

The4thware Industrial Board (MATX)

1th/2th Generation Intel Xeon Scalable Series Platform

T4WARR-C621-MATX3



PRODUCT SPECIFICATION

Physical Status	
Form Factor	Micro-ATX
Dimensions	9.6" X 9.6"
Processor System	
CPU	Supports 2 nd Gen. Intel® Xeon® Scalable Processors / Intel® Xeon® Scalable Processors
Socket	Single Socket P, LGA3647
Chipset	Intel® C621
System Memory	
Supported DIMM Quantity	6 x 288-pin DDR4 DIMM slots
Supported Type	6 Channels memory technology Supports DDR4 2933/2666/2400/2133 RDIMM/LR DIMM, Intel® Optane™ D C Persistent Memory in memory mode (Cascade Lake only), NVDIMM
Max. Capacity per DIMM	RDIMM:32GB, 16GB, 8GB, 4GB LRDIMM:64GB, 32GB
Voltage	1.2V
PCIe Expansion Slots (SLOT7 close to CPU)	
PCIe x 16	SLOT6: PCIe3.0 x 16 SLOT4: PCIe3.0 x 16 (share with Broadcom SAS 3616)
Other PCIe Expansion Connectors	
M.2 slot	1 M-key (PCIe3.0 x4 or SATA 6Gb/s), supports 2280/2260/2242/2230 form factor [PCH]
SATA/SAS Storage	
PCH Built-in Storage	Intel® C621:12 x SATA3 (12 port from 3 mini SAS HD, 1x SATA DOM, 1 x M.2 (share with SATA DOM) 1x SATA 7pin
Ethernet	
Interface	100Base-T/1000Base-T/10GBase-T
Additional GbE Controller	Intel® X550-BT2: 2 RJ45 (10GbE)
Server Management	
BMC Controller	ASPEED AST2500
IPMI Dedicated GLAN	1 x Realtek RTL8211E for dedicated management GLAN
Features	Watch Dog NMI
Graphics	
Controller	ASPEED AST2500
VRAM	DDR4 16MB

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Rear I/O	
UID Button/LED	1
VGA Port	1 (D-sub)
USB 3.2 Gen1 Port	2
RJ45	2 RJ45 (10GbE)
Dedicate LAN	1 dedicated IPMI LAN port
Internal Connector/Headers	
Power Connector	1 (24-pin, ATX main power), 1 (8-pin, ATX 12V)
Auxiliary Panel Header	1 (18-pin): chassis intrusion, system fault LED, LAN1/LAN2 activity LED, locate, SMBus
COM Header	1
Speaker Header	1
Fan Header	6 (6-pin)
TPM Header	1
VROC header	1
IPMB Header	1
USB 3.2 (Gen1) Header	1
USB 2.0 Header	1
Type A USB 3.2 (Gen1) Port	1
LED Indicators	
Standby PWR LED 5vsb	1
Fan Fail LED	6
System BIOS	
BIOS Type	256Mb AMI UEFI Legal BIOS
BIOS Features	Plug and Play (PnP) ACPI 2.0 Compliance Wake Up Events SMBIOS 2.8 Support ASRock Rack Instant Flash
Hardware Monitor	
Temperature	CPU Temperature Sensing System Temperature Sensing Card Side Temperature Sensing
Fan	CPU/Front Fan Tachometer CPU Quiet Fan (Allow Chassis Fan Speed Auto-Adjust by CPU Temperature) CPU/Front Fan Multi-Speed Control
Voltage	Voltage Monitoring: CPU1, VCCMABC, VCCMDEF, 3v/5v/12v, 1.05V_PCH, 1.8V_PCH +BAT, 3VSB, 5VSB

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Supported OS	
OS	<p>Microsoft® Windows® (Server OS): Server 2012 R2 (64 bit) Server 2016 (64 bit)</p> <p>Linux: Red Hat Enterprise Linux Server 6.8 (64 bit) / 7.4 (64 bit) CentOs 6.8 (64 bit) / 7.4 (64 bit) SUSE Enterprise Linux Server 11 SP4 (64 bit) / 12 SP3 (64 bit) FreeBSD 11.2 (64 bit) Ubuntu 16.04 (64 bit) / 15.10 (64 bit)</p> <p>Virtual: VMWare® ESXi 6.5 u1 Citrix XenServer 7.5 Win hyper-V Server 2016</p> <p>*Please refer to our website for the latest OS support list. *On Ubuntu 16.04 (64bit) system, Intel® Raid mode only supports UEFI BOOT. *LSI does not support Vmware ESXi 6.5 u1 / Ubuntu 16.04 (64 Bit) / Ubuntu 15.10 (64 Bit) / Citrix XenServer 7.5 OS install.</p>
Environment	
Temperature	Operation temperature: 10°C ~ 35°C / Non operation temperature: -40°C ~ 70°C
Humidity	Non operation humidity: 20% ~ 90% (Non condensing)