

Transport & Tomcat Solutions

AMD EPYC[™]/ Ryzen[™] Processor







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 PCle5 lanes in a 1 socket server and up to an astounding 160 PCle5 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 PCle5 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 four product segments:

SX - Storage

HX - HPC

CX - Cloud

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 off-the-shelf commodity chassis, providing an outstanding server building block for the widest possible range of applications. Like Tyan's Transport server barehones, these motherboards are warehoused in the USA and are readily available in the channel.

Transport CX HG68-B8016



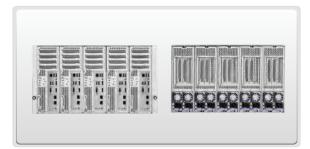














6U5N cloud gaming server platform accommodating one double-wide GPU per node

| Model Number | HG68-B8016 | | | |
|--------------------------------|--|---|---|--|
| Enclosure Form Factor | 6U (26.85" in depth) | | | |
| Supported CPU | (1) | AMD Ryzen 7000 series processor (| per node) | |
| Number of DIMM Slot | | 4 (per node) | | |
| Memory Type (max. capacity) | | e latest AMD Ryzen 7000 Processor DR5 ECC UDIMM & non-ECC 5200 | • | |
| Storage Controller | | AMD B650 FCH | | |
| Networking | (2) 1000Base-T (Intel® i210-AT) + (1) 1000Base-T port dedicate for IPMI (Realtek® RTL8211FD-CG) (per node) | | | |
| PCI Expansion Slots | (1) PCle 4.0 x4 slot + (1) PCle Gen.4 x8 slot (w/ x4 link) + (1) PCle Gen.5 x16 slot (per node) | | | |
| Power Supply | (1+1) 80 | 0W (@110V/220V _{AC}) CRPS (per noc | le) | |
| Standard Model | # Storage Bay (per node) | # PCIe Slots (per node) | Networking (per node) | |
| B8016H68D5 | - | (1) PCle 4.0 x4 slot + (1) PCle Gen.4 x8 slot (w/ x4 link) + (1) PCle Gen.5 x16 slot + (2) M.2 | (2) 1000Base-T + (1) 1000Base-T (IPMI) | |

Transport HX FT65T-B8050





















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

| Standard Model | # Storage Bay | # FAN | Networking |
|-----------------------|--|----------------------------|---------------|
| Power Supply | (1) 2,000W (@220V _{AC}) ATX PSU | | |
| PCI Expansion Slots | (5) PCIe 5.0 x16 slots | | |
| | (1) 1000Base-T port ded | icate for IPMI (Realtek® I | RTL8211FD-CG) |
| Networking | (2) 1000Base-T (2x Intel® i210-AT) + | | |
| | (2) 10GBase-T (Intel® x710-AT2) (-2T SKU only) + | | |
| Storage Controller | AMD EPYC 9004 | | |
| (max. capacity) | Registered | (3DS) DDR5 4800 (3,07) | 2GB) |
| Memory Type | | EPYC™ 9004 Processo | , |
| Number of DIMM Slot | | 8 | |
| Supported CPU | (1) AMD E | PYC™ 9004 series proce | essor |
| Enclosure Form Factor | Pedestal / 4U (25.59" in depth) | | |
| Model Number | FT65T-B8050 | | |
| | | | |

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

Transport CX TD76-B8058

















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 EF | PYC™ 9004 series processo | r (per node) | | |
| Number of DIMM Slot | | 16 (per node) | | | |
| Memory Type (max. capacity) | Follow the latest AMD EPYC TM 9004 Processor Memory POR Registered (3DS) DDR5 4800/3600 (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) 2,7 | 00W (@220V _{AC}) CRPS (per | system) | | |
| Standard Model | # Storage Bay (per node) | # PCle Slots (per node) | Networking (per node) | | |
| B8058T76X4-270TE4HR | (4) hot-swap E1.s | (1) PCle 5.0 x16 + (1) OCP v3.0 mezz. + (2) M.2 | (1) 1000Base-T + (1) 1000Base-T (IPMI) | | |

Transport SX TS70A-B8056

















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 proce | essor | |
| Number of DIMM Slot | | 24 | | |
| Memory Type (max. capacity) | | atest AMD EPYC™ 9004 Processor ered (3DS) DDR5 4800/3600/4000 | | |
| 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 | 3 | |
| Standard Model | # Storage Bay | # PCIe Slots | Networking | |
| B8056T70AE26HR-2T | (26) 2.5" hot-swap U.2 | (1) PCle 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) PCle 5.0 x8 + (1) OCP v3.0 mezz. + (2) M.2 | (1) 1000Base-T (IPMI) | |

