QN-DS-4825GF

PRODUCT OVERVIEW

o   Quantum Data Centre Switch Series provides Layer-3 connectivity with an integrated QNOS platform for data centre. It can be managed through Rudder controllers (Cloud hosted or on-prem), device GUI/CLI and SNMP.

o   Besides being able to scale to massive deployments without any impact on latency, the platform has also been designed to provide seamless connectivity and provide a dense form factor with 48 SFP28 ports and 8 QSFP28 ports in order to provide seamless connectivity.

o   Quantum Data Centre switches deliver outstanding throughput, resiliency and scalability for organizations with high performance network requirements.

o   The switches support hot-swappable, redundant power supplies and fans; which are essential for fault tolerant environments like Data Centre Top-of-Rack network deployments.

o   High Precision Time stamping is one of the features supported by the platform, a cutting-edge technology that provides ultra-low latency with great cut-through.

KEY SPECIFICATION
QN-DS-4825GF

Specifications	Feature
Communication Ports	
25G/10G/1G Fiber Ports	48
100G/40G Uplink Ports	8
Console Port (RJ45)	1
Management Port (OOB)	1
USB Port	1
Capacity	
Switching capacity	4 Tbps
Forwarding rate	2.976 Bpps
RAM	8 GB
Flash	64 GB
Packet buffer	48 MB
MAC address table	131K
Active VLAN support	4094
IPv4 route	29700
IPv6 route	7425
Multicast routes	16k
Maximum jumbo frame size	9,216 bytes
Link Aggregation groups	Max 64
Link aggregation ports per group	Max 8
Qos Priority queues	8 per port
ACL	3072
Quality of Service	
Port and VLAN based QoS (802.1P)	Single Rate Three Color Marker (srTCM)
QoS based on IP/MAC/Port	Two Rate Three Color Marker (trTCM)
Traffic shaping	Strict priority support
DiffServ	Weighted Round Robin (WRR) support
Class-map & Policy-map	Queue assignment based on DSCP & CoS
QoS aggregate-policer	Traffic classification based on COS/DSCP
QoS Mapping on Queue	
Layer 3	
DHCP relay	ARP, Gratuitous ARP
DHCP server	IPv6 ND
DHCPv6 client	IPv6 Interface
IP source guard	IPv6 MTU path discovery
ISATAP	IPv6 static routing
IPv4Interface	VRRP

MLD snooping (v1, v2)	IGMP Proxy
Route-map, Route redistribution	PIM-SM, SSM
Route-only support	IP source guard

Layer 3 Routing

Inter-VLAN routing	IPv4 static routing, IPv4 host routing
RIPv2	Multicast routing
OSPFv2/v3	IPv6 static routing, IPv6 host routing
IPv6 Unicast routing	IPv4 and IPv6 Dual stack
Policy based routing	Border Gateway Protocol (BGP)

Layer 2

STP, RSTP, MSTP	Port mirroring (Port, ACL, VLAN Based)
VLAN (MAC, Protocol, Port based)	BPDU filtering
Auto MDI/MDIX	Ping/Trace route/ICMPv6
BPDU guard, Root guard	Storm control (Broadcast, Multicast, Unicast)
IGMP/IGMP snooping v1/v2/v3*	GVRP
LLDP/LLDP MED	Loopback detection
802.1Q VLAN Tagging	802.1x(Guest VLAN)
Private VLAN	Dynamic VLAN

High Availability

Stacking (Up-to 8 members)	Ring Redundancy Protocol (RRP)
Equal-cost multi path (ECMP)	Ethernet Ring Protection Switching (ERPS)
Storm control (Broadcast, Multicast, Unicast)	Virtual Router Redundancy Protocol (VRRP)

Security

ACLs	ARP inspection (DAI & SAI)
DHCP snooping	Secure copy (SCP)
802.1x authentication	DoS protection
MAC authentication	Local username/password
Radius /Tacacs+	Protected ports
AAA, SSH	RA guard
802.1x authentication (Single Host, Multi Host, Multi session)	

Management

Local GUI	NetConf/RestConf
Industrial standard CLI	NTP authentication
Telnet support	SPAN/RSPAN
Storage & File management with USB	SSHv1/v2
TFTP support	Firmware auto install support
Dual Flash Images OS	Syslog server
SNMP v1/v2c/v3	RMON (All 4 Groups 1,2,3,9)
SNTP	sFlow
Management: RUDDER (Controller)/Standalone	REST API
Manual/schedule reboot	

Standard Compliance

IEEE Standards Compliance

802.1AB LLDP/ LLDP-MED	802.3ae 10 Gigabit Ethernet
802.1D MAC bridging	802.3at Power over Ethernet Plus
802.1p Mapping to priority queue	802.3u 100Base-TX
802.1s Multiple Spanning Tree (MST)	802.3x flow control
802.1w Rapid Reconfiguration of Spanning Tree (RSTP)	802.3z 1000Base-SX/LX
802.1x Port-based Network Access Control (PNAC)	802.3 MAU MIB (RFC 2239)
802.3 Carrier Sense Multiple Access/Collision Detection (CSMA/CD)	802.1Q VLAN tagging
802.3ab 1000 Base-T	802.3az Energy Efficient Ethernet
802.3 10 Base-T	802.3af Power over Ethernet
802.3ad link aggregation (Dynamic and Static)	

Monitoring and Troubleshooting

Errdisable detection and recovery	CPU utilization
Device temp/PSU/FAN/status display & alarm	User operation logs
Virtual cable test	Management logs, alarms
ICMPv4/v6	DDM (Digital Diagnostic Monitoring)
Traceroute	UDLD (Unidirectional Link Detection)

Environment

Operating temperature	-5°C (23°F) to 55°C (149°F)
Humidity	5% to 95%RH, non-condensing
Voltage input	110-240V.Frequency:50/60Hz
Power consumption	650W max

CERTIFICATION & COMPLIANCES*

Standards	Certifications
Environmental Compliances	CE, RoHS
Regulatory (USA)	FCC
Regulatory (IN)	BIS, MTCTE (ER), IPv6 Ready

*For more information on certifications, please visit www.qntmnet.com/certification/ or email us at sales@qntmnet.com.

ORDERING INFORMATION

Part Number	Description
QN-DS-4825GF	Data Centre Switch, 48x25G SFP28 ports, 8x100G QSFP28 Uplink Ports with 2 hot swappable power supplies, includes 3-year online activation warranty.