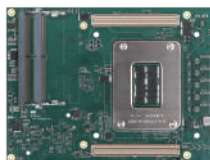


PCOM-B885

COM-HPC® Client Type Size C Module with 14th/13th Gen Intel® Core™ Processor Series with DDR5 SO-DIMM, DDI, PCIe Gen5, USB 3.2 Gen2x2, 2.5GbE featuring TSN, discrete TPM 2.0, eDP, SATA III



FEATURES

- 14th/13th Gen Intel® Core™ Processors, Intel® Pentium® Gold Processor Series and Intel® Celeron® Processor G6900 Series, featuring Intel® 7 lithography
- Up to 8x Performance-cores (P-cores) + 16x Efficient-cores (E-cores), and up to 32x graphics execution units
- 4x DDR5 ECC/non-ECC SO-DIMM up to 192GB capacities
- 1x PCIe Gen5 x16, 2x PCIe Gen4 x4, 3x PCIe Gen3 x4, 6x PCIe Gen3 x1
4x USB3.2 Gen2 x2, 2x SATA, 3x DDI, eDP



The Portwell PCOM-B885 is a COM-HPC Client Type Size C module based on the 14th/13th Gen Intel® Core™ Processors (formerly Raptor Lake-S Refresh/Raptor Lake-S) that features Intel® 7 lithography and VNNI (Vector Neural Network Instructions) offering advanced computing power with 35W~65W TDP. The PCOM-B885 COM-HPC module also supports the PCIe Gen5 x16 interface, and 4x ECC/non-ECC DDR5 SO-DIMM (memory capacity up to 192GB). In addition, it provides support for 2x PCIe Gen4 x4, 18x PCIe Gen3, 4x USB 3.2 Gen 2x2, 2x SATA III, and dual 2.5GbE interfaces. Featuring high computing performance as well as a complete set of flexible I/O capabilities, the Portwell PCOM-B885 COM-HPC Client Type Size C module is suitable for diverse embedded applications across the industry, ranging from AI edge computing to mission critical use cases.

CPU and General

CPU and General										
Product	PCOM-B885									
Form Factor	COM HPC Client, Size C (160 x 120mm)									
CPU SKU	TDP	Core (P+E)	Threads	Cache	Base Freq	Max Turbo Freq	Max Memory MT/s	ECC	vPro	PEG Bifurcation
i9-14900	65 W	8 + 16	32	36 MB	2.0 Ghz	5.8 Ghz	3600 (2DPC)	R680E	R680E Q670E	R680E Q670E
i9-14900T	35 W	8 + 16	32	36 MB	1.1 Ghz	5.5 Ghz				
i7-14700	65 W	8 + 12	28	33 MB	2.1 Ghz	5.4 Ghz				
i7-14700T	35 W	8 + 12	28	33 MB	1.3 Ghz	5.2 Ghz				
i5-14500	65 W	6 + 8	20	24 MB	2.6 Ghz	5.0 Ghz		N/A	N/A	
i5-14500T	35 W	6 + 8	20	24 MB	1.7 Ghz	4.8 Ghz				
i5-14400	65 W	6 + 4	16	20 MB	2.5 Ghz	4.7 Ghz				
i5-14400T	35 W	6 + 4	16	20 MB	1.5 Ghz	4.5 Ghz				
i3-14100	60 W	4 + 0	8	12 MB	3.5 Ghz	4.7 Ghz		R680E		
i3-14100T	35 W	4 + 0	8	12 MB	2.7 Ghz	4.4 Ghz				
Processor 300	46 W	2 + 0	4	6 MB	3.9 Ghz	3.9 Ghz				
Processor 300T	35 W	2 + 0	4	6 MB	3.4 Ghz	3.4 Ghz				

I/O Interface

I/O Interface			
SATA	2x SATA III		
USB	4x USB 3.2 Gen2 x2 8x USB 2.0		
Ethernet	2x Intel® I226 series		
Serial I/O	GPIO	12 bit GPIO (default 6 input/6 output)	
	I ² C	Baud Rate : 400KHz	
	SMBus	Baud Rate : 100KHz	
	UART	TX/RX signal only	
PCIe lane	1x PCIe Gen5 x16 (bifurcation 2 x8) 2x PCIe Gen4 x4 3x PCIe Gen3 x4 + 6x PCIe Gen3 x1		
Display	Module display interface	Carrier output options	Resolution
	eDP	eDP up to HBR3	3840 x 2160@120Hz
	DDI 0/1/2	DP up to HBR3	3840 x 2160@120Hz
		DP up to HBR3	3840 x 2160@120Hz
Security	TPM 2.0		

MECHANICAL & ENVIRONMENT

Dimension	160 x 120mm
Power DC IN	Normal: +12V DC AT/ATX mode
Storage Temperature	-40°C to 85°C
Operating Temperature	0°C to 60°C
Certification	Contact us
MTBF	TBD
Vibration	TBD
OS	Windows 10/11 Ubuntu

ORDERING GUIDE

Product	Ordering P/N	Status
PCOM-B885-R680E	AB1-3R22	Available
PCOM-B885-Q670E	In Process	In Development

Accessory	Ordering P/N	Status
Cooler 1U (95W)	B9972080	Available
Cooler 2U (125W)	B9972100	Available
Cooler Backplate	B723M670	Available
PCOM-C880 (ATX carrier board)	AB1-3L34Z	Available

BLOCK DIAGRAM

PCOM-B885

