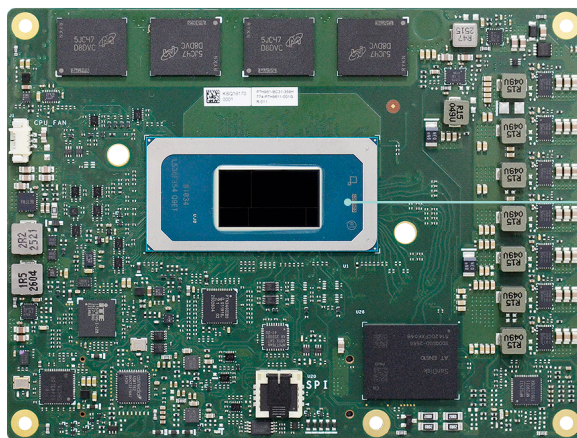
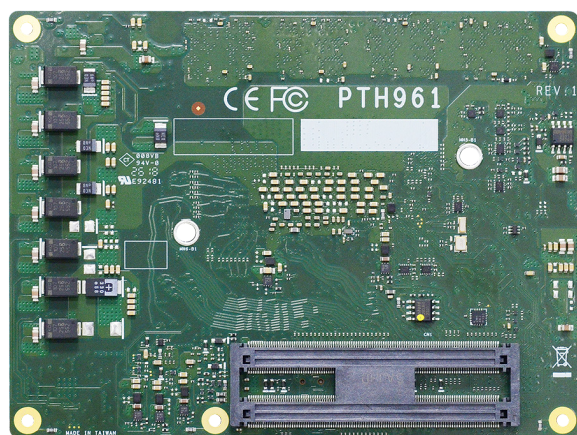


