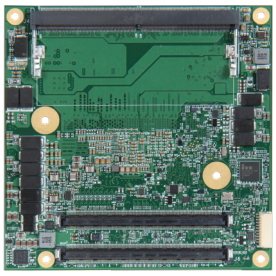
PCOM-B65B

Intel® PTL-H; 4P+8E+4LPE; 12Xe GPU (120 TOPS), NPU 5 (50 TOPS); 2x DDR5 SO-DIMM to 128GB IBECC; 12 PCIe Gen4 lanes; USB3.2, SATA, DDI, eDP/LVDS; MIPI-CSI





FEATURES

- Intel® New Gen Core ultra processor (Panther Lake-H) 15W~65W
- Up to 4 P-cores + 8 E-cores + 4 LPE cores Support up to 12Xe GPU (120Tops) and NPU 5 (50 Tops)
- 2x DDR5 SO-DIMM support IBECC, up to 128GB/7200 MT/s
- Support up to 12 PCIe Gen4 Lane
- 4x USB3.2 Gen2, 2x SATA, 3x DDI, eDP/LVDS Options for onboard PCIe NVMe SSD Support 1x MIPI-CSI connector on module

General

Product		PCOM-B65B							
Form Factor		COM Express Type 6 Compact Size (95 mm x 95 mm)							
Processor	CPU	Intel® Core Ultra X9 388H	Intel® Core Ultra X7 368H	Intel® Core Ultra X7 358H	Intel® Core Ultra 5 338H	Intel® Core Ultra 7 365RE	Intel® Core Ultra 7 365	Intel® Core Ultra 7 355	Intel® Core Ultra 5 325
	Core/Thread	16	16	16	12	8	8	8	8
	Based Frequency	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
	Turbo Frequency	5.1 GHz	5.0 GHz	4.8 GHz	4.8 GHz	4.8 GHz	4.8 GHz	4.7 GHz	4.5 GHz
	Cache	18 MB	18 MB	18 MB	18 MB	18 MB	18 MB	12 MB	12 MB
	TDP	25 W	25 W	25 W	25 W	25 W	25 W	25 W	25 W
	Graphics EU	12Xe	12Xe	12Xe	10Xe	4Xe	4Xe	4Xe	4Xe
	Graphics Max Freq.	2.5GHz	2.5GHz	2.5GHz	2.4GHz	TBD	2.6GHz	2.5GHz	2.45GHz
	Memory Type/Speed	2x DDR5 SO-DIMM up to 128GB 7200MT/s	2x DDR5 SO-DIMM up to 128GB 7200MT/s	2x DDR5 SO-DIMM up to 128GB 7200MT/s	2x DDR5 SO-DIMM up to 128GB 7200MT/s	2x DDR5 SO-DIMM up to 128GB 7200MT/s	2x DDR5 SO-DIMM up to 128GB 7200MT/s	2x DDR5 SO-DIMM up to 128GB 7200MT/s	2x DDR5 SO-DIMM up to 128GB 7200MT/s
	ECC Memory Support	IBECC	IBECC	IBECC	IBECC	IBECC	IBECC	IBECC	IBECC
	Temperature Range	0 ~ 60 °C (32.0 ~ 140.0 °F)	0 ~ 60 °C (32.0 ~ 140.0 °F)	0 ~ 60 °C (32.0 ~ 140.0 °F)	0 ~ 60 °C (32.0 ~ 140.0 °F)	-40 ~ 85 °C (-40.0 ~ 185.0 °F)	0 ~ 60 °C (32.0 ~ 140.0 °F)	0 ~ 60 °C (32.0 ~ 140.0 °F)	0 ~ 60 °C (32.0 ~ 140.0 °F)
BIOS		AMI uEFI BIOS							
ECC		Board							
Storage		PCIe(NVMe) up to 256GB							
Memory		2 x SO-DIMM DDR5 up to 128GB 7200 MT/s							

I/O Interface

SATA	2 x SATA III (Share w/ PCIe)
USB	4 x USB 3.2 Gen1 x2 8 x USB 2.0
Ethernet	1 x 2.5 Gbe LAN (Share w/ PCIe)
PCIe	1 x PCIe Gen4 x4 1 x PCIe Gen4 x1 (Share w/ SATA) 1 x PCIe Gen4 x1 (Share w/ LAN) 6 x PCIe Gen4 x1
Legacy I/O	8 x GPIO 2 x UART
Security	TPM 2.0
Display	eDP / LVDS eDP up to HBR3 3840 x 2160@120Hz eDP / LVDS LVDS (24bit, dual channel) 1920 x 1200@60Hz DDI 1/2/3 DP up to HBR3 3840 x 2160@120Hz DDI 1/2/3 HDMI® 2.1 DDI 1/2/3 USB4 40Gb

PCOM-B65B

MECHANICAL & ENVIRONMENT

Dimension	95 mm x 95 mm (3.74" x 3.74")
Operating Temperature	-40 ~ 85 °C (-40.0 ~ 185.0 °F)
Storage Temperature	-40 ~ 85 °C (-40.0 ~ 185.0 °F)
OS	Linux, Windows 11
Portwell Special Feature	PET

ORDERING GUIDE

Product	Ordering P/N	Status
PCOM-B65B-388H	TBD	Contact US
PCOM-B65B-368H	TBD	Contact US
PCOM-B65B-358H	TBD	Contact US
PCOM-B65B-338H	TBD	Contact US
PCOM-B65B-365RE	TBD	Contact US
PCOM-B65B-365	TBD	Contact US
PCOM-B65B-355	TBD	Contact US
PCOM-B65B-325	TBD	Contact US

Accessory	Ordering P/N	Status
Cooler (copper elastic pad)	TBD	Contact US

BLOCK DIAGRAM

