

QCT® | intel®

QCT

PRODUCT
PORTFOLIO



Contents

About QCT	2
QCT Services and Support	3
QCT Systems	4

SERVER

Intel® Xeon® 6 Server Platforms	7
QuantaGrid Series	8
QuantaPlex Series	12
QuantaEdge Series	14
QoolRack Series	15
Orchestra	16

NETWORKING

QuantaMesh Series	17
SONiC	19
QuantaMesh Switch Accessories	21

SOLUTION

Cloud Infrastructure	22
Software Defined Storage	24
AI & HPC System Solution	23
Process Automation Solution	24
Private 5G Network Solution	25

Specifications	26
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Leading Technologies for the Data-centric Era

Quanta Cloud Technology (QCT) has a significant market presence and offers a full spectrum of data center products that include servers, storage, network switches, and rack systems. QCT also has a wide array of hyper-converged and software-defined data center solutions to fit a full range of computing workloads for the data-centric era. We provide customers not only with early access to the latest innovations for faster time-to-market through our partnerships with leading technology partners (i.e. Microsoft, Red Hat, VMware, etc.), but also complete access to our own ecosystem of products which are designed and developed all under one roof.

Company Profile

QCT is Quanta Computer's cloud computing division and a global data center solution provider. We have been an enabler and a disruptor in the market, understanding how important it is to help businesses solve next generation data center design and operational challenges for 5G, AI, and Clouds. From fulfilling unique data center requirements to streamlining the digital transformation journey, QCT has proven its ability to provide end-to-end solutions to global data centers and clouds from a single node to an entire rack.

Quanta has been recognized as one of the Clarivate Top 100 Global Innovators. Clarivate Analytics is a Philadelphia-based global information solutions provider whose focus is on intellectual property and the sciences. Quanta and QCT's commitment to innovation has resulted in hundreds of patents filed in cloud computing since 2014. Quanta's patent success rate and global reach were identified as outstanding, marking the recognition in consecutive years since 2018. Quanta has also been named among Fortune Magazine's World's Most Admired Companies 2021.

THE WORLD'S MOST ADMIRABLE COMPANIES



TOP 100
GLOBAL
INNOVATOR



Headquarters/Locations

QCT is headquartered in Taoyuan, Taiwan, with two offices in the United States (San Jose, CA; Seattle, WA); two in China (Beijing and Hangzhou); one in Germany (Düren); one in Korea (Seoul); one in Japan (Tokyo); and one in Singapore.

President/Leadership

Mike Yang is the president of QCT and executive vice president and general manager of the cloud business unit of Quanta Computer Inc.

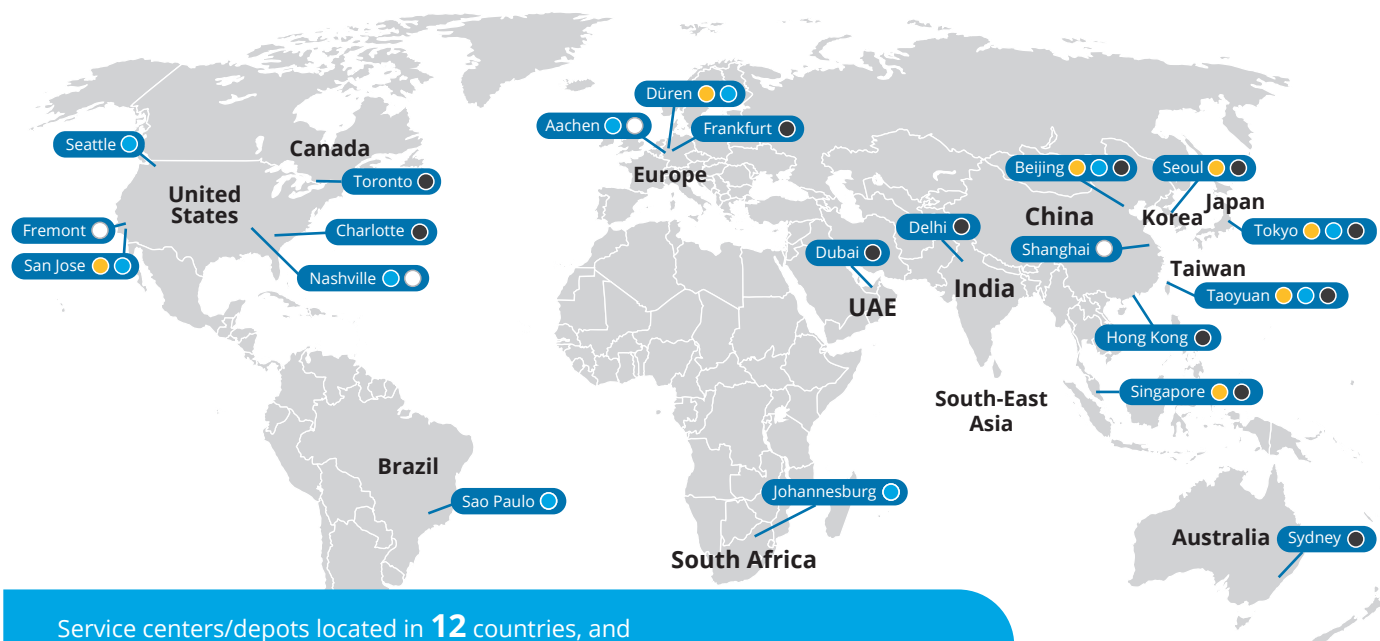
Employees

QCT has employees worldwide, including engineers, architects, sales & marketing, business development, and service personnel.

QCT Services and Support

As a prominent cloud hardware solution provider, we proudly stand behind our products by offering our customers the highest level of professional services and support.

- QCT worldwide office
- QCT's own service center
- QCT's authorized service partner
- Integration Center



Service centers/depots located in **12** countries, and
Service availability covers **58** countries worldwide with more than **2000** cities.

QCT Services and Support is comprised of a basic package and flexible premium options for customers to select according to their needs.

Basic Service Warranty

3 Years
Warranty
Coverage on
All QCT HW

5 x 9 Help
Desk
Support

Component
Replacement

QCT Online
Service Portal
for Support &
RMA Services

Premium Service

Advance
Replacement
Service

Seedstock
(Spare Depot)
Service

Drive
Retention
Service

On-Site
Support
Service

* Service details may vary by country. Please contact your QCT local service center for more information.

QCT Systems

QuantaGrid

1U



QuantaGrid **D55X-1U**

Versatile Server for Every Workload, Tailored for Diverse Applications

P 8



QuantaGrid **D54X-1U**

Ultimate Compute Performance and Security Architecture

P 8



QuantaGrid **S55R-1U**

Ultimate Compute Architecture for Performance and Efficiency

P 9



QuantaGrid **S54S-1U**

High-density and Powerful Storage

P 9

2U



QuantaGrid **D55Q-2U**

Power, flexibility, and performance all in one robust 2U server for diverse workloads

P 9



QuantaGrid **D54Q-2U**

Scale Ahead for the Workload of Tomorrow

P 9



QuantaGrid **S55J-2U**

Flexible, Ultra-Dense Architecture for Storage Building Blocks

P 10

3U



QuantaGrid **D75L-3U**

Maximum GPU Density in AI Clusters

P 10



QuantaGrid **D54U-3U**

Optimizing AI/ High-performance Computing

P 10

4U



QuantaGrid **D75E-4U**

Tailored to Unlock Infinite AI Possibilities

P 10

7U



QuantaGrid **D75F-7U**

Delivering Advanced Performance for the Most Extreme AI-HPC Workloads

P 11



QuantaGrid **D74F-7U**

Built for HPC and Advanced AI Workloads

P 11



QuantaGrid **D74H-7U**

Accelerated Performance for the Most Extreme AI & HPC Workloads

P 11

10U



QuantaGrid **D75H-10U**

A Breakthrough to Build Large High-Speed Scale-Out GPU Clusters

P 11

QuantaPlex

2U



QuantaPlex **S45Z-2U**
Ample Performance
Multi-node Server

P 12



QuantaPlex **S25Z-2U**
Ample Performance
Multi-node Server

P 12

5U



QuantaPlex **S24P-5U**
Storage Pioneer for Data Center
Workloads

P 13

QuantaEdge



QuantaEdge **EGX88D-1U**
Carrier-Grade Flexible 300 mm
Server

P 14



QuantaEdge **EGX77B-1U**
Carrier-Grade Flexible 300mm
Server

P 14

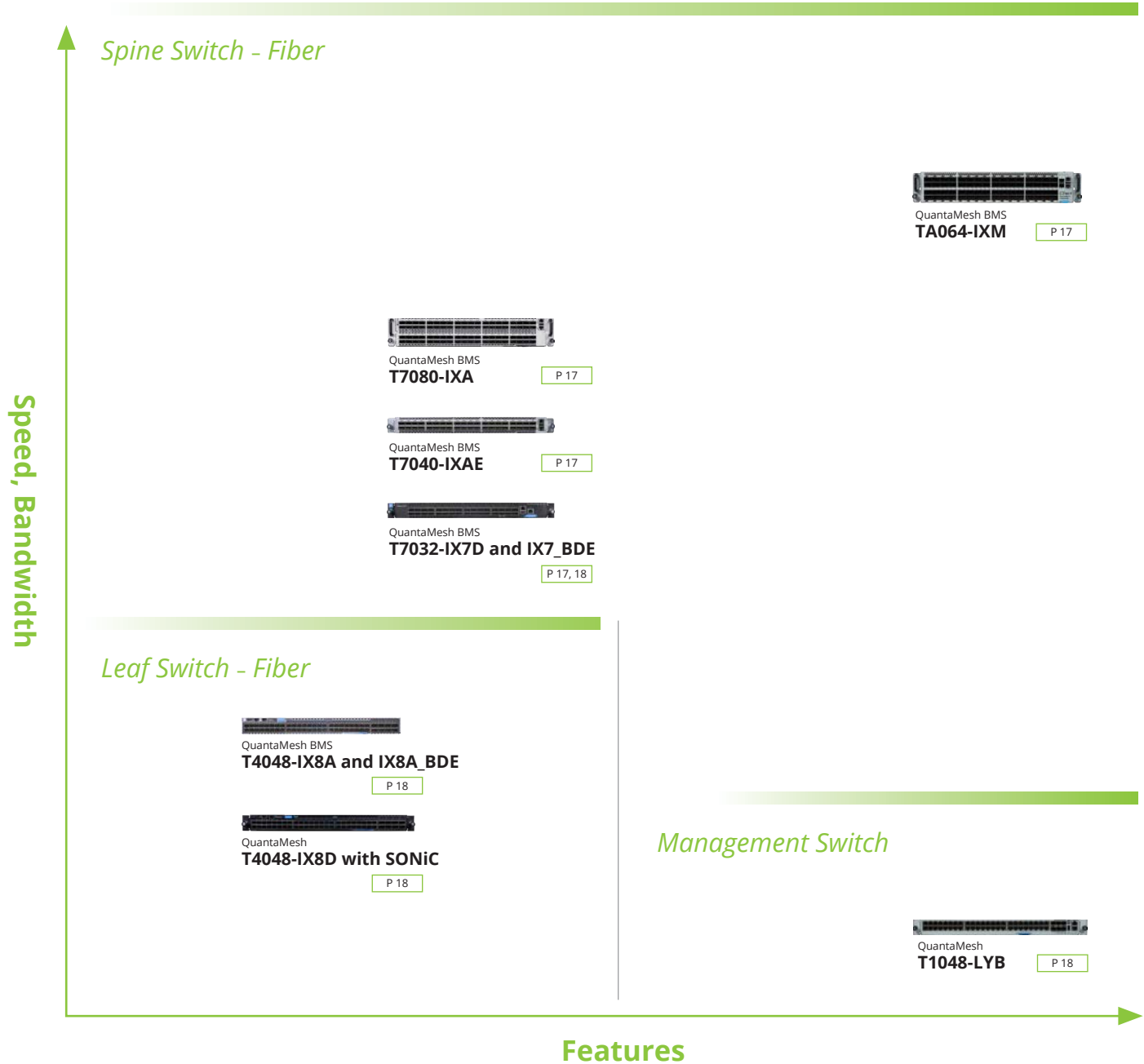


QuantaEdge **EGX74I-1U**
Carrier-Grade Multi-Access
Edge Computing (MEC) Server

P 14

* All specifications and figures are subject to change without prior notice.

Networking





QCT Server Product Lines Support Intel® Xeon® 6 Processors



Unleash The Performance for Today's Acceleration and AI Needs

QCT's latest generation of server systems powered by Intel® Xeon® 6 processors enable significant upgrades over the previous generation to increase performance utilizing PCIe Gen5, the latest DDR5 memory, and Compute Express Link™(CXL).

With more compute and faster memory at the same power envelope as the previous generation, both the Intel® Xeon 6® with E-cores and P-cores processors are built to support your organization's evolving needs. Intel® Xeon® 6 provides you with a single platform of processors that deliver from high AI performance to exceptional efficiency and cloud scalability.

Over the years, QCT and Intel have been delivering the latest Intel CPUs and GPUs, allowing all types of businesses to reach new heights of innovations and productivity. With enhanced cores, higher memory bandwidth, and powerful matrix engines; QCT's latest server systems equipped with Intel technologies are optimized for the most demanding AI, HPC, 5G, edge, networking, storage and scale-out workloads.

Intel Features

Intel® Xeon® 6700/6500-series processors with P-cores deliver:



Increased Performance
Up to 86 cores, PCIe Gen5, CXL 2.0



Increased Memory Bandwidth
1.7x DDR5 speed for HPC, AI & Data Analytics (vs. 5th Gen Intel® Xeon® processors)



Upgraded Security

- Intel® TDX for virtual machine isolation
- Intel® SGX
- Intel® Platform Firmware Resilience (Intel® PFR)

QCT Features

QCT servers are designed for a variety of workloads, taking advantage of the latest technologies, including:



Advanced air and liquid cooling options for 350W TDP processors



E3.S NVMe drives supporting higher throughput



Optimized AI acceleration supporting single-width, dual-width, and OAM accelerators



Enhanced serviceability with tool-less, hot-pluggable designs (HDD, SSD, fan, PSU, PCIe riser brackets)



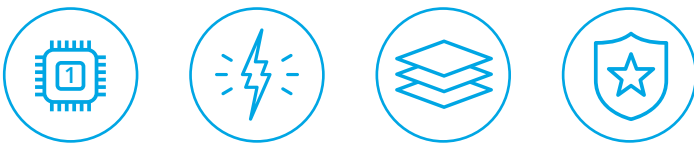
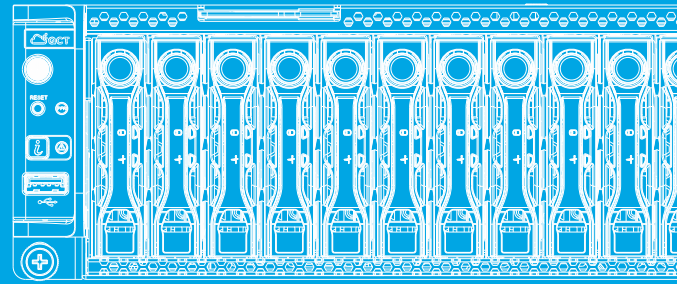
DC-MHS compliant, supporting DC-SCM and OCP 3.0 specifications



QCT Orquesta light-weight data center management tool

QuantaGrid Series

QCT offers a comprehensive line of high-performance, rack-mount, single-node servers, ideal for granularity and capable of tackling a variety of modern data center workloads. From enterprises to cloud service providers, the QuantaGrid series delivers optimized performance and astonishing user experience with the most advanced industrial technologies and thoughtful engineering designs.



- Versatile, Single-Node Computing Servers
- Low Power Consumption While Delivering High Operating Performance
- Modularized Components that Increase Serviceability and Configuration Flexibility
- Designed with High Availability and Reliability to Protect Business Critical Applications

QuantaGrid **D55X-1U**

Versatile Server for Every Workload, Tailored for Diverse Applications

QuantaGrid D55X-1U is a general-purpose 1U rackmount server designed for diverse workloads. Powered by dual Intel® Xeon® 6 CPUs, it offers flexible storage options including NVMe/SATA/SAS 2.5" drives as well as E1.S and E3.S 1T to meet various needs. As for PCIe expansion, it supports 400Gb networking, GPUs, and DPUs. Such flexible configurations ensure that it is an ideal tailored solution.



Form Factor	CPU Number	Memory Number
1U	2	32

QuantaGrid **D54X-1U**

Ultimate Compute Performance and Security Architecture

QuantaGrid D54X-1U is a general-purpose rackmount server designed for a balanced architecture with built-in acceleration and power efficiency. Powered by 5th/4th Gen Intel® Xeon® Scalable processors, it features up to 5 PCIe 5.0 expansion slots including 2 OCP 3.0 slots. The D54X-1U now offers All 12 2.5" NVMe flash or 16 E1.S NVMe flash drives, targeting HPC and enterprise workloads.



Form Factor	CPU Number	Memory Number
1U	2	32

QuantaGrid **S55R-1U**

Ultimate Compute Architecture for Performance and Efficiency

QuantaGrid S55R-1U offers a balanced architecture powered by Intel® Xeon® 6 processor rich one-socket SKU, which offers ample PCIe lanes to support high-end storage applications. This 1U server features 12x 2.5" SAS/SATA/NVMe drive bays, 2 PCIe 5.0 slots, and 1 OCP 3.0 NIC SFF slot. Designed for data center and enterprise environments, the S55R-1U delivers a cost-efficient solution for both compute and storage needs.



Form Factor	CPU Number	Memory Number
1U	1	16

QuantaGrid **S54S-1U**

Storage Server

High-density and Powerful Storage

QuantaGrid S54S-1U is a high-density storage server supporting up to 12x HDDs and 4x SSDs in a compact 1U chassis. Powered by a single 5th/4th Gen Intel® Xeon® Scalable processor, it is ideally suited for cost-efficient deployments and software-defined storage (SDS) demands.



Form Factor	CPU Number	Memory Number
1U	1	8

QuantaGrid **D55Q-2U**

Power, Flexibility, and Performance All-in-one Robust 2U Server for Diverse Workloads

QuantaGrid D55Q-2U is a general-purpose 2U rackmount server designed for diverse workloads. Powered by dual Intel® Xeon® 6 processors, it supports 3.5" HDDs for cold-tier storage, and NVMe/SATA/SAS 2.5" drives for higher-density storage, it fulfills various storage requirements. As for PCIe expansion, 400Gb networking and DPUs are all supported, depending on the customer's application needs. Additionally, up to (3) DW GPU or (4) SW GPU support facilitates inference tasks. All these features and more are packed into this powerful 2U server.



Form Factor	CPU Number	Memory Number
2U	2	32

QuantaGrid **D54Q-2U**

Scale Ahead for the Workload of Tomorrow

D54Q-2U is 2U general purpose server, powered by 5th/4th Gen Intel® Xeon® Scalable processors. The D54Q-2U provides ultimate resilience and scalability with flexible PCIe expansion slot options, all supporting PCIe 5.0. It is also thermally optimized for 2 dual-width accelerators and optimized for AI workloads. The D54Q-2U offers All 24 NVMe flash drives in U.2 or E1.S form factors as hot tier storage, targeting HPC and enterprise workloads.



Form Factor	CPU Number	Memory Number
2U	2	32

QuantaGrid **S55J-2U**

Storage Server

Flexible, Ultra-Dense Architecture for Storage Building Blocks

QuantaGrid S55J-2U is a density-optimized rackmount storage server designed for data storage, data management, and software-defined storage (SDS). It also features excellent network expansions under its 1P architecture. Powered by a single Intel® Xeon® 6 processor, it has numerous PCIe 5.0 lanes, 2 PCIe 5.0 expansion slots, 1 OCP 3.0 slot, and 1 PCIe slot dedicated to the HBA/RAID controller. In addition, QuantaGrid S55J-2U offers the capacity of 24x 3.5"/2.5" SAS/SATA drives at the front bay and 8x 2.5" NVMe drives at the rear to meet customers' requirements for SDS and data management.



Form Factor	CPU Number	Memory Number
2U	1	16

QuantaGrid **D75L-3U**

Maximum GPU Density in AI Clusters

Powered by two Intel® Xeon® 6 processors, QuantaGrid D75L-3U supports one single baseboard with eight accelerator modules, which features eight OSFP ports serving 800G Ethernet or InfiniBand. With 72 PFLOPS FP8 for training and 144 PFLOPS FP4 for inference, QuantaGrid D75L-3U can be scaled out to large high-speed GPU clusters for hyperscalers to run LLM training and inference workloads. Its 3U form factor also ensures maximum density in your AI clusters.



Form Factor	CPU Number	Memory Number
3U	2	32

QuantaGrid **D54U-3U**

Optimizing AI/High-performance Computing

The QuantaGrid D54U-3U is an acceleration server designed for parallel computing. Supporting two 5th/4th Gen Intel® Xeon® Scalable processors up to 350W and 32 DIMM slots, this 3U system features 4 dual-width accelerator cards or up to 8 single-width accelerator cards to provide a comprehensive and flexible architecture that can be optimized for various AI/HPC/DL applications.



Form Factor	CPU Number	Memory Number
3U	2	32

QuantaGrid **D75E-4U**

Tailored to Unlock Infinite AI Possibilities

The QuantaGrid D75E-4U is built on the Intel® Xeon® 6 platform. It offers a modular design and flexible configuration that meets diverse AI applications and customer demands. This system is compatible with all PCIe data center GPUs up to 600W, such as the Intel® Gaudi® 3 accelerator. This system is particularly suited for organizations with data centers seeking low-power, air-cooled enterprise rack designs. It delivers versatile acceleration for AI and HPC workloads of all sizes, making it an ideal choice for enterprises prioritizing efficiency and scalability.



intel
GAUDI

Form Factor	CPU Number	Memory Number
4U	2	32

QuantaGrid **D75F-7U**

Delivering Advanced Performance for the Most Extreme AI-HPC Workloads

QuantaGrid D75F-7U supports two 5th Gen Intel® Xeon® Scalable processors, and an eight accelerator module single baseboard, with ample PCIe expansions and storage drives to deliver high performance for AI workloads with massive datasets. Additionally, the system features a unique modularized system design, providing very easy serviceability and high flexibility. The system supports up to 8 HHHL SW PCIe expansion slots and 18 2.5" NVMe storage drives, enabling 2:1 drives-to-accelerator ratio and 1:1 NIC-to-accelerator ratio, ensuring high-speed data storage and cross-node communication for massive datasets, making them the ideal solution for workloads such as Large Language Models and MoE.



QuantaGrid **D74F-7U**

Built for HPC and Advanced AI Workloads

The QuantaGrid D74F-7U stands as an acceleration server meticulously engineered to confront the most intricate AI & HPC tasks. Fueled by 5th/4th Gen Intel® Xeon® processors and equipped with 32 DDR5 DIMM slots, the D74F-7U is equipped with 8 accelerators to significantly enhance time-to-insight. This dynamic configuration enables the QuantaGrid D74F-7U to drive the acceleration of generative AI and large language models (LLMs), while also advancing scientific computing for HPC workloads.



QuantaGrid **D74H-7U**

Accelerated Performance for the Most Extreme AI-HPC Workloads

The QuantaGrid D74H-7U is an acceleration server purpose-built to tackle the most complex AI & HPC workloads. With 5th/4th Gen Intel® Xeon® Scalable processors and 32 DDR5 DIMM slots, the D74H-7U is optimized to accelerate massive data sets, huge AI models, and supercomputing applications with optimized performance.

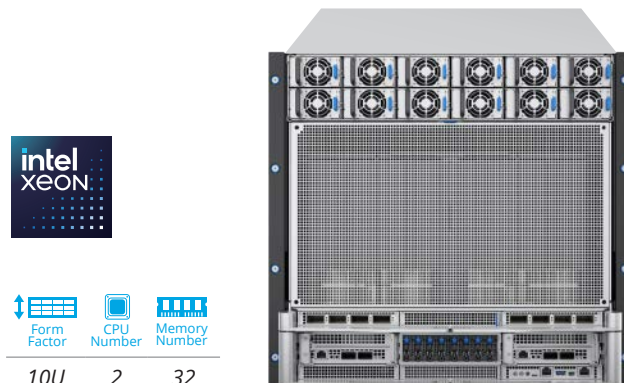


QuantaGrid **D75H-10U**

Enabling Diverse AI Workloads for Every Enterprise

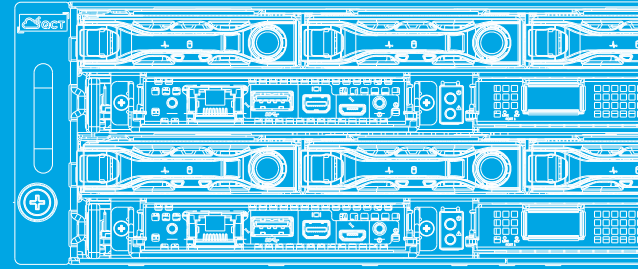
QuantaGrid D75H-10U is powered by two Intel® Xeon® 6 processors and support one single baseboard with eight accelerator modules, which features eight OSFP ports serving 800G Ethernet or InfiniBand.

With 72 PFLOPS FP8 for training and 144 PFLOPS FP4 for inference, QuantaGrid D75H-10U is ideal for hyperscalers to build large high-speed scale-out GPU clusters to accelerate LLM training and inference. It delivers breakthrough performance on the most complex workloads including agentic AI, AI reasoning, and real time video generation for every data center.



QuantaPlex Series

The QCT QuantaPlex series is a highly sophisticated, multi-node design that delivers extremely high density and computing performance. The shared infrastructure solution provides the flexibility to set up different workloads while maximizing space savings and augmenting cooling and energy efficiency to reduce TCO.



- Multi-Independent Nodes Create High Performance and Flexibility for Multiple Workload Scenarios
- Improved Performance, Availability and More Cost-Effective than Single Nodes of Comparable Speeds
- QCT Modularized Design Concepts Optimize Interoperability and Serviceability with Reduced Complexity
- Provides Optimal Data Center Performance and Storage Per Dollar

QuantaPlex **S45Z-2U**

Ample Performance Multi-node Server

QuantaPlex S45Z-2U is an ultra-dense multi-node server designed for seamless scalability and high-performance computing. Each node is powered by a single Intel® Xeon® 6 processor and offers flexible storage options. With front access and a tool-less, hot-swappable design, the system is optimized for easy serviceability. It is an ideal solution for HPC workloads that demand a dense, energy-efficient form factor.



Form Factor	CPU Number	Memory Number
2U4N	1 per node	16 per node

QuantaPlex **S25Z-2U**

Ample Performance Multi-node Server

QuantaPlex S25Z-2U is a 2U 2-node server designed for high-performance computing. Each node is powered by a single Intel® Xeon® 6 processor and offers flexible PCIe expansion options including networking and PCIe GPUs. With front access and a tool-less, hot-swappable design, this system is optimized for easy serviceability. It is ideal for HPC workloads that demand a dense, energy-efficient solution.



Form Factor	CPU Number	Memory Number
2U2N	1 per node	16 per node

Storage Pioneer for Data Center Workload

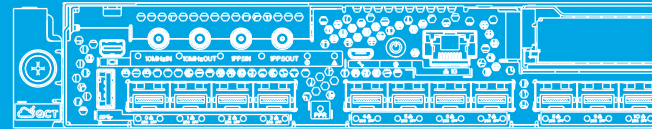
The QuantaPlex S24P-5U is an ultra-dense storage server powered by 5th/4th Gen Intel® Xeon® Scalable processors. It has 84/96 HDD bays which adhere to the latest RVI-optimized designs to support future HDDs. Built with SAS4 bandwidth to eliminate bottlenecks between storage card and expander, it also comes with flexible options for either 1 or 2 server nodes to meet different workload needs. This is an ideal option for both Software-Defined Storage (SDS) and warm and cold data storage.



Form Factor	CPU Number	Memory Number
5U	1 per node	8 per node

QuantaEdge Series

QCT QuantaEdge series offers a dynamic edge server spectrum from on-premise edge to regional edge and from Open RAN based Telco infra to enterprise private network. QCT COTS servers feature high flexibility, expandability, minimized power consumption and a small hardware footprint, tailor-made for network function disaggregation and virtualization to realize zero touch provisioning.



QuantaEdge **EGX88D-1U**

Edge Server

Carrier-Grade Flexible 300 mm Server

The EGX88D-1U is a high-performance, compact edge server designed for Open RAN deployments. Powered by a single Intel® Xeon® 6 processor with up to 325W TDP, it delivers robust computing capabilities in a space-efficient 300mm chassis. Its extremely short-depth design allows easy cable management and optimized airflow in rack or cabinet installations. With front access for simplified maintenance, this server is an ideal solution for next-generation edge computing.



Form Factor	CPU Number	Memory Number
1U	1	8

QuantaEdge **EGX77B-1U**

Edge Server

Carrier-Grade Flexible 300mm Server

QuantaEdge EGX77B-1U is a 300mm extremely short depth edge server that features wide operation temperature and up to 12 LOM for advanced networking. Powered by 5th/4th Gen Intel® Xeon® Scalable processors, this model delivers enhanced performance with a built-in FEC and SyncE on board.



Form Factor	CPU Number	Memory Number
1U	1	8

QuantaEdge **EGX74I-1U**

Edge Server

Carrier-Grade Multi-Access Edge Computing (MEC) Server

EGX74I-1U is a 4th Gen Intel® Xeon® Scalable processor Single Socket short depth MEC server. High-Performance, I/O expandability and power efficiency provides best-in-class open platform for 5G Open RAN, private 5G networks, and a broad range of 5G MEC applications. EGX74I-1U design is driven by ORAN and TIP, also meets NEBS GR63 Level 3 and GR3108 Class 2 compliant for 5G services.

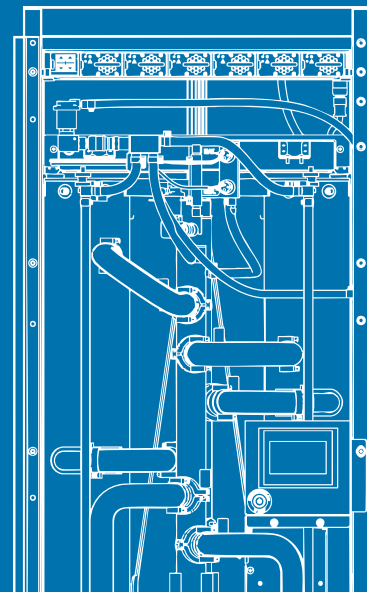


Form Factor	CPU Number	Memory Number
1U	1	8

QoolRack Series

Ultimate Thermal Efficiency with Optimized Power Savings

With the escalating demand for high-performance computing capabilities, it is essential to deploy energy-saving technologies to remain sustainable. QCT QoolRack offers a flexible and scalable thermal optimized solution for higher power CPUs that require cooler system demands. The solution significantly reduces power usage efficiency to lower the overall PUE and decrease operating expenses (OPEX) to bring down total cost of ownership (TCO) over a system's lifecycle when compared to traditional air-cooled infrastructures.



Cold Plate Modules

- Heat from the CPU will be removed by coolant through each cold plate module.
- More heat can be dissipated in a limited space.



Liquid to Air

- L11 flexible deployment with no additional data center infrastructure required.
- Carries heat out with a rear door heat exchanger (RDHx).

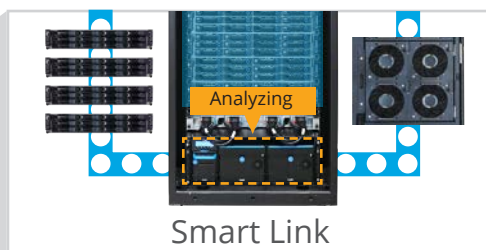
QCT's liquid cooling solutions lead the way to a cleaner and greener data center that minimizes its environmental impact by providing maximum energy savings and bringing sustainable and environmentally friendly innovations to mother earth.



Front

QoolRack Integrated Solution

- At the bottom of the QoolRack Integrated Solution is a coolant distribution unit (CDU), which has two pumps and one filter to push and filter coolant to the cold plate modules.
- The DC-SCM on each node's Smart Link automatically adjusts the RDHx's fan speeds through fan zoning for enhanced power savings.



Smart Link



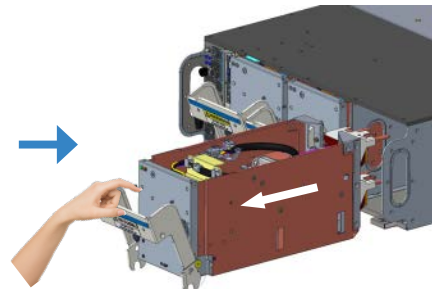
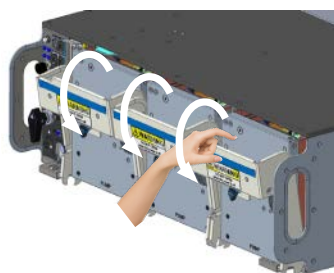
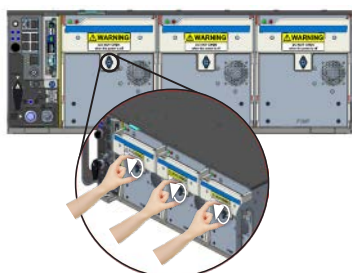
Front

QoolRack Sidecar Solution

- Optimized heat dissipation design to support more servers.
- Achieve better power efficiency compared to traditional air-cooled racks.
- Improves sustainability and reduces the carbon footprint of data centers.
- Ensures cooling reliability with redundant RDHx fans and pumps module.

RPU pump tray serviceability

- Three pumps module can be draw out individually.



Orqestra

Orchestrate your Data Center from a Single Pane of Glass

Orqestra is a light-weight data center management tool that uses the latest Redfish API, an open and secure industry standard, to help administrators manage their data centers collectively. Orqestra comes with an intuitive graphic user interface, so administrators can monitor, control and orchestrate their QCT hardware devices remotely from a single pane of glass.

Hyperscale Monitoring with Intuitive GUI

Orqestra offers resource and firmware monitoring, data center power consumption, and the latest critical events, all in a single dashboard.

With this real-time information, administrators can conduct holistic assessment as well as spotlight areas of concern.

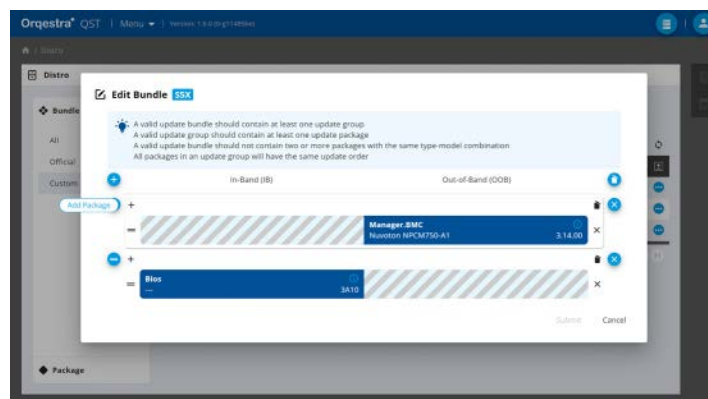
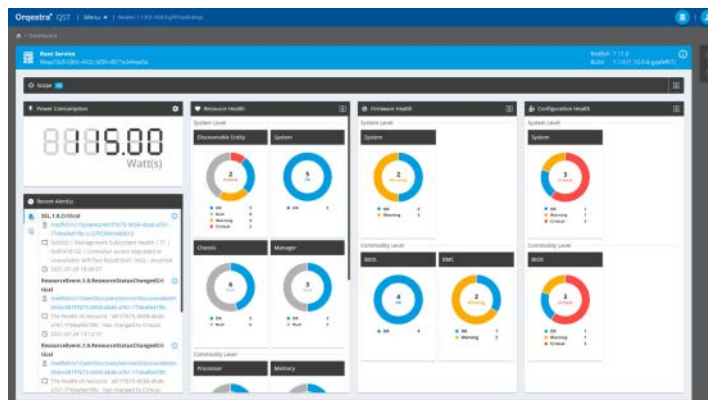
Remote Batch Firmware Management

Remote functions allow users to conduct firmware compliance checks on a batch of devices, and easily update two or more firmware packages at the same time with official or custom QCT Update Bundles (QUB). Scheduling of required actions or routine actions can also be set up.

Customizable Event Subscription

Customizable real-time alerts based on event type, severity, or source allow users to quickly resolve issues before they result in more serious problems like server downtime.

Different users managing the same account can subscribe to the event types related to their team function roles, so that only selected events are sent to specified event receivers.

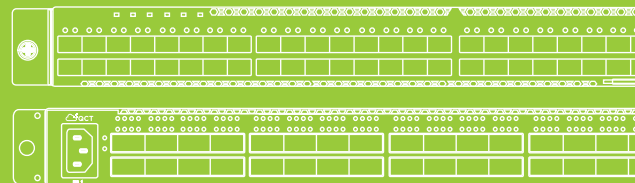


QuantaMesh Series

Data center network switches play a pivotal role in connecting all essential data center resources, including servers, storage equipment and network gear.

The use of high-speed Ethernet switches in data centers has evolved from 10G/40G to 25/50/100/200/400/800G speeds to accommodate high-efficiency demands and to support the high-scale scope of modern data centers.

The QCT QuantaMesh product lines of Ethernet and Bare Metal Switches (BMS) features low latency, low power consumption, high density, and high-port count characteristics as well as redundant power supplies and hot-swappable fan designs to provide the market with the very best data center network solutions.



QuantaMesh BMS **TA064-IXM**

64-port 800GbE OSFP & 2-port 25GbE SFP28

Next-Generation 800GbE Switch for AI Cluster



onie



- 800G OSFP Data Center Switch
- 51.2T Switching Capacity with 64 Ports of 800G
- High Performance and High Capacity for AI/ML Workloads
- QCT SONiC (to be Ready)

*Note: Under Development

QuantaMesh BMS **T7080-IXA**

80-port 100GbE QSFP28

Networking Router for Carrier Networks and Service Providers



onie



- X86 CPU Board
- ONIE Pre-loaded
- ArcOS® Ready

QuantaMesh BMS **T7040-IXAE**

40-port 100GbE QSFP28

Networking Router for Carrier Networks and Service Providers



onie



- X86 CPU Board
- ONIE Pre-loaded
- ArcOS® Ready

QuantaMesh BMS **T7032-IX7D**

32-port 100GbE QSFP28

Next-Generation 100GbE Spine or ToR Switch for Data Center and Cloud Computing



onie



- X86 CPU Board
- ONIE Pre-loaded
- ONL Ready
- ArcOS® Ready

QuantaMesh BMS **T7032-IX7_BDE**



32-port 100GbE QSFP28

The Next Wave Enterprise Data Center 100GbE Switch



onie



- X86 CPU Board
- ONIE Pre-loaded
- ONL Ready
- QCT SONiC

QuantaMesh BMS **T4048-IX8A**



48-port 25GbE SFP28 & 8-port 100GbE QSFP28

The Next Wave Enterprise Data Center 25GbE Switch

onie



- X86 CPU Board
- ONIE Pre-loaded
- ArcOS® Ready

QuantaMesh BMS **T4048-IX8A_BDE**



48-port 25GbE SFP28 & 8-port 100GbE QSFP28

The Next Wave Enterprise Data Center 25GbE Switch

onie



- x86 CPU Board
- ONIE Pre-loaded
- ONL Ready



QuantaMesh **T4048-IX8D with SONiC**



48-port 25GbE SFP28 & 8-port 100GbE QSFP28

Next-Generation 25GbE/100GbE ToR Switch for Data Center and Cloud Computing



onie

- QCT SONiC Ready
- VXLAN
- MLAG
- OSPF
- Network Automation
- BGP s

QuantaMesh **T1048-LYB**



48-port 1000BASE-T & 4-port 10GbE SFP+

The Next Wave Data Center Rack Management Switch



- ONIE Pre-load
 - X86 CPU Design
 - IPMI Management Support
 - Optical OOB Port Support
 - QCT SONiC (to be Ready)
- *Note: Under Development

SONiC

SONiC (Software for Open Networking in the Cloud) is an open-source network operating system based on Linux that runs on switches from multiple vendors and ASICs. SONiC offers a full-suite of network functionality that has been production-hardened in the data centers. It offers users the flexibility to create the network solutions they need while leveraging the collective strength of a large ecosystem and community. The open-source SONiC project is available at GitHub. (<https://github.com/Azure/SONiC/wiki>)

Enterprise SONiC Distribution by QCT

Enterprise SONiC distribution by QCT is a hardened, open distribution of SONiC with production-ready enterprise feature enhancements that targets at Data center leaf and spine deployment. Enterprise-ready features includes layer 2 and layer 3 protocols, QoS capabilities, and management protocols. Enterprise SONiC distribution by QCT helps users run their business with the innovation, scalable and flexible network solutions. Enterprise SONiC distribution by QCT is tested and validated across QuantaMesh switches, supporting a range of speeds from 1GbE to 100GbE.

Decouples Hardware and Software

- Reduce operational burden with installation of free operating system
- Opportunities to select between many of hardware and platform vendors
- Enable complete flexibility and scalability for cloud networks
- Boosting technology evolution for containerized software

Unified Management

Enterprise SONiC distribution by QCT adopts open and industry standards manageability framework to improve agility and visibility. The standardized ecosystem provides economic benefits for a data center fabric solution.

Technical Support and Service

Enterprise SONiC distribution by QCT has been tested and hardened to ensure production-ready deployment on QuantaMesh platforms. QCT provides technical support for the software and keep regularly update based upon the latest community SONiC release.

Enterprise SONiC Distribution by QCT Example Topology

Enterprise SONiC distribution by QCT supports large scale data center deployments. It can be deployed in a layer 2 and layer 3 Clos fabrics. A overlay architecture allows end users to place servers and virtual machines anywhere in the network and remain connected to the same logical layer 2 network, enabling the virtual topology to be decoupled from the physical topology. This decoupling allows the data center network to be programmatically provisioned at a per-tenant level.

Enterprise SONiC Distribution by QCT

- VXLAN
- MLAG
- OSPF
- Network Automation
- BGP

Layer 2 Features

Switching Mode: Store-and-Forward

Spanning Tree

VLAN :

- IEEE 802.1Q Tagged Base
- Port-Based

Storm Control:

- Broadcast
- Unknown Multicast
- DLF (Unknown Unicast)

IGMP Snooping:

- v1/v2/v3
- v1/v2 Querier
- Immediate Leave

Link Aggregation:

- Dynamic Load Balancing (DLB)
- 802.3ad with LACP
- Static Trunk
- Unicast/Multicast Traffic Balance Over Trunking Port
- LACP Fallback

MTU Setting

Static LAG

QoS Features

COS: 802.1p, IP TOS Precedence, DSCP

DiffServ

DSCP to Traffic Class Mapping

Security Features

Access Control List: L2/L3/L4

IPv4/IPv6 ACL: L3/L4

RADIUS/TACACS+: Authentication, Authorization, Accounting

SSHv2

User Name and Password:

- Local Authentication
- Remote Authentication via RADIUS/TACACS+, AAA

Management IP Filtering:

- SNMP
- SSH

Control Plane Policing (CoPP)

Signed Firmware Image

Storm Control

Image Integrity Check

Password Hardening

Layer 3 Features

Static Route: IPv4, IPv6

OSPFv2

ECMP

- Dynamic Load Balancing (DLB)

BGP4

VRRPv2

Management Features

PTP Transparent Clock 1-Step E2E

SSH

Dual Images

SNMPv1/v2c/v3

DHCP Relay

EVENT/Error Log

Remote PING

Traceroute

NTPv4

LLDP:

- 802.1ab
- 802.MED
- Potential Error Detection

Port Mirroring: SPAN, ERSPAN

sFlowv5

- Ingress

Port Speed Setting

Thermal Control

Syslog Over TLS

Bus Monitor & Recovery

Transceiver Type Detection

Pre-emphasis Setting

Tech-Support

Reset Factory Default

IPv6 Management

DHCPv6 Client/Relay

IPv6 RADIUS

IPv6 TACACS+

IPv6 Syslog

High Availability

Multi-Chassis Link Aggregation (MLAG)

- IGMPv1/v2/v3 SNP
- Standalone Mode
- L2 Unicast

Data Center Features

PFC Watchdog (DCBx Supported)

Priority-based Flow Control (802.1Qbb)

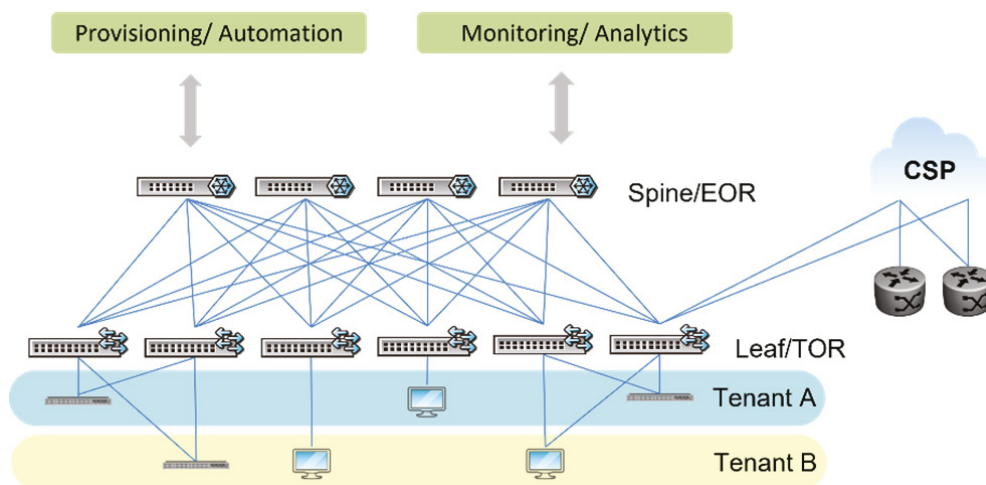
- 802.1p
- IP-DSCP

Automation

Zero Touch Provision (ZTP)

Virtualization Features

VXLAN Switching



QuantaMesh Switch Accessories

QCT offers a full range of copper and optical cables as well as optical transceivers compliant to the IEEE standards. For short reach distances, direct attach copper cables (DAC) and active optical cables (AOC) are supported. For longer distances, AOC and multiple options of optical transceivers are supported.

Cables

10G Direct Attach Copper Cable (SFP+ to SFP+)
25G Direct Attach Copper Cable (SFP28 to SFP28)
40G Direct Attach Copper Cable (QSFP+ to QSFP+)
40G Direct Attach Copper fan-out Cables (QSFP+ to 4 SFP+)
100G Direct Attach Copper Cable (QSFP28 to QSFP28)
100G Direct Attach Copper fan-out Cables (QSFP28 to 4 SFP28)
400G Direct Attach Copper Cable (QSFP-DD to QSFP-DD)
400G Direct Attach Copper fan-out Cables (QSFP-DD+ to 4 QSFP28)
10G Active Optical Cable (SFP+, 850nm, MMF)
25G Active Optical Cable (SFP28, 850nm, MMF)
40G Active Optical Cable (QSFP+, 850nm, MMF)
40G Active Optical fan-out Cable (QSFP28 to 4 SFP+)
100G Active Optical Cable (QSFP28, 850nm, MMF)
100G Active Optical fan-out Cable (QSFP28 to 4 SFP28)
200G Direct Attach Copper Cable (QSFP56 to QSFP56): 2m
200G Active Optical Cable (QSFP56, 850nm, MMF):
1m, 3m, 5m, and 10m
400G Active Optical Cable (QSFP-DD, 850nm, MMF)
400G Active Optical fan-out Cable (QSFP-DD+ to 4 QSFP28)
400G Active Copper fan-out Cable (QSFP-DD+ to 4 QSFP28)

Optics

10G Optic (SFP+, LC, 850nm, MMF): 10GBASE-SR
10G Optic (SFP+, LC, 1310nm, SMF): 10GBASE-LR
25G Optic (SFP28, LC, 850nm, MMF): 25GBASE-SR
25G Optic (SFP28, LC, 1310nm, SMF): 25GBASE-LR
40G Optic (QSFP+, MPO, 850nm, MMF): 40GBASE-SR4
40G Optic (QSFP+, LC, 1310nm, SMF): 40GBASE-LR4
100G Optic (QSFP28, MPO, 850nm, MMF): 100GBASE-SR4
100G Optic (QSFP28, LC, 1310nm, SMF): 100GBASE-LR4
100G Optic (QSFP28, LC, 1310nm, SMF): 100GBASE-DR1
100G Optic (QSFP28, LC, 1310nm, SMF): 100GBASE-FR1
100G Optic (QSFP28, LC, 1271~1331nm, SMF): 100GBASE-CWDM4
200G Optic (QSFP56, MPO, 850nm, MMF): 200GBASE-SR4
200G Optic (QSFP56, MPO, 1310nm, SMF): 200GBASE-DR4
200G Optic (QSFP56, LC, 2km, SMF): 200GBASE-FR4
400G Optic (QSFP-DD, MPO, 850nm, MMF): 400GBASE-SR8
400G Optic (QSFP-DD LC, 1273.54~1309.14nm, SMF): 400GBASE-LR8
400G Optic (QSFP-DD, MPO, 1310nm, SMF): 400GBASE-DR4
400G Optic (QSFP-DD, LC, 1271~1331nm, SMF): 400GBASE-FR4



Cloud Infrastructure

QCT is pioneering hyperconverged infrastructures by offering software-defined, highly scalable compute appliances powered by the world's leading virtualization software built on market-proven hyperscale hardware.



QCT VMware vSAN ReadyNode™

Flexible Virtualization Architecture to Fulfill Your Workloads



- Reliability, efficiency, and manageability
- Pre-configured for quick VMware vSAN™ deployment
- Pre-validated hardware configuration

QCT VMware vSAN ReadyNode™ is a series of hyperconverged IaaS appliances with VMware vSAN ReadyNode™ Certification. Pre-validated to simplify complex implementation and management, QCT VMware vSAN ReadyNode™ also adopts the latest VMware vSAN technologies, such as vSAN OSA, vSAN ESA and vSAN storage clusters, to help customers to boost utilization of compute and storage resources. Overall, the solution delivers simplicity, agility and manageability at a lower TCO for cloud building.



QCT VMware Cloud Foundation™

A Trusted Foundation for Modern Software-Defined Data Centers



- Enterprise-Ready Architecture Solution
- Pre-Validated Platform for VMware Private AI Foundation
- Scalable, High-Performance Infrastructure for Modern AI Workloads

QCT VMware Cloud Foundation™ is a unified, software-defined infrastructure platform that integrates VMware vSphere®, VMware vSAN™, VMware NSX® into a single, automated stack, delivering a scalable and efficient foundation for private clouds. Built on this enterprise-grade platform, the VMware Private AI Foundation empowers organizations to run advanced AI workloads, such as Generative AI, securely and efficiently within their own data centers while maintaining full control over data, infrastructure, and compliance. QCT provides pre-validated platforms for this solution, enabling seamless integration, optimized performance, and accelerated deployment.

AI & HPC System Solution

Building a system from scratch to run both HPC and AI workloads is highly complex due to challenges in system design and integration.

QCT addresses this with its Platform on Demand (POD) system, offering a scalable hardware portfolio with built-in monitoring, management, and deployment tools, as well as a ready-to-use AI development environment, to ensure optimal performance for both HPC and AI workloads. Designed to simplify complex cluster-level deployments, it enables enterprises to scale efficiently and accelerate HPC and AI innovation with greater agility.

QCT AI POD Solution

Advanced Rack-level Solutions for Next-generation AI



- Simplifies system design with pre-validated solution portfolios
- Accelerates time-to-value through end-to-end hardware and software integration
- Flexible software platform designed to meet diverse customer requirements

QCT AI POD is a software-defined solution tailored for cluster architectures. Consisting of pre-validated hardware and software, it delivers a comprehensive portfolio that caters to different cluster scale needs. The solution includes built-in system monitoring, management, and deployment tools, along with a ready-to-use AI development environment. Designed to simplify complex cluster-level deployments, QCT AI POD empowers enterprises to accelerate AI innovation and adoption.

Process Automation Solution

QCT offers an end-to-end Robotic Process Automation (RPA) solution, providing a powerful, trustworthy infrastructure, and RPA software support from qualified process consultants and process automation developers, delivering an optimized, customizable RPA implementation service to fulfill all automation needs.

QCT RPA Solution

An End-to-end RPA Implementation Solution to Optimize and Automate Business Processes



- Saves human labor cost and time
- Conducts in-depth process reviews
- Improves process efficiency

QCT RPA Solution can help companies plan and start their automation journey. With rich experience in infrastructure, applications and process consulting, QCT can help companies build the digital workforce they need in a very short time, consolidating their business processes and steps into "AS-IS" and "To-Be" models to achieve real business process optimization, saving human labor and operational costs while boosting productivity.

Private 5G Network Solution

To meet the growing networking demands for higher data rates, lower latency, increased device density, enhanced reliability, and tighter security, QCT offers OmniPOD, a 3GPP standard-compliant private 5G solution, that serves as a robust foundation for proprietary enterprise-grade connectivity.

QCT OmniPOD Private 5G Solution

A Turnkey Solution to Shape Diverse Future
5G User Scenarios



- The containerized cloud-native 5G Core underpins high network resilience and operational reliability
- Networks are configured to serve diverse service types with isolated and dedicated resources
- A unified interface offers one-stop visibility with 10 essential FCAPS management functions across 5GC and RAN

QCT OmniPOD is an end-to-end private 5G solution that unifies OmniCore (5G Core), OmniRAN (5G RAN), and OmniView (OAM system) into a turnkey package where the necessary software, hardware, and services are all fully integrated. Built with best-of-breed design, OmniPOD empowers diverse cross-vertical wireless communication applications with advanced network reliability, efficiency, and manageability.

Specifications

QuantaGrid Series



QuantaGrid D55X-1U			
SKU	2.5" All NVMe	E1.S All NVMe	E3.S 1TB NVMe
Processor	(2) Intel® Xeon® 6 processors, up to 350W TDP		
Memory	Up to 8TB memory capacity with (32) DDR5 RDIMM or (16) MCRDIMM		
Storage	(12) hot-swappable 2.5" 15mm or 7mm NVMe SSDs	(16) hot-swappable E1.S NVMe SSDs	(20) hot-swappable E3.S NVMe SSDs
Network Controller	(1) Dedicated 1GbE management port		
Expansion Slot	Option 1: (3) HHHL PCIe 5.0 x16 slots + (2) OCP 3.0 slots Option 2: (2) FHHL PCIe 5.0 x16 slots + (2) OCP 3.0 slots		
Form Factor	1U Rackmount		
Dimension	(W) 440 x (H) 43.2 x (D) 780mm		



QuantaGrid D54X-1U		
SKU	2.5" All NVMe	E1.S All NVMe
Processor	(2) 5th/4th Gen Intel® Xeon® Scalable processors, up to 385W TDP	
Memory	Up to 8TB memory capacity with (32) DDR5 DIMM	
Storage	(12) hot-swappable 2.5" 15mm or 7mm NVMe SSDs	(16) hot-swappable E1.S NVMe SSDs
Network Controller	(1) Dedicated 1GbE management port	
Expansion Slot	Option 1: (3) HHHL PCIe 5.0 x16 slots + (2) OCP 3.0 slots Option 2: (2) FHHL PCIe 5.0 x16 slots + (2) OCP 3.0 slots	
Form Factor	1U Rackmount	
Dimension	(W) 447 x (H) 43.2 x (D) 780mm	

QuantaGrid S55R-1U	
Processor	(1) Intel® Xeon® 6 processor, up to 350W TDP
Memory	Up to 4 TB memory capacity with (16) DDR5 RDIMM up to 6,400 MHz
Storage	(12) hot-swappable 2.5" SAS/SATA/NVMe drives
Network Controller	(1) 1GbE RJ45 dedicated management port
Expansion Slot	Option 1: (2) FHHL PCIe 5.0 x16 slots+(1) OCP 3.0 SFF slot Option 2: (2) HHHL PCIe 5.0 x16 slots+(1) OCP 3.0 SFF slot
Form Factor	1U Rackmount
Dimension	(W) 440 x (H) 43.2 x (D) 780mm



QuantaGrid S54S-1U		
SKU	SATA	SATA/SAS
Processor	(1) 5th/4th Gen Intel® Xeon® Scalable processor, up to 350W TDP	
Chipset	Intel® C741	
Memory	Up to 2TB memory capacity with (8) DDR5 DIMM slots	
Storage	(12) hot-swappable 3.5"/2.5" SATA HDDs (from PCH) (4) hot-swappable 2.5" 7mm NVMe drives	(12) hot-swappable 3.5"/2.5" SATA/SAS HDDs (from HBA/RAID card) (4) hot-swappable 2.5" 7mm NVMe drives
Network Controller	(1) Dedicated 1GbE management port	
Expansion Slot	(2) PCIe 5.0 x16 OCP 3.0 SFF slot (1) HHHL PCIe 5.0 x16 slot (1) HHHL PCIe 5.0 x16 internal storage card slot	
Form Factor	1U Rackmount	
Dimension	(W) 448 x (H) 43 x (D) 900mm	



QuantaGrid D55Q-2U				
SKU	3.5" Tiered	3.5" All NVMe	2.5" Tiered	2.5" All NVMe
Processor	(2) Intel® Xeon® 6 processors, up to 350W TDP			
Memory	Up to 8TB memory capacity with (32) DDR5 RDIMM or (16) MCRDIMM			
Storage	(4) hot-swappable 3.5" SATA/SAS HDDs (8) hot-swappable 2.5" 15mm or 7mm NVMe SSDs Optional Rear: (2) hot-swappable 15mm or 7mm 2.5" NVMe SSDs	(12) hot-swappable 2.5" 15mm or 7mm NVMe SSDs	(8) hot-swappable 7mm 2.5" NVMe SSDs (16) hot-swappable 2.5" SATA/SAS SSDs Optional Rear: (2) hot-swappable 15mm or 7mm 2.5" NVMe SSDs	(24) hot-swappable 2.5" 7mm NVMe SSDs
Network Controller	(1) Dedicated 1GbE management port			
Expansion Slot	Upper Deck Option 1: [General SKU]: (4) FHHL PCIe 5.0 x8 slots Option 2: [SW GPU SKU]: (2) FHHL PCIe 5.0 x16 slots Option 3: [DW GPU SKU]: (3) FHFL PCIe 5.0 x16 slots Lower Deck Option 1: (2) HHHL PCIe 5.0 x16 slots + (1) HHHL PCIe 5.0 x8 slots Option 2: (2) FHHL PCIe 5.0 x16 slots Option 3: (1) HHHL PCIe 5.0 x8 slot Option 4: (1) HHHL PCIe 5.0 x16 slot + (1) HHHL PCIe 5.0 x8 slot <i>*For PCIe expansion, consider storage options; contact QCT for further details</i>			
Form Factor	2U Rackmount			
Dimension	(W) 447 x (H) 87.5 x (D) 780mm			



QuantaGrid D54Q-2U				
SKU	3.5" Tiered	2.5" Tiered	2.5" All U.2	E1.S All NVMe
Processor	(2) 5th/4th Gen Intel® Xeon® Scalable processors, up to 350W TDP			
Memory	Up to 8TB memory capacity with (32) DDR5 DIMM slots			
Storage	(4) hot-swappable 3.5" SATA/SAS HDDs + (8) 15mm or 7mm 2.5" hot-swappable NVMe SSDs Optional Rear: (2) hot-swappable 15mm or 7mm 2.5" NVMe SSDs	(16) hot-swappable 2.5" SATA/SAS SSDs + (8) 15mm or 7mm 2.5" hot-swappable NVMe SSDs Optional Rear: (2) hot-swappable 15mm or 7mm 2.5" NVMe SSDs	(24) hot-swappable 15mm or 7mm 2.5" NVMe SSDs	(24) hot-swappable E1.S 15mm SSDs
Network Controller	(1) Dedicated 1GbE management port			
Expansion Slot	Option 1: (2) FHHL PCIe 5.0 x16 slots (4) FHHL PCIe 5.0 x8 slots Optional (2) HHHL PCIe 5.0 x16 slots Option 2: (2) FHFL PCIe 5.0 x16 slots (support DW GPU) (2) FHHL PCIe 5.0 x16 slots Optional (2) HHHL PCIe 5.0 x16 slots Option 3: (4) FHFL PCIe 5.0 x16 slots (support SW GPU) Optional (2) HHHL PCIe 5.0 x16 slots			
Form Factor	2U Rackmount			
Dimension	(W) 447 x (H) 87.5 x (D) 780mm			



QuantaGrid S55J-2U	
Processor	(1) Intel® Xeon® 6 processor, up to 350W TDP
Memory	Up to 4 TB memory capacity with (16) DDR5 RDIMM up to 6,400 MHz
Storage	Front bay: (24) hot-swappable 3.5"/2.5" SAS/SATA drives Rear bay: (8) hot-swappable 2.5" NVMe drives On board: (2) 2230 M.2 NVMe boot drives
Network Controller	(1) 1GbE RJ45 dedicated management port
Expansion Slot	Option 1: (2) FHHL PCIe 5.0 x16 slots+(1) OCP 3.0 SFF slot Option 2: (3) HHHL PCIe 5.0 x16 slots+(1) OCP 3.0 SFF slot
Form Factor	2U Rackmount
Dimension	(W) 448 x (H) 87.5 x (D) 880mm

QuantaGrid D75L-3U	
Processor	(2) Intel® Xeon® 6 processors, up to 350W TDP
Memory	(32) DDR5 RDIMM up to 6,400 MHz
Storage	(8) hot-swappable E1.S PCIe Gen 5 drives (2) PCIe M.2 22110 SSDs
Network Controller	(1) Dedicated LAN port (RJ45) for BMC management (1) 1GbE LAN port (RJ45) (8) OSFP ports serving (8) single-port onboard NICs
Expansion Slot	(3) FHHL SW PCIe 5.0 x16 slots
Form Factor	3U Rackmount
Dimension	(W) 438 x (H) 131.7 x (D) 864.5 mm



QuantaGrid D54U-3U

Processor	(2) 5th/4th Gen Intel® Xeon® Scalable processors, up to 350W TDP
Chipset	Intel® C741
Memory	Up to 8TB memory capacity with (32) DDR5 DIMM slots
Storage	(10) hot-swappable 2.5" SATA/SAS/NVMe drives
Network Controller	(1) Dedicated 1GbE management port
Expansion Slot	Option 1: (4) FHFL PCIe 5.0 x16 slots (2) HHHL PCIe 5.0 x16 slots (1) PCIe 5.0 x16 OCP 3.0 TSFF/SFF slot (1) HHHL PCIe 5.0 x8 slot Option 2: (8) HHHL PCIe 5.0 x8 slots (2) HHHL PCIe 5.0 x16 slots (1) PCIe 5.0 x16 OCP 3.0 TSFF/SFF slot (1) HHHL PCIe 5.0 x8 slot
GPU Expansion	(4) Dual width GPUs or (8) Single width GPUs
Form Factor	3U Rackmount
Dimension	(W) 438 x (H) 131.6 x (D) 760mm

QuantaGrid D75E-4U

Processor	(2) Intel® Xeon® 6 processors, up to 350W TDP
Memory	(32) DDR5 RDIMM up to 6,400 MHz (16) MRDIMM up to 8,000 MHz
Storage	Air cooling - (4) DW GPUs: (12) hot-swappable E1.S drives Air cooling - (8) DW GPUs: (24) hot-swappable E1.S drives
Network Controller	(1) Dedicated 1GbE management port
Expansion Slot	Option 1: Air cooling - (4) DW GPUs: (4) FHFL DW PCIe 5.0 x 16 slots for GPU (3) FHFL SW PCIe 5.0 x 16 slots for networking Option 2: Air cooling - (8) DW GPUs: (8) FHFL DW PCIe 5.0 x 16 slots for GPU (4) FHFL SW PCIe 5.0 x 16 slots for networking (1) FHFL SW PCIe 5.0 x 16 slot for networking (1) HHHL SW PCIe 5.0 x 16 slot (reserved)
Form Factor	4U Rackmount
Dimension	(W) 438 x (H) 176 x (D) 800mm



QuantaGrid D75F-7U

Processor	(2) 5th/4th Gen Intel® Xeon® Scalable processors, up to 350W TDP
Memory	(32) DDR5 RDIMM up to 5,600 MHz
Storage	Front (18) hot-swappable 2.5" PCIe 5.0 NVMe SSDs
Network Controller	(1) Dedicated 1GbE management port
Expansion Slot	(2) FHHL DW PCIe 5.0 x16 slots (8) HHHL SW PCIe 5.0 x16 slots
Form Factor	7U Rackmount
Dimension	(W) 448 x (H) 308 x (D) 950mm

QuantaGrid D74F-7U

Processor	(2) 5th/4th Gen Intel® Xeon® Scalable processors, up to 350W TDP
Memory	(32) DDR5 RDIMM up to 5,600 MHz
Storage	Front (18) hot-swappable 2.5" PCIe 5.0 NVMe SSDs
Network Controller	(1) Dedicated 1GbE management port
Expansion Slot	(1) FHHL SW PCIe 5.0 x16 slot + (1) OCP 3.0 SFF slot (10) OCP 3.0 TSFF slots
Form Factor	7U Rackmount
Dimension	(W) 448 x (H) 308 x (D) 886mm



QuantaGrid D74H-7U

Processor	(2) 5th/4th Gen Intel® Xeon® Scalable processors, up to 350W TDP
Memory	(32) DDR5 RDIMM up to 5,600 MHz
Storage	Front (18) hot-swappable 2.5" PCIe 5.0 NVMe SSDs
Network Controller	(1) Dedicated 1GbE management port
Expansion Slot	(2) PCIe 5.0 x16 OCP 3.0 slots (10) PCIe 5.0 x16 OCP 3.0 slots
Form Factor	7U Rackmount
Dimension	(W) 448 x (H) 308 x (D) 886mm

QuantaGrid D75H-10U

Processor	(2) Intel® Xeon® 6 processors, up to 350W TDP
Memory	(32) DDR5 RDIMM up to 6,400 MHz
Storage	(8) hot-swappable E1.S PCIe Gen 5 drives (2) PCIe M.2 2280 SSDs
Network Controller	(1) Dedicated LAN port (RJ45) for BMC management (1) 1GbE LAN port (RJ45) (8) OSFP ports serving (8) single-port onboard NICs
Expansion Slot	(4) FHFL SW or (2) FHFL DW PCIe Gen5 x16 slots & (1) OCP 3.0 SFF PCIe Gen5 x8 slots
Form Factor	10U Rackmount
Dimension	(W) 447 x (H) 441.75 x (D) 800mm

QuantaPlex Series



*Per Node Spec

QuantaPlex S45Z-2U		
SKU	Expansion SKU	Storage SKU
Processor	(1) Intel® Xeon® 6 processor, up to 350W TDP	
Memory	(16) DDR5 RDIMM slots, up to 5200 MHz (2DPC) /6400 MHz (1DPC) RDIMM; or 8000 MHz (1DPC MCRDIMM)	
Storage	(2) E1.S hot-swappable NVMe drives	(3) hot-swappable 2.5" NVMe drives
Network Controller	(1) Dedicated 1GbE management port	
Expansion Slot	(1) HHHL PCIe 5.0 x16 slot (1) OCP 3.0 slot	(1) OCP 3.0 slot
Form Factor	2U Rackmount	
Dimension	(W) 447.8 x (H) 86.3 x (D) 875mm	



*Per Node Spec

QuantaPlex S25Z-2U	
Processor	(1) Intel® Xeon® 6 processor, up to 350W TDP
Memory	(16) DDR5 RDIMM slots per node, up to 5200 MHz (2DPC) /6400 MHz (1DPC) RDIMM; or 8000 MHz (1DPC MCRDIMM)
Storage	(3) hot-swappable 2.5" NVMe drives
Network Controller	(1) Dedicated 1GbE management port
Expansion Slot	Option 1 (1) FHFL SW PCIe 5.0 x16 slot (1) FHFL SW PCIe 5.0 x8 slot (1) FHHL SW PCIe 5.0 x16 slot (1) OCP 3.0 slot Option 2 (1) FHFL DW PCIe 5.0 x16 slot (1) FHHL SW PCIe 5.0 x16 slot (1) OCP 3.0 slot
Form Factor	2U Rackmount
Dimension	(W) 447.8 x (H) 86.3 x (D) 875mm



QuantaPlex S24P-5U			
SKU	84 HDD Single Node	84 HDD Dual Node	96 HDD Dual Node
Processor	(1) 5th/4th Gen Intel® Xeon® Scalable processor per node, up to 350W TDP		
Chipset	Intel® C741		
Memory	Up to 2 TB memory capacity per node with (8) DDR5 DIMM slots per node		
Storage	(84) hot-swappable 3.5" SATA/SAS HDDs (2) hot-swappable SATA/NVMe U.2 per node		(96) hot-swappable 3.5" SATA/SAS HDDs (2) hot-swappable SATA/NVMe U.2 per node
Network Controller	(1) Dedicated 1GbE management port per node		
Expansion Slot	(1) PCIe 5.0 x16 OCP 3.0 slot per node (2) HHHL PCIe 5.0 x16 slots per node		
Form Factor	5U Rackmount		
Dimension	(W) 447 x (H) 220 x (D) 984mm		

QuantaEdge Series



QuantaEdge EGX88D-1U

Processor	(1) Intel® Xeon® 6 processor, up to 325W TDP
Memory	(8) DDR5 RDIMM up to 6400 MHz
Storage	(2) SATA/NVMe M.2 2280/22110
Network Controller	Option 1: Expansion SKU: (16) 25GbE SFP28 (LoM) Option 2: OCP3.0 D-SFF SKU: (24) 25GbE SFP28 (LoM & Intel Carter Flat)
Expansion Slot	Option 1: Expansion SKU: (1) FHHL PCIe 5.0 Option 2: OCP3.0 D-SFF SKU: (1) OCP 3.0 PCIe 5.0 for Intel Carter Flat
Form Factor	1U Rackmount
Dimension	(W) 447.8 x (H) 42.8 x (D) 300.65mm

QuantaEdge EGX77B-1U

Processor	(1) 5th/4th Gen Intel® Xeon® Scalable processor, up to 250W TDP
Memory	(8) 5600/4800 MHz DDR5 ECC RDIMM, up to 512GB
Storage	(2) SATA/NVMe M.2 2280
Network Controller	Option 1: (8) 25GbE w/ SyncE, NCSI Option 2: (4) 25GbE + (8) 10GbE w/ SyncE, NCSI
Expansion Slot	(1) FHHL PCIe 5.0 x16
Form Factor	1U Rackmount
Dimension	(W) 447.8 x (H) 42.8 x (D) 300.65mm (ear to rear wall)



QuantaEdge EGX74I-1U

Processor	(1) 4th Gen Intel® Xeon® Scalable processor, up to 250W TDP
Memory	(8) 5600 MHz DDR5 ECC RDIMM, up to 512GB
Storage	Option 1: Expansion SKU: (2) SATA/NVMe M.2 2280 Option 2: OCP3.0 D-SFF SKU: (2) SATA/ NVMe M.2 2280 (2) 2.5" U.2 SSDs
Network Controller	(4) 25GbE SFP28 ports (NCSI) (1) Dedicated 1GbE management port
Expansion Slot	Option 1: Expansion SKU: (2) FH3/4L PCIe 5.0 x16* (1) FHHL PCIe 5.0 x16 Option 2: OCP3.0 D-SFF SKU: (2) FH3/4L PCIe 5.0 x16*
Form Factor	1U Rackmount
Dimension	(W) 447.8 x (H) 42.8 x (D) 400mm

* Note : (FH3/4L) supports 266.7mm length GPU



Front

QoolRack Sidecar Solution	
Height	44 OU
Dimensions	(W) 600 x (H) 2301 x (D) 1070mm
Cooling capacity	70 kW @ATD 10C (110 LPM)
1U Power Shelf	Hot-swappable 3+3 PSUs
Fan	Hot-swappable 13+1
Filter	Inline, 50 um
4U CDU (Cooling Distribution Unit)	(1) Control box with DC-SCMHot-swappable 2+1 pumps
Supported coolant	PG-25
Electrical Connector	IEC60309
Rack Management Control	• Controlled by OpenBMC • Monitoring sensors for pumps, fans and coolant (e.g., leakage/pressure/flow/level/temperature) in the cooling rack • Remote control by Redfish API & Modbus

QuantaMesh Series



QuantaMesh BMS TA064-IXM

QuantaMesh BMS T7080-IXA

QuantaMesh BMS T7040-IXAE

Physical Ports

Port Configuration	64-port 800GbE OSFP & 2-port 25GbE SFP28	80-port 100GbE QSFP28	40-port 100GbE QSFP28
Management Port	(1) OOB port (10/100/1000BASE-T)	(1) OOB port (10/100/1000BASE-T)	(1) OOB port (10/100/1000BASE-T)
Console Port	(1) RJ45	(1) RJ45	(1) RJ45
USB	(1) USB 3.0	(1) USB 2.0	(1) USB 2.0

Performance

ASIC	Broadcom Tomahawk5 BCM78900	(2) Broadcom Jericho2 BCM88690	(2) Broadcom Jericho2 BCM88690
Switching Capacity	102.4Tbps	16Tbps	8Tbps
Maximum Forwarding Rate	21000Mpps	4Bpps	2Bpps
Latency	Ultra-low Latency	Ultra-low Latency	Ultra-low Latency
CPU	Intel® Atom® processor P5322	Intel® Xeon® processor D1548	Intel® Xeon® processor D1548
Memory	32GB DDR4/ECC	(2) 16GB DDR4/ECC	(2) 16GB DDR4/ECC
Flash	(2) 16MB	(2) 16MB	(2) 8MB
Storage	256GB M.2 SATA	128G SSD	128G SSD
BMC	AST2520	AST2520 (optional)	AST2520 (optional)

High Availability

Redundant Power Supply: 1+1
Hot-swappable Fan Tray: 3+1

Redundant Power Supply: 2+2
Hot-swappable Fan Tray: 3+1

Redundant Power Supply: 1+1
Hot-swappable Fan Tray: 5+1



QuantaMesh BMS T7032-IX7D

Physical Ports

Port Configuration	32-port 100GbE QSFP28
Management Port	(1) OOB port (10/100/1000BASE-T)
Console Port	(1) RJ45
USB	(1) USB 2.0

Performance

ASIC	Broadcom Trident3 BCM56870	
Switching Capacity	6.4Tbps	
Maximum Forwarding Rate	2Bpps	
Latency	Ultra-low Latency	
MAC	Up to 288K	
CPU	Intel Atom® processor C2558	Intel Atom® processor C3558
Memory	8G DDR3/ECC	8G DDR4/ECC
Flash	-	
Storage	32G SSD	
BMC	AST2520	

High Availability

Redundant Power Supply: 1+1
Hot-swappable Fan Tray: 4+2



	QuantaMesh BMS T7032-IX7_BDE	QuantaMesh BMS T4048-IX8A	QuantaMesh BMS T4048-IX8A_BDE
Physical Ports			
Port Configuration	32-port 100GbE QSFP28	48-port 25GbE SFP28 & 8-port 100GbE QSFP28	48-port 25GbE SFP28 & 8-port 100GbE QSFP28
Management Port	(1) OOB port (10/100/1000BASE-T)	(1) OOB port (10/100/1000BASE-T)	(1) RJ45 out-of-band management port (10/100/1000M)
Console Port	(1) RJ45	(1) RJ45	(1) RJ45
USB	(1) USB 2.0	(1) USB 2.0	(1) USB 2.0
Performance			
ASIC	Broadcom Trident3 BCM56870	Broadcom Trident3 BCM56770	Broadcom Trident3 BCM56770
Switching Capacity	6.4Tbps	4.0Tbps	4.0Tbps
Maximum Forwarding Rate	2Bpps	18Bpps	1Bpps
Latency	Ultra-low Latency	Ultra-low latency	Ultra-low latency
MAC	Unified Forwarding Table to dynamically allocate the L2/L3 tables	-	Unified Forwarding Table to dynamically allocate the L2/L3 tables
CPU	Intel® Xeon® Processor D-1527, TPM 2.0	Intel® Atom® processor C3558	Intel® Xeon® Processor D-1527, TPM 2.0
Memory	8GB SO-DIMM DDR4	8G DDR4/ECC	8GB SO-DIMM DDR4
Flash	32MB	32 MB	32 MB
Storage	128G SSD M.2	128G SSD	128G SSD M.2
BMC	-	AST2520 (optional)	-
High Availability	Redundant Power Supply: 1+1 Hot-swappable Fan Tray: 4+2	Redundant Power Supply: 1+1 Hot-swappable Fan Tray: 4+2	Redundant Power Supply: 1+1 Hot-swappable Fan Tray: 4+2



	QuantaMesh T4048-IX8D with SONiC	QuantaMesh T1048-LYB
Physical Ports		
Port Configuration	48-port 25GbE SFP28 & 8-port 100GbE QSFP28	48-port 1000BASE-T & 6-port 10GbE SFP+
Management Port	(1) OOB port (10/100/1000BASE-T)	(1) OOB port (10/100/1000BASE-T)
Console Port	(1) RJ45	(1) RJ45
USB	(1) USB 2.0	(1) USB 2.0
Performance		
ASIC	Broadcom Trident3 BCM56873	(2) Broadcom Trident3 BCM56277
Switching Capacity	4.0Tbps	216Gbps
Maximum Forwarding Rate	2Bpps	123Mpps
Latency	Ultra-low Latency	Ultra-low Latency
MAC	Up to 288K	-
CPU	Intel Atom® processor C3558	Intel Atom® processor C3338
Memory	8G DDR4/ECC	8GB DDR4/ECC
Flash	(2) 16MB	(2) 16MB
Storage	128GB M.2 SATA	32GB M.2 SATA
BMC	AST2520	-
High Availability	Redundant Power Supply: 1+1 Hot-swappable Fan Tray: 4+2	Redundant Power Supply: 1+1 Hot-swappable Fan Tray: 2+1

About QCT

Quanta Cloud Technology (QCT) designs, manufactures, integrates and services cutting edge offerings for 5G Telco/Edge, AI/HPC, Cloud, and Enterprise infrastructure via its own global network. Product lines include hyper-converged and software-defined data center solutions as well as servers, storage, and network switches from 1U to entire racks with a diverse ecosystem of hardware components and software partners to fit a variety of business verticals and workload parameters.

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