CS6200X-HI Series
L3+ 10G Routing Switch

Product Overview

DCN CS6200X-HI series switches are next-generation 10G stackable routing switches that provide fixed gigabit access and 10GE uplink ports. CS6200X-HI switch has advanced hardware and software architecture design. These switches provide high availability, scalability, security, energy efficiency, and ease of operation with rich features such as **VSF (Virtual Switch Framework)** and redundant power supplies. It is ideal for high-density aggregation or core layer in campus networks.

The following models are available in the CS6200X-HI series.

Appearance	Description
 CS6200X-24T6X-HI	● 24*10/100/1000Base-T + 6*10GbE(SFP+) + 1 extended module slot ● 1 console, 1 USB, 1 RJ45 management port ● AC power + optional modular AC ● Switching capacity: 168Gbps ● Forwarding rate: 125Mpps
 CS6200X-48T6X-HI	● 24*10/100/1000Base-T + 6*10GbE(SFP+) + 1 extended module slot ● 1 console, 1 USB, 1 RJ45 management port ● AC power + optional modular AC ● Switching capacity: 216Gbps ● Forwarding rate: 161Mpps
 CS6200X-24S6X-HI	● 24*100/1000Base-X(SFP) + 6*10GbE(SFP+)+ 1 extended module slot ● 1 console, 1 USB, 1 RJ45 management port ● AC power + optional modular AC ● Switching capacity: 168Gbps ● Forwarding rate: 125Mpps
 CS6200X-48S6X-HI	● 48*100/1000Base-X(SFP) + 6*10GbE(SFP+)+ 1 extended module slot ● 1 console, 1 USB, 1 RJ45 management port ● AC power +optional modular AC ● Switching capacity: 216Gbps ● Forwarding rate: 161Mpps

Key Features and Highlights

Performance and Scalability
With high switching capacity, CS6200X-HI series support wire-speed L2/L3 forwarding and high routing performance for IPv4 and IPv6 protocols.
The 10 Gigabit Ethernet connectivity of CS6200X-HI is accomplished via a hot-pluggable 10 Gigabit SFP+ 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
CS6200X-HI series delivers high-performance, hardware-based IP routing. RIP, OSPF, ISIS and BGP provide dynamic routing by exchanging routing information with other Layer 3 switches and routers. With the CS6200X-HI series, customers could easily achieve a Policy-based Route (PBR), which is important when they need a multi exit application.

Strong Multicast
CS6200X-HI series 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; the CS6200X-HI series 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, the CS6200X-HI series 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.
CS6200X-HI series 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

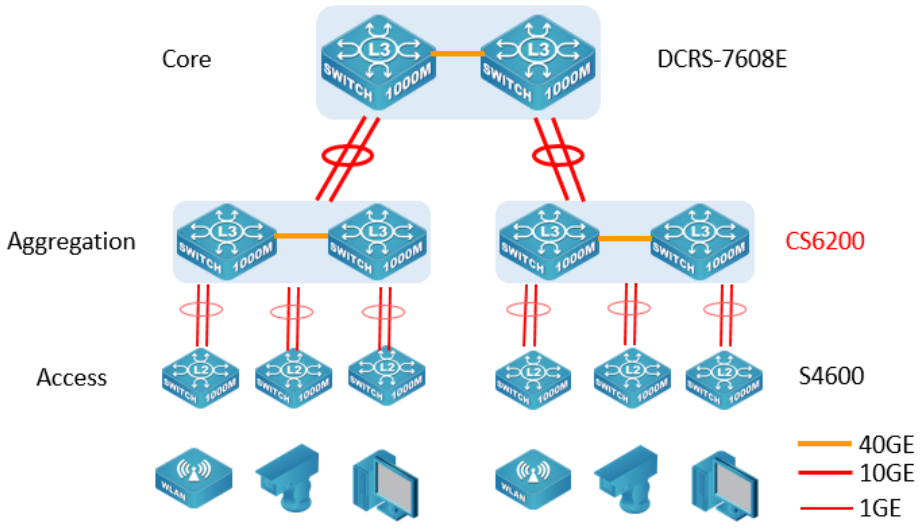
Item	CS6200X-24T6X-HI	CS6200X-48T6X-HI	CS6200X-24S6X-HI	CS6200X-48S6X-HI
Physical port	24*10/100/1000Base-T + 6*10GbE(SFP+) + 1*slot Auto-MIDX	48*10/100/1000Base-T + 6*10GbE(SFP+) + 1*slot Auto-MIDX	24*100/1000Base-X(SFP) + 6*10GbE(SFP+) + 1*slot	48*100/1000Base-X(SFP) + 6*10GbE(SFP+) + 1*slot
Management port	1 x RJ45 Ethernet Management port			
	1x Console port			
	1x USB2.0 interface			
Performance				
Switching Capacity	168Gbps	216Gbps	168Gbps	216Gbps
Forwarding rate	125Mpps	161Mpps	125Mpps	161Mpps
Jumbo Frame	12K	12K	12K	12K
MAC Address	32K	32K	32K	32K
ARP Table	8K	8K	8K	8K
Routing Table	12K	12K	12K	12K
ACL Table	3K	3K	3K	3K
Physical				
Dimension (W*H*D)	440mm x 44mm x 380mm	440mm x 44mm x 380mm	440mm x 44mm x 380mm	440mm x 44mm x 380mm
Relative Humidity	5%~95%, non-condensing			
Temperature	Working 0°C~50°C, storage -40°C~70°C			
Power Supply	Modular AC:100~240VAC, 50~60Hz Standard with AC + optional modular AC			
Power Consumption	<65W	<80W	<75W	<100W
Main Features				
L1, L2 Features	IEEE802.3(10Base-T), IEEE802.3u(100Base-TX), IEEE802.3z(1000BASE-X), IEEE802.3ab(1000Base-T), IEEE802.3ae(10GBase), IEEE802.3x, IEEE802.3ak(10GBASE-CX4)			
	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 ERPS (G.8032)			
	N:1 Port Mirroring RSPAN			
	IEEEE802.1d(STP) IEEEE802.1w(RSTP) IEEEE802.1s(MSTP) Root Guard BPDU Guard BPDU Tunnel			

