QuantaMesh T7032-IX7D

The Next Wave
100G Ethernet Switch for
Data Center and
Cloud Computing

Rear view

- **100G Ethernet Switch**

- **VXLAN**

- **Multi-Chassis Link Aggregation (MLAG)**

- **OSPF, BGP4 with ECMP**

- **Network Automation**

- **Enlarge Table Sizes**

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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.

QCT T7032-IX7D is a high-performance and low latency layer 3 managed switches deployed as the Data Center Leaf Switch to connect to 100G servers or deployed as Data Center Spine Switch to aggregate 100G connections from Leaf Switches to expend the network scalability. T7032-IX7D supports 32 QSFP28 (10/25/40/50/100GbE speed) equipped with BMC in a 1-Rack-Unit (1RU) switch that supports 3.2 Terabits per second (Tbps) of bandwidth. By levering merchant silicon chip, T7032-IX7D is a high performance and high density Ethernet switch with advanced features such as smart table, dynamic load balancing, and VxLAN/RIOT support. T7032-IX7D also support larger tables size, improves the performance for larger packet buffers and reduced the latency. With QNOS (Quanta Network OS) supported, T7032-IX7D 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.

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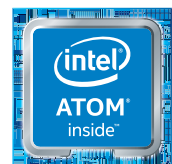
Found at: www.QCT.io/wheretobuy

QuantaMesh T7032-IX7D Specifications

Physical ports
- **Port configuration:** 32 QSFP28 ports
- **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:** 6.4Tbps
- **Maximum forwarding rate:** 3.3Bpps
- **Latency:** Ultra-low latency

Major Components
- **ASIC:** Broadcom TD3 56870
- **CPU:** Intel Atom® Denverton
- **Memory:** 16GB DDR4 with ECC
- **Storage:** 64GB 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
- **Link Aggregation:**
  - 802.3ad with LACP
  - Static Trunk
  - Unicast/Multicast Traffic Balance over Trunking Port
  - LACP Fallback
- **Link State**
- **Port Backup**
- **Loopback Detection**
- **Private VLAN**

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:**
  - MAC-based
  - Port-based
  - Auto VLAN assignment
  - Guest VLAN
  - Unauthenticated VLAN
- **Access Control List:** L2/L3/L4
- **IPv6 ACL:** L3/L4
- **RADIUS:** Authentication, Authorization, Accounting
- **TACACS+:** Authentication
- **SSH 1.5/V2.0**
- **User name and password:**
  - Local Authentication
  - Remote Authentication via RADIUS/TACACS+
  - AAA
- **Management IP filtering:** SNMP

- **IP Source Guard**
- **Dynamic ARP inspection (DAI)**
- **DHCP snooping:** IPv4, IPv6
- **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**

Management Features
- **Industrial standard command-line interface**
- **CLI filtering**
- **CLI schedule**
- **Telnet/SSH**
- **Software update:** TFTP, FTP, SCP, SFTP
- **Configuration Update:** TFTP, FTP, SCP, SFTP
- **Dual Images**
- **SNMP v1/v2c/v3**
- **SNMP inform v2**
- **RMON1 Groups: 1, 2, 3, & 9**
- **BOOTP:** client/relay
- **DHCP client**
- **DHCP relay**
- **DNS client**
- **DNS relay**
- **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**
- **SNMP over IPv6**
- **SSH over IPv6**
- **IPv6 Telnet Support**
- **IPv6 DNS Resolver**
- **IPv6 RADIUS Support**
- **IPv6 TACACS+ Support**
- **IPv6 Syslog Support**
- **IPv6 SNTP Support**
- **IPv6 TFTP Support**

High Availability
- **Multi-Chassis Link Aggregation (MLAG)**

Data Center Features
- **Enhanced Transmission Selection (802.1Qaz)**
- **Priority-based Flow Control (802.1Qbb)**
- **DCBX:**
  - DCBX for ETS
  - DCBX for PFC
- **FCoE Initiation Protocol (FIP) snooping**

Automation
- **Auto installation**
- **RESTful API**
- **Ansible**
- **Pooled System Management Engine (PSME)**

Virtualization Features
- **VXLAN**

Mechanical
- **Dimension (HxWxD):** 44 x 440 x 508mm
- **Weight:** 9.33kg/20.55lbs (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**
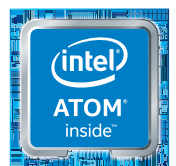
EMC
- **CE, FCC, VCCI, CCC**

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

Supported Optics and Cables
- **DAC cable (QSFP+):** 1m, 3m, and 5m
- **DAC cable (QSFP+, fan-out):** 1m, 3m, and 5m
- **DAC cable (QSFP28):** 1m, 3m, and 5m
- **DAC cable (QSFP28, fan-out):** 3m
- **AOC cable (QSFP+, 850nm, MMF):**
  7m and 10m
- **AOC cable (QSFP28, 850m, MMF):**
  1m, 3m, 5m, and 10m
- **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, MPO, 1310nm, SMF):**
  100GBASE-PSM4
- **100G optic (QSFP28, LC, 1310nm, SMF):**
  100GBASE-LR4

Order Information
- **T7032-IX7D (1IX7U7Z0002)**
  Front to Back, with Rail Kit
- **T7032-IX7D (1IX7U7Z0003)**
  Back to Front, with Rail Kit

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