PTH961

Intel® Core™ Ultra Series 3 processors
COM Express® Basic



Intel® Core™ Ultra
Series 3 processors



KEY FEATURES



LPDDR5

UP to 64GB LPDDR5x-
8533 memory down



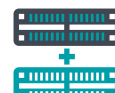
8K High Resolution

Supports 8K / 4K
resolution



Multiple Displays

3 DDI, 1 LVDS/ eDP



Multiple Expansion

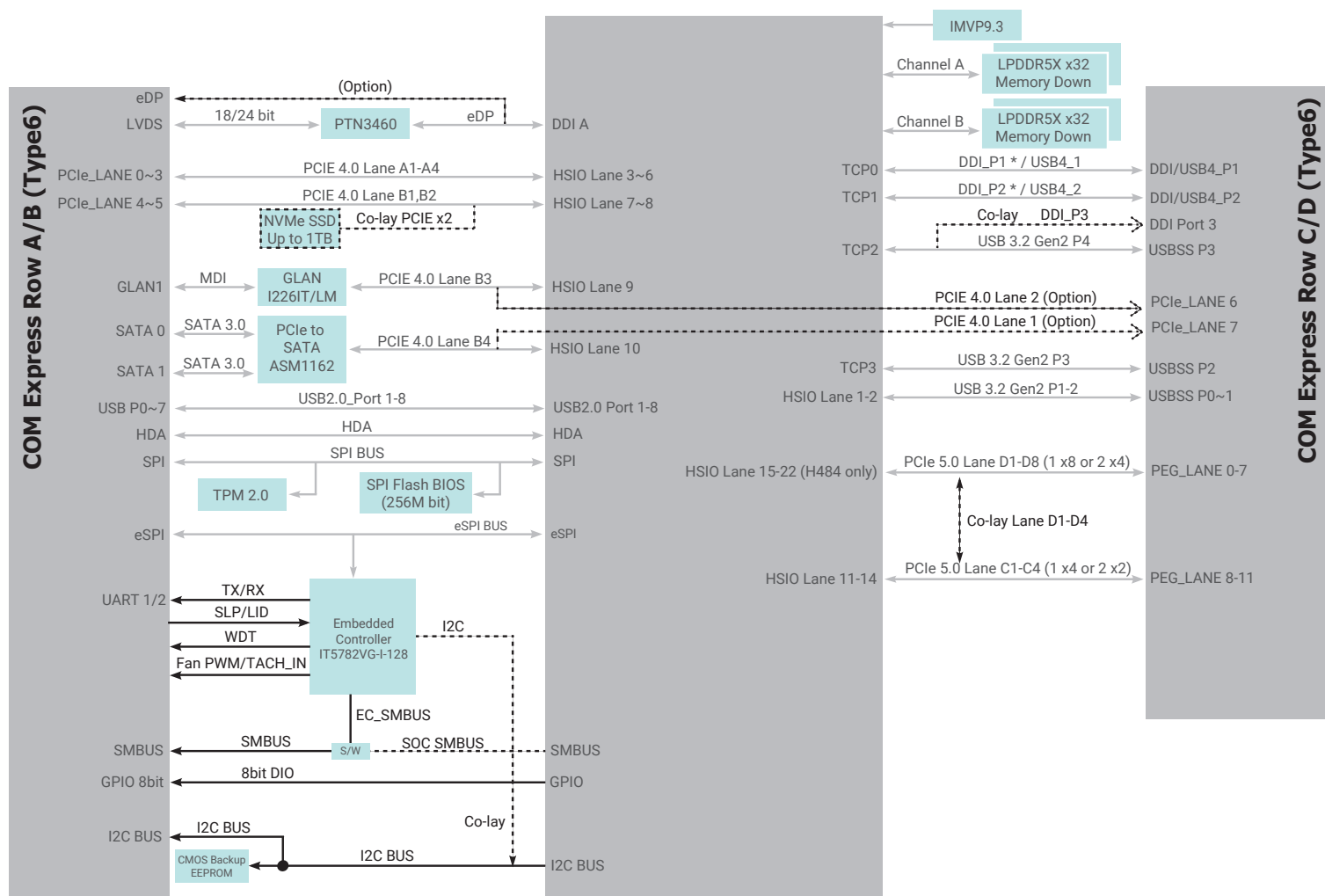
Up to 20 PCIe Lanes



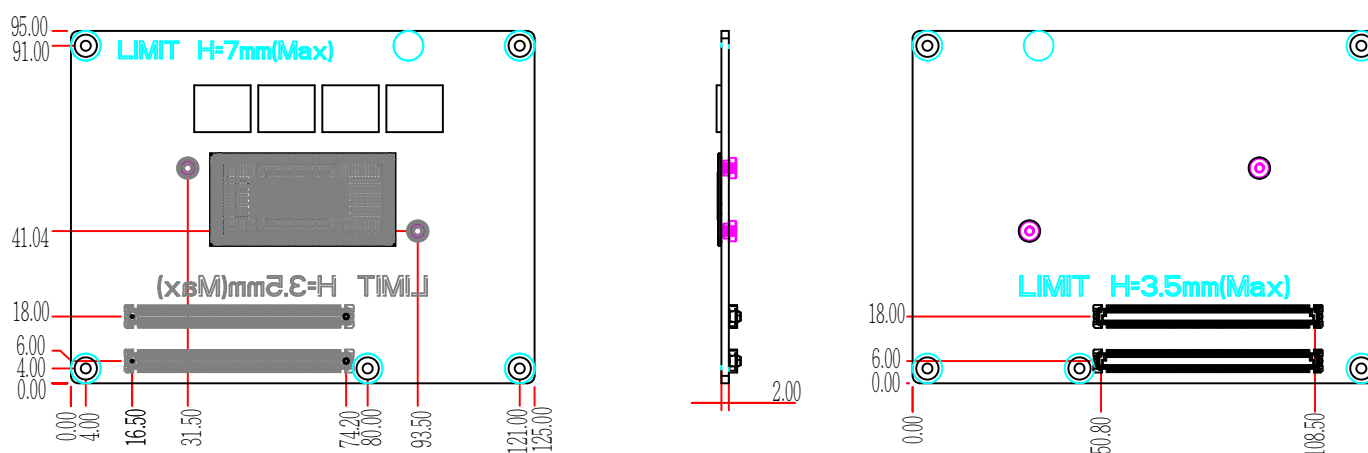
Rich I/O

1 Intel 2.5GbE, 2 USB
4.0, 4 USB 3.2

BLOCK DIAGRAM



MECHANICAL DRAWING



SPECIFICATION

SYSTEM	Processor	Intel® Core™ Ultra Series 3 Processor, Panther Lake H Intel® Core™ Ultra 7 358H, 16C, 4.8 GHz, 18M Cache, 25W Intel® Core™ Ultra 7 366HRE, 16C, 4.8 GHz, 18M Cache, 25W Intel® Core™ Ultra 7 356H, 16C, 4.7 GHz, 18M Cache, 25W Intel® Core™ Ultra 5 336HRE, 12C, 4.6 GHz, 18M Cache, 25W Intel® Core™ Ultra 5 325, 8C, 4.5 GHz, 12M Cache, 25W	
	Memory	Up to 64GB (optional to 96GB) LPDDR5x-8533 memory down (IBECC supported)	
	BIOS	AMI BIOS	
GRAPHICS	Controller	Intel® Arc Graphics or Intel® Graphics	
	Feature	DX12, Open GL 4.6, Vulkan 1.2 HW Decode: HEVC/VP9/AV1/AVC/H.265/MJPEG HW Encode: HEVC/VP9/AV1/AVC/H.265/MJPEG	
	Display	3 x DDI (DDI3 co lay with USB3) 1 x LVDS/eDP	
EXPANSION	Interface	Up to 8 x PCIe x1 (Gen4) + 1 x PCIe x4 (Gen 5) or 1 x PCIe x8 (Gen 5) on selected sku 1 x I ² C 1 x SMBus 1 x eSPI 2 x UART	
AUDIO	Audio Codec	HD Audio	
ETHERNET	Phy	1 x Intel® I226 series (10/100/1000/2500Mbps), co-lay 1 x PCIe x1 (available upon request)	
