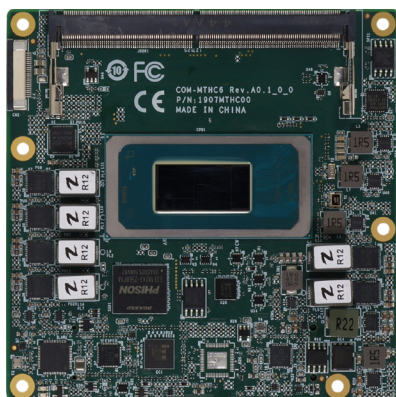


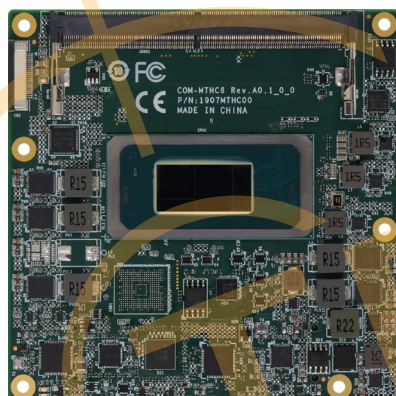
COM-MTHC6

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

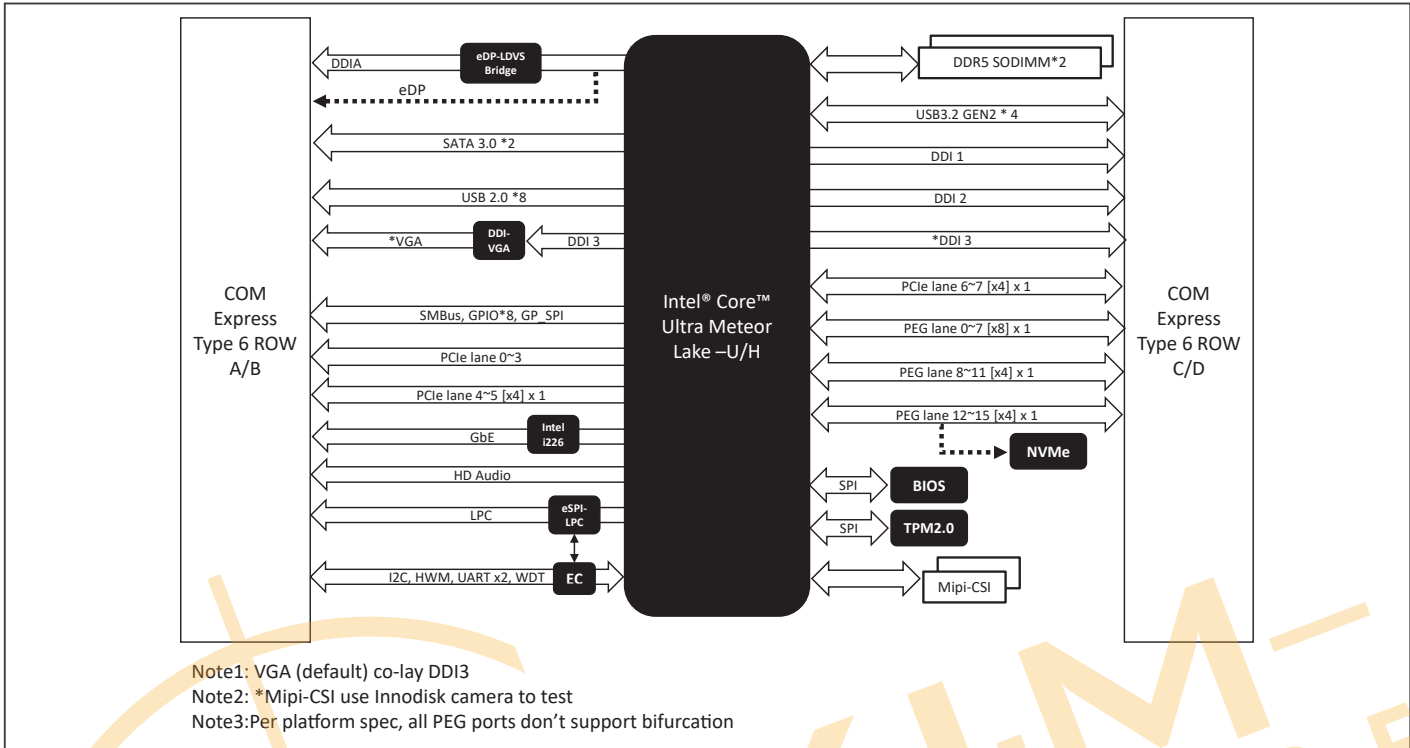
- COM-MTHC6

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

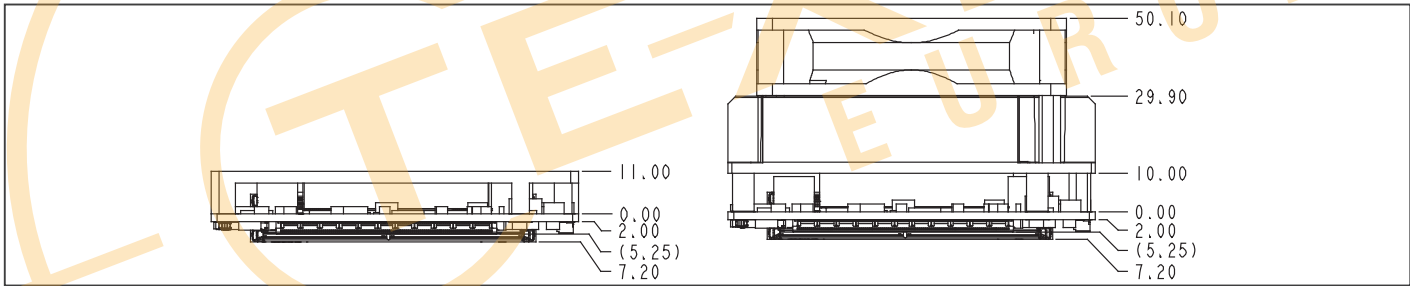


Block Diagram



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 x1, DDI x3	18/24bits 2CH LVDS	SATA 6.0Gbps x2	i226-ITx1	USB 2.0 x8, USB3.2 Gen 2 x4	2-Wire UART x2 (Tx/Rx)	PEG 4.0 [x8] + [x4] + [x4] PCIe 4.0 [x4] x1 PCIe 4.0 [x1] x4	9V~16V	0°C ~ 60°C	LPC, GPIO 8-bit, I2C(EC), SMBus, MIPI CSI x2
COM-MTHC6-A10-0002	Type 6	Intel® Core™ Ultra 7 155H	DDR5 SODIMM x2	—	VGA x1, DDI x3	18/24bits 2CH LVDS	SATA 6.0Gbps x2	i226-ITx1	USB 2.0 x8, USB3.2 Gen 2 x4	2-Wire UART x2 (Tx/Rx)	PEG 4.0 [x8] + [x4] + [x4] PCIe 4.0 [x4] x1 PCIe 4.0 [x1] x4	9V~16V	0°C ~ 60°C	LPC, GPIO 8-bit, I2C(EC), SMBus, MIPI CSI x2
