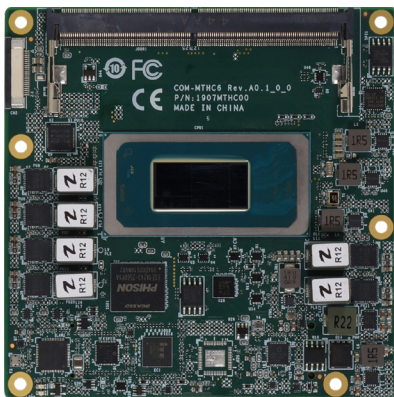


COM-MTHC6

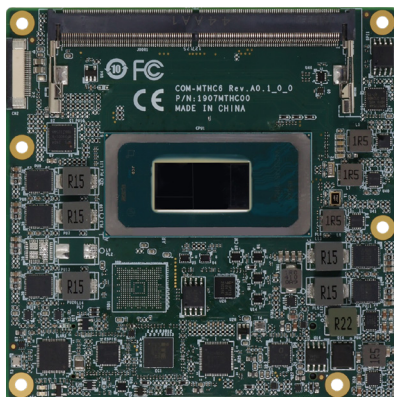


COM Express Type 6 Compact Size with Intel® Core™ Ultra Series Processors

COM-MTHC6 for 45W



COM-MTHC6 for 28W



Features

- DDR5 5600MHz Dual-Channel SODIMM x 2, up to 96GB
- VGA Switch DDI x 1, LVDS colay eDP x 1, DDI x 2
- USB 2.0 x 8, USB 3.2 Gen 2 x 4
- PCIe [x1] x 4, PCIe [x4] x 1, PEG [x8] + [x4] + [x4]
- Intel® Ethernet Controller I226, 2.5GbE x 1
- 9V ~ 16V Power Input
- COM Express Type 6, 3.75" x 3.75" (95mm x 95mm)



Display	
Graphics Controller	Intel® Arc™ graphics
Video Output	4 Simultaneous Displays: LVDS: up to 1920 x 1080 (default) / eDP: up to 3840 x 2160, switch by BOM
	DDI 1: DP, up to 3840 x 2160
	DDI 2: DP, up to 3840 x 2160
	DDI 3: DP, up to 3840 x 2160 , co-lay with VGA, auto switch VGA: up to 1920 x 1080, co-lay with DDI 3, auto switch
I/O	
Ethernet	Intel® Ethernet Controller I226, 2.5GbE x 1
Audio	High Definition Audio Interface
USB Port	USB 2.0 x 8, USB 3.2 Gen 2 x 4
Serial Port	2-Wire UART x 2 (Tx/Rx)
HDD Interface	SATA 6.0Gbps x 2
Expansion	PEG 4.0 [x8] + [x4] + [x4],last PEG [x4] option to be onboard NVMe SSD PCIe 4.0 [x1] x 4 + PCIe [x4] MIPI CSI x 2
GPIO	8-bit
SMBus/I2C	I2C x 1, from EC (default) or CPU, switch by BIOS SMBus x 1, from CPU
Environment	
Operating Temperature	32°F ~ 140°F (0°C ~ 60°C)
Storage Temperature	-40°F ~ 185°F (-40°C ~ 85°C)
Operating Humidity	0% ~ 90% relative humidity, non-condensing
EMC	CE/FCC Class A
OS Support	Windows® 11 (64-bit) Linux Ubuntu 24.04/Kernel 6.8
Weight	0.25 lb. (0.12Kg)

Specifications

System	
Form Factor	COM Express Compact Size, Type 6
CPU	Intel® Core™ Ultra Processors: Intel® Core™ Ultra 9 Processor 185H (16C/22T, up to 5.1 GHz, 45W) Intel® Core™ Ultra 7 Processor 155H (16C/22T, up to 4.8 GHz, 28W) Intel® Core™ Ultra 5 Processor 125H (14C/18T, up to 4.5 GHz, 28W)
Chipset	Integrated with Intel® SoC
Memory	DDR5 5600MHz Dual Channel SODIMM x 2, non-ECC, up to 96GB
Onboard Storage	NVMe, up to 256GB, via last PEG [x4] bus (Option)
BIOS	AMI UEFI
Wake on LAN	Yes
Watchdog Timer	255 Levels
Dimension	3.75" x 3.75" (95mm x 95mm)
Security	fTPM / dTPM (default)
Power	
Power Requirement	+9V-16V and +5VSB for ATX, +9V-16V for AT
Power Type	AT/ATX
Power Consumption (Typical)	Intel® Core™ Ultra 9 Processor 185H, 9.13A@+12V

