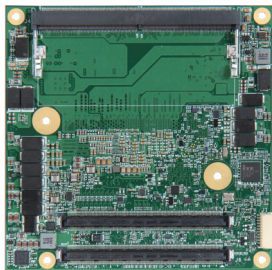
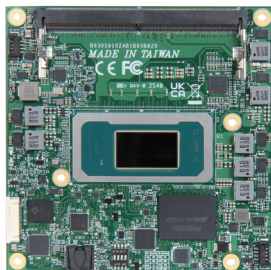


PCOM-B65B

COM Express Type VI Compact Size Module based on Intel® Core™ Ultra Processors (Series 3) with DDR5 SO-DIMM, DDI, PCIe Gen 4, USB 3.2 Gen 2, 2.5 GbE TSN Ethernet, discrete TPM 2.0, eDP, SATAIII

Preliminary



FEATURES

- Intel® Core™ Ultra Processors (Series 3) (formerly Panther Lake-H) 15W~65W
- Up to 4 P-cores + 8 E-cores + 4 LPE cores
- Supports up to 12Xe cores (120 TOPS) and NPU 5 (50 TOPS)
- 2x DDR5 SO-DIMM up to 128GB, 7200 MT/s with IBECC
- Supports up to 12 PCIe Gen4 lanes
- 4x USB 3.2 Gen 2, 2x SATA, 3x DDI, eDP/LVDS, options for onboard PCIe NVMe SSD, 1x MIPI-CSI connector on module
- Extended temperature SKU options

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		2x SO-DIMM DDR5 up to 128GB 7200 MT/s							

I/O Interface

SATA	2x SATA III (Shared w/ PCIe)
USB	4x USB 3.2 Gen1 x2 8x USB 2.0
Ethernet	1x 2.5 GbE LAN (Shared w/ PCIe)
PCIe	1x PCIe Gen4 x4 1x PCIe Gen4 x1 (Shared w/ SATA) 1x PCIe Gen4 x1 (Shared w/ LAN) 6x PCIe Gen4 x1
Legacy I/O	8x GPIO 2x 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

MECHANICAL & ENVIRONMENT

Dimension	95 mm x 95 mm (3.74" x 3.74")
Operating Temperature	-40 ~ 85 °C (-40 ~ 185 °F)
Storage Temperature	-40 ~ 85 °C (-40 ~ 185 °F)
OS	Linux, Windows 11
Portwell Special Feature	Portwell Engineering Toolkit (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

PCOM-B65B

