

QuantaMesh BMS T7128-IXT



The 100G Modular Switch for Data Centers

- 128 x 100G QSFP28
- x86 CPU Board
- SONiC Ready

About QCT

Quanta Cloud Technology (QCT) is a global data center solution provider. We combine the efficiency of hyperscale hardware with infrastructure software from a diversity of industry leaders to solve next-generation data center design and operation challenges. QCT serves cloud service providers, telecoms and enterprises running public, hybrid and private clouds.

Product lines include hyper-converged and software-defined data center solutions as well as servers, storage, switches, integrated racks with a diverse ecosystem of hardware component and software partners. QCT designs, manufactures, integrates and services cutting edge offerings via its own global network. The parent of QCT is Quanta Computer, Inc., a Fortune Global 500 corporation.

Bare-metal switches are driving the data center market as the high demands for cost-effective switch platforms and flexibility open hardware from service providers. With the upcoming era of 5G, the demands of Bare-metal boxes will continue to be strong. 5G advances the network applications which will need highly reliable and scalable infrastructure deployment.

Quanta Cloud Technology(QCT) provides a series of Bare Metal Switches, the QCT BMS product line, that addresses these changes in the data center market. To meet the requirements of high performance, high availability, fast scale-out, low latency performance, and continuous serviceability in data center applications, the QCT BMS product line offers high-performance and cost-effective open switch platforms.

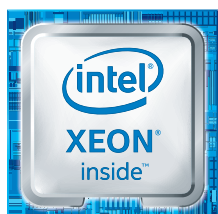
The 100G High-density Modular Switch for Data Centers

QuantaMesh T7128-IXT is a high-density 4RU spine switch, supporting up to 12.8Tbps with 128 100G QSFP28 ports. It offers flexibility and cost-benefit of open networking with 8 slots of modular line cards in a single chip solution. It supports high-density interconnection for massive scale-out data centers and simplifies the spine-leaf networking tiers. The modular line cards allow service providers to have more flexibility on port configuration and help them smoothly migrate to 400G in the future.

With an assembly of high-speed, high density, and high bandwidth, QuantaMesh T7128-IXT is specifically designed for high-performance data center environments. Scalable packet processing and large shared buffer allow QuantaMesh T7128-IXT to provide lossless forwarding and dynamic load balancing. It can deal with the continuously growing workloads from 5G and AI applications. New instrumentation features improve network visibility and provide operators real-time network monitoring.

High Availability

- Large integrated share buffer
- Instrumentation features provide comprehensive visibility to network
- Advanced traffic management and high-performance packet processing
- Modular line cards for flexible options
- Compact 4RU form factor
- Redundant PSUs and Fans



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QCT authorized partner

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Physical Ports

- **Port configuration:** 128 100G QSFP28 ports
- **Management Port:** 1 RJ-45 out-of-band management port (10/100/1000M)
- **Console Port:** 1 (RJ-45)
- **USB:** USB 2.0

Performance

- **Switching capacity:** 25.6Tbps
- **Latency:** Ultra-low latency

Major Components

- **ASIC:** Broadcom Tomahawk 3 BCM56980
- **Packet buffer:** 64MB
- **Reverse Gearbox:** BCM81724 *32
- **CPU:** Intel Broadwell DE D-1527
- **Memory:** 8GB SO-DIMM DDR4
- **Flash:** 8MB*2
- **Storage:** 128G SSD M.2

Mechanical

- **Dimension (HxWxD):** 174x447x700mm
- **Weight:** 63.1kg (NET)

Environmental Specifications

- **Operating temperature:** 0°C to 45°C @sea level (F-B)
- **Operating humidity:** 90% maximum relative humidity
- **Operating Altitude:** 0 to 2952 ft, (0-900m)

Electrical

- **Power requirement:** 100~240V AC, 50/60Hz
-40~-56V DC
- **Power consumption:** 1430W (100% fan duty)

Supported Optics and Cables

- **Cables:**
 - 40G Direct Attach Copper Cable (QSFP+ to QSFP+): 1m, 3m, and 5m
 - 100G Direct Attach Copper Cable (QSFP28 to QSFP28): 0.5m~5m
 - 40G Active Optical Cable (QSFP+, 850nm, MMF): 7m and 10m
 - 100G Active Optical Cable (QSFP28, 850nm, MMF): 1m, 3m, 5m, and 10m
- **Break-out Cable:**
 - 40G Direct Attach Copper Cable (QSFP+ to 4 SFP+): 1m, 3m, and 5m
 - 100G Direct Attach Copper Cable (QSFP28 to 4 SFP28): 3m
- **Optics:**
 - 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



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