I/O	USB	Up to 2 x USB 4.0 (co-lay with DDI, available upon request) 4 x USB 3.2 Gen.2 8 x USB 2.0	
	SATA	2 x SATA 3.0 (up to 6Gb/s), co-lay PCIe x1 (available upon request)	
	NVMe SSD	1 x 128GB/256GB/512GB/1024GB on board SSD (available upon request)	
	DIO	1 x 8-bit DIO	
WATCHDOG TIMER	Output & Interval	System Reset, Programmable via Software from 1 to 255 Seconds	
SECURITY	TPM	TPM 2.0	
POWER	Type	8.5V~20V, 5VSB, VCC_RTC (ATX mode) 8.5V~20V, VCC_RTC (AT mode)	
	Consumption	TBD	
OS SUPPORT	Microsoft	Windows 11 IoT Enterprise 64-bit	
	Linux	Linux	
ENVIRONMENT	Temperature	Operating: -40 to 85°C for ET CPU skus, 0 to 60°C, Storage: -40 to 85°C	
	Humidity	Operating: 10 to 90% RH Storage: 10 to 90% RH	
	MTBF	TBD	
MECHANICAL	Dimensions	COM Express® Basic	125mm (4.92") x 95mm (3.74")
	Compliance	PICMG COM Express® R3.1, Type 6	
CERTIFICATIONS	Certifications	CE, FCC, RoHS	

ORDERING INFORMATION

Model Name	Part Number	Processor	Memory	NVME SSD	DDI/USB4	LAN/PCIe	DDI3/USB3	Thermal	Temp.
PTH961-BC60-358H	770-PTH9611-000G	Ultra 7 358H	64GB	NA	DDI	LAN	USB3	Cooler	0~60°C
PTH961-BC30-336H	770-PTH9611-100G	Ultra 5 336H	32GB						
PTH961-BC30-356H	770-PTH9611-200G	Ultra 7 356H	32GB						
PTH961-TC30-366HRE	770-PTH9611-300G	Ultra 7 366HRE	32GB						-40~85°C
PTH961-TC30-336HRE	770-PTH9611-400G	Ultra 5 336HRE	32GB						
PTH961-BC10-325	770-PTH9611-500G	Ultra 5 325	16GB						0~60°C

OPTIONAL ITEMS

COM335 Carrier Board	770-CM3351-000G
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PACKING LIST

Cooler	A71-108319-000G
CPU block	A71-210414-000G
Thermal Grease	912-077621-000G