

QuantaMesh T1048-LY4 Series

1G/10G
Enterprise-Class
Ethernet switch



- OOB Management Switch
- Datacenter airflow support
- AC/DC support

Overview

The QuantaMesh T1048-LY4 family is the new generation of layer 2 and layer 4 Ethernet standalone switches that provide the following configuration:

- 48 10/100/1000Base-T downlink plus 2 1/10GBase-X SFP+ uplink ports
- 48 10/100/1000Base-T downlink plus 4 1000Base-X SFP uplink ports
- 48 10/100/1000Base-T downlink ports

The QuantaMesh T1048-LY4 is ideal for branch office access network design. It integrates advanced management and security functions for contemporary datacenter requirements.

Extensive Layer 2 Features

Equipped with full Layer 2 features like Spanning Tree, Link Aggregation Control Protocol (LACP), IGMP Snooping and Port Mirroring, the QuantaMesh T1048-LY4 provides loop-free environment, flexible throughput adjusting, best control of multicast traffic and network monitoring. Supported with 802.1Q up to 4094 active VLANs in the QuantaMesh T1048-LY4, it secures broadcast domain as well as resource access in between each VLAN.

Enhanced Security

The port security of the QuantaMesh T1048-LY4 restricts switch access with the proper MAC address. The Layer-2, -3, and -4 access control list feature provides advanced traffic filtering based on the source and destination MAC addresses, IP addresses, or TCP/UDP ports. 802.1x Port-Based and MAC-Based access control makes sure only authorized user before granted access. The storm control for unknown unicast, unknown multicast and broadcast packets render the network unable to transport normal traffic.

QoS, Bandwidth Control

The QoS technique specifies a priority tag for QoS disciplines to different traffic. When a switch receives the fame, it prioritizes the stream, puts into the proper queues, and forwards the packets. The QuantaMesh T1048-LY4 supports 802.1p, DSCP, IP Precedence and TCP/UDP port number, and gives the optimal performance for real-time applications like voice and video. The 802.1Q QoS assignment can automatically inserts a tag and processes the best effort performance for the streaming.

Simplified Management

The Quanta series can be managed through industry-standard command-line interface (CLI) which reduces the training and operating costs. A user friendly Web GUI via a standard Web browser to manage. The T1048-LY4 also supports Simple Network Management Protocol (SNMP) both from standard MIB and private MIB for network administrator to easily configure, monitor, and manage remotely. sFlow provides quantifiable accuracy for network administrator to analyzes on network traffic. With the evolution from IPv4 to IPv6, the Quanta T1048-LY4 is a IPv6 integrated management device.

Datacenter application

The QuantaMesh T1048-LY4 is a high port density unit that is useful as a management device in datacenter server rack. The QuantaMesh T1048-LY4 can support front to back or back to front airflow for different datacenter requirements. Also, the LY4 can support AC and DC power.

About QCT

QCT (Quanta Cloud Technology) is a global datacenter solution provider extending the power of hyperscale datacenter design in standard and open SKUs to all datacenter customers. Product lines include servers, storage, network switches, integrated rack systems and cloud solutions, all delivering hyperscale efficiency, scalability, reliability, manageability, serviceability and optimized performance for each workload. QCT offers a full spectrum of datacenter products and services from engineering, integration and optimization to global supply chain support, all under one roof. The parent of QCT is Quanta Computer Inc., a Fortune Global 500 technology engineering and manufacturing company.

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QuantaMesh T1048-LY4 Series

Physical ports

- **Port configuration:**
 - 48 10Base-T/100Base-TX/1000Base-T & 2 1/10G SFP+ ports (T1048-LY4A)
 - 48 10Base-T/100Base-TX/1000Base-T & 4 1G SFP ports (T1048-LY4B)
 - 48 10Base-T/100Base-TX/1000Base-T ports (T1048-LY4C)
- **Management Port:** Out-of-band management port (RJ-45, 10/100/1000Base-T)
- **Console Port:** 1 (RJ-45)
- **USB:** 1 (v2.0)

Performance

- **Switching capacity:**
 - 136Gbps (T1048-LY4A)
 - 104Gbps (T1048-LY4B)
 - 96Gbps (T1048-LY4C)
- **Maximum forwarding rate:**
 - 101.2Mpps (T1048-LY4A)
 - 77.4Mbps (T1048-LY4B)
 - 71.4Mbps(T1048-LY4C)
- **Memory:** 512MB
- **Flash:** 32MB
- **MAC:** 16K

