

# SOM-MTL95

Intel® Meteor Lake Core™ Ultra Processor based COM Express Compact Type 6 Module



Front View



Rear View

## Features

- COM Express® Compact Type 6
- Intel® 14th Gen Core Ultra Processors , Up to 14C/20T
- Dual Chanel DDR5 SO-DIMM 5600MT/s up to 96GB
- Intel® Xe LPG up to 128EU, 4 independent 4K display
- Multiple I/O expansion: 2.5GbE, PCIe, USB4/TBT4 & USB3.2 Gen2, SATA3.0
- Support Embedded Software APIs



H/W Monitor



Watchdog



GPIO



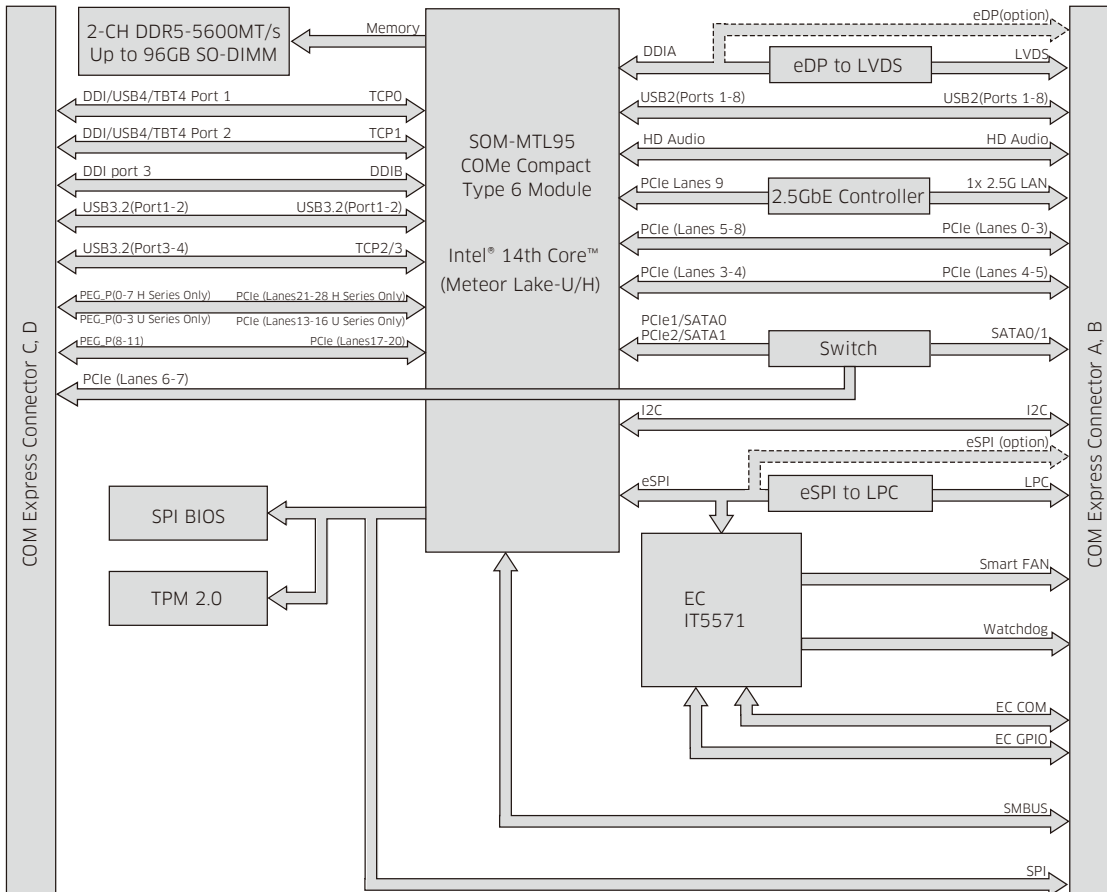
Brightness

## Specifications

Form Factor	Form Factor	COM Express Compact			
	Pin-out Type	COM Express R3.1 Type 6 compatible			
Processor	CPU: Intel® Core™	Ultra 7 165H	Ultra 7 155H	Ultra 5 125H	Ultra 5 125U
	Base Frequency	1.4GHz/0.9GHz	1.4GHz/0.9GHz	1.2GHz/0.7GHz	1.3GHz/0.8GHz
	Max Turbo Frequency	5GHz/3.8GHz	4.8GHz/3.8GHz	4.5GHz/3.6GHz	4.3GHz/3.6GHz
	Cores	14C(6P+8E)	14C(6P+8E)	12C(4P+8E)	10C(2P+8E)
	LCC	24M	24M	18M	12M
	cTDP	20W-45W	20W-45W	20W-45W	12W-28W
	BIOS	AMI UEFI BIOS			
Graphics	Controller	Intel® Arc™ graphics	Intel® Arc™ graphics	Intel® Arc™ graphics	Intel® Graphics
	Graphic EU	128EU	128EU	112EU	64EU
	Max. Frequency	2.3GHz	2.25GHz	2.2GHz	1.85GHz
	3D/HW Acceleration	HW Encode: Supports AVC/H264, JPEG, HEVC/H265, VP9 and AV1. HW Decode: SupportS MPEG2, AVC/H264, JPEG/MJPEG, HEVC/H265, VP9 and AV1			

Memory	Type	Dual Channel SO-DIMM DDR5	
	Speed	5600MT/s	
	Max. Capacity	Up to 96GB	
Display	LCD(LVDS/eDP)	1Port LVDS Dual channel: 1920 x1200 @60Hz/eDP 4096 x 2304 @60Hz	
	DDI(HDMI/DisplayPort)	3DDI Port Support Configurable HDMI/DisplayPort	
		HDMI2.1: 4096 x2304 @ 60Hz	
		DisplayPort 2.1 HBR3: 4096 x2304 @ 60HZ	
Expansion	Multiple Display	Quad Simultaneous independent Display	
	PEG	PEG (H series): PCIe, 16 lanes, Bifurcate to 1 x8, 2 x4	
		PEG (U series): PCIe, 8 lanes, Bifurcate to 2 x4	
	PCI Express	PCIe: PCIe, Up to 8 lanes & Up to 8 end devices	
