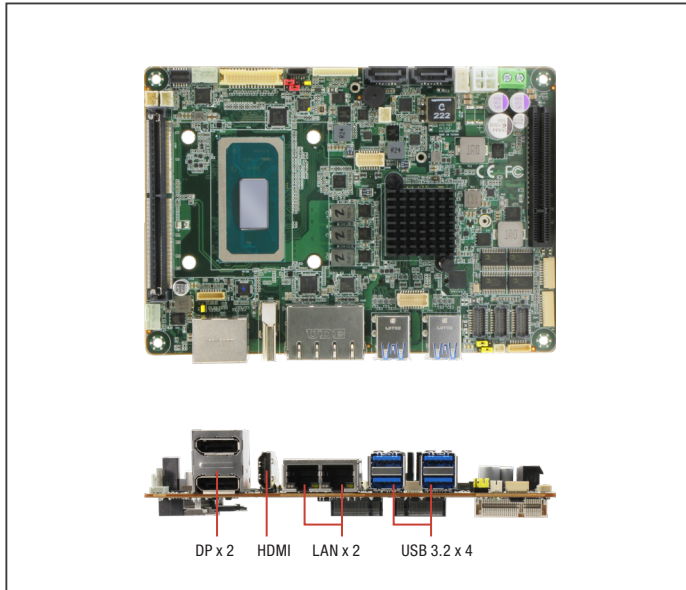


EPIC Board with 11th Generation Intel® Xeon™ / Core™ Processor



Specifications

System	
Form Factor	4" EPIC Board
CPU	11th Generation Intel® 11th Xeon™ / Core™ Processor
CPU Frequency	Xeon W-11865MRE (8C/16T, 2.60GHz, up to 4.70GHz) i7-11850HE (8C/16T, 2.60GHz, up to 4.70GHz) i5-11500HE (6C/12T, 2.60GHz, up to 4.50GHz) i3-11100HE (4C/8T, 2.40GHz, up to 4.40GHz) Celeron 6600HE (2C/2T, 2.60GHz)
Chipset	Intel® 500 Series Mobile Chipset (RM590E / HM570E)
Memory Type	DDR4 3200 SODIMM x 2 (ECC supported by Xeon only)
Max. Memory Capacity	Up to 64GB
BIOS	AMI
Wake on LAN	Yes
Watchdog Timer	255 Levels
Power Requirement	+9-24V
Power Supply Type	AT/ ATX
Power Consumption (Typical)	12V@8.32A with Xeon W-11865MRE, with 100% full loading steady status.
Dimension (L x W)	4.53" x 6.50" (115mm x 165mm)
Operating Temperature	32°F ~ 140°F (0°C ~ 60°C)
Storage Temperature	-40°F ~ 176°F (-40°C ~ 80°C)
Operating Humidity	0% ~ 90% relative humidity, non-condensing
MTBF (Hours)	—
Certification	CE/FCC ClassA
Display	
VGA/LCD Controller	Intel® UHD Graphics for 11th Gen Intel® Processors
Video Output	Dual Channel 24/48bit LVDS (Default) or eDP x 1 HDMI 2.0b x 1, DP 1.2a (DP++) x 2, VGA x 1
Backlight Inverter Supply	12V/5V (Default : 5V)
I/O	
Ethernet	Intel® i225, 10/100/1000/2500Base, RJ-45 x 1 Intel® i219, 10/100/1000Base, RJ-45 x 1
Audio	Realtek ALC269 (2W Amplifier)

Features

- 11th Gen. Intel Xeon / Core Processor
- DDR4 3200 SODIMM x 2 ,up to 64GB
- HDMI 2.0b x 1 , DP++ 1.2a x 2 , LVDS (dual Channel) or eDP x 1 , VGA x 1
- SATA3 x 2
- RJ45 (2.5GbE) x 1, RJ45 (GbE) x 1
- USB3.2 Gen2 x 4, USB2.0 x 4
- M.2 3052 B key x 1 , M.2 2280 M key x 1, MiniCard x 1
- PCIe Gen4 [x8] slot x 1, PCIe Gen4 [x4] by FPC slot x 1
- COM Port x 6 , DIO 16 bit x 1
- Support +9V to +24Vin (Wide Voltage Input)

USB Port	USB3.2 Gen 2 x 4 USB2.0 x 4
Serial Port	RS-232 x 4 RS-232/422/485 x 2
Parallel Port	—
HDD Interface	SATA III x 2 +5V SATA Power Connector x 1
SSD	Half size mSATA/mPCIe x 1 (Default mPCIe, select by BIOS)
Expansion Slot	M.2 B key 3052 x 1 (Default PCIe[x1]+USB3.0+USB2.0, PCIe[x2]+ USB2.0 as option) M.2 M key 2280 x 1 (PCIe 4.0[x4]) PCIe 4.0 [x8] slot x 1 Board to board FPC connector (PCIe[x4] x 1)
DIO	16-bit
TPM	TPM2.0 (Optional)
Touch	Yes
SIM	Nano SIM
Others	SMBus / I2C (Supported by BOM Change)

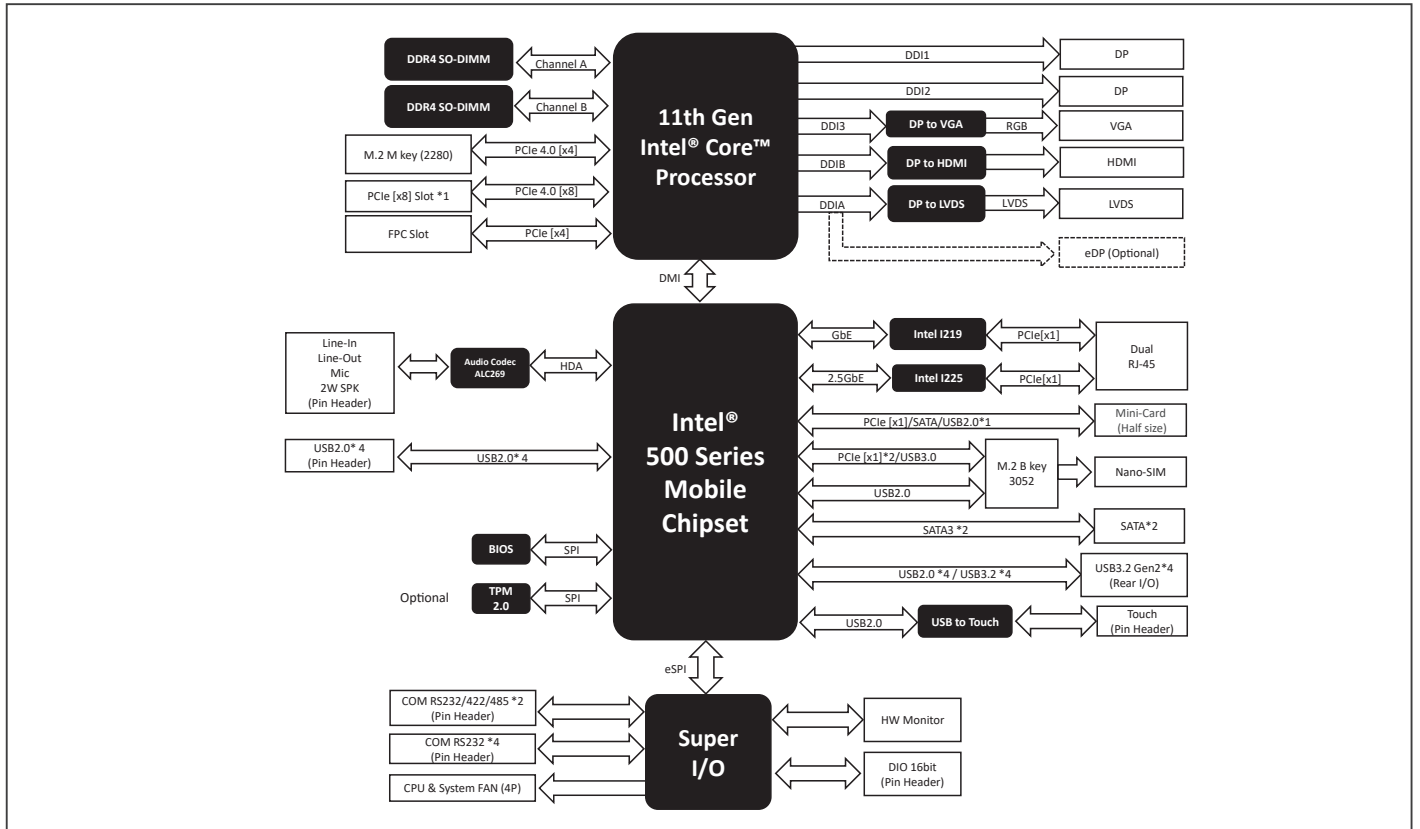
Packing List

Part Number	Description	QTY
EPIC-TGH7	EPIC-TGH7 Board	1

Optional Accessories

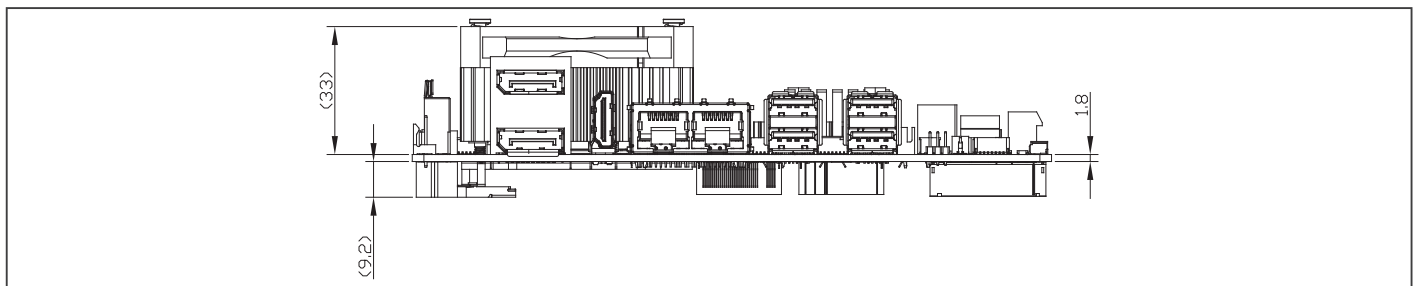
Part Number	Description	QTY
1709150151	VGA cable 15cm	1
1702150155	SATA power cable 15cm	2
1709070150	SATA cable 15cm	2
170X000231	Dual COM cable 30cm	3
170204010R	Double 4P power cable 10cm	1
170X000287	Front panel cable 10cm	1
170X000156	Audio cable 25cm	1
EPIC-TGH7-FAN01	CPU cooler.60°60*31.6mm.with Backplane. for EPIC-TGH7 Use	1

Block Diagram



Dimension

Unit: mm



Ordering Information

Part Number	CPU	Memory	Thermal	Display	Storage	LAN	USB	RS-232	RS-232/422/485	Expansion Slot	Power	Operating Temp	Others
EPIC-TGH7-A10-0001	W-11865MRE (with RM590E PCH)	DDR4 SODIMM x 2	Fan	LVDS x 1, DP x 2, HDMI x 1, VGA x 1	SATA3 x 2	2.5GbE x 1, GbE x 1	USB 3.2 Gen 2 x 4, USB 2.0 x 4	4	2	M.2 B key 3052 x 1, M.2 M key 2280 x 1, Mini Card (Half Size) x 1	+9V to +24V	0°C ~ 60°C	Audio, DIO x 16, NanoSIM x 1, Touch
EPIC-TGH7-A10-0002	I7-11850HE (with HM570E PCH)	DDR4 SODIMM x 2	Fan	LVDS x 1, DP x 2, HDMI x 1, VGA x 1	SATA3 x 2	2.5GbE x 1, GbE x 1	USB 3.2 Gen 2 x 4, USB 2.0 x 4	4	2	M.2 B key 3052 x 1, M.2 M key 2280 x 1, Mini Card (Half Size) x 1	+9V to +24V	0°C ~ 60°C	Audio, DIO x 16, NanoSIM x 1, Touch
EPIC-TGH7-A10-0003	i5-11500HE (with HM570E PCH)	DDR4 SODIMM x 2	Fan	LVDS x 1, DP x 2, HDMI x 1, VGA x 1	SATA3 x 2	2.5GbE x 1, GbE x 1	USB 3.2 Gen 2 x 4, USB 2.0 x 4	4	2	M.2 B key 3052 x 1, M.2 M key 2280 x 1, Mini Card (Half Size) x 1	+9V to +24V	0°C ~ 60°C	Audio, DIO x 16, NanoSIM x 1, Touch
EPIC-TGH7-A10-0004	i3-11100HE (with HM570E PCH)	DDR4 SODIMM x 2	Fan	LVDS x 1, DP x 2, HDMI x 1, VGA x 1	SATA3 x 2	2.5GbE x 1, GbE x 1	USB 3.2 Gen 2 x 4, USB 2.0 x 4	4	2	M.2 B key 3052 x 1, M.2 M key 2280 x 1, Mini Card (Half Size) x 1	+9V to +24V	0°C ~ 60°C	Audio, DIO x 16, NanoSIM x 1, Touch