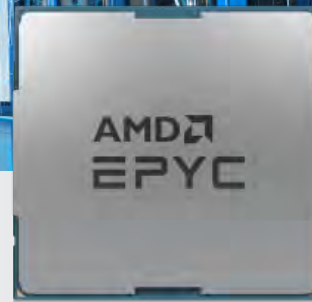# TYAN

Transport & Tomcat Solutions

AMD EPYC™ 9004 Series Processors

World Class Server Platforms

AMD EPYC

Next Generation Server Architecture

AMD EPYC™ 9004 Series CPUs

Workload Performance Leadership

Raising the bar yet again for workload performance, 4th Gen AMD EPYC™ processors can help IT professionals everywhere excel. Performance + Efficiency are the new metrics for success in IT. Servers powered by EPYC 9004 CPUs can deliver faster time to results, helping provide more and better insights for decision making, driving better business outcomes. AMD EPYC CPUs – performant, efficient, on time.

Efficient: With EPYC 9004 CPUs IT professional can use ~47% fewer servers to get the job done helping data centers be more energy efficient, the proverbial "do more with less" come true. What is "Less"? Less is not just one thing. Comparing 2P 24 core to 24 core competitive processor estimates: less is 20% fewer servers driving 11% reduced power demands, resulting in 10 metric tons less CO2 generation per year, all while delivering the same level of performance.

Latest Technology: The 9004 Series EPYC CPUs amplifies the AMD history of x86 architecture innovations and record-breaking performance with next generation 5nm technology as well as introducing support for high performant DDR5 DIMMs and fast PCIe® Gen 5 I/O. EPYC 9004 CPUs support 12 memory channels with 2 DIMMs/channel capability, delivering the resources needed for memory hungry AI, ML, HPC, and large in-memory computations. These EPYC CPUs also uniquely provide 128 PCIe5 lanes in a 1 socket server and up to an astounding 160 PCIe5 lanes in 2 socket servers. This enables the high performant

demands of today's AI and ML applications and the increasing use of accelerators, GPUs, FPGAs and high capacity LAN cards natively with 4th Gen EPYC CPUs' high PCIe5 lane counts delivering 4X the IO throughput of the competition.

Performance Leadership: EPYC processors have a history of delivering world record performance and winning enterprise efficiency, while helping optimize IT budget and advancing energy efficiency. 4th Gen EPYC processors are expected to build on that history, with eleven two-socket and two one-socket EPYC 9004 series reference configurations tested are estimated to have higher SPECrate®2017_int_base scores than the best 2P score for the competitor's latest generation of CPUs.

Results Oriented: From print/file to databases and analytics, to HCI, HPC (now including AVX512 support), AI and machine learning, EPYC 9004 powered servers deliver faster time to results with exceptional energy efficiency. AMD EPYC 4th Gen processors deliver out of the box performance – with up to an estimated 30% more performance per watt for 64 core processors gen over gen, capable of supporting up to 50% more memory channels than any competitive x86 server CPU, and providing up to 2x the PCIe lanes and 2x the throughput of PCIe4 lanes, for up to 4x the IO capability of the competition. AMD continues its leading-edge security innovation, providing physical and virtual security features by intent and design - in the cloud and on-prem with confidential computing leadership.

TYAN Brand Lines

Tyan is pleased to announce a new line of server barebones and motherboards designed to suit the needs of the channel and our system integration partners.

Transport and Tomcat products spanning five product segments:
SX – Storage
HX – HPC
CX – Cloud
RX – Security
EX – Embedded

Tyan continually develops a roadmap full of innovative new products. Check our website at www.tyan.com to stay up to date with our latest product offerings.

Transport

The Tyan **Transport** series is a line of server barebones based on AMD's latest technology including the AMD EPYC™ Family of Processors. These barebones are designed to offer best in class server technology to our customers. Tyan Transport server barebones are built to inventory and are warehoused locally in the USA.

Tomcat

Tyan's **Tomcat** line of motherboards are designed to pack the latest of AMD's world-class server technology into commodity off the shelf chassis, providing an outstanding server building block for the widest possible range of applications. Like Tyan's Transport server barebones, these motherboards are warehoused in the USA and are readily available in the channel.