		4 PCIe lanes, Bifurcate to x1, x2,x4 Default 4 PCIe lanes which support x1 only (Option with 2 SATA, support PCIe x4 bifurcate to x1,x2,x4)	
Serial Bus	SMBus	Yes	
	I2C Bus	Yes	
Ethernet	Controller	Intel® i226 Controller	
	Speed	10/100/1000/2500Mbps(2.5GbE)	
I/O	SATA3.0	Up to 2 Ports (6Gbps)	
	USB4/TBT4	Up to 2 ports, Co-lay with DDI	
	USB3.2(Gen2)	4Ports(10Gbps)	
	USB2.0	8Ports(480Mbps)	
	SPI Bus	Yes. For BIOS EEPROM	
	GPIO	8-bit	
	LPC	Yes	
	Audio Interface	HD Audio	
	Watchdog	0~255 Seconds	
	COM Port	2 Ports (2-Wire)	
	TPM	TPM2.0	
	Power	Type	ATX: Vin, VSB; AT: Vin
		Supply Voltage	Vin:8.5V~20V;VSB:4.75V~5.25V;RTC Battery:2.0V~3.3V
Power Consumption(Max.)		TBD	
Power Consumption(Idle)		TBD	
Environment	Operating Temp.	Standard: -20~60°C(-4~140 °F)	
	Storage Temp.	-40~85°C (-40~185 °F)	
	Humidity	Operating: 40°C@95% relative humidity, non-condensing Storage: 60°C@95% relative humidity, non-condensing	
	Vibration Resistance	3.5 Grms	
Mechanical	Dimensions	95mm x95 mm	

## Block Diagram



## Order information

Model Name	Description
SOM-DT165H-X	DT Intel Core Ultra 7 165H MTL95_M6 COME TYPE6 95mm x 95mm CoreBoard
SOM-DT155H-X	DT Intel Core Ultra 7 155H MTL95_M6 COME TYPE6 95mm x 95mm CoreBoard
SOM-DT125H-X	DT Intel Core Ultra 5 125H MTL95_M6 COME TYPE6 95mm x 95mm CoreBoard
SOM-DT125U-X	DT Intel Core Ultra 5 125U MTL95_M6 COME TYPE6 95mm x 95mm CoreBoard

\*For customization, please contact your regional sales representative. Confirm model details before purchase, as they may vary.

Copyright © 2025 Maxtang Technology Co. Ltd. All rights reserved. All data is for information purposes only and not guaranteed for legal purposes. Information has been carefully checked and is believed to be accurate however, no responsibility is assumed for inaccuracies. Maxtang and the Maxtang logo and all other trademarks or registered trademarks are the property of their respective owners and are recognized.