Transport HX TN85-B8261

















2U2S 4-GPU server platform designed for HPC/GPGPU applications

| Model Number | TN85-B8261 |
|--------------------------------|--|
| Enclosure Form Factor | 2U (33.46" in depth) |
| Supported CPU | (2) AMD EPYC™ 9004 series processor |
| Number of DIMM Slot | 24 / 12+12 |
| 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® x550-AT2) ports + (1) 1000Base-T port dedicate for IPMI (Realtek® RTL8211FD-CG) |
| PCI Expansion Slots | (6) PCIe 5.0 x16 slots |
| Power Supply | (1+1) 2,700W (@220V _{AC}) CRPS |

| Standard Model | # Storage Bay | # PCIe Slots | Networking |
|-------------------|-----------------------|------------------|----------------|
| B8261T85E8HR-2T-N | (8) 2.5" hot-swap U.2 | (6) PCIe 5.0 x16 | (2) 10GBase-T+ |

Transport CX GC68C-B8056



















1U2S 4-GPU server platform designed for HPC/GPGPU applicationsModel

| Model Number | GC68C-B8056 | | | |
|--------------------------------|---|---|--|--|
| Enclosure Form Factor | | 1U (26.77" in depth) | | |
| Supported CPU | (1) AN | ID EPYC™ 9004 series prod | cessor | |
| Number of DIMM Slot | | 24 | | |
| Memory Type (max. capacity) | Follow the latest AMD EPYC™ 9004 Processor Memory POR Registered (3DS) DDR5 4800/3600 (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) PCle 5.0 x16 slots (via risers) + (1) OCP v3.0 LAN mezzanine slot + (2) PCle 4.0 NVMe M.2 slots | | | |
| Power Supply | | (1+1) 860W RPSU | | |
| Standard Model | # Storage Bay # PCle Slots Networking | | | |
| B8056G68CE12HR-2T | (12) 2.5" hot-swap U.2 | (2) PCle 5.0 x16 + (1) OCP v3.0 mezz. + (2) M.2 | (2) 10GBase-T + (1) 1000Base-T (IPMI) | |

| | (2) PCIe 4.0 NVMe M.2 slots (1+1) 860W RPSU | | | |
|-------------------|--|---|--|--|
| Power Supply | | | | |
| Standard Model | # Storage Bay | # PCle Slots | Networking | |
| B8056G68CE12HR-2T | (12) 2.5" hot-swap U.2 | (2) PCle 5.0 x16 + (1) OCP v3.0 mezz. + (2) M.2 | (2) 10GBase-T + (1) 1000Base-T (IPMI) | |
| B8056G68CE12HR | (12) 2.5" hot-swap U.2 | (2) PCle 5.0 x16 + (1) OCP v3.0 mezz. + (2) M.2 | (1) 1000Base-T (IPMI) | |

Transport SX GX40-B8016



















1U1S server platform designed for cost-effective edge compute node

| Model Number | GX40-B8016 | | | | |
|--------------------------------|--|-------------------------|---|--|--|
| Enclosure Form Factor | 1U (16.1" in depth) | | | | |
| Supported CPU | (1) AMD Ryzen 7000 series processor | | | | |
| Number of DIMM Slot | | 4 | | | |
| Memory Type (max. capacity) | Follow the latest AMD Ryzen 7004 Processor Memory POR DDR5 ECC UDIMM & non-ECC 5200 (512GB) | | | | |
| Storage Controller | AMD B650 FCH | | | | |
| Networking | (2) 1000Base-T (Intel® i210-AT) + (1) 1000Base-T port dedicate for IPMI (Realtek® RTL8211FD-CG) | | | | |
| PCI Expansion Slots | | (1) PCIe Gen.5 x16 slot | | | |
| Power Supply | (1) 300W (@110V/220V _{AC}) CRPS | | | | |
| Standard Model | # Storage Bay | # PCIe Slots | Networking | | |
| B8016G40V4 | - | (1) PCIe Gen.5 x16 slot | (2) 1000Base-T + (1) 1000Base-T (IPMI) | | |

Transport CX GC73A-B8046





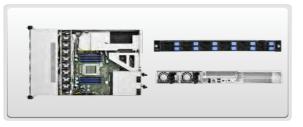














1U1S server platform for mainstream cloud applications

| Model Number | GC73A-B8046 | | | |
|--------------------------------|--|-------------------------------|-----------------------|--|
| Enclosure Form Factor | | 1U (28.74" in depth) | | |
| Supported CPU | (1) A | MD EPYC™ 8004 series pr | ocessor | |
| Number of DIMM Slot | | 12 | | |
| Memory Type (max. capacity) | Follow the latest AMD EPYC™ 8004 Processor Memory POR Registered DDR5 4800/3600 (1,152GB) | | | |
| Storage Controller | AMD EPYC 8004 | | | |
| Networking | (1) 1000Base-T port dedicate for IPMI (Realtek® RTL8211FD-CG) | | | |
| PCI Expansion Slots | (1) PCle 5.0 x16 slot +(1) PCle 5.0 x16 slot + (2) PCle 3.0 x2 NVMe M.2 slots | | | |
| Power Supply | (1+1) 1,300W (@220Vac) RPSU | | | |
| Standard Model | # Storage Bay | # PCIe Slots | Networking | |
| B8046G73AE12HR | (12) 2.5" hot-swap U.2 (up to 4x SATA) | (2) PCle 5.0 x16 + (2) M.2 | (1) 1000Base-T (IPMI) | |

