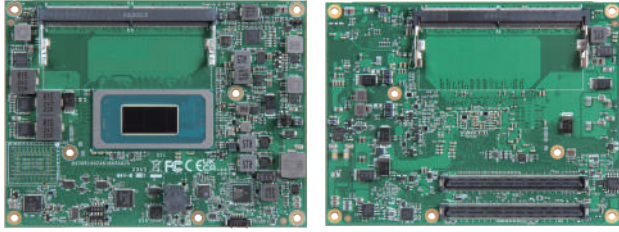


PCOM-B65A

COM Express Type6 Basic size module with Intel® New Gen Core Ultra Series Processor DDR5 SO-DIMM, DDI, PCIe Gen 4, USB 3.2 Gen2, 2.5 Gigabit TSN Ethernet, discrete TPM 2.0, eDP, SATA



FEATURES

- Intel® New Gen Core Ultra Series Processor (15w-28w)
- Up to 6x performance core + 8x efficient core + 2x low power efficient core, and up to 128x graphic execution units
- 2x DDR5-5600 non-ECC SO-DIMMs up to 96GB, 1x Gen4 x8(H series), 2x Gen4 x4, and 8x PCIe Gen4 x1
- 4x USB3.2 Gen2, 2x SATA, 3x DDI, VGA, eDP/LVDS
- Options for onboard PCIe NVMe SSD



PCOM-B65A is COM Express module based on new Intel® Core Ultra platform(code name: Meteor Lake). It is compatible with COM Express Rev3.1 standard. The platform adopt the new gen Intel 4 lithography and VNNI instruction set, offers advance computing power with 15~28W thermal and embedded use condition for wide range application. It also support new integrated NPU for dedicated AI acceleration with up to 20x performance/watt improvement. This platform features the integration of Arc Graphics for up to 50% AI performance compared to previous generations. This module provides (up to) 24x PCIe Gen4 lanes, 4x USB 3.2 Gen 2, and 2x SATA. The complete and flexible I/O capacity also mapped to wide range of embedded/industrial applications, which is suit for mission critical use conditions and AI edge computing.

General

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Model Name	PCOM-B65A							
Form Factor	COM Express Type6 Basic Size (125 X 95mm)							
CPU Series	Ultra 7 165H	Ultra 7 155H	Ultra 5 135H	Ultra 5 125H	Ultra 7 165U	Ultra 7 155U	Ultra 5 135U	Ultra 5 125U
Cores / Threads	6P+8E+ 2LPE/22T	6P+8E+ 2LPE/22T	4P+8E+ 2LPE/18T	4P+8E+ 2LPE/18T	2P+8E+ 2LPE/14T	2P+8E+ 2LPE/14T	2P+8E+ 2LPE/14T	2P+8E+ 2LPE/14T
Frequency	1.4 GHz	1.4 GHz	1.7 GHz	1.2 GHz	1.7 GHz	1.7 GHz	1.6 GHz	1.3 GHz
Turbo Frequency	5.0 GHz	4.8 GHz	4.6 GHz	4.5 GHz	4.9 GHz	4.8 GHz	4.4 GHz	4.3 GHz
Intel® Smart Cache	24 MB	24 MB	18 MB	18 MB	12 MB	12 MB	12 MB	12 MB
Intel® Gfx EU	128 EU	128 EU	128 EU	112 EU	64 EU	64 EU	64 EU	64 EU
Graphics Max Freq.	2.3 GHz	2.25 GHz	2.2 GHz	2.2 GHz	2.0 GHz	1.95 GHz	1.9 GHz	1.85 GHz
Processor TDP (Up / Nominal / Down)	65W / 28W / 20W				28W / 15W / 12W			
PCH	SoC							
Memory Type/Speed	DDR5 SO-DIMM up to 96GB 5600MT/s							
ECC Memory Support	Non-ECC SO-DIMM							

I/O Interface

SATA	2x SATA III(2x SATA share with PCIe lane)		
USB	2x USB4 (option) 4x USB 3.2 Gen2 8x USB 2.0		
Ethernet	Intel® I226 series		
Serial I/O	GPIO	8 bit GPIO (default 4 input/4 output)	
	I ² C	Baud Rate : 400KHz	
	SMBus	Baud Rate : 100KHz	
	UART	TX/RX signal only	
PCI Express	1x Gen4 x8 (only H series), 2x Gen4 x4 (all series) Up to 8x Gen4 x1 (2 lanes share with SATA)		
Display	Module display interface	Carrier output options	
	eDP / LVDS (default eDP)	eDP up to HBR3	3840 x 2160@120Hz
		LVDS (24bit, dual channel)	1920 x 1200@60Hz
	DDI 1/2/3	DP up to HBR3	3840 x 2160@120Hz
VGA		VGA	1920 x 1200@60Hz
Security	TPM 2.0		