L2 Features

- **Switching mode:** store-and-forward
- **Spanning Tree:**
 - 802.1D, 802.1w & 802.1s
 - Fast Forwarding
 - Edge Port
 - Loop Guard
 - BPDU Filter/Guard
 - Auto Edge
 - TCN Guard
 - Root Guard
- **VLAN :**
 - IEEE 802.1Q Tagged Base
 - Port-Based
 - Private VLAN
 - GVRP/GMRP
 - 802.1v Protocol VLAN
 - Voice VLAN
 - MAC-Based VLAN
 - IP-Subnet VLAN
 - MAC-Based Voice VLAN
 - VTP v1/v2
 - QinQ
- **Storm control:**
 - Broadcast
 - Unknown multicast

- DLF (Unknown unicast)

· **IGMP snooping:**

- v1/v2/v3
 - v1/v2 Querier
 - Immediate Leave
- **Link Aggregation:**
- 802.3ad with LACP (64 groups)
 - Static Trunk
 - Unicast/Multicast Traffic Balance over Trunking Port
 - LACP Fallback

QoS Features

- **Scheduling for priority queue:** WRR, Strict, and Hybrid
- **COS:** 802.1p, IP TOS precedence, & DSCP
- **DiffServ**
- **Auto VoIP**
- **Port rate limit**

Security Features

- **static and dynamic port security (MAC-based)**
- **802.1x:** Port-based, MAC-based, auto VLAN assignment, guest VLAN, unauthenticated VLAN
- **Access Control List:** L2/L3/L4
- **IPv6 ACL:** L3/L4
- **RADIUS:** Authentication and accounting
- **TACACS+:** Authentication
- **HTTPS and SSL:** AES128-cbc, 3ES-cbc, Blowfish-cbc
- **SSH 1.5/V2.0:** AES128-cbc, 3ES-cbc, Blowfish-cbc
- **User name and password:**

Local Authentication, Remote Authentication via RADIUS/TACACS+, AAA

Denial of Service control

- **Management IP filtering:** SNMP/Web/Telnet/SSH
- **MAC filtering**
- **IP Source Guard**
- **Dynamic ARP inspection (DAI)**
- **DHCP snooping**

Management Features

- **Industrial command-line interface**
- **CLI filtering**
- **Web Based Management/HTTPs**
- **Telnet/SSH**
- **Software download/upload:** TFTP, Xmodem, FTP, and SCP/SFTP
- **Configuration download/upload:** TFTP, Xmodem, FTP, and SCP/SFTP
- **SNMP v1/v2c/v3**
- **SNMP inform:** v2/v3
- **RMON 1, 2, 3, & 9**
- **BOOTP:** client/relay
- **DHCP client**
- **EVENT/Error log:** Local Flash
- **DDNS**
- **DNS client**
- **Remote PING**
- **Traceroute**
- **SNTPv4**
- **LDAP client**
- **LLDP:** 802.1ab
- **CDP**
- **UDLD**
- **Port mirroring:** SPAN
- **sFlow v5**
- **Cable test**
- **Email alerting**
- **CLI scheduler**

IPv6 Management

- **IPv4/IPv6 Dual Protocol Stack**
- **ICMPv6**
- **ICMPv6 Redirect**
- **IPv6 Path MTU Discovery**
- **IPv6 Neighbor Discovery**
- **Stateless Autoconfiguration**
- **Manual Configuration**
- **DHCPv6**
- **SNMP over IPv6**
- **HTTP 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**
- **Remote IPv6 Ping**

Mechanical

- **Dimension (HxWxD):** 43.2x440x292mm
- **Weight:**
 - LY4A: 4kg/8.81lbs (NET)
 - LY4B: 4.1kg/9.04lbs (NET)
 - LY4C: 3.96kg/8.73lbs (NET)

Environmental Specifications

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

Electrical

- **Power requirement:** 100~240VAC, 50/60Hz
- **Power consumption:** 63 watts (L2 64B line rate; 10G-SR optics, 100% fan duty)
- **Safety:** UL, cUL, CB
- **EMC:** CE, FCC

RoHS

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

Order Information

- T1048-LY4A (1LY4AZZ0ST0) (F-2-B, AC)
- T1048-LY4A (1LY4AZZ0ST1) (B-2-F, AC)
- T1048-LY4A (1LY4AZZ0ST2) (F-2-B, DC)
- T1048-LY4A (1LY4AZZ0ST3) (B-2-F, DC)
- T1048-LY4B (1LY4AZZ0ST4) (F-2-B, AC)
- T1048-LY4B (1LY4AZZ0ST5) (B-2-F, AC)
- T1048-LY4B (1LY4AZZ0ST6) (F-2-B, DC)
- T1048-LY4B (1LY4AZZ0ST7) (B-2-F, DC)
- T1048-LY4C (1LY4AZZ0ST8) (B-2-F, AC)

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