

# CS6200-8G24S2Q-EI L3+ 40G Routing Switch

### **Product Overview**

DCN CS6200-8G24S2Q-EI is a L3 stackable routing switch with 40GE fiber uplink ports. CS6200-8G24S2Q-EI has advanced hardware and software architecture design, built-in dual redundant power supplies. CS6200 provides high availability, scalability, security, energy efficiency, and ease of operation with innovative features such as VSF (Virtual Switch Framework) and 3 fixed Auto-adjusted fan units. It is ideal for high-density aggregation in Enterprise networks or Campus networks. For SMB, CS6200 could be used as core switch.

Appearance	Description
CS6200-8G24S2Q-EI	<ul> <li>8 x 10/100/1000BaseT + 24 x 10GE(SFP+) + 2 x 40GE(QSFP+)</li> <li>Redundant Fixed AC+DC (48V) Power Supply</li> <li>1 console, 1 USB, 1 RJ45 management port</li> <li>1 Rest Button</li> <li>Forwarding performance: 488Mpps</li> <li>Switching capacity: 656Gbps</li> </ul>



### **Features and Highlights**

#### Flexible Access and Scalability

With multiple port types, CS6200-8G24S2Q support 8 ports 100M or 1000M copper access, 24 ports 1G or 10G fiber access, and 2 ports 40G fiber access.

The 40 Gigabit Ethernet connectivity of CS6200-8G24S2Q-EI is accomplished via a hot-pluggable 40 Gigabit QSFP+ transceiver which supports distance up to 300 meters over multimode fiber and 10 to 40km over single-mode fiber (The distance depends on the optical module chosen).

#### **VSF (Virtual Switch Framework)**

Virtual Switch Framework can virtualize multiple DCN switches into one logical device, achieving the sharing of information and data tables between different switches. The performance and ports density of the virtualized device is greatly enlarged by times under VSF. VSF also simplifies management work for the network administrator and provides more reliability.

#### Rich L3 Features

CS6200-8G24S2Q-EI delivers high-performance, hardware-based IP routing. RIP, OSPF, and BGP provide dynamic routing by exchanging routing information with other Layer 3 switches & routers. With CS6200-8G24S2Q-EI, customers could easily achieve a Policy-based Route (PBR), which is important when they need a multi exit application.

#### **Strong Multicast**

CS6200-8G24S2Q-EI supports abundant multicast features. In Layer 2, such as IGMPv1/v2/v3 snooping and fast leave. L3 multicast protocols such as IGMPv1/v2/v3, PIM-DM, PIM-SM, PIM-SSM, and even MSDP. With Multicast VLAN Register (MVR), multicast receiver/sender control and illegal multicast source detect functions; CS6200-8G24S2Q-EI provides a great application experience for the customer.

#### Easy High-Reliability network

MRPP is a Multi-layer Ring Protection Protocol, which is DCN's private fast Ethernet ring protocol. Comparing to spanning tree protocol, it has the advantages of fast convergence, simple protocol calculation, fewer system resources cost, and so on, which can improve the reliability of Ethernet network operation.

#### Comprehensive QoS

With 8 queues per port, CS6200-8G24S2Q-EI enable differentiated management of up to 8 traffic types. The traffic is prioritized according to IEEE802.1p, DSCP, IP precedence, and TCP/UDP port number, giving optimal performance to real-time applications such as voice and video.

CS6200-8G24S2Q-EI also supports Bi-directional rate-limiting, per port or traffic class preserves network bandwidth, and allows full control of network resources.

#### **Enhanced Security**

IEEE 802.1X port-based access control and MAC-based access control ensure all users are authorized before being granted access to the network.

Ingress/Egress Access Control Lists (ACLs) can be used to restrict access to sensitive network resources by denying packets based on L2/L3/L4 headers information. And for some services that are based on time, the product can support time-based ACL to match the requirement.

Secure Shell (SSH) encrypts network management information via Telnet providing secure network management.

RADIUS Authentication enables centralized control of the switch and restricts unauthorized users from altering the configuration of the switch.



