

2GPU GPU PLATFORM

Thunder SX TN76-B7102

B7102T76V12HR-2T-N / B7102T76V12HR-2T-G / B7102T76V8E4HR-2T-N



Front View



B7102T76V12HR-2T-N & B7102T76V12HR-2T-G



B7102T76V8E4HR-2T-N

Back View



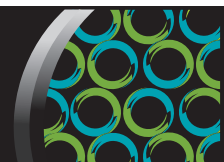
B7102T76V12HR-2T-N & B7102T76V8E4HR-2T-N



B7102T76V12HR-2T-G

2U2S server platform with maximum memory support for 2GPGPU, technical computing and virtualization

- Max up to total (12) 3.5"/2.5" Hot-Swap SSD/HDD devices or (8) SATA 6Gb/s + (4) NVMe + (2) 2280 M.2
- Dual LGA3647 socket supports (2) Intel® Xeon® Scalable Processors
- (12+12) DIMM slots DDR4 RDIMM/RDIMM 3DS/LRDIMM/LRDIMM 3DS 2666
- Supporting up to 768GB RDIMM/ 1,536GB LRDIMM/ 3,072GB RDIMM 3DS/LRDIMM 3DS
- *Follow latest Intel® DDR4 Memory POR*
- Max up to total (2) PCI-E Gen3 x16 slots (Full-height, 10.5" length, Double-width) or (6) PCI-E Gen3 x8 slots (Full-height, 10.5" length, Single-width)
- (1) PCI-E Gen3 x16 slot (Full-height, Full-length) or (2) PCI-E Gen3 x8 slots (Half-height, Half-length)
- (1) PCI-E Gen3 x8 OCP 2.0 slot (conn.A+conn.C) + (1) PCI-E Gen3 x8 storage mezz. slot
- (2) 10GbE ports + (1) PHY port (via Intel® X550-AT2 + via Realtek® RTL8211E)
- Onboard BMC w/ IPMI and iKVM support
- (1+1) 1,200W RPSU, 80 PLUS Platinum



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TYAN Specifications

Top View

(12) 3.5"/2.5" Hot-Swap SSD/HDDs
or
(8) 3.5"/2.5" Hot-Swap SSD/HDDs +
(4) NVMe devices

System Fan
Total (12) 6cm fans

S7102GM2NR-2T
(2) Intel® Xeon® Scalable Processor
(12)+(12) DIMM slots supporting
max up 768 GB RDIMM
(2) 2280 M.2
(2) 10GbE ports, (1) PHY

(1+1) 1,200W RPSU,
80 PLUS Platinum



Pre-install riser card

(1) M7102T76-L16 riser card (left) for
(2) PCI-E Gen3 x16 slots (-V12-N SKUs) or
(1) MP016T76-L16-1F riser card (left) for
(1) PCI-E Gen3 x16 slot (-V12-G SKU)

Pre-install mezz. Card

(1) M2093 w/ (2) PCI-E x8 SFF-8611 OcuLink
connectors for (4) NVMe ports (for -V8E4 SKU only)

(1) PCI-E Gen3 x8 storage mezz. slot +
(1) PCI-E Gen3 x8 OCP 2.0 slot
(conn.A+conn.C)

Pre-install riser card

(1) M7102T76-L16 riser card (left) for
(2) PCI-E Gen3 x16 slots (for all SKUs)

Pre-install riser card

(1) M7102T76-R16 riser card (right) for
(2) PCI-E Gen3 x16 slots (for all SKUs)

System	Form Factor	2U Rackmount
	Chassis Name	TN76
	Dimension (D x W x H)	29.9" x 17.2" x 3.4" (760 x 438 x 87.6mm)
	Motherboard	S7102GM2NR-2T
	Gross Weight	37 kg (82 lbs)
	Net weight	28 kg (62 lbs)
Front Panel	Buttons	(1) ID, (1) PWR w/ LED
	LEDs	(1) ID, (1) Warning
	I/O Ports	(1) USB 3.0 port
External Drive Bay	Q'ty / Type	(12) 3.5"/2.5" Hot-Swap SSD/HDD or (8) 3.5"/2.5" Hot-Swap SSD/HDD + (4) NVMe (-V8E4 SKU)
	HDD backplane support	SAS 12Gb/s, SATA 6Gb/s SAS 12Gb/s, SATA 6Gb/s and NVMe (-V8E4 SKU)
	Supported HDD Interface	(12) SATA 6Gb/s or (8) SATA 6Gb/s + (4) NVMe (-V8E4 SKU)
System Cooling Configuration	FAN	(12) 6cm fans
Power Supply	Type	RPSU
	Input Range	AC 100-127V/12.47A , AC 200-240V/7.08A
	Efficiency	80-PLUS Platinum
	Output Watts	1,200 Watts
	Redundancy	1+1
Processor	Supported CPU Series	(2) Intel® Xeon® Scalable Processors
	Thermal Design Power (TDP) wattage	Max up to 165W
Chipset	Chipset	Intel® C621
	Super I/O	-
Memory	Supported DIMM Qty	(12)+(12) DIMM slots
	DIMM Type / Speed	DDR4 RDIMM/RDIMM 3DS/LRDIMM/LRDIMM 3DS 2666
	Capacity	Up to 768GB RDIMM/ 1,536GB LRDIMM/ 3,072GB RDIMM 3DS/LRDIMM 3DS *Follow latest Intel® DDR4 Memory POR
	Memory channel	6 Channels
	Memory voltage	1.2V
Expansion Slots	PCI-E	(2) PCI-E Gen3 x16 slots (FH, 10.5" length, DW) or (6) PCI-E Gen3 x8 slots (FH, 10.5" length, SW) * split by Mux. + (1) PCI-E Gen3 x16 slot (FH, FL) or (2) PCI-E Gen3 x8 slots (HH, HL) * split by Mux. + (1) PCI-E Gen3 x8 OCP 2.0 slot (conn.A+conn.C) + (1) PCI-E Gen3 x8 storage mezz. slot (-V12-N SKU) (2) PCI-E Gen3 x16 slots (FH, 10.5" length, DW) or (4) PCI-E Gen3 x8 slots (FH, 10.5" length, SW) * split by Mux. + (1) PCI-E Gen3 x8 OCP 2.0 slot (conn.A+conn.C) + (1) PCI-E Gen3 x8 storage mezz. slot (-V12-G SKU) (2) PCI-E Gen3 x16 slots (FH, 10.5" length, DW) or (6) PCI-E Gen3 x8 slots (FH, 10.5" length, SW) * split by Mux. + (1) PCI-E Gen3 x8 OCP 2.0 slot (conn.A+conn.C) + (1) PCI-E Gen3 x8 storage mezz. slot (-V8E4 SKU)
	Pre-install TYAN Riser Card	(1) M7102T76-R16-2F riser card for (2) PCI-E Gen3 x16 slots + (2) M7102T76-L16-2F riser card for (4) PCI-E Gen3 x16 slots (for -V12-N SKU) (1) MP016T76-L16-1F riser card for (1) PCI-E Gen3 x16 slot + (1) M7102T76-R16-2F riser card for (2) PCI-E Gen3 x16 slots + (1) M7102T76-L16-2F riser card for (2) PCI-E Gen3 x16 slots (for -V12-G SKU) (1) M7102T76-R16-2F riser card for (2) PCI-E Gen3 x16 slots + (1) M7102T76-L16-2F riser card for (2) PCI-E Gen3 x16 slots (-V8E4 SKU)

Expansion Slots	Pre-install TYAN Mezz Card		M2093 w/ (2) PCI-E x8 SFF-8611 OcuLink connectors for (4) NVMe ports (for -V8E4 SKU only)
LAN	Port Q'ty		(2) 10GbE ports, (1) PHY
	Controller		Intel® X550-AT2
	PHY Controller		Realtek® RTL8211E
Storage	SATA	Connector	(2) Mini-SAS HD (8-ports)
		Controller	Intel® C621
		Speed	6.0 Gb/s
		RAID	RAID 0/1/10/5 (Intel RSTe)
	sSATA	Connector	(2) SATA-DOM, (1) Mini-SAS HD (4-ports)
		Controller	Intel® C621
		Speed	6.0 Gb/s
		RAID	RAID 0/1/10/5 (Intel® RST) only for 4 SATA devices
	NVMe	Connector (M.2)	(2) 2280 (by PCI-E interface)
Graphic	Connector type		D-Sub 15-pin
	Resolution		Up to 1920x1200
	Chipset		Aspeed AST2500
Input /Output	USB		(2) USB3.0 ports (2 at rear), (2) USB3.0 ports (2 at front)
	COM		(1) DB-9 port (COM1)
	VGA		(1) D-Sub 15-pin
	RJ-45		(2) 10GbE ports, (1) PHY dedicated for IPMI
TPM (Optional)	TPM (Optional)		Please refer to our TPM supported list.
System Monitoring	Chipset		Onboard Aspeed AST2500
	Temperature		Monitors temperature for CPU & memory & system environment
	Voltage		Monitors voltage for CPU, memory, chipset & power supply
	LED (On system front panel)		Over temperature warning indicator / Fan & PSU fail LED indicator
	Others		Watchdog timer support
Server Management	Onboard Chipset		Onboard Aspeed AST2500
	AST2500 iKVM Feature		24-bit high quality video compression. Supports storage over IP and remote platform-flash. USB 2.0 virtual hub.
	AST2500 IPMI Feature		IPMI 2.0 compliant baseboard management controller (BMC). 10/100/1000 Mb/s MAC interface.
BIOS	Brand / ROM size		AMI / 32MB
	Feature		Hardware Monitor, SMBIOS 3.0/PnP/Wake on LAN, Boot from USB device/PXE via LAN/Storage, User Configurable FAN PWM Duty Cycle, Console Redirection, ACPI sleeping states S4,S5, ACPI 6.1
Operating System	OS supported list		Please refer to our AVL support lists
Regulation	FCC (SDoC)		Class A
	CE (DoC)		Class A
	VCCI		Class A
	RCM		Class A
	CB/LVD		Yes
Operating Environment	Operating Temp.		10° C ~ 35° C (50° F~ 95° F)
	Non-operating Temp.		- 40° C ~ 70° C (-40° F ~ 158° F)
	In/Non-operating Humidity		90%, non-condensing at 35° C
RoHS	RoHS 6/6 Compliant		Yes

(Specifications are subject to change without notice. Items pictured may only be representative.)

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