Packing List

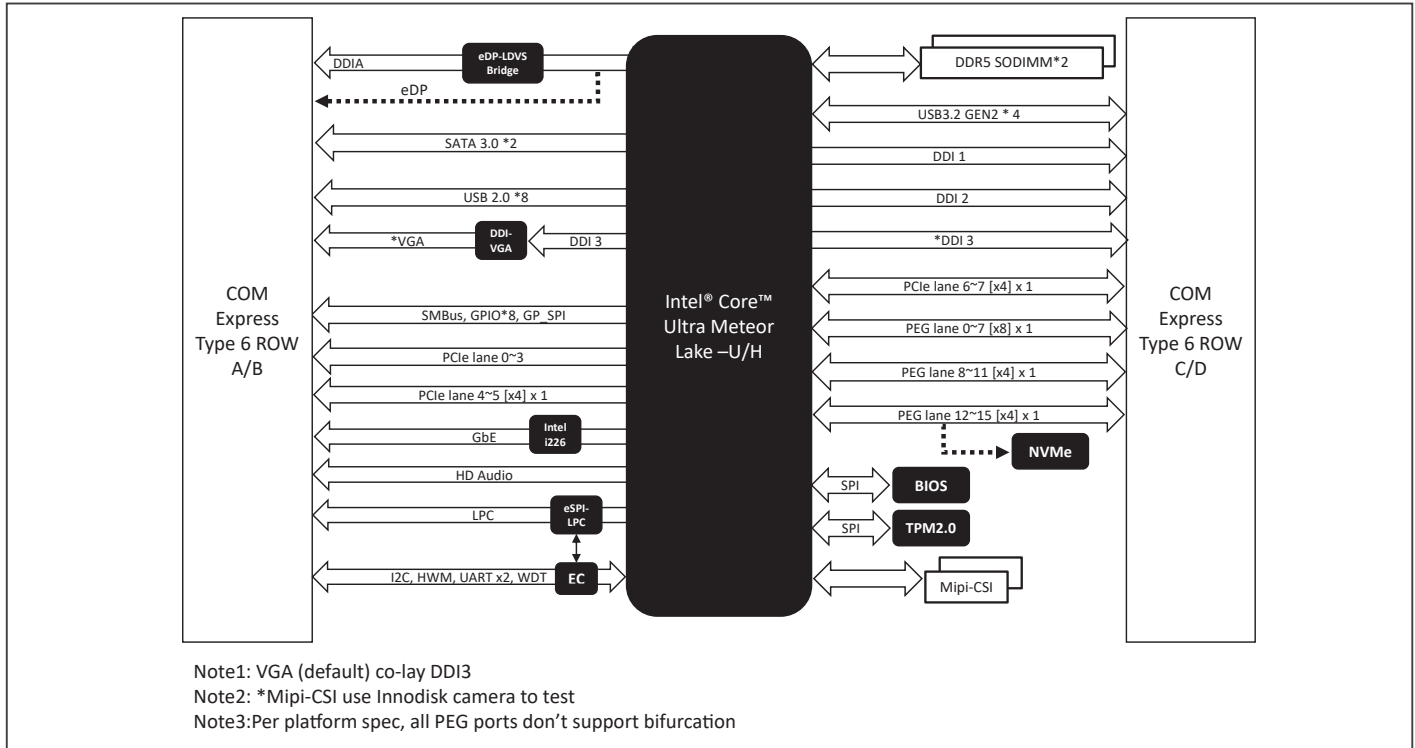
- COM-MTHC6

Optional Accessories

Part Number	Description
COM-MTHC6-FAN01	Cooler.95 x 95 x 50mm.4pin
ECB-920A-A11-0001	COMe Type 6/10.Carrier Board.ATX.2.5GbE.8USB.2COM.4SATA.PCIE.AT/ATX. Rev.A1.1
COM-MTHC6-HSP01	Heatspreader.95 x 95 x 11mm.Black

