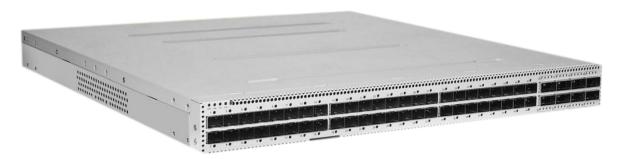# DATA CENTRE SWITCH

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 delivers 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
VLANs Support	4096
Maximum Jumbo Frame Size	9,216 bytes
Spanning Tree Groups	Up to 4K
Quality of Service	
DiffServ (Differentiated services)	Traffic shaping/policing
ACL mapping to priority queue	QoS based on classification
WRR support	Flow mirror, 802.1p support
Strict priority support	Priority queue
QoS based on classification (Based on IP, MAC, VLAN)	SP+WRR
Rate limiting (Based on per port and per queue)	Flow redirection
Class-map, Policy-map	DSCP prioritization
Layer 3	
DHCP relay	ARP, Gratuitous ARP
DHCP server	IPv6 ND
DHCPv6 client	IPv6 Interface
IP source guard	IPv6 MTU path discovery
ISATAP	Route-only support
IPv4Interface	VRRP
MLD snooping (v1,v2)	IGMP Proxy
Route-map	PIM-SM, SSM
Route redistribution	IP source guard
Layer 3 Routing	
Inter-VLAN routing	IPv4 static routing
RIPv2	IPv4 host 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)	MACsec **
Management	
Local GUI	SNMP traps
Industrial standard CLI	Management: RUDDER (Controller)/Standalone
Stacking	Telnet support
SNMP v1/v2c/v3, TFTP support	SNTP
SPAN/RSPAN	IPv6 management
sFLOW	Storage & File management with USB
RMON (all 4 groups 1,2,3,9)	Firmware auto-install support
Syslog server	Password management
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*

Regulatory	FCC
Environmental	RoHS
	CE

* For more information, 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 pluggable power supplies, includes 3-year online activation warranty.

SYSTEM UPGRADE PARTCODES**
(TO BE ORDERED AT THE TIME OF HARDWARE PURCHASE)

Part Number	Description
QN-DS-NSU2	System upgrade for networking scale level 2.
QN-DS-SEC-U	System upgrade for enabling MACsec