Transport HX
FT65T-B8050

AMD EPYC | **5nm** | **96 Core** | **nvm EXPRESS** | **DDR5** | **PCIe 5.0**

80 PLUS PLATINUM | **80 PLUS GOLD**

Pedestal/4U 1S GPU server platform supports multiple high performance GPU cards

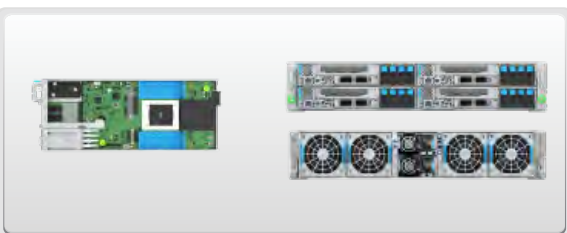|	
Model Number	FT65T-B8050
Enclosure Form Factor	Pedestal / 4U (25.59" in depth)
Supported CPU	(1) AMD EPYC™ 9004 series processor
Number of DIMM Slot	8
Memory Type (max. capacity)	Follow the latest AMD EPYC™ 9004 Processor Memory POR Registered (3DS) DDR5 4800 (3,072GB)
Storage Controller	AMD EPYC 9004
Networking	(2) 10GBase-T (Intel® x710-AT2) (-2T SKU only) + (2) 1000Base-T (2x Intel® i210-AT) + (1) 1000Base-T port dedicate for IPMI (Realtek® RTL8211FD-CG)
PCI Expansion Slots	(5) PCIe 5.0 x16 slots
Power Supply	(1) 2,000W (@220V$_{AC}$) ATX PSU

Standard Model	# Storage Bay	# FAN	Networking
B8050F65TV8E2H-2T-N	(8) 3.5" hot-swap SATA + (2) 2.5" hot-swap U.2	(3) hot-swap 12038 + (2) cold-swap 8038	(2) 10GBase-T + (2) 1000Base-T (1) 1000Base-T (IPMI)
B8050F65TV8E2H-N	(8) 3.5" hot-swap SATA + (2) 2.5" hot-swap U.2	(3) hot-swap 12038 + (2) cold-swap 8038	(2) 1000Base-T (1) 1000Base-T (IPMI)
B8050F65TV8E2H-G	(8) 3.5" hot-swap SATA + (2) 2.5" hot-swap U.2	(3) hot-swap 12038	(2) 1000Base-T (1) 1000Base-T (IPMI)

Transport CX
TD76-B8058

AMD EPYC | **5nm** | **96 Core** | **nvm EXPRESS** | **DDR5** | **PCIe 5.0**

80 PLUS PLATINUM

2U4N front I/O server platform for high-density cloud server deployment

Model Number	TD76-B8058
Enclosure Form Factor	2U (29.92" in depth)
Supported CPU	(1) AMD EPYC™ 9004 series processor (per node)
Number of DIMM Slot	16 (per node)
Memory Type (max. capacity)	Follow the latest AMD EPYC™ 9004 Processor Memory POR Registered (3DS) DDR5 4800/4400/4000 (2,048GB)
Storage Controller	AMD EPYC 9004
Networking	(1) 1000Base-T (Intel® i210-AT) + (1) 1000Base-T port dedicate for IPMI (Realtek® RTL8211FD-CG) (per node)
PCI Expansion Slots	(1) PCIe 5.0 x16 slot (via riser) + (1) OCP v3.0 LAN mezzanine slot + (2) PCIe 4.0 x4 NVMe M.2 slots (per node)
Power Supply	(1+1) 2,700W (@220V$_{AC}$) CRPS (per system)

Standard Model	# Storage Bay (per node)	# PCIe Slots (per node)	Networking (per node)
B8058T76X4-270TE4HR	(4) 2.5" hot-swap E1.s	(1) PCIe 5.0 x16 + (1) OCP v3.0 mezz. + (2) M.2	(1) 1000Base-T + (1) 1000Base-T (IPMI)