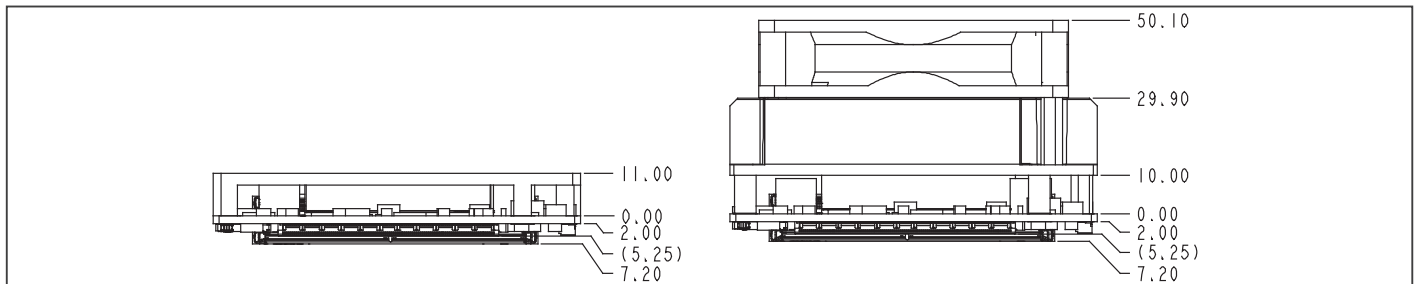


Block Diagram



Dimension

Unit: mm



Ordering Information

Part Number	COM Express Type	CPU	Memory	ECC support	Display	LVDS	Storage	LAN	USB	UART	Expansion	Power	Temp	Others
COM-MTHC6-A10-0001	Type 6	Intel® Core™ Ultra 9 185H	DDR5 SODIMM x2	—	VGA x 1, DDI x 3	18/24bits 2CH LVDS	SATA 6.0Gbps x 2	I226-ITx1	USB 2.0 x 8, USB3.2 Gen 2 x 4	2-Wire UART x 2 (Tx/Rx)	PEG 4.0 [x8] + [x4] + [x4] PCIe 4.0 [x4] x 1 PCIe 4.0 [x1] x 4	9V~16V	0°C ~ 60°C	LPC, GPIO 8-bit, I2C(EC), SMBus, MIPI CSI x 2
COM-MTHC6-A10-0002	Type 6	Intel® Core™ Ultra 7 155H	DDR5 SODIMM x2	—	VGA x 1, DDI x 3	18/24bits 2CH LVDS	SATA 6.0Gbps x 2	I226-ITx1	USB 2.0 x 8, USB3.2 Gen 2 x 4	2-Wire UART x 2 (Tx/Rx)	PEG 4.0 [x8] + [x4] + [x4] PCIe 4.0 [x4] x 1 PCIe 4.0 [x1] x 4	9V~16V	0°C ~ 60°C	LPC, GPIO 8-bit, I2C(EC), SMBus, MIPI CSI x 2
COM-MTHC6-A10-0003	Type 6	Intel® Core™ Ultra 5 125H	DDR5 SODIMM x2	—	VGA x 1, DDI x 3	18/24bits 2CH LVDS	SATA 6.0Gbps x 2	I226-ITx1	USB 2.0 x 8, USB3.2 Gen 2 x 4	2-Wire UART x 2 (Tx/Rx)	PEG 4.0 [x8] + [x4] + [x4] PCIe 4.0 [x4] x 1 PCIe 4.0 [x1] x 4	9V~16V	0°C ~ 60°C	LPC, GPIO 8-bit, I2C(EC), SMBus, MIPI CSI x 2