QCT

PRODUCT PORTFOLIO

Contents

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 ADMIRED COMPANIES

TOP 100 GLOBAL INNOVATOR
Clarivate Analytics

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

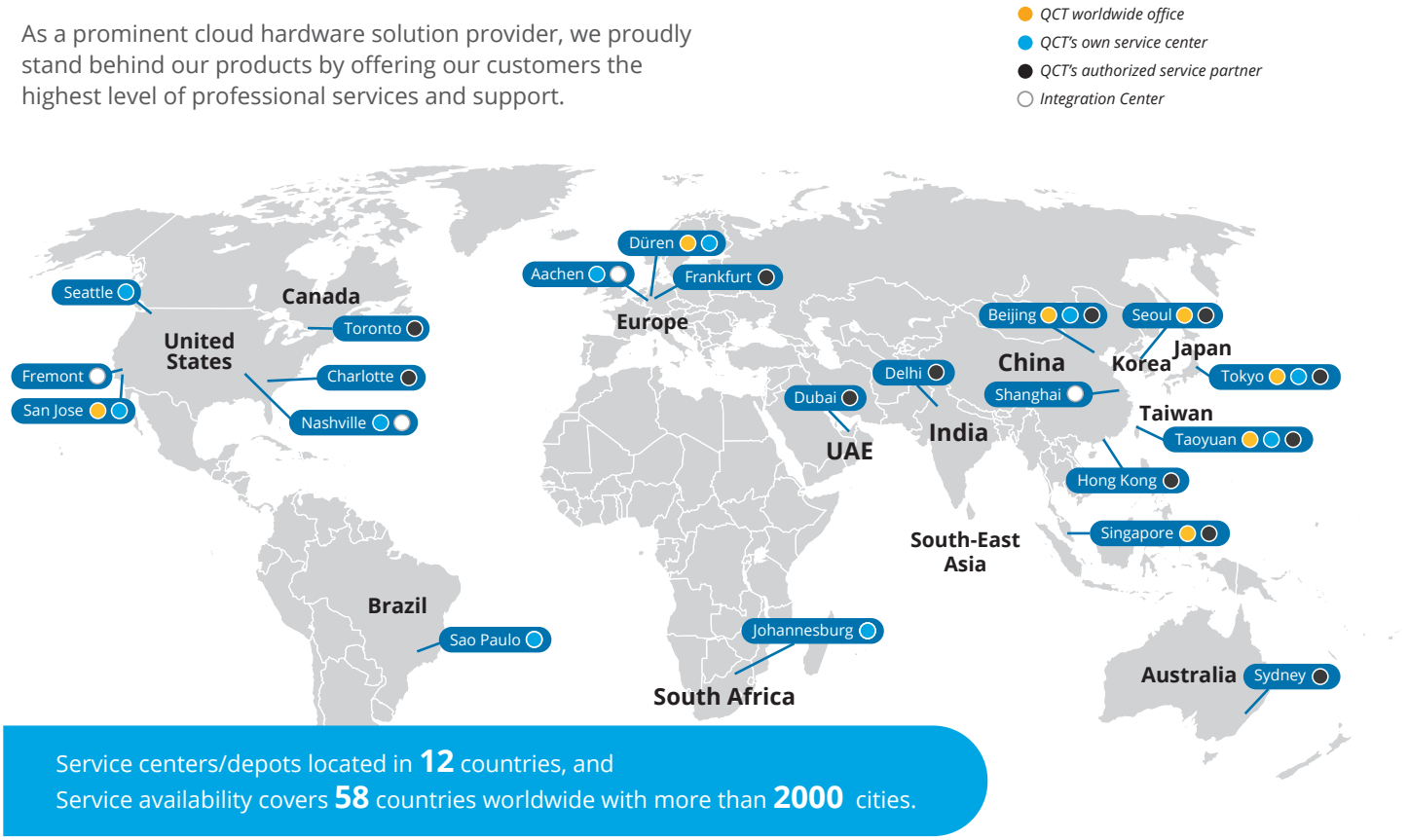
Mike Yang is the president of QCT and executive vice president and general manager of the cloud business unit of Quanta Computer Inc.

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.



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.*

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

QCT Systems

QuantaGrid

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Versatile Server for Every Workload, Tailored for Diverse Applications

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QuantaGrid **D54X-1U**

Ultimate Compute Performance and Security Architecture

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Ultimate Compute Architecture for Performance and Efficiency

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High-density and Powerful Storage

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2U

QuantaGrid **D55Q-2U**

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

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QuantaGrid **D54Q-2U**

Scale Ahead for the Workload of Tomorrow

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Networking

Spine Switch - Fiber

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Management Switch

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T1048-LB9M with QNOS
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QuantaMesh
T1048-LYB
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Speed, Bandwidth

Features

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)

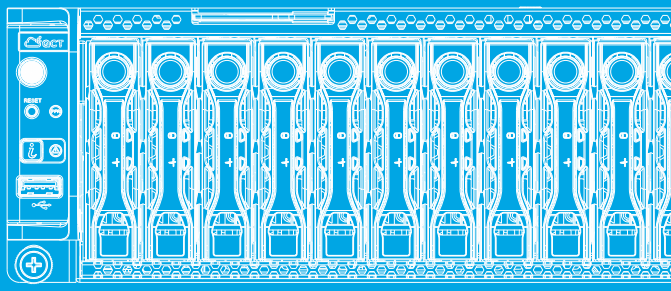
QCT Features

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 Orqestra 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; E1.S and E3.S 1T for density; and E3.S CXL SKU for memory-bound CXL 2.0 applications, catering to 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 is a general-purpose rackmount server product designed with a balanced architecture utilizing a single socket populated to support more network expansions with increased PCIe lanes. Powered by a single Intel® Xeon® 6 processor, it features 2 PCIe 5.0 slots and 1 OCP 3.0 NIC SFF slot. Under this single-processor design, S55R-1U also features 12x 2.5" SAS/SATA/NVMe drives at the front bay and two onboard M.2 NVMe drives, which enable Intel® VROC for RAID function. This platform targets data center/enterprise customers with a cost-efficient solution for computing and storage purpose 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 1U storage server with 12 HDDs and 4 NVMe SSDs. Equipped with 5th/4th Gen Intel® Xeon® Scalable processors and 8 DDR5 DIMM slots, this hybrid architecture enhances overall caching performance, making the S54S-1U the ideal platform for software-defined storage.

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, NVMe/SATA/SAS 2.5" drives for higher-density storage, E3.S CXL SKU for memory-bound CXL 2.0 applications, fulfilling various storage/memory 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

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QuantaGrid **D75L-2U**

Maximum GPU Density in AI Clusters

Powered by two Intel® Xeon® 6 processors, QuantaGrid D75L-2U 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-2U can be scaled out to large high-speed GPU clusters for hyperscalers to run LLM training and inference workloads. Its 2U form factor also ensures maximum density in your AI clusters.

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 **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 for Every Customer Need 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.

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.

intel. XEON PLATINUM

Form Factor	CPU Number	Memory Number
7U	2	32

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 NVIDIA Hopper™ GPUs 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.

intel. XEON PLATINUM

Form Factor	CPU Number	Memory Number
7U	2	32

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 is optimized to accelerate massive data sets, huge AI models, and supercomputing applications with optimized performance.

intel. XEON PLATINUM

Form Factor	CPU Number	Memory Number
7U	2	32

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.

intel. XEON

Form Factor	CPU Number	Memory Number
10U	2	32

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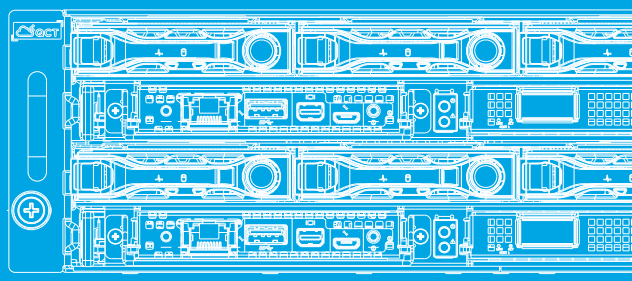
QuantaPlex Series

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 server equipped with four independent nodes. It increases flexibility to set up different workloads independently in a 2U shared infrastructure, providing optimal data center performance per dollar.

intel XEON

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 an ultra-dense server equipped with two independent nodes. It increases the flexibility to set up different workloads independently in a 2U shared infrastructure, providing optimal data center performance per dollar.

intel XEON

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

QuantaPlex **S24P-5U**

Storage Server

Storage Pioneer for Data Center Workload

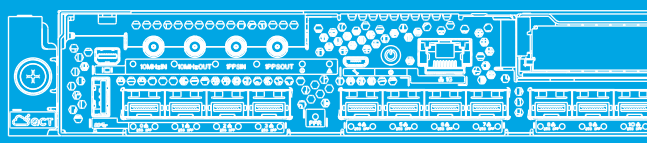
The QuantaPlex S24P-5U is an ultra-dense storage server powered by 5th/4th Gen Intel® Xeon® Scalable processors. It has 84/96 HDD bays which adhere to the latest RVI-optimized designs to support future HDDs. Built with SAS4 bandwidth to eliminate bottlenecks between storage card and expander, it also 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.

intel XEON PLATINUM

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 MEC 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.

intel. XEON

Form Factor	CPU Number	Memory Number
1U	1	8

QuantaEdge **EGX77B-1U**

Edge Server

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

intel. XEON PLATINUM

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 5th/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.

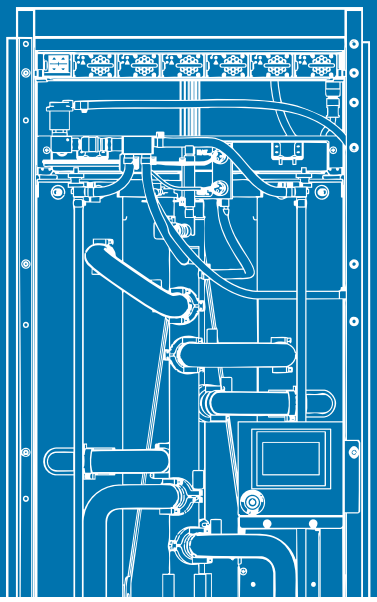
intel. XEON PLATINUM

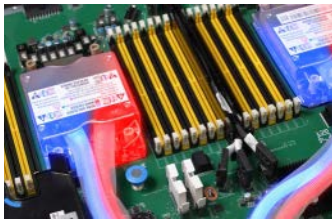
Form Factor	CPU Number	Memory Number
1U	1	8

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.





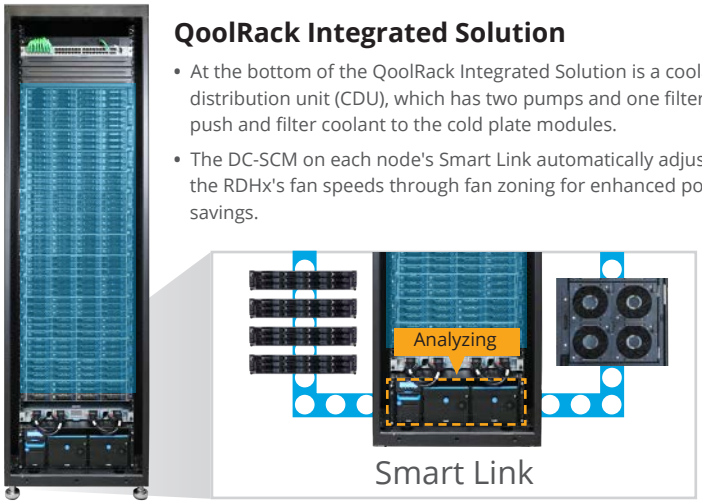
Cold Plate Modules

- 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.

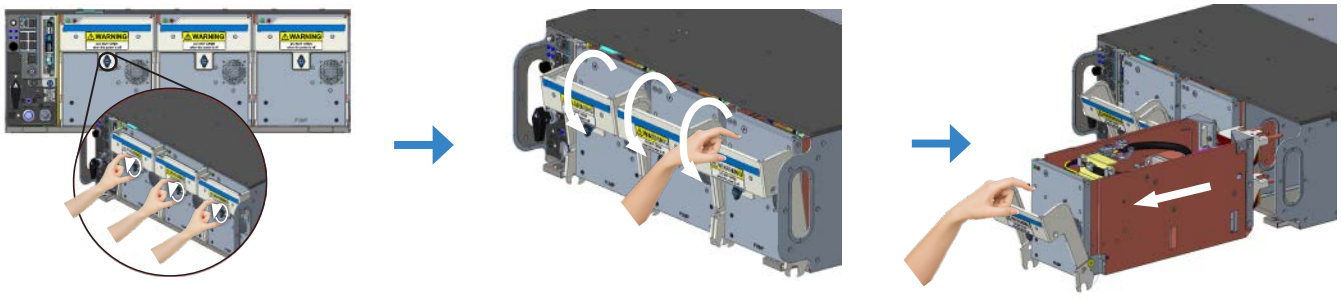
Front

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.



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Orqestra

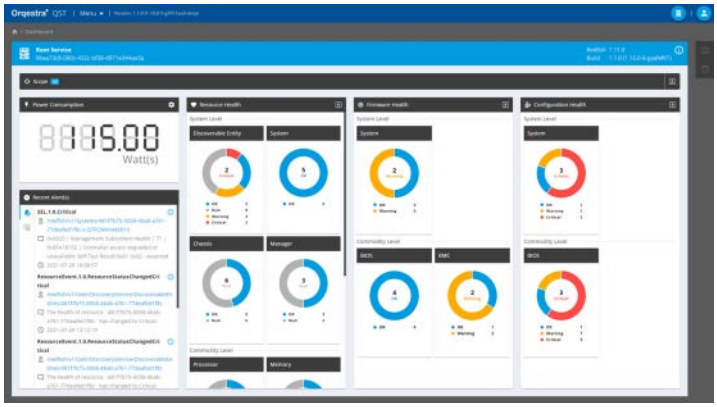
Orchestrate your Data Center from a Single Pane of Glass

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.



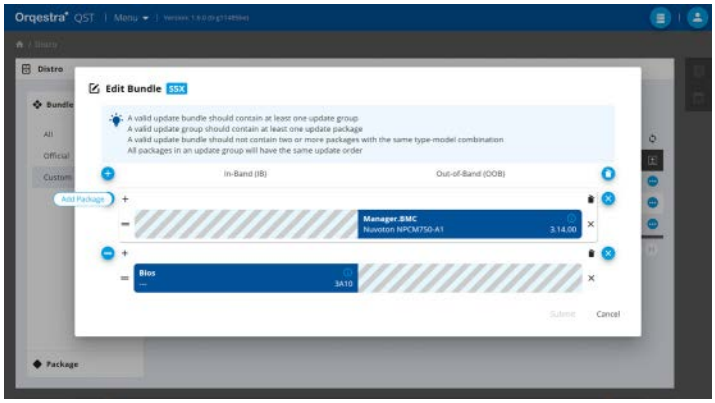
Remote Batch Firmware Management

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.

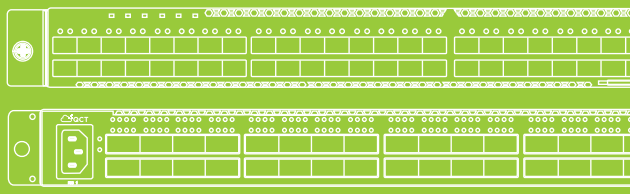


QuantaMesh Series

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

- 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

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

QuantaMesh BMS **T7040-IXAE**

40-port 100GbE QSFP28

Networking Router for Carrier Networks and Service Providers

- 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

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

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

QuantaMesh BMS T7032-IX7_BDE

32-port 100GbE QSFP28

The Next Wave Enterprise Data Center 100GbE Switch

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

QuantaMesh T7032-IX7D with QNOS

32-port 100GbE QSFP28

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

- VXLAN
- Multi-Chassis Link Aggregation (MLAG)
- OSPF, BGP4 with ECMP
- Network Automation

QuantaMesh T7032-IX7D with SONiC

32-port 100GbE QSFP28

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

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

QuantaMesh BMS T4048-IX8A

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

The Next Wave Enterprise Data Center 25GbE Switch

- 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

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

QuantaMesh T4048-IX8D with QNOS

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

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

- VXLAN
- Multi-Chassis Link Aggregation (MLAG)
- OSPF, BGP4 with ECMP
- Network Automation

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

- 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

QuantaMesh T1048-LB9M with QNOS

48-port 1000BASE-T & 4-port 25GbE SFP28

The Next Generation Data Center Management Switch

- Layer3 Management Switch
- Hot-swappable Redundant Power Supply
- 25G Uplink Port for Non-blocking Architecture

QCT Network Operating System (QNOS)

QCT Network Operating System (QNOS) is the modern software platform for data centers and cloud networks which is based on Broadcom's ICOS platform for tradition layer 2 and layer 3 features as well as software-defined network (SDN) applications. Inherited from ICOS, QNOS is a proven protocol stack solution that can run on several control plane processors including PowerPC, x86, and ARM with robust operating performance and flexible deployment. For the fundamentals of modern data center networks such as network automation, virtualization, high availability and data center orientated features, QNOS provides a comprehensive feature set to cover all types of applications.

Automation

With the rapid adoption of cloud computing and the proliferation of big data and parallel computing the need for data center network devices is growing exponentially, making network automation a critical factor. Supporting auto installation, Zero Touch Provision (ZTP), and Ansible, QNOS facilitates easy deployment to build-up a mass data center with Infrastructure-as-a-Service (IaaS).

Virtualization

Virtualization technology has been booming up fast and widely required in data center for the Cloud computing and virtual machines (VMs) applications. To provide the scalability and stretched ability of layer 2 environment, QNOS supports Virtual eXtensible LAN (VXLAN) Switching/ Routing running over the existing layer 3 network infrastructure. BGP-EVPN is also introduced in QNOS to support the VXLAN tunnel creation automatically and reduce network overhead by protocol-based MAC address and ARP learning.

High Availability

For data center network robust operations, QNOS eliminates single-point of failure with the following features:

- Multi-chassis Link Aggregation (MLAG)
- Virtual Router Redundancy Protocol (VRRP) and Bidirectional Forwarding Detection (BFD)
- In-Service Software Upgrade (ISSU)
- Up to 48 paths ECMP routing for load balancing and redundancy
- Spanning Tree with Guarding Features

Data-Center Orientated

To build up a network infrastructure with a high bandwidth and low latency for network storage or high computing requirements, QNOS supports ROCEv1/v2, DCBX, and FIP SNP for the service differentiation to fulfill the needs of modern data center applicatio.

Best-In-Class Networking OS for Cloud

- In-Service Software Upgrade (ISSU)
- VxLAN Switching, BGP-EVPN Route Support, and VxLAN Routing
- Multi-Chassis Link Aggregation (MLAG)
- OSPF, BGP4 with ECMP
- Network Automation RoCEv1/v2, DCBX, and FIP SNP

Layer 2 Features

Switching Mode: Store-and-Forward
Spanning Tree:
- 802.1w
- 802.1s
- Auto Edge

VLAN :
- IEEE 802.1Q Tagged Base
- Port-Based
- QinQ (802.1ad)

802.3x Flow Control (Pause Frames)
Storm Control:
- Broadcast
- Unknown Multicast
- DLF (Unknown Unicast)

IGMP Snooping:
- v1/v2/v3
- v1/v2 Querier
- Immediate Leave

MLD Snoopingv1/v2
Link Aggregation:
- Auto-Lag and Auto-Trunk
- Dynamic Load Balancing (DLB)
- 802.3ad with LACP (Resilient Hashing Supported)
- Static Trunk
- Unicast/Multicast Traffic Balance Over Trunking Port
- LACP Fallback

Link State Tracking
Port Backup
Loopback Detection
Private VLAN
Link Debounce
MTU Setting
ARP Sync on MLAG
Auto-LAG (LLDP Part)
Static LAG

QoS Features

Scheduling for Priority Queue: WRR, Strict, Hybrid
COS: 802.1p, IP TOS Precedence, DSCP
DiffServ
iSCSI Optimization

Security Features

VLAN 0 Attack Protection
SNMP Brute-Force Login Protection
Support Encrypted Configuration Files
Static and Dynamic Port Security (MAC-Based)
802.1x (MD5, MS-CHAPv2):
- Port-Based
- MAC-Based
- Auto VLAN Assignment
- Guest VLAN
- Unauthenticated VLAN

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
- Telnet
- SSH

SSH Public key Authentication
IP Source Guard
Dynamic ARP Inspection (DAI)
DHCP Snooping: IPv4, IPv6
Control Plane Policing (CoPP)
Service Prohibit Access
Signed Firmware Image
Role Base Access Control (RBAC)
VxLAN with Port-Security
Diffie-Hellman 2048-Bit Key
Hardware Protocol Checker
L2 Table Update Notification
Port Blocking
Storm Control
Image Integrity Check
Password Hardening
Dos Attack Protection

Layer 3 Features

IPv4 Unnumbered Interfaces
IP Multinetting/CIDR
/31 Subnets
Proxy ARP
Static Route: IPv4, IPv6
OSPFv2/v3
ECMP
- Reslient Hashing Supported for ECMP
- Dynamic Load Balancing (DLB)

BGP4
IGMPv1/v2/v3
PIM-SM/-SM6
SSM
MLDv1/v2
VRRPv2
Policy-Based Routing (PBR)
BFD
VRF Lite
Black Hole Detection (BHD)
VRRPv3
IP SLA

Management Features

MAC Flapping Notification
Bus Monitor and Recovery
Two Way Active Measurement Protocol
VRRP Aware PIMSM
IP Helper
IPv4 Device Tracking
PTP TC 1-Step E2E (1588 1-Step End-to-End Transparent Clock)
Industrial Command-Line Interface
CLI Filtering
CLI Scheduler
SSH
Software Update: TFTP, SCP, SFTP
Configuration Download/Upload: TFTP, SCP, SFTP
Dual Images
SNMPv1/v2c/v3
SNMP Informv2
RMON1 Groups: 1, 2, 3, & 9
BOOTP: Client/Relay
DHCP Client
DHCP Relay
(VxLAN Environment Supported)
EVENT/Error Log
DNS Client
Remote PING
Traceroute
NTPv4
LLDP:
- 802.1ab
- Potential Error Detection

UDLD
Port Mirroring: SPAN, RSPAN
sFlowv5
Email Alerting: SMTP
Error-Disable Recovery
SNTP
Port Speed Setting
Thermal Control
Syslog Over TLS
Bus Monitor & Recovery
Transceiver Type Auto Detection
Pre-Emphasis Setting
Tech-Support
Reset Factory Default

IPv6 Management

IPv4/IPv6 Dual Protocol Stack
ICMPv6
ICMPv6 Redirect
IPv6 Neighbor Discovery
Stateless Autoconfiguration
Manual Configuration
DHCPv6 Client/Relay
SNMP Over IPv6
SSH Over IPv6
IPv6 DNS Resolver
IPv6 RADIUS
IPv6 TACACS+
IPv6 Syslog
IPv6 SNTP

High Availability

Multi-Chassis Link Aggregation (MLAG)
- IGMPv1/v2/v3 SNP and MLDv1/v2 SNP
- Standalone Mode
- L2/L3 Unicast
- RSTP/MSTP
- VXLAN

In-Service Software Upgrade (ISSU)

Data Center Features

PFC Watchdog (DCBx supported)
Anycast Gateways
Enhanced Transmission Selection (802.1Qaz)
Priority-Based Flow Control (802.1Qbb)
- 802.1p
- IP-DSCP

DCBX: DCBX for ETS, DCBX for PFC, DCBX for Application Priority
FCoE Initiation Protocol (FIP) Snooping
RoCEv1/v2

Automation

Zero Touch Provision (ZTP)
Auto Installation
RESTful API
Ansible
NETCONF

Virtualization Features

VxLAN Switching/Routing
BGP-EVPN for VXLAN
- Ethernet Autodiscovery Route (Type-1)
- MAC with IP Advertisement Route (Type-2)
- Inclusive Multicast Ethernet Tag Route (Type-3)
- Ethernet Segment Route (Type-4)
- IP Prefix Route (Type-5)
- ECMP and VRP-Aware Supported (Type 5)

Multihoming Designated Forwarder Election Enhancement (RFC8584)

SDN

OpenFlowv1.3

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

Features	IX7D	IX8D	LB9M	LY4R	LB9	IX1	P05	LY2R	LY3	LY6/8/9
L2 Features										
Auto-lag and Auto-trunk	22.12 ~	22.12 ~	No	No	No	No	No	No	No	No
MLAG enhancement for Multicast	20.12 ~	20.12 ~	No	No	No	Yes	No	No	No	No
IGMPv3 SNP with MLAG	20.12 ~	20.12 ~	No	No	No	Yes	No	No	No	No
IGMP SNP	Yes	Yes	19.06B01~	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Link State Tracking	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Port Backup	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Private VLAN	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Link Debounce	19.12 ~	19.12 ~	19.12 ~	No	No	Yes	No	No	No	No
Auto-Nego on 40G/100G	19.12 ~	19.12 ~	No	No	No	No	No	No	No	No
L3 Features										
Black Hole Detection (BHD)	19.06 ~	19.06 ~	No	No	No	Yes	No	No	No	No
IPv6 PBR	19.12 ~	19.12 ~	19.12 ~	No	No	Yes	No	No	No	No
IP SLA	19.12 ~	19.12 ~	19.12 ~	No	No	Yes	No	No	No	No
VRRP-BFD	19.12 ~	19.12 ~	No	No	No	Yes	No	No	No	No
QoS Features										
DSCP-based PFC	20.12 ~	20.12 ~	No	No	No	Yes	No	No	No	No
Dynamic Load Balancing (DLB)	20.12 ~	20.12 ~	No	No	No	No	No	No	No	No
iSCSI Optimization	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Layer 3 Features	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
IGMPv1/v2/v3	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes
PIM-SM/SM6	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes
MLDv1/v2	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes
BFD	Yes	Yes	No	No	No	Yes	Yes	Yes	Yes	Yes
VRF Lite	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes
VRRPv3	Yes	Yes	No	No	No	Yes	No	No	No	Yes
Security Features										
VLAN 0 Attack Protection	22.12~	22.12~	22.12~	No	No	Yes	No	No	No	No
SNMP brute-force login protection	22.12~	22.12~	No	No	No	Yes	No	No	No	No
Support encrypted configuration files	22.12~	22.12~	No	No	No	Yes	No	No	No	No
VxLAN with port-security	22.06 ~	22.06 ~	No	No	No	Yes	No	No	No	No
Diffie-Hellman 2048-Bit Key	22.06 ~	22.06 ~	No	No	No	Yes	No	No	No	No
Hardware Protocol Checker	22.06 ~	22.06 ~	22.06 ~	No	No	No	No	No	No	No
L2 table update Notification	22.06 ~	22.06 ~	No	No	No	Yes	No	No	No	No
Port Blocking	22.06 ~	22.06 ~	22.06 ~	No	No	Yes	No	No	No	No
Management Features										
MAC flapping Notification	22.06 ~	22.06 ~	22.06 ~	No	No	Yes	Yes	Yes	Yes	Yes
Bus Monitor and Recovery	22.06 ~	22.06 ~	No	No	No	Yes	Yes	Yes	Yes	Yes
Two Way Active Measurement Protocol	22.12~	22.12~	22.12~	No	No	Yes	Yes	Yes	Yes	Yes
VRRP aware PIMSM	22.06 ~	22.06 ~	No	No	No	Yes	No	No	No	No
IPv4 Device Tracking	21.06 ~	21.06 ~	No	No	No	Yes	No	No	No	No
Zero Touch Provision (ZTP)	20.12 ~	20.12 ~	No	No	No	Yes	No	No	No	No
PTP TC 1-Step E2E (1588 1-Step end-to-end transparent clock)	20.12 ~	20.12 ~	No	No	No	No	No	No	No	No
Signed firmware image	20.06 ~	20.06 ~	20.06 ~	No	No	Yes	No	No	No	No
BHD with sFlow	20.06 ~	20.06 ~	No	No	No	Yes	No	No	No	No
QPOST	20.06 ~	20.06 ~	No	No	No	Yes	No	No	No	No
IPv4/v6 SNTP	No	No	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
NETCONF	19.06 ~	19.06 ~	No	No	No	Yes	No	No	No	No
High Availability										
MLAG	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes
MLAG with MSTP and VXLAN	19.06 ~	19.06 ~	No	No	No	Yes	No	No	No	No
ISSU	19.06 ~	19.06 ~	No	No	No	Yes	No	No	No	No
Data Center Features										
PFC Watchdog	21.06 ~	21.06 ~	No	No	No	No	No	No	No	No
ETS	No	No	No	No	No	No	Yes	Yes	Yes	Yes
PFC (RoCEv1)	Yes	Yes	No	No	No	Yes	Yes	Yes	Yes	Yes
DCBX	Yes	Yes	No	No	No	Yes	Yes	Yes	Yes	Yes
FIP SNP	Yes	Yes	No	No	No	Yes	Yes	Yes	Yes	Yes
DCBX App Priority Originator	19.12 ~	19.12 ~	No	No	No	Yes	No	No	No	No
ECN (RoCEv2)	19.12 ~	19.12 ~	No	No	No	Yes	No	No	No	No
Virtualization Features										
BGP-EVPN support for VRF aware VXLAN Routing	20.12 ~	20.12 ~	No	No	No	Yes	No	No	No	No
MAC Mobility: MAC dumping	20.12 ~	20.12 ~	No	No	No	Yes	No	No	No	No
VRF aware VXLAN Routing	20.06 ~	20.06 ~	No	No	No	No	No	No	No	No
BGP-EVPN Multihoming	20.06 ~	20.06 ~	No	No	No	Yes	No	No	No	No
BGP-EVPN ARP Suppression	20.06 ~	20.06 ~	No	No	No	Yes	No	No	No	No
VXLAN Switching	Yes	Yes	No	No	No	Yes	No	No	No	Yes
BGP-EVPN support for VXLAN Switching/Routing	19.12 ~	19.12 ~	No	No	No	Yes	No	No	No	No
VRF unaware VXLAN Routing	19.12 ~	19.12 ~	No	No	No	No	No	No	No	No

* Do not support split horizon

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

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

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

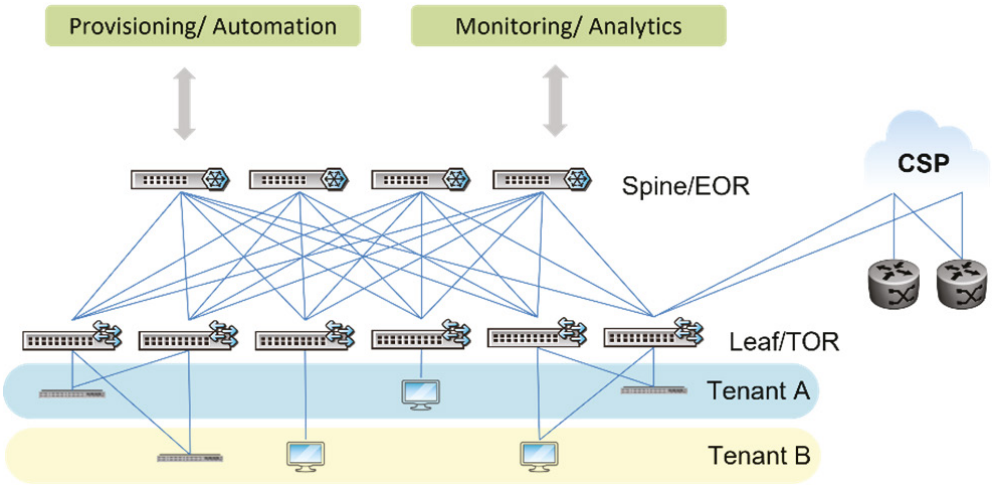
PFC Watchdog (DCBx Supported)
Priority-based Flow Control (802.1Qbb)
- 802.1p
- IP-DSCP

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.

vmware

QxStack VMware Edition-vSAN ReadyNode™

Flexible Virtualization Architecture to Fulfill Your Workloads

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

QxStack VMware Edition-VRN is a series of hyperconverged IaaS appliances with VMware vSAN ReadyNode™ Certification. Pre-validated to simplify complex implementation and management, QxStack VMware Edition-VRN also adopts the latest VMware vSAN technologies, such as vSAN OSA, vSAN ESA and vSAN Max™, 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.

vmware

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.

intel

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Found at: www.QCT.io/wheretobuy

Red Hat

QxStack with Red Hat OpenStack Platform

A Carrier-Grade Infrastructure Pre-Integrated and Validated for Network Service Providers

- Ensure business continuity
- Achieve optimal network performance
- Accelerate faster time-to-value

QCT QxStack with Red Hat OpenStack Platform provides a comprehensive solution for cloud service providers, enterprises and Telecom operators. The platform is designed with high network bandwidth and capacity to meet demanding performance requirements. The stack adopts EPA designs and fully takes advantage of QCT NUMA-balanced systems to improve network performance.

Red Hat

QxStack with Cloud Native Platform

An agile, flexible, and high-throughput performance platform to accelerate network transformation

- Extraordinary network performance
- Outstanding extendibility and flexibility
- Optimized model and configuration

QxStack with Cloud-Native Platform is a Platform as a Service (PaaS) solution built on the Red Hat® OpenShift® Container Platform and strengthened by Intel Enhanced Platform Awareness (EPA) technology. The production-ready performance-optimized solution features a Hyper Converged Infrastructure (HCI) architecture that supports VMs and container coexistence and allows resource sharing.

Microsoft

QxStack Azure Local Solution

Certified Azure Local Solution

- Enable diverse use cases
- Deliver faster time-to-market
- Easy to deploy

QxStack Azure Local is a Microsoft certified HCI solution designed to deliver a seamless hybrid cloud experience. With various configurations, it is not only optimized for diverse business workloads and use cases, but also pre-configured and pre-validated to minimize your hardware-software integration effort and system implementation cost.

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

Software Defined Storage

QCT offers high-performance and high capacity virtualized storage environments to help enterprises effectively process an ever-increasing volume of data and manage the complex workloads of analytics. QCT offers scalable, software-defined storage platforms equipped to address file, object and block storage requirements across the board and power the most demanding cloud computing solutions in the industry.

Red Hat

QxStor Red Hat Ceph Storage

Optimal Integrated Ceph Solutions at Petabyte Scale

- Provide various workloads to meet diverse demand
- Exhibit industry-leading performance
- Accelerate faster time-to-value

QxStor Red Hat Ceph Storage Edition offers a family of Ceph solutions for building different types of scale-out storage clusters based on Red Hat Ceph Storage. The seamless interoperability and leading performance for block and object storage make it well suited for archival, rich media, and cloud infrastructure workloads like OpenStack.

intel

Powered by Intel® Technology.

Converged AI & HPC System

Building up a system to run both HPC & AI workloads from scratch is very challenging because the system design and system integration in this process is highly complex. QCT delivers the QCT Platform on Demand (QCT POD), a converged HPC and AI platform, with best-practice hardware and software integration to fulfill workload-optimized performance for HPC, AI and Data Analytics workloads.

ML Commons thinkparQ

QCT Platform on Demand (QCT POD)

Realize Industrial Workloads with Converged HPC & AI Infrastructures

- Best-practice HPC& AI converged platform for industrial workloads
- Streamlines management and deployment to accelerate time-to-value
- Provides a workload-driven design with flexible hardware and software integration

QCT Platform on Demand (QCT POD) provides best-fit building blocks for a converged HPC and AI system. It not only simplifies users' deployment journey, but also streamlines system management and monitoring. Moreover, with a comprehensive development environment, it can support both HPC and AI workloads in either a bare-metal or containerized environment, depending on users' requirement, to accelerate their time-to-value.

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

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.

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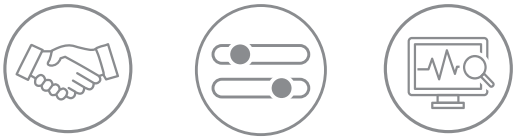
Found at: www.QCT.io/wheretobuy

Private 5G Network Solution

QCT offers OmniPOD, an end-to-end private 5G network solution comprised of a 5G core with a high-availability design, a 5G RAN with flexible system configurations, and an OAM system with visualized network management. The network system is 3GPP standard-compliant and Intel x86 processor-based. It supports both single-site and multi-site deployment depending on the user's scenario. Overall, OmniPOD equips enterprise users with a reliable, flexible, and user-friendly solution catering to diverse private 5G needs.

QCT OmniPOD Enterprise 5G Solution

A Turnkey Solution to Shape Diverse Future 5G User Scenarios



- Optimal enterprise-grade reliability
- Flexible uplink/downlink slot configuration
- Visualized OAM system to provide user-friendly network management

QCT OmniPOD is composed of OmniCore (5G Core), OmniRAN (5G RAN), and OmniView (OAM). Our end-to-end enterprise 5G solution leverages best-of-breed technologies to help you build a scalable, secure, and agile network tailored for different vertical markets.

Specifications

QuantaGrid Series

QuantaGrid D55X-1U				
SKU	**2.5" All NVMe**	**E1.S All NVMe**	**E3.S 1T NVMe**	**E3.S 2T CXL + E3.S 1T NVMe**
Processor	(2) Intel® Xeon® 6 processors, up to 350W TDP			
Memory	UP to 8 TB memory capacity with (32) DDR5 RDIMM up to 6,400 MHz, (16) MCRDIMM up to 8,000 MHz			
Storage	(12) hot-swappable 2.5" 15mm or 7mm NVMe SSDs	(16) hot-swappable E1.S NVMe SSDs	(20) hot-swappable E3.S 1T NVMe SSDs	(4) hot-swappable E3.S 1T NVMe SSDs + (8) E3.S 2T CXL
Network Controller	(1) Dedicated 1GbE management port Support (2) OCP 3.0 SFF network cards			
Expansion Slot	[General SKU] [x16 SW GPU SKU] (3) HHHL x16 slots or (2) FHHL x16 slots			
Form Factor	1U Rackmount			

QuantaGrid D54X-1U		
SKU	**2.5"**	**E1.S**
Processor	(2) 5th/4th Gen Intel® Xeon® Scalable processors, up to 385W TDP	
Chipset	Intel® C741	
Memory	Up to 8TB memory capacity with (32) DDR5 DIMM slots	
Storage	Front (12) hot-swappable 2.5" SATA/SAS/NVMe drives	Front (16) hot-swappable E1.S" NVMe drives
Network Controller	(1) Dedicated 1GbE management port Optional (2) OCP 3.0 small form factor network cards	
Expansion Slot	**Option 1** (2) PCIe 5.0 x16 FHHL slots (2) PCIe 5.0 x16 OCP3.0 slots	**Option 2** (3) PCIe 5.0 x 16 HHHL slots (2) PCIe 5.0 x16 OCP3.0 slots
Form Factor	1U Rackmount	

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 (1) OCP 3.0 SFF slot
Expansion Slot	**Option 1:** (2) PCIe 5.0 x16 FHHL slots **Option 2:** (2) PCIe 5.0 x16 HHHL slots
Form Factor	1U Rackmount

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 slots + (1) PCIe 5.0 x16 HHHL slot (1) PCIe 5.0 x16 HHHL slot (internal, for SAS HHHL card only)	
Form Factor	1U Rackmount	

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 up to 6,400 MHz, (16) MRDIMM up to 8,000 MHz			
Storage	(4) hot-swappable 3.5" SATA/SAS HDD (8) hot-swappable 2.5" NVMe SSD **Optional Rear:** (2) hot-swappable 2.5" NVMe SSD	(12) hot-swappable 2.5" NVMe SSD	(8) hot-swappable 2.5" NVMe SSD (16) hot-swappable 2.5" SATA/SAS SSD	(24) 2.5" NVMe SSD
Network Controller	(1) Dedicated 1GbE management port, Support (2) OCP 3.0 SFF network cards			
Expansion Slot	**Upper Deck** **[General SKU]:** (4) PCIe 5.0 x8 FHHL slots + (2) hot-swappable 2.5" NVMe SSD **[SW GPU SKU]:** (2) PCIe 5.0 x16 FHHL slots + (2) hot-swappable 2.5" NVMe SSD **[DW GPU SKU]:** (3) PCIe 5.0 x16 FHFL slots **Lower Deck** **Option 1:** (2) PCIe 5.0 x16 HHHL slots + (1) PCIe 5.0 x8 HHHL slots **Option 2:** (2) PCIe 5.0 x16 FHHL slots **Option 3:** (1) PCIe 5.0 x8 HHHL slot **Option 4:** (1) PCIe 5.0 x16 HHHL slot + (1) PCIe 5.0 x8 HHHL slot **For PCIe expansion, consider storage options; contact QCT for further details.*			
Form Factor	2U Rackmount			

QuantaGrid D54Q-2U				
SKU	**3.5" Tiered**	**2.5" Tiered**	**2.5" All U.2**	**2.5" All E1.S**
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	Front (12) hot-swappable 3.5" SATA/SAS drives including (8) hot-swappable NVMe slots Optional Rear: (2) hot-swappable 2.5" SATA/SAS/NVMe drives	Front (24) hot-swappable 2.5" SATA/SAS drives including (8) hot-swappable NVMe slots Optional Rear: (2) hot-swappable 2.5" SATA/SAS/NVMe drives	Front (24) hot-swappable 2.5" SATA/SAS/NVMe drives	Front (24) hot-swappable E1.S NVMe drives
Network Controller	(1) Dedicated 1GbE management port Optional (2) OCP 3.0 small form factor network cards			
Expansion Slot	**Option 1:** (2) PCIe 5.0 x16 FHHL slots (4) PCIe 5.0 x8 FHHL slots Optional (2) PCIe 5.0 x16 HHHL slots **Option 2:** (2) PCIe 5.0 x16 FHFL slots (support DW GPU) (2) PCIe 5.0 x16 FHHL slots Optional (2) PCIe 5.0 x16 HHHL slots **Option 3:** (4) PCIe 5.0 x16 FHFL slots (support SW GPU) Optional (2) PCIe 5.0 x16 HHHL slots			
Form Factor	2U Rackmount			

QuantaGrid D75L-2U	
Processor	(2) Intel® Xeon® 6 processors, up to 350W TDP (1) 8-GPU accelerator baseboard
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 1GbE management port (8) OSFP ports serving (8) single-port NVIDIA ConnectX-8 VPI
Expansion Slot	(4) FHHL SW or (2) FHHL DW PCIe Gen 5 x16 slots
Form Factor	2U Rackmount

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) OCP 3.0 NIC PCIe 5.0 x16 SFF (1) 1GbE RJ45 dedicated management port
Expansion Slot	**Option 1:** (2) PCIe 5.0 x16 FHHL slots **Option 2:** (3) PCIe 5.0 x16 HHHL slots
Form Factor	2U Rackmount

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:** DW GPUs: (4) PCIe 5.0 x16 FHFL slots (2) PCIe 5.0 x16 HHHL slots (1) PCIe 5.0 x16 OCP 3.0 TSFF/SFF slot (1) PCIe 5.0 x8 HHHL slot **Option 2:** SW GPUs: (8) PCIe 5.0 x8 HHHL slots (2) PCIe 5.0 x16 HHHL slots (1) PCIe 5.0 x16 OCP 3.0 TSFF/SFF slot (1) PCIe 5.0 x8 HHHL slot
GPU Expansion	(4) Dual width GPUs or (8) Single width GPUs
Form Factor	3U Rackmount

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) DW FHFL PCIe 5.0 x 16 slots for GPU (3) SW FHFL PCIe 5.0 x 16 slots for networking **Option 2:** Air cooling - (8) DW GPUs: (8) DW FHFL PCIe 5.0 x 16 slots for GPU (4) SW FHFL PCIe 5.0 x 16 slots for networking (1) SW FHHL PCIe 5.0 x 16 slot for networking (1) SW HHHL PCIe 5.0 x 16 slot (reserved)
Form Factor	4U Rackmount

QuantaGrid D75F-7U	
Processor	(2) 5th/4th Gen Intel® Xeon® Scalable processors, up to 350W TDP (8) Accelerator modules on one single baseboard
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

QuantaGrid D74F-7U	
Processor	(2) 5th/4th Gen Intel® Xeon® processors, up to 350W TDP
Chipset	Intel C741
Memory	Up to 8TB memory capacity with (32) DDR5 DIMM slots
Storage	(18) hot-swappable 2.5" PCIe 5.0 NVMe SSDs
Network Controller	(1) Dedicated 1GbE management port
Expansion Slot	(1) PCIe 5.0 x16 OCP 3.0 slot + (1) PCIe 5.0 x16 FHHL (10) PCIe 5.0 x16 OCP 3.0 slot
GPU Expansion	8-GPU baseboard
Form Factor	7U Rackmount

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

QuantaGrid D74H-7U	
Processor	(2) 5th/4th Gen Intel® Xeon® Scalable processors, up to 350W TDP
Chipset	Intel® C741
Memory	Up to 8 TB memory capacity with (32) DDR5 DIMM slots
Storage	(18) hot-swappable 2.5" NVMe drives
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
GPU Expansion	8-GPU baseboard
Form Factor	7U Rackmount

QuantaGrid D75H-10U	
Processor	(2) Intel® Xeon® 6 processors, up to 350W TDP (1) 8-GPU accelerator baseboard
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 1GbE management port (8) OSFP ports serving (8) single-port NVIDIA ConnectX-8 VPI
Expansion Slot	(4) FHHL SW or (2) FHHL DW PCIe Gen 5 x16 slots
Form Factor	10U Rackmount

*Per Node

QuantaPlex S45Z-2U		
SKU	**Expansion SKU**	**Storage SKU**
Processor	(1) Intel® Xeon® 6 processor per node, 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	(2) hot-swappable E1.S NVMe drives	(3) hot-swappable 2.5" NVMe drives
Network Controller	(1) Dedicated 1GbE management port (1) PCIe 5.0 x16 OCP 3.0 SFF slot	
Expansion Slot	(1) PCIe 5.0 x16 HHHL slot	NA
Form Factor	2U Rackmount	

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 (1) PCIe 5.0 x16 OCP 3.0 SFF slot
Expansion Slot	**Option 1** (1) PCIe 5.0 x16 FHFL SW slot (1) PCIe 5.0 x8 FHFL SW slot (1) PCIe 5.0 x16 FHHL SW slot **Option 2** (1) PCIe 5.0 x16 FHFL DW slot (1) PCIe 5.0 x16 FHHL SW slot
Form Factor	2U Rackmount

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) PCIe 5.0 x16 HHHL slots per node		
Form Factor	5U Rackmount		

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

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

EGX74I-1U	
Processor	(1) 5th/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

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

Front

QoolRack Sidecar Solution	
Height	44 OU
Dimensions	(W) 600mm x (H) 2300mm x (D) 1200mm
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

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

	BMS TA064-IXM	BMS T7080-IXA	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

	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	



	BMS T7032-IX7_BDE	QuantaMesh T7032-IX7D with QNOS	QuantaMesh T7032-IX7D with SONiC
Physical Ports			
Port Configuration	32-port 100GbE QSFP28	32-port 100GbE QSFP28	32-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 2.0	(1) USB 2.0	(1) USB 2.0
Performance			
ASIC	Broadcom Trident3 BCM56870	Broadcom Trident3 BCM56870	Broadcom Trident3 BCM56870
Switching Capacity	6.4Tbps	6.4Tbps	6.4Tbps
Maximum Forwarding Rate	2Bpps	2Bpps	2Bpps
Latency	Ultra-low Latency	Ultra-low latency	Ultra-low latency
MAC	Unified Forwarding Table to dynamically allocate the L2/L3 tables	Up to 288K	Up to 288K
CPU	Intel® Xeon® Processor D-1527, TPM 2.0	Intel® Atom® processor C3558	Intel® Atom® processor C3558
Memory	8GB SO-DIMM DDR4	8G DDR4/ECC	8G DDR4/ECC
Flash	32MB	(2) 16MB	(2) 16MB
Storage	128G SSD M.2	128GB M.2 SATA	128GB M.2 SATA
BMC	-	-	-
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



	BMS T4048-IX8A	BMS T4048-IX8A_BDE	QuantaMesh T4048-IX8D with QNOS
Physical Ports			
Port Configuration	48-port 25GbE SFP28 & 8-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) RJ45 out-of-band management port (10/100/1000M)	(1) OOB port (10/100/1000BASE-T)
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 BCM56770	Broadcom Trident3 BCM56770	Broadcom Trident3 BCM56873
Switching Capacity	4.0Tbps	4.0Tbps	4.0Tbps
Maximum Forwarding Rate	18Bpps	1B PPS	2Bpps
Latency	Ultra-low Latency	Ultra-low latency	Ultra-low Latency
MAC	-	Unified Forwarding Table to dynamically allocate the L2/L3 tables	Up to 288K
CPU	Intel Atom® processor C3558	Intel® Xeon® Processor D-1527, TPM 2.0	Intel Atom® processor C3558
Memory	8GB DDR4/ECC	8GB SO-DIMM DDR4	8GB DDR4/ECC
Flash	32 MB	32 MB	(2) 16MB
Storage	128G SSD	128G SSD M.2	128GB M.2 SATA
BMC	AST2520 (optional)	-	AST2520
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

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



	QuantaMesh T4048-IX8D with SONiC	QuantaMesh T1048-LYB	QuantaMesh T1048-LB9M with QNOS
Physical Ports			
Port Configuration	48-port 25GbE SFP28 & 8-port 100GbE QSFP28	48-port 1000BASE-T & 6-port 10GbE SFP+	48-port 1000BASE-T & 4-port 25GbE SFP28
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 2.0	(1) USB 2.0	-
Performance			
ASIC	Broadcom Trident3 BCM56873	(2) Broadcom Trident3 BCM56277	Broadcom StrataXGS Hurricane3-MG
Switching Capacity	4.0Tbps	216Gbps	296Tbps
Maximum Forwarding Rate	2Bpps	123Mpps	220Mpps
Latency	Ultra-low Latency	Ultra-low Latency	Ultra-low latency
MAC	Up to 288K	-	Up to 32K
CPU	Intel Atom® processor C3558	Intel Atom® processor C3338	ARM Cortex® A9 processor 1.25GHz
Memory	8G DDR4/ECC	8GB DDR4/ECC	2G DDR4/ECC
Flash	(2) 16MB	(2) 16MB	128MB
Storage	128GB M.2 SATA	32GB M.2 SATA	8G SSD
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	Redundant Power Supply: 1+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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