Tomcat CX S8040

Server Board











Single-socket server motherboard designed for server applications

| Processor | • (1) AMD | • (1) AMD EPYC™ 8004 series processor | | | | |
|----------------|--------------------------|---|-------|-----|-----|--|
| Memory | • (8) DDR5 | • (8) DDR5 DIMM slots | | | | |
| Expansion | • (2) NVMe • (2) PCIe | (4) 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 | • (4) SATA | · (4) SATA 6Gb/s | | | | |
| Network | · (2) 1000E | (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) | | | | |
| Video | • ASPEED | ASPEED AST2600 Integrated Graphics | | | | |
| Management | · ASPEED | ASPEED AST2600 iBMC w/ iKVM | | | | |
| Form Factor | • ATX 12" | x 9.6"" | | | | |
| Standard Model | SATA | NVMe | 10GbE | GbE | ВМС | |
| S8040GM4NE-2T | 4 | (2) MCIO 8x + (2) MCIO 4x + (2) M.2 | 2 | 2 | Yes | |
| S8040GM2NE | 4 | (2) MCIO 8x + (2) MCIO 4x + (2) M.2 | - | 2 | Yes | |

Tomcat CX S8050









Server Board





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 | ВМС | | |
| 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 **S8047**

















Single-socket server motherboard designed for CSP server applications

| _ | | | | | | |
|----------------|--|---|-------|-----|-----|--|
| Processor | • (1) AMD | • (1) AMD EPYC™ 8004 series processor | | | | |
| Memory | • (8) DDR5 DIMM slots | | | | | |
| Expansion | (1) PCIe 5.0 x16 slot (1) OCP v3.0 mezz. slot (2) NVMe M.2 slots (5) PCIe 5.0 MCIO 8x connectors for U.2 | | | | | |
| Storage | • (8) SATA | • (8) SATA 6Gb/s via (2) MCIO x4 connectors | | | | |
| Network | (2) 25GBase-CR SFP28 (Broadcom BCM57502) (-2V SKU only) (2) 1000Base-T (2x Intel® i210-AT) (1) 1000Base-T port dedicate for IPMI (Realtek® RTL8211FD-CG) | | | | | |
| Video | • ASPEED | ASPEED AST2600 Integrated Graphics | | | | |
| Management | ASPEED AST2600 iBMC w/ iKVM | | | | | |
| Form Factor | • ATX 12" x 9.6"" | | | | | |
| Standard Model | SATA | NVMe | 25GbE | GbE | ВМС | |
| S8047GM4NE-2V | 8 | (5) MCIO 8x + (2) M.2 | 2 | 2 | Yes | |
| S8047GM2NE | 8 | (5) MCIO 8x + (2) M.2 | - | 2 | Yes | |

Tomcat CX S8016

















Cost-Effective motherboard for CSP deployment

| S8016AGM2NR | 4 | (2) M.2 | 2 | Yes | 2.1 Channel HD | | | |
|----------------|-----------------------------|--|-----|-----|----------------|--|--|--|
| Standard Model | SATA | NVMe | GbE | BMC | Audio | | | |
| Form Factor | • Micro-ATX 9.6" x 9.6" | | | | | | | |
| Management | ASPEED AST2600 iBMC w/ iKVM | | | | | | | |
| Video | · ASPEED A | ASPEED AST2600 Integrated Graphics | | | | | | |
| Network | . , | (2) 1000Base-T ports (2x Intel® i210-AT) (1) 1000Base-T port dedicate for IPMI (Realtek® RTL8211FD-CG) | | | | | | |
| Storage | • (4) SATA 60 | • (4) SATA 6Gb/s | | | | | | |
| Expansion | • (1) PCIe 5.0 | • (1) PCle 5.0 x16 slot | | | | | | |
| Memory | • (4) DDR5 DIMM slots | | | | | | | |
| Processor | • (1) AMD Ry | • (1) AMD Ryzen 7000 series processor | | | | | | |



MITAC COMPUTING TECHNOLOGY CORP.

USA

39660 Eureka Drive, Newark, CA 94560 United States TEL: +1-510-651-8868 Pre-Sales: +1-510-651-8868 FAX: +1-510-651-7688 Email: Sales_america@tyan.com

Taiwan

No.200, Wen Hwa 2nd Rd., Kuei Shan Dist., Taoyuan City 33383, Taiwan TEL: +886-3-3275988 #7456 Johnson Chang FAX: +886-3-327-6312 Email: johnson.chang@tyan.com.tw

China

No.213 Jiang Chang San Road,
Zha Bei District, Shanghai (200436)
Shanghai TEL: +86-021-61431188 #1361
Beijing TEL: +86-010-62381108 #2485 & #2013
Email: chinats@mic.com.tw

Japan

Yasuda Shibaura 2nd Building 3F Kaigan 3-chome 2-12, Minato-ku, Tokyo 108-0022, Japan TEL: +81-3-3769-8311 FAX: +81-3-3769-8328 Email: TYAN@mitac.co.jp

EMEA

Tewkesbury, Gloucestershire England Phone: +31-6-47442979 Johnny Wang Email: johnny.cy.wang@tyan.com

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Please contact your sales representative or TYAN authorized distributors.