# **Specifications**

Item	CS6200-8G24S2Q-EI
Physical port	8 x 10/100/1000BaseT + 24 x 10GE(SFP+) + 2 x 40GE(QSFP+)
i nysicai port	1 x RJ45 Ethernet Management port
Management port	1x Console port
	1x USB2.0 interface
Performance	1X USB2.0 interrace
Switching Capacity	656Gbps
Forwarding Rate	488Mpps
Jumbo Frame	16K
MAC Address	32K
ARP Table	16K
Routing Table	16K
ACL Table	3K
L3 Interface	Max 1K
Physical	
` `	440mm x 44mm x 320mm
Relative Humidity	5%~90% non-condensing, storage 95%
Temperature	Working 0°C~50°C, storage -40°C~70°C
Power Supply	AC: 100~240VAC, 50~60Hz
	+ 48VDC
Power Consumption	<85W
Main Features	
L1, L2 Features	IEEE802.3u(10Base-T), IEEE802.3u(100Base-TX), IEEE802.3z(1000BASE-X), IEEE802.3ab(1000Base-T), IEEE802.3ae(10GBase), IEEE802.3x, IEEE802.3ak(10GBASE-CX4), IEEE 802.3ba, Auto MDI/MDIX  Port loopback detection  LLDP and LLDP-MED  UDLD  802.3ad LACP, max 128 group trunks with max 8 ports for each trunk  LACP load balance  N:1 Port Mirroring  RSPAN  IEEEE802.1d(STP)  IEEEE802.1w(RSTP)  IEEEE802.1s(MSTP)  Root Guard  BPDU Guard  802.1Q, 4K VLAN  MAC VLAN, Voice VLAN, PVLAN, Protocol VLAN, Multicast VLAN  QinQ, Selective QinQ, Flexible QinQ  GVRP  Broadcast / Multicast / Unicast Storm Control  IGMP v1/v2/v3 Snooping and L2 Query, IGMP Proxy  ND Snooping  MLDv1/v2 Snooping  Port Security  Flow Control: HOL, IEEE802.3x
	Bandwidth Control

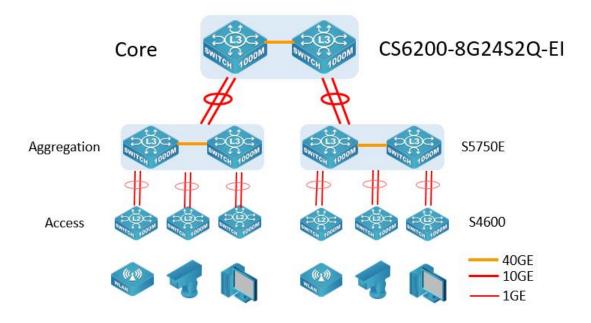


	Static Routing, RIPv1/v2, OSPFv2, BGP4
	OSPFv3, BGP4+
	OSPF multiple processes
	Policy-based routing (PBR) for IPv4 and IPv6
	VRRP
	URPF,
	ECMP
I 2 Footures	BFD
L3 Features	DVMRP, PIM-DM, PIM-SM, PIM-SSM, Anycast RP, MSDP
	Static Multicast Route
	Multicast Receive Control
	Illegal Multicast Source Detect
	ARP Guard, Local ARP proxy, Proxy ARP, ARP Binding, Gratuitous ARP, ARP Limit
	Anti ARP/NDP Cheat, Anti ARP/NDP Scan
	DNS Client, DNS Relay
	ICMPv6, ND, DNSv6
	IPv6 Policy-based Routing (PBR)
	IPv6 VRRPv3, IPv6 URPF, IPv6 RA
IPv6	RIPng, OSPFv3, BGP4+
	MLD Snooping, IPv6 Multicast VLAN
	MLDv1/v2, PIM-SM/DM for IPv6, IPv6 Anycast RP, IPv6 ACL, IPv6 QoS
	8 Queues
	SWRR, SP, WRR, WDRR, SWDRR
QoS	
	Traffic Classification Based on 802.1p COS, ToS, DiffServ DSCP, ACL, port number
	Traffic Policing
	PRI Mark/Remark
	IP ACL, MAC ACL, IP-MAC ACL
	Standard and Expanded ACL Based on source/destination IP or MAC, IP Protocol,
ACL	TCP/UDP port, DSCP, ToS, IP Precedence), VLAN, Tag/Untag, CoS
	REDIRECT and Accounting based ACL
	Rules can be configured to port, VLAN
	Time Ranged ACL
	802.1x AAA
	Port, MAC-based authentication
Committee	Accounting based on time length and traffic
Security	Guest VLAN and auto VLAN
	RADIUS for IPv4 and IPv6
	TACACS+ for IPv4 and IPv6
	MAB
DUCD:///s/6	DHCP Server/Client for IPv4/IPv6
DHCPv4/v6	DHCP Relay/Option 82
	DHCP Snooping/Option 82
Traffic Monitor	sFlow Traffic Analysis
	CLI, WEB, Telnet, SNMPv1/v2c/v3 through IPv4 and IPv6
	Syslog and external Syslog Server
	HTTP SSL
Security Network Management	
	SNMP MIB, SNMP TRAP
	FTP/TFTP
	SNTP/NTP
	RMON 1,2,3,9
	Authentication by Radius/TACACS
	SSH v1/v2
	Dual firmware images/ Configuration files
	802.3ah OAM, 802.1ag OAM
Data Center Features	VSF (Virtual Switch Framework)



# Application

Core layer switch in a small campus or enterprise network



## **Order Information**

Product	Description
CS6200-8G24S2Q-EI	40G Ethernet Routing Switch, 8 x 10/100/1000Base-T (RJ45) + 24 x 10GE (SFP+) + 2 x
	40GbE (QSFP+), AC + 48VDC power supply