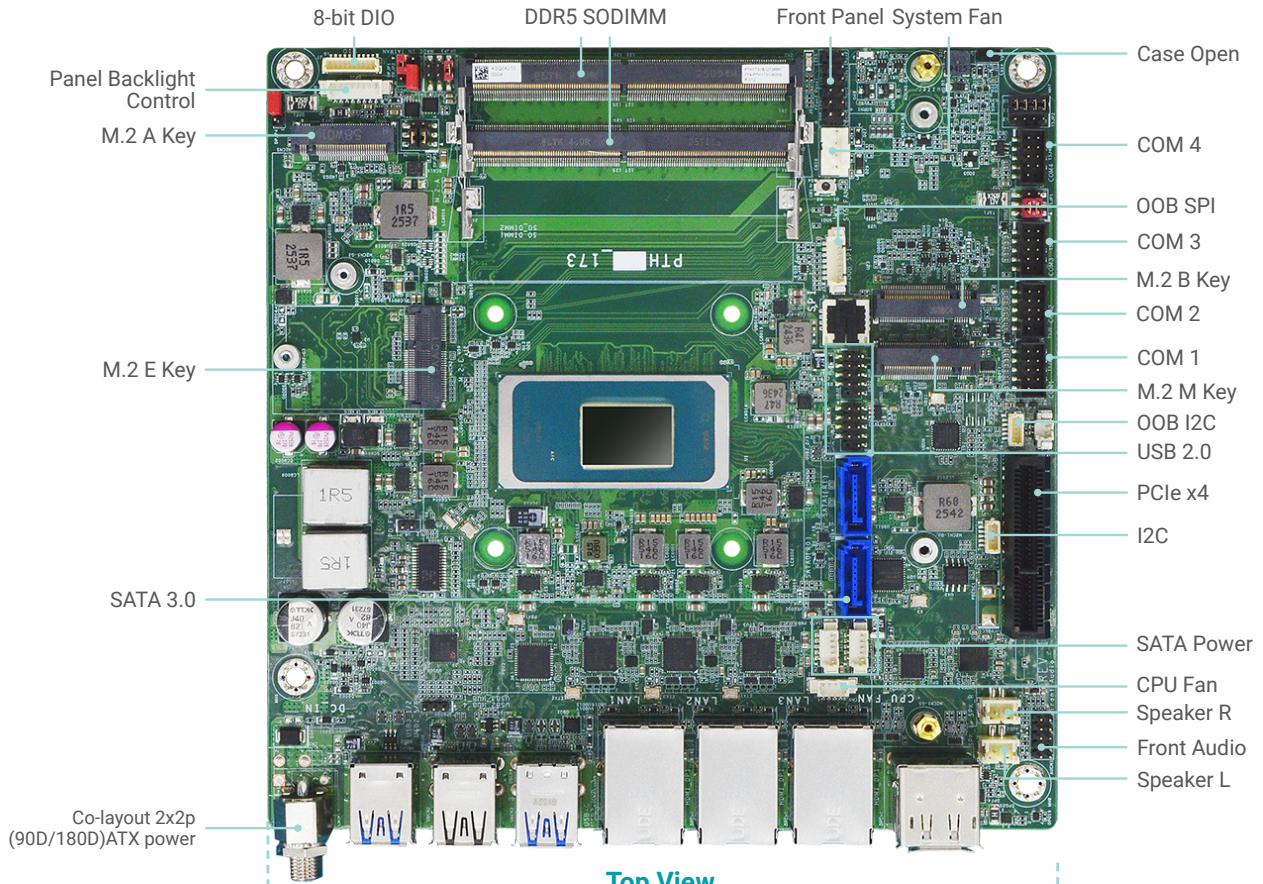
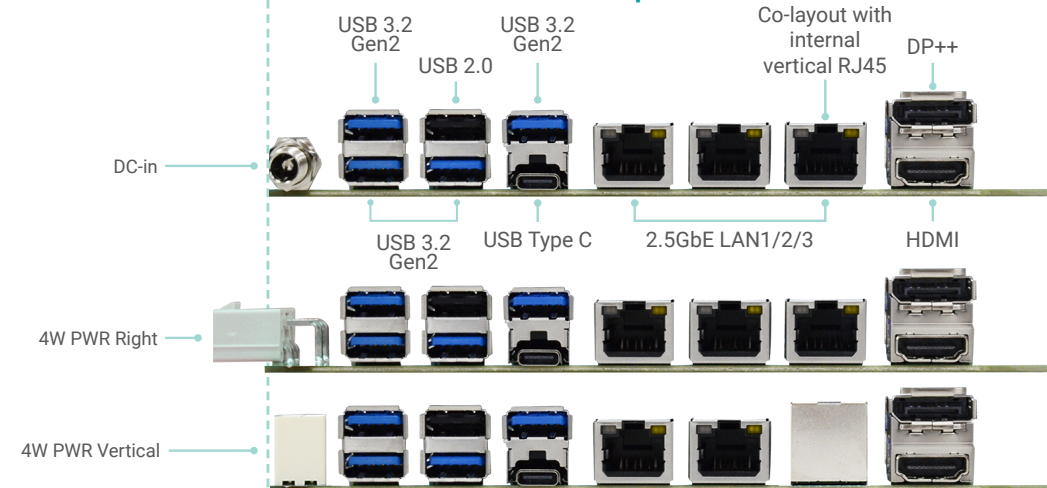