	802.1Q, 4K VLAN MAC VLAN, Voice VLAN, PVLAN, Protocol VLAN, Multicast VLAN QinQ, Selective QinQ GVRP N:1 VLAN Translation Broadcast / Multicast / Unicast Storm Control
	IGMP v1/v2/v3 Snooping and L2 Query ND Snooping MLDv1/v2 Snooping
	Port Security
	Flow Control: HOL, IEEE802.3x Bandwidth Control
L3 Features	Static Routing, RIPv1/v2, ISIS, OSPFv2, BGP4 OSPFv3, BGP4+ OSPF multiple processes VRF-Lite LPM Routing Policy-based routing (PBR) for IPv4 and IPv6 VRRP URPF, ECMP BFD
	IGMP v1/v2/v3, IGMP Proxy, 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 Cheat, Anti ARP Scan
	DNS Client, DNS Relay
	GRE Tunnel
IPv6	6to4 Tunnel, Configured Tunnel, ISATAP Tunnel, GRE Tunnel ICMPv6, ND, DNSv6 IPv6 LPM Routing, IPv6 Policy-based Routing (PBR) IPv6 VRRPv3, IPv6 URPF, IPv6 RA RIPng, OSPFv3, BGP4+ MLD Snooping, IPv6 Multicast VLAN MLDv1/v2, IPv6 Anycast RP, IPv6 ACL, IPv6 QoS
MPLS	MPLS, VRF, LDP
	MPLS L3 VPN
QoS	8 Queues SP, WRR, SP+WRR WRED Traffic Classification Based on 802.1p COS, ToS, DiffServ DSCP, ACL, port number Traffic Policing PRI Mark/Remark
ACL	IP ACL, MAC ACL, IP-MAC ACL Standard and Expanded ACL Based on source/destination IP or MAC, IP Protocol, TCP/UDP port, DSCP, ToS, IP Precedence), VLAN, Tag/Untag, CoS Redirect and statistics Rules can be configured to port, VLAN, VLAN routing interfaces Time Ranged ACL ACL rules can be configured to port, VLAN
Security	802.1x AAA Port, MAC-based authentication Accounting based on time length and traffic Guest VLAN and auto VLAN

	RADIUS for IPv4 and IPv6
	TACACS+ for IPv4 and IPv6
	MAB
DHCPv4/v6 Traffic Monitor	DHCP Server/Client for IPv4/IPv6 DHCP Relay/Option 82 DHCP Snooping/Option 82
Traffic Monitor	sFlow Traffic Analysis
Security Network Management	CLI, WEB, Telnet, SNMPv1/v2c/v3 through IPv4 and IPv6 Syslog and external Syslog Server HTTP SSL 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	MC-LAG, Netconf, VSF (Virtual Switch Framework, support mixed stacking among models CS6200X-48T6X-HI, CS6200X-24T6X-HI, CS6200X-48S6X-HI and CS6200X-24S6X-HI)

Application

Deployed as aggregation switches that provide gigabit downlink and 10G uplink in a campus or enterprise network



Order Information

Product	Description

CS6200X-24T6X-HI	10G L3 Switch (24*10/100/1000Base-T + 6*10GbE(SFP+) + 1*slot) , Default with 1 modular AC Power and 1 optional AC Power M6200X-AC-150 for 1+1 redundancy (not support other power modules)
CS6200X-48T6X-HI	10G L3 Switch (48*10/100/1000Base-T + 6*10GbE(SFP+) + 1*slot) , Default with 1 modular AC Power and 1 optional AC Power M6200X-AC-150 for 1+1 redundancy (not support other power modules)
CS6200X-24S6X-HI	10G L3 Switch (24*100/1000Base-X(SFP) + 6*10GbE(SFP+) + 1*slot), Default with 1 modular AC Power and 1 optional AC Power M6200X-AC-150 for 1+1 redundancy (not support other power modules)
CS6200X-48S6X-HI	10G L3 Switch (48*100/1000Base-X(SFP) + 6*10GbE(SFP+) + 1*slot), Default with 1 modular AC Power and 1 optional AC Power M6200X-AC-150 for 1+1 redundancy (not support other power modules)
M6200X-AC-150	AC Power Supply Module (150W) (100V-240VAC & 240VDC) for CS6200X-24T6X-HI, CS6200X-48T6X-HI, CS6200X-24S6X-HI, CS6200X-48S6X-HI. Could be purchased alone as accessory
MS-6200X-8X	Optional extended cards for CS6200X-HI series, 8*10GbