



QuantaMesh T4048-IX8D

The Next Wave 25G
Ethernet Switch for
Data Center and
Cloud Computing

- **25G & 100G Ethernet Switch**
- **VXLAN**
- **Multi-Chassis Link Aggregation (MLAG)**
- **OSPF, BGP4 with ECMP**
- **Network Automation**

United States

QCT LLC., Silicon Valley office
1010 Rincon Circle, San Jose, CA 95131
TOLL-FREE: 1-855-QCT-MUST
TEL: +1-510-270-6111
FAX: +1-510-270-6161
Support: +1-510-270-6216

China

云达科技, 北京办公室
(Quanta Cloud Technology)
北京市朝阳区东大桥路 12 号润诚中心 2 号楼
TEL: +86-10-5920-7600
FAX: +86-10-5981-7958

云达科技, 杭州办公室

(Quanta Cloud Technology)
浙江省杭州市西湖区古墩路
浙商财富中心 4 号楼 303 室
TEL: +86-571-2819-8650

Japan

Quanta Cloud Technology Japan 株式会社
日本国東京都港区芝大門二丁目五番八号牧田ビル 3 階
TEL: +81-3-5777-0818
FAX: +81-3-5777-0819

Taiwan

雲達科技 (Quanta Cloud Technology)
桃園市龜山區文化二路 211 號 1 樓
TEL: +886-3-286-0707
FAX: +886-3-327-0001

Germany

Quanta Cloud Technology Germany GmbH
Hamborner Str. 55, 40472 Düsseldorf
TEL: +49-211-74077-300

Other regions

Quanta Cloud Technology
No. 211 Wenhua 2nd Rd., Guishan Dist., Taoyuan City
33377, Taiwan
TEL: +886-3-327-2345
FAX: +886-3-397-4770



Rear view

Data center networks face the changes with hardware and meet the requirements of the software it hosts. Quanta Cloud Technology provides a series of Ethernet Switches, the QCT QuantaMesh switch product line, that addresses these changes and provides the advanced features that meet the demands for the contemporary data center applications. The QCT QuantaMesh product lines provide the connections from 1G to 100Gbps speeds on its Ethernet Switches. To meet the requirements of high performance, high availability, fast scale out, low latency performance, and continuous serviceability for data center applications. The QCT QuantaMesh Ethernet Switch product line supported with QNOS (Quanta Network OS) to provide the advanced features, which is the best choice for Data Center application.

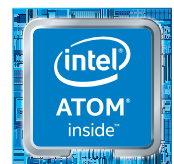
QuantaMesh T4048-IX8D is a high-performance, high port-density, and low latency layer 3 managed switches for Data Center Leaf Switch or ToR (Top of Rack) application. T4048-IX8D supports 48 SFP28 and 8 QSFP28 ports and is equipped with BMC in a 1-Rack-Unit (1RU) switch that supports 2.0 Terabits per second (Tbps) of bandwidth. The 48-port downlink ports on the T4048-IX8D can be configured to work as either 1/10/25-Gbps ports, offering deployment flexibility and investment protection. The uplink can support up to eight 100-Gbps or eight 40-Gbps ports, or a combination of 10-, 25-, 40-, and 100-Gbps connectivity, offering flexible migration options. By leveraging merchant silicon chip, T4048-IX8D is fully compliant with IEEE 802.3by and is a high performance high density Ethernet switch with advanced features such as smart table, dynamic load balancing, and VxLAN/RIOT support. T4048-IX8D also support larger tables size, improves the performance for larger packet buffers and reduced the latency. With QNOS (Quanta Network OS) supported, T4048-IX8D is the best fit for Data Center application.

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 Atom® processors
Intel Inside®. New Possibilities Outside.



Found at: www.QCT.io/wheretobuy

QuantaMesh T4048-IX8D Specifications

Physical ports

- **Port configuration:**
 - 48 25G SFP28 and 8 100G QSFP28
- **Management Port:**
 - Out-of-band management port (RJ-45, 10/100/1000Base-T)
- **Console Port:** 1 (RJ-45)
- **USB:** USB 2.0

Performance

- **Switching capacity:** 4Tbps
- **Maximum forwarding rate:** 2Bpps
- **Latency:** Ultra-low latency

Major Components

- **ASIC:** BRCM TD3 BCM56873
- **CPU:** Intel Atom® Denverton
- **Memory:** 8GB DDR4 with ECC
- **Storage:** 128GB M.2 SATA for storage

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)
- **Storm Control:**
 - Broadcast
 - Unknown Multicast
 - DLF (Unknown Unicast)
- **IGMP Snooping:**
 - v1/v2/v3
 - v1/v2 Querier
 - Immediate Leave
- **MLD Snooping v1/v2**
- **Link Aggregation:**
 - 802.3ad with LACP
 - Static Trunk
 - Unicast/Multicast Traffic Balance over Trunking Port
 - LACP Falback
- **Link State Tracking**
- **Port Backup**
- **Loopback Detection**
- **Private VLAN**
- **Link Debounce**

QoS Features

- **Scheduling for priority queue:**
 - WRR, Strict, Hybrid
- **COS:** 802.1p, IP TOS precedence, DSCP
- **DiffServ**
- **iSCSI optimization**

Security Features

- **Static and dynamic port security (MAC-based)**
- **802.1x (MD5, MS-CHAPv2):**
 - MAC-based
 - Port-based
 - Auto VLAN assignment
 - Guest VLAN
 - Unauthenticated VLAN
- **Access Control List:** L2/L3/L4
- **IPv6 ACL:** L3/L4
- **RADIUS/TACACS+:** Authentication, Authorization, Accounting
- **SSH V2.0**
- **User name and password:**

- Local Authentication
- Remote Authentication via RADIUS/TACACS+
- AAA
- **Management IP filtering:**
 - SNMP
 - Telnet
 - SSH
- **IP Source Guard**
- **Dynamic ARP inspection (DAI)**
- **DHCP snooping:** IPv4, IPv6
- **SSH Public Key Authentication**
- **Control Plane Policing (CoPP)**
- **Service Prohibit Access**
- **Role Base Access Control (RBAC)**

Layer 3 Features

- **IP Multinetting/CIDR**
- **/31 subnets**
- **Proxy ARP**
- **Static route:** IPv4, IPv6
- **OSPF v2/v3**
- **ECMP**
- **BGP4**
- **IGMP v1/v2/v3**
- **PIM-SM/SM6**
- **MLD v1/v2**
- **VRRP v2**
- **Policy-Based Routing (PBR)**
- **BFD**
- **VRF Lite**
- **Black Hole Detection (BHD)**
- **VRRPv3**
- **IP SLA**

Management Features

- **Industrial standard command-line interface**
- **CLI filtering**
- **CLI schedule**
- **SSH**
- **Software update:** TFTP, SCP, SFTP
- **Configuration Update:** TFTP, SCP, SFTP
- **Dual Images**
- **SNMP v1/v2c/v3**
- **SNMP inform v2**
- **RMON1 Groups: 1, 2, 3, & 9**
- **DHCP client/relay**
- **DNS client/relay**
- **EVENT / Error log**
- **Remote PING**
- **Traceroute**
- **NTPv4**
- **LLDP:**
 - 802.1ab
 - 802.MED
 - Potential error detection
- **UDLD**
- **Port mirroring:** SPAN, RSPAN
- **sFlow v5**
- **Email alerting:** SMTP
- **Error-Disable Recovery**
- **Fluentd**

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 TFTP**

High Availability

- **Multi-Chassis Link Aggregation (MLAG)**
 - L2 Unicast/Multicast
 - L3 Unicast
 - RSTP/MSTP
 - VXLAN
- **In-Service Software Upgrade (ISSU)**

Data Center Features

- **Priority-based Flow Control (802.1Qbb)**
- **DCBX:**
 - DCBX for ETS
 - DCBX for PFC
 - DCBX for Application Priority
- **FCoE Initiation Protocol (FIP) snooping**
- **RoCEv1/v2**

Automation

- **Auto installation**
- **RESTful API**
- **Ansible**
- **NETCONF/RESTCONF**

Virtualization Features

- **VXLAN**
- **RIOT**
- **BGP-EVPN for VXLAN**

SDN

- **OpenFlow v1.3**

Mechanical

- **Dimension (HxWxD):** 44x435x508mm
- **Weight:** 9.35kg/20.59lbs (NET)

Environmental Specifications

- **Operating temperature:** 0~45°C
- **Operating humidity:** 90% maximum relative humidity

Electrical

- **Power requirement:** 100~240VAC, 50/60Hz
- **Power consumption:** 378 watts

Safety

- **UL, cUL, CB, CCC**

EMC

- **CE, FCC, VCCI, BSMI, CCC**

RoHS

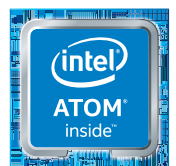
- **Reduction of Hazardous Substances (RoHS) 6**

Order Information

- **T4048-IX8D (11X8UZZ0006)**
 - Front to Back, with Rail Kit
- **T4048-IX8D (11X8UZZ0007)**
 - Back to Front, with Rail Kit



All specifications and figures are subject to change without prior notice. Actual products may look different from the photos. QCT, the QCT logo, Rackgo, Quanta, and the Quanta logo are trademarks or registered trademarks of Quanta Computer Inc. All trademarks and logos are the properties of their respective holders. Copyright © 2019-2020 Quanta Computer Inc. All rights reserved.



Intel Inside®. New Possibilities Outside.

Intel, the Intel logo, Intel Inside, Intel Inside logo, Intel Atom and Intel Atom Inside are trademarks of Intel Corporation in the U.S. and/or other countries.