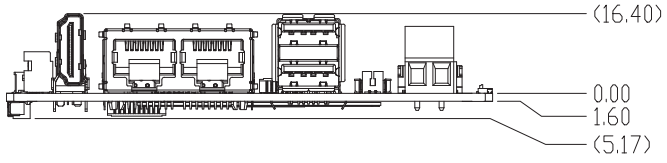
Note: All specifications are subject to change without notice.

Block Diagram



Dimension

Unit: mm



Ordering Information

PART NUMBER	CPU	Memory	Display	Storage	LAN	USB	COM Port	Expansion	TPM	Power	Operating Temperature	Others
PICO-PTH4-A10-0001	Intel® Core™ Ultra 5 Processor 325	LPDDR5X 16GB (Non ECC)	HDMI x 1	—	2.5 GbE x 2	USB3.2 Gen2 x 2 , USB2.0 x 2	COM RS232/422/485 x 2	M.2 2280 M key x 1 M.2 2230 E key x 1 FPC PCIe [x4] x 1	TPM2.0	DC 12V Only	-20°C ~ 70°C	GPIO 4 bits, SMBus x 1
PICO-PTH4-A10-0002	Intel® Core™ Ultra 7 Processor 355	LPDDR5X 16GB (Non ECC)	HDMI x 1	—	2.5 GbE x 2	USB3.2 Gen2 x 2 , USB2.0 x 2	COM RS232/422/485 x 2	M.2 2280 M key x 1 M.2 2230 E key x 1 FPC PCIe [x4] x 1	TPM2.0	DC 12V Only	-20°C ~ 70°C	GPIO 4 bits, SMBus x 1
PICO-PTH4-A10-0003	Intel® Core™ Ultra X7 Processor 358H	LPDDR5X 32GB (Non ECC)	HDMI x 1	—	2.5 GbE x 2	USB3.2 Gen2 x 2 , USB2.0 x 2	COM RS232/422/485 x 2	M.2 2280 M key x 1 M.2 2230 E key x 1 FPC PCIe [x4] x 1	TPM2.0	DC 12V Only	-20°C ~ 70°C	GPIO 4 bits, SMBus x 1

Optional Accessories

Part Number	Description	Qty.
170X000603	Front Panel cable.10cm	1
170X001387	Dual COM Port cable, 15cm	1
170X000880	USB 2.0 Cable.20cm	1
PICO-PTH4-FAN01	Cooler.100*72*20.5mm.5200rpm.for PICO-PTH4	1
PER-R41P-A02-0002	PCIe[x4] Adapter Kit w/FPC Cable	1