

QuantaMesh BMS T7040-IXAE



Networking Router for Carrier Networks and Service Providers

- 40 x 100G QSFP28
- x86 CPU Support
- ONIE Pre-loaded
- ArcOS® 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.



Powered by Intel® Xeon® processor

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 high reliable and scalable infrastructure deployment. Bare-metal boxes are now penetrating the carrier network. This trend is migrating from bare-metal switches to bare-metal routers.

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. The QCT BMS product lines support speeds up to 400GbE speeds on its Ethernet Switches. 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 is the best choice.

The 100G Core Router for Carrier Networks and Service Providers

QCT has taken a revolutionary approach to deliver the a bare-metal router platform-IXAE. The unprecedented innovation has disrupted the traditional networking market of using proprietary routers, offering service providers opportunities to choose their desire software. IXAE is purpose-built for a high-performance 5G environment. It provides comprehensive switching and routing features which include VXLAN, IPv4/IPv6, and MPLS.

QCT QuantaMesh T7040-IXAE is an open core router platform that supports 40 100GbE ports in a compact 1U form factor. In a total bandwidth of 4 Terabits per second, IXAE offers a high-density solution for core-layer deployments in the central office. Equipped with two Broadcom Jericho 2 BCM88690 chips, the QCT QuantaMesh T7040-IXAE is rated at 2B PPS processing and includes a 8GB deep packet buffer with HBM. With deep buffer and large table size, IXAE enables lossless forwarding with high- density. The telemetry features enable IXAE to operate network traffic more efficiently in the core-layer of networks.

High Availability

The QuantaMesh BMS IXAE is purpose-built for carrier network. It provides superior solutions for service providers. The key features from both hardware and software perspectives include:

- 2B PPS packet processing
- Hierarchical Traffic Management with Deep Buffer
- 64K queues
- 8GB deep packet buffer using HBM
- Real-time telemetry and analysis
- BMC supported
- Compact 1RU form factor
- Redundant PSUs and Fans

Found at: www.QCT.io/wheretobuy



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Physical Ports

- **Port configuration:** 40 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:** 8Tbps
- **Maximum forwarding rate:** 2B PPS
- **MAC:** Unified Forwarding Table to dynamically allocate the L2/L3 tables

Major Components

- **ASIC:** Broadcom Jericho2 BCM88690
- **Packet buffer:** 8GB
- **CPU:** Intel® Broadwell DE D-1548, TPM2.0
- **Memory:** 16GB*2 SO-DIMM DDR4
- **Flash:** 8MB*2
- **Storage:** 128G SSD M.2

Airflow

- **Front to Back**

Mechanical

- **Dimension (HxWxD):** 43.2x440x620 mm
- **Weight:** 13.87kg(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

- **PSU:** 100~240V AC, 50/60Hz
-40~-56V DC, 1600W*2 (1+1)
- **Power consumption:** Idle Mode: 412W
Normal Mode: 502W

Safety

- **UL, cUL, CB**

EMC

- **CE, FCC**

RoHS

- **Reduction of Hazardous Substances (RoHS) 6**

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 Cables:

- **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

Ordering Information

- **T7040-IXAE (1IXAUZZ0001)** (Front to Back, AC)
- **T7040-IXAE (1IXAUZZ0005)** (Front to Back, DC)

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