COM-MTHC6-A10-0003	Type 6	Intel® Core™ Ultra 5 125H	DDR5 SODIMM x2	—	VGA x1, DDI x3	18/24bits 2CH LVDS	SATA 6.0Gbps x2	i226-ITx1	USB 2.0 x8, USB3.2 Gen 2 x4	2-Wire UART x2 (Tx/Rx)	PEG 4.0 [x8] + [x4] + [x4] PCIe 4.0 [x4] x1 PCIe 4.0 [x1] x4	9V~16V	0°C ~ 60°C	LPC, GPIO 8-bit, I2C(EC), SMBus, MIPI CSI x2

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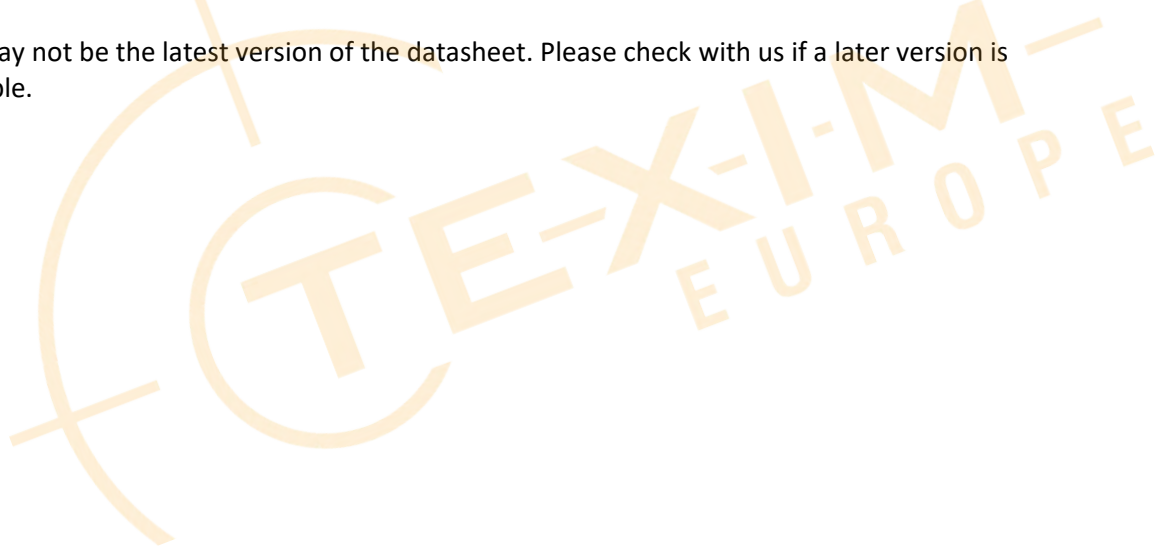
It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application.

Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary over time.

All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts.

Please contact us if you have any questions about the contents of the datasheet.

This may not be the latest version of the datasheet. Please check with us if a later version is available.





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