PTH171/PTH173

Inter Panther Lake H
Mini-ITX



Top View



KEY FEATURES



DDR5

2 DDR5 6400/7200MHz SODIMM up to 128GB



4K High Resolution

Supports 4K/ 2K resolution



Quad Displays

HDMI, DP, USB Type C (DP alt-mode/USB3.2 Gen2 /PD 15W), M2A-Display (optional)



Multiple Expansion

1 PCIe Gen5 x4, 1 M.2 M Key, 1 M.2 B Key, 1 M.2 E Key, 1 M.2 A Key



Rich I/O

Up to 3 2.5GbE LAN, 4 USB 3.2, 1 USB Type C, 5 USB 2.0, 2 SATA 3.0, 4 COM

SPECIFICATION

| Model Name | | PTH171 | PTH173 |
|----------------|-------------------|--|---|
| SYSTEM | Processor | Inter Panther Lake H processor, TDP up to 25W Intel® Core™ Ultra 9 388HRE (H484-12XeCT, vPro) Intel® Core™ Ultra 7 366HRE (H484-4XeET, vPro) Intel® Core™ Ultra 5 336HRE (444-4XeET, vPro) Intel® Core™ Ultra 7 365RE (404-4XeET, vPro) Intel® Core™ Ultra 5 335RE (404-4XeET, vPro) | |
| | Memory | 2x 262-pin SODIMM up to 128GB Dual-channel SODIMM DDR5 up to 6400 MHz (H404)/7200 MHz (H484) | 2x 262-pin SODIMM up to 128GB Dual-channel SODIMM DDR5 up to 6400 MHz (H404)/7200 MHz (H484) |
| | BIOS | AMI SPI 256Mbit | |
| GRAPHICS | Controller | Intel® Arc Xe3 | |
| | Display | 1 x HDMI 1 x DP++ HDMI: resolution up to 4096x2160 @60Hz DP: resolution up to 4096x2304 @60Hz USB Type C (DP alt-mode/USB3.2 Gen2/PD 15W): resolution up to 4096x2304 @60Hz (HBR2) | 1 x HDMI 1 x DP++ HDMI: resolution up to 4096x2160 @60Hz DP: resolution up to 4096x2304 @60Hz USB Type C (DP alt-mode/USB3.2 Gen2/PD 15W): resolution up to 4096x2304 @60Hz (HBR2) |
| | Quad Displays | HDMI + DP + USB Type C (DP alt-mode/USB3.2 Gen2/PD 15W) + M2A-Display (optional) | HDMI + DP + USB Type C (DP alt-mode/USB3.2 Gen2/PD 15W) + M2A-Display (optional) |
| EXPANSION | Interface | 1 x PCIe Gen 5 x4 slot | 1 x PCIe Gen 5 x4 slot |
| | | 1 x M.2 2242/2280 M Key (PCIe Gen4x4, SATA3 opt. selected by BIOS, support NVMe) | 1 x M.2 2242/2280 M Key (PCIe Gen4x4, SATA3 opt. selected by BIOS, support NVMe) |
| | | 1 x M.2 2242/3042/3052 B Key (PCIe Gen4x1 shared with M.2 A key by request, USB3.2 Gen2, USB2.0, SIM) | 1 x M.2 2242/3042/3052 B Key (PCIe Gen4x1 shared with M.2 A key by request, USB3.2 Gen2, USB2.0, SIM) |
| | | 1 x M.2 2230 E Key (PCIe Gen4x1 and USB2.0, support Intel® CNVi,WIFI7) | 1 x M.2 2230 E Key (PCIe Gen4x1 and USB2.0, support Intel® CNVi,WIFI7) |
| | | 1 x M.2 3042/3060 A Key (Standoff 3030) Support M2A Display solution (eDP/LVDS/VGA/DP/HDMI or DVI via optional cable) Support M2A-M21 expansion solution (PCIEx1,USB3/USB2,SIM) | 1 x M.2 3042/3060 A Key (Standoff 3030) Support M2A Display solution (eDP/LVDS/VGA/DP/HDMI or DVI via optional cable) Support M2A-M21 expansion solution (PCIEx1,USB3/USB2,SIM) |
| AUDIO | Audio Codec | Realtek ALC888S | |
| ETHERNET | Controller | LAN1/2: i226V/IT (10/100/1000/2.5G speeds) LAN3(vPro): i226LM/IT (10/100/1000/2.5G speeds) | |
| REAR I/O | Ethernet | Up to 3 x 2.5GHz RJ45 (LAN 3 colayout with internal vertical RJ45 by option) | |
| | USB | 4 x USB 3.2 Gen2 Type A 1 x USB 2.0 Type A 1 x USB 3.2 Gen 2 Type C (DP alt-mode/USB3.2 Gen 2/PD 15W) | |
| | Display | 1 x HDMI 2.0 1 x DP++ | |
| INTERNAL I/O | Serial | 2 x RS-232/422/485 (2.0mm pitch) 1 x RS-232 with power (2.0mm pitch) 1 x RS-232 (2.0mm pitch) colay with DIO-4bit or PS/2 (Option) | |
| | USB | 4 x USB 2.0 (2.0mm pitch) 1 x M.2 A key with M2A-M21 supports up to 2 USB3 Gen1 and 4 USB2.0 (Option) | |
| | Display | 1 x M.2 A key, support M2A-Display (eDP / LVDS / VGA / DP / HDMI or DVI via optional cable) | |
| | Audio | 1 x Line-out/Mic-in 2 x 3W speaker header (L/R) | |
| | SATA | 2 x SATA 3.0 H484 RAID 0,1,5 supported by Intel VMD H404 RAID 0,1 (shared with M.2 M key) | |
| | DIO | 1 x 8-bit DIO | |
| | Case open | 1 x case open header | |
| | SMBus | 1 x SMBus | |
| WATCHDOG TIMER | Output & Interval | System Reset, Programmable via Software from 1 to 255 Seconds | |
| SECURITY | TPM | dTPM (default) fTPM (option) | |
| POWER | Type | Single 12VDC | |
| | Connector | DC-in Jack Right Angle Connector (4-pin) (Option) Straightl Type Connector (4-pin) (Option) | |
| | Consumption | Idle: TBD Max: TBD | |
| | RTC Battery | CR2032 Coin Cell | |

SPECIFICATION

| Model Name | | PTH171 | PTH173 |
|-----------------------------|----------------|--|--|
| OS SUPPORT | Microsoft | Windows 11 24H2 LTSC 64-bit | Windows 11 24H2 LTSC 64-bit |
| | Linux | Ubuntu 24.04 | Ubuntu 24.04 |
| ENVIRONMENT | Temperature | Operating: -5 to 65°C, -20 to 70°C Storage: -40 to 85°C | Operating: -5 to 65°C, -20 to 70°C Storage: -40 to 85°C |
| | Humidity | Operating: 5 to 95% RH Storage: 5 to 95% RH | Operating: 5 to 95% RH Storage: 5 to 95% RH |
| ENVIRONMENT | MTBF | TBD | TBD |
| MECHANISM | Dimensions | Mini-ITX Form Factor 170mm (6.7") x 170mm (6.7") | Mini-ITX Form Factor 170mm (6.7") x 170mm (6.7") |
| | Height | PCB: TBDmm Top Side: TBDmm Bottom Side: TBDmm | PCB: TBDmm Top Side: TBDmm Bottom Side: TBDmm |
| STANDARDS AND CERTIFICATION | Certifications | CE, FCC, RoHS, UKCA | CE, FCC, RoHS, UKCA |

PACKING LIST

| | |
|---|-----------------|
| • 1 PTH171/PTH173 motherboard | |
| • 1 COM port cable with bracket (Length: 250mm, 1 x COM ports) | A81-015115-018G |
| • 1 Serial ATA data with power cable (Length: 300mm) | A81-002144-018G |
| • 4 M.2 screw/standoff | |
| • 1 I/O Shield | |
| - (2 LAN, Regular type)(For Sample) | TBD |
| - (3 LAN, Regular type)(For Sample) | TBD |
| - (2 LAN, Thin type)(For Sample) | TBD |
| - (3 LAN, Thin type)(For Sample) | TBD |
| • 1 Cooler | |
| - (Wide/Normal Temp. -Cooler for 25W) | TBD (Default) |