

S8016Q

16 Ports 40G QSFP+ Core Network Switch



Product Description:

The **S8016Q** is an ultra-high-performance networking switch featuring **16 x 40Gb QSFP+ ports**, designed specifically for modern **spine-leaf deployments** and data center core applications. Engineered for maximum throughput and reliability, this switch delivers exceptional performance for bandwidth-intensive environments.

Key Features & Benefits

- ✓ **High-Density 40G Connectivity** - 8 x QSFP+ ports enable flexible spine-leaf topologies and high-speed interconnects
- ✓ **Enterprise-Class Performance** - Powered by **Broadcom BCM56170** silicon delivering:
 - **1.28 Tbps switching capacity**
 - **952Mpps forwarding rate**
 - Ultra-low latency for demanding applications
- ✓ **Continuous Availability** - Redundant, hot-swappable power supplies ensure non-stop operation
- ✓ **Comprehensive Software Suite** - Complete Layer 2/3 protocol support for seamless integration
- ✓ **Spine-Leaf Optimized** - Ideal for building scalable, low-latency data center fabrics

Technical Specifications

- **Port Configuration:** 16 x 40Gb QSFP+
- **Switching Capacity:** 1.28 Tbps
- **Forwarding Rate:** 952 Mpps
- **Chipset:** Broadcom BCM56170
- **Power Supply:** Internal Power or Redundant hot-swappable power supplies
- **Cooling:** Front-to-back airflow (or other if applicable)

Ideal Deployment Scenarios

- **Data Center Spine Layer**
- **High-Performance Computing (HPC)**
- **Cloud Infrastructure**
- **Enterprise Core Networking**
- **Storage Area Networks**

Product Features:

- Cutting-edge Broadcom BCM56170 Chipset
- Support QoS, DHCP, BGP, VRRP, QinQ, etc.
- Support WEB/CLI/SNMP/SSH for Flexible Operation
- Support SSH, ACL, AAA, 802.1X, RADIUS, TACACS+, etc. for Security
- IPv4/IPv6 Dual-Stack for Future Network Expansion

Product Specifications:

Attributes	
Networking Interfaces	16x40G QSFP+ Ports
Management Interface	Console, Management port
LED Indicators	Power, System, Link/Act
Performance	
Switching Capacity	1.28 Tbps
Forwarding Capacity	952 Mpps
Forwarding Mode	Store and Forward
Packet Buffer Memory	32 Mbit
RAM for CPU	4 Gbit
Flash Memory	512 Mbit
MAC Address Table	32K
Max. Jumbo Frame size	12K Byte
ACL Table	1K
VLAN Quantity	4K
VLAN Interface	512
Multicast groups	4K
Routing Host	16K
Routing Entries	16K
Port Queues	8
Physical	
Dimensions	440 x 350 x 44 mm (Internal Power)
	440 x 460 x 44 mm (Hot-Swap Power)
Weight	8KG
Operating Temperature	0 to 40°C
Storage Temperature	-10 to 70°C
Operating Humidity	5 to 95% Noncondensing
Power Method	100-240VAC, 50/60Hz
Max. Power Consumption	200W
Port Configuration	
Enable and Disable	Support control enable and disable
Auto-Negotiation	Support force port mode and speed
Flow Control	Support IEEE802.3x full-duplex
	Support half-duplex backpressure
Storm Control	Support broadcast, multicast and DLF package rate limit
Port Mirroring	Support many to one mirroring
Rate Limit	Support Port input and output rate limit
Link Aggregation	Support manual Link Aggregation
	Support LACP
	Up to 8 maximum aggregation groups, each containing up to 8 ports
Aggregation Strategy	Source MAC / Destination MAC / Source Destination MAC

	Source IP / Destination IP / Source Destination IP
Port Protection	Each port can be configured into isolated protected port from each other
MAC Configuration	
MAC Address Table Management	Support
Transfer Mode	Support IVL transfer mode
Static MAC Address	Support
MAC Binding	Support
MAC Address Filter	Support
MAC Quantity Limitation	Support limit the number of MAC-addresses Learning per port
VLAN Configuration	
VLAN Based on 802.1Q	Support
MAC-Based VLAN	Support
IP-Based VLAN	Support
Protocol-Based VLAN	Support
Guest VLAN	Support
Private VLAN	Support
Reliability Protocol	
Spanning Tree	Support STP/RSTP/MSTP
BPDU Guard	Support
BPDU Filter	Support
Port Loop Detection	Support
EAPS Protocol	Support RFC3619
LLDP Protocol	Support LLDP and LLDP-MED
UDLD Protocol	Totally compatible with UDLD protocol of CISCO
L3 Routing	
Static ARP & Dynamic ARP	Support
Static Routing	Support
Policy Routing	Support
RIP	Support RIP v1/v2
OSPF	Support OSPF v2
VRRP	Support
Multicast	
Static Multicast MAC Address	Support
IGMP SNOOPING	Support
IGMP Querier	Support
IGMP Filter	Support
MVR	Support
GMRP	Support
Access Control List (ACL)	
Based on Standard IP	Support
Based on Extend IP	Support
Based on MAC IP	Support
Based on MAC ARP	Support
Based on time	Support
Port Filtering	Support
Quality of Service (QOS)	
Scheduling Mode	Support WRR, SP, WFQ
Sorting Based on Port	Support

Sorting Based on 802.1p	Support
Sorting Based on DSCP(DiffServ)	Support
DHCP	
DHCP Client	Support
DHCP Relay	Support
DHCP Server	Support
DHCP option 82	Support
DHCP Snooping	Support
Security	
Administrative Security	Support start and end TELNET, WEB and SNMP serve Support TELNET, WEB and SNMP serve binding with Standard IP ACL Support control the number of user for TELNET
CPU Protect	Switch self-security protect, forbid flow attack
IP-MAC Address Binding	Support binding between static configuration IP, MAC and Port
AAA	Support 802.1x protocol Support RADIUS protocol Support RADIUS server authentication authorization and bill Support MAC-based 802.1X authentication. Support 802.1x guest VLAN
DHCP SNOOPING	Support dynamic ARP binding to prevent ARP spoofing Support dynamic IP, MAC port binding Support stationary port connect to DHCP server, to prevent privately connect to DHCP sever
Prevent ARP Spoofing	Support manual configure ACL rule based on MAC ARP prevent ARP spoofing Support DHCP SNOOPING function, switch dynamically binding ARP and port, when the DHCP get IP address , to prevent ARP spoofing
Management Feature	
CLI Management	Support serial port management Support TELNET management Support SSH management
WEB Management	Support
SNMP Management	Support SNMP protocol Support SNMP TRAP Support standard and private MIB
User management	Support multi-user management
Show CPU Utilization	Support
Show RAM Utilization	Support
Log Management	Support
Configuration Download / Upload	Support
Upgrade Firmware	Support
Timer Management	Support local timer management Support SNTP protocol get clock
Debugging Tools	
PING	Support
TRACEROUTE	Support
TELNET Client	Support
Package List	
Switch	1pcs
User Manual	1pcs
Power Cord	1pcs

DB9 to RJ45 Cable	1pcs
Rack Mount Kit	2pcs
Rubber Feet	4pcs

Order Information:

Switch Models	
S8016Q	16 Ports 40G QSFP+ Ports Core Network Switch, Internal Power Supply
S8016Q-RPS	16 Ports 40G QSFP+ Ports Core Network Switch, 1+1 Hot Swap Power Supply