

# The4thware Industrial Board (MATX)

10<sup>th</sup>/11<sup>th</sup> Generation Intel Xeon W, Core Series Platform

## T4WARR-W480-MATX2



## PRODUCT SPECIFICATION

Physical Status	
Form Factor	Micro-ATX
Dimensions	9.6" x 9.6" (244 mm x 244 mm)
Processor System	
CPU	Supports Intel® Xeon® W-1200 / W-1300, 10th / 11th Gen Intel® Core™ Series Processors
Socket	LGA 1200
Chipset	Intel® W480
System Memory	
Supported DIMM Quantity	4 x 288-pin DDR4 DIMM slots
Supported Type	Dual Channel DDR4 memory technology Supports DDR4 ECC*/non-ECC UDIMM *ECC Memory (ECC mode) support varies by CPU.
Max. Capacity per DIMM	32GB, 16GB, 8GB, 4GB
Max. DIMM Frequency	2933*/2666/2400 MHz *2933 MHz support varies by CPU.
PCIe Expansion Slots (SLOT7 close to CPU)	
PCIe x 16	SLOT6: Latch PCIe3.0 x16, auto switch to x8 when SLOT4 is occupied [CPU]
PCIe x 8	SLOT4: PCIe3.0 x8 [CPU]
PCIe x 1	SLOT7: PCIe3.0 x1 [PCH]
M.2	2 (M2_1: 22110/2280/2260, Supports PCIe 3.0(x4); M2_2:2280/2260, Supports PCIe 3.0(x4))
SATA/SAS Storage	
PCH Built-in Storage	8 x SATA 6Gb/s (SATA0-7, SATA_0 supports SATA DOM)
Ethernet	
Additional GbE Controller	2 x RJ45 GLAN by Intel® i210
Server Management	
BMC Controller	ASPEED AST2500
IPMI Dedicated GLAN	1 RJ45 Realtek RTL8211E for dedicated management GLAN
Graphics	
Controller	ASPEED AST2500

## PRODUCT SPECIFICATION

Rear I/O	
UID Button/LED	1
VGA Port	1 DB15
Serial Port	1 DB9
USB 3.2 Gen1 Port	2 Type-A (USB3.2 Gen1)
USB 3.2 Gen2 Port	2 Type-A (USB3.2 Gen2)
RJ45	2 RJ45 (1GbE) LAN Ports with LED (ACT/LINK LED and SPEED LED)
Internal Connector/Headers	
Power Connector	24-pin (ATX), 8-pin (12V), 4pin (12V)
Auxiliary Panel Header	1 (18-pin): chassis intrusion, system fault LED, LAN1/LAN2 activity LED, locate, SMBus
System Panel	1 (9-pin): power switch, reset switch, system power LED, HDD activity LED
VGA header	1
Speaker Header	1
Buzzer	1
Thunderbolt 3 header	1 (BTO)
Fan Header	7 (4-pin)
Thermal Sensor Header	1
TPM Header	1 (17-pin, LPC)*, 1 (13-pin, SPI) *support LPC interface TPM module by default. Please contact ASRock Rack sales for SPI interface TPM module support.
SGPIO Header	1
SMBus header	1
PMBus header	1
IPMB Header	1
Clear CMOS	1 (contact pads)
ME/SPS Recovery	1
USB 3.2 (Gen1) Header	1 (19-pin, 2 USB 3.2 Gen1)
USB 2.0 Header	1 (9-pin, 2 USB 2.0)
LED Indicators	
Standby PWR LED 5vsb	1
80 Debug Port LED	1
Fan Fail LED	7

## PRODUCT SPECIFICATION

System BIOS	
BIOS Type	256 Mb AMI UEFI Legal BIOS
Hardware Monitor	
Temperature	CPU Temperature Sensing MB/Card side/TR1 Temperature Sensing
Fan	CPU/Rear/Front Fan Tachometer CPU Quiet Fan (Allow Chassis Fan Speed Auto-Adjust by CPU Temperature) CPU/Rear/Front Fan Multi-Speed Control
Voltage	+12V, +5V, +3.3V, CPU Vcore, DRAM, V1.0M,+BAT, 3VSB, 5VSB
Supported OS	
OS	<p>Microsoft® Windows: -Windows® 10 (64 bit)</p> <p>Linux: RedHat Enterprise Linux Server 7.7 (64 bit) / 8.1 (64 bit) CentOs 7.7 (64 bit) / 8.1 (64 bit) SUSE Enterprise Linux Server 12 SP5 (64 bit) / 15 SP1 (64 bit) Ubuntu 19.04 (64 bit) / 20.04 (64 bit)</p> <p>Hypervisor: VMWare® ESXi 7.0.0/ vSphere 7.0.0</p> <p>* W480D4U Supports UEFI BOOT only. * The Intel® RAID mode is not supported on the Linux system.</p>
Environment	
Temperature	Operation temperature: 10°C ~ 35°C / Non operation temperature: -40°C ~ 70°C
Humidity	Non operation humidity: 20% ~ 90% ( Non condensing)