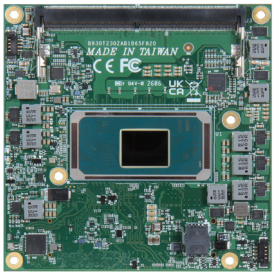
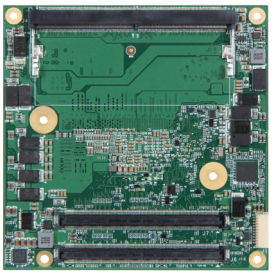
PCOM-B65F

Intel® New Gen Core™ ultra; 2x DDR5 SO-DIMM to 128GB IBECC; 20 PCIe Gen4 lanes; 4x USB 3.2 Gen2; 2x DDI, eDP





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 4Xe GPU (40Tops) and NPU 5 (50 Tops)
- 2x DDR5 SO-DIMM support IBECC, up to 128GB/7200 MT/s
- Support up to 20 PCIe Gen4 Lane
- 4x USB3.2 Gen2, 2x DDI, eDP

General

Model	PCOM-B65F			
Form Factor	COM Express Type 6 Compact Size (95 mm x 95 mm)			
CPU	Intel® Core Ultra X9 386H	Intel® Core Ultra X7 366H	Intel® Core Ultra X7 356H	Intel® Core Ultra 5 336H
Core/Thread	16	16	16	12
Based Frequency	2.1 GHz	2.0 GHz	1.9 GHz	1.9 GHz
Turbo Frequency	4.9 GHz	4.8 GHz	4.7 GHz	4.5 GHz
Cache	18 MB	18 MB	18 MB	18 MB
TDP	25 W	25 W	25 W	25 W
Graphics EU	4Xe	4Xe	4Xe	4Xe
Graphics Max Freq.	2.5GHz	2.5GHz	2.45GHz	2.3GHz
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
ECC Memory Support	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)
BIOS	AMI uEFI BIOS			
ECC	board			
Memory	2 x SO-DIMM DDR5 up to 128GB 7200 MT/s			

I/O Interface

USB	4 x USB 3.2 Gen2 8 x USB 2.0
Ethernet	1 x 2.5 Gbe LAN (Share w/ PCIe)
PCIe	1 x PCIe Gen5 x8 1 x PCIe Gen5 x4 7 x PCIe Gen4 x1
Legacy I/O	8 x GPIO 2 x UART
Security	TPM 2.0
Display	eDP up to HBR3 DDI 1/2 DP up to HBR3

PCOM-B65F

MECHANICAL & ENVIRONMENT

Dimension	95 x 95mm (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

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

ORDERING GUIDE

Product	Ordering P/N	Status
PCOM-B65F-386H	TBD	In Development
PCOM-B65F-366H	TBD	In Development
PCOM-B65F-356H	TBD	In Development
PCOM-B65F-336H	TBD	In Development

BLOCK DIAGRAM