Transport SX
TS70-B8056

AMD EPYC · 5nm · 96 Core · nvm EXPRESS · DDR5 · PCIe 5.0

80 PLUS PLATINUM

2U1S server platform for cost-effective cloud storage applications

Model Number	TS70-B8056
Enclosure Form Factor	2U (27.56" in depth)
Supported CPU	(1) AMD EPYC™ 9004 series processor
Number of DIMM Slot	24
Memory Type (max. capacity)	Follow the latest AMD EPYC™ 9004 Processor Memory POR Registered (3DS) DDR5 4800/4400/4000 (3,072GB)
Storage Controller	AMD EPYC 9004
Networking	(2) 10GBase-T (Intel® x710-AT2) + (1) 1000Base-T port dedicate for IPMI (Realtek® RTL8211FD-CG)
PCI Expansion Slots	(2) PCIe 5.0 x16 + (1) PCIe 5.0 x8 slots (via risers) + (1) OCP v3.0 LAN mezzanine slot + (2) PCIe 4.0 x4 NVMe M.2 slots
Power Supply	(1+1) 1,600W (@220V_{AC}) CRPS

Standard Model	# Storage Bay	# PCIe Slots	Networking
B8056T70V8E6HR-2T	(12) 3.5" hot-swap SATA (up to 4x U.2) + (2) 2.5" hot-swap SATA (@ rear)	(2) PCIe 5.0 x16 + (1) PCIe 5.0 x8 + (1) OCP v3.0 mezz. +	(2) 10GBase-T + (1) 1000Base-T (IPMI)
B8056T70V8E6HR	(12) 3.5" hot-swap SATA (up to 4x U.2) + (2) 2.5" hot-swap SATA (@ rear)	(2) PCIe 5.0 x16 + (1) PCIe 5.0 x8 + (1) OCP v3.0 mezz. + (2) M.2	(1) 1000Base-T (IPMI)

Transport SX
TS70A-B8056

AMD EPYC · 5nm · 96 Core · nvm EXPRESS · DDR5 · PCIe 5.0

80 PLUS PLATINUM

2U1S server platform for high IOPs cloud storage applications

Model Number	TS70A-B8056
Enclosure Form Factor	2U (27.56" in depth)
Supported CPU	(1) AMD EPYC™ 9004 series processor
Number of DIMM Slot	24
Memory Type (max. capacity)	Follow the latest AMD EPYC™ 9004 Processor Memory POR Registered (3DS) DDR5 4800/4400/4000 (3,072GB)
Storage Controller	AMD EPYC 9004
Networking	(2) 10GBase-T (Intel® x710-AT2) + (1) 1000Base-T port dedicate for IPMI (Realtek® RTL8211FD-CG)
PCI Expansion Slots	(1) PCIe 5.0 x8 slots (via risers) + (1) OCP v3.0 LAN mezzanine slot + (2) PCIe 4.0 x4 NVMe M.2 slots
Power Supply	(1+1) 1,600W (@220V_{AC}) CRPS

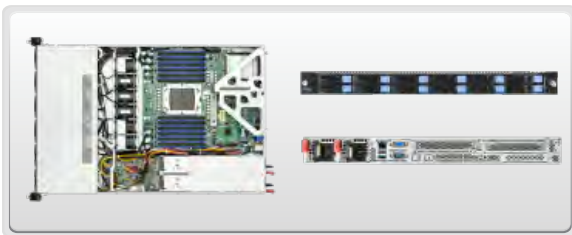| Standard Model	# Storage Bay	# PCIe Slots	Networking
B8056T70AE26HR-2T	(26) 2.5" hot-swap U.2	(1) PCIe 5.0 x8 + (1) OCP v3.0 mezz. + (2) M.2	(2) 10GBase-T + (1) 1000Base-T (IPMI)
B8056T70AE26HR	(26) 2.5" hot-swap U.2	(1) PCIe 5.0 x8 + (1) OCP v3.0 mezz. + (2) M.2	(1) 1000Base-T (IPMI)

Transport CX
GC68A-B8056

AMD EPYC | **5nm** | **96 Core** | **NVM EXPRESS** | **DDR5** | **PCIe 5.0**

80 PLUS PLATINUM

1U1S server platform for mainstream cloud applications

Model Number	GC68A-B8056
Enclosure Form Factor	1U (26.77" in depth)
Supported CPU	(1) AMD EPYC™ 9004 series processor
Number of DIMM Slot	24
Memory Type (max. capacity)	Follow the latest AMD EPYC™ 9004 Processor Memory POR Registered (3DS) DDR5 4800/4400/4000 (3,072GB)
Storage Controller	AMD EPYC 9004
Networking	(2) 10GBase-T (Intel® x710-AT2) + (1) 1000Base-T port dedicate for IPMI (Realtek® RTL8211FD-CG)
PCI Expansion Slots	(2) PCIe 5.0 x16 slots (via risers) + (1) OCP v3.0 LAN mezzanine slot + (2) PCIe 4.0 x4 NVMe M.2 slots
Power Supply	(1+1) 850W RPSU

Standard Model	# Storage Bay	# PCIe Slots	Networking
B8056G68AE12HR-2T	(12) 2.5" hot-swap U.2 (up to 4x SATA)	(2) PCIe 5.0 x16 + (1) OCP v3.0 mezz. + (2) M.2	(2) 10GBase-T + (1) 1000Base-T (IPMI)
B8056G68AE12HR	(12) 2.5" hot-swap U.2 (up to 4x SATA)	(2) PCIe 5.0 x16 + (1) OCP v3.0 mezz. + (2) M.2	(1) 1000Base-T (IPMI)

Tomcat HX
S8050

Server Board

AMD EPYC | **5nm** | **96 Core** | **NVM EXPRESS** | **DDR5** | **PCIe 5.0**

Single-socket HPC server board for multiple GPU cards deployment

Processor	· (1) AMD EPYC™ 9004 series processor
Memory	· (8) DDR5 DIMM slots
Expansion	· (5) PCIe 5.0 x16 slots · (2) NVMe M.2 slots · (2) PCIe 5.0 MCIO 8x connectors for U.2 · (2) PCIe 5.0 MCIO 4x connectors for U.2
Storage	· (12) SATA 6Gb/s
Network	· (2) 10GBase-T ports (Intel® x710-AT2) (-2T SKU only) · (2) 1000Base-T ports (2x Intel® i210-AT) · (1) 1000Base-T port dedicate for IPMI (Realtek® RTL8211FD-CG)
Video	· ASPEED AST2600 Integrated Graphics
Management	· ASPEED AST2600 iBMC w/ iKVM
Form Factor	· CEB 12" x 10.5"

Standard Model	SATA	NVMe	10GbE	GbE	BMC
S8050GM4NE-2T	12	(2) MCIO 8x + (2) MCIO 4x + (2) M.2	2	2	Yes
S8050GM2NE	12	(2) MCIO 8x + (2) MCIO 4x + (2) M.2	-	2	Yes

Tomcat CX
S8056

Server Board

AMD EPYC | **5nm** | **96 Core** | **NVM EXPRESS** | **DDR5** | **PCIe 5.0**

Single-socket rack-optimized server board for 1U/2U deployment

Processor	· (1) AMD EPYC™ 9004 series processor
Memory	· (24) DDR5 DIMM slots
Expansion	· (1) PCIe 5.0 x28 riser slot (w/ x16 link) · (1) PCIe 5.0 x24 riser slot · (2) NVMe M.2 slots · (9) PCIe 5.0 MCIO 8x connectors for U.2 (1 w/ x4 link)
Storage	· Up to (16) SATA 6Gb/s (by BIOS setting)
Network	· (2) 10GBase-T ports (Intel® x710-AT2) (-2T SKU only) · (1) 1000Base-T port dedicate for IPMI (Realtek® RTL8211FD-CG)
Video	· ASPEED AST2600 Integrated Graphics
Management	· ASPEED AST2600 iBMC w/ iKVM
Form Factor	· 12.15" x 14.18"

Standard Model	NVMe	10GbE	BMC
S8056GM2NE-2T	(9) MCIO x8 + (2) M.2	2	Yes
S8056GMNE	(9) MCIO x8 + (2) M.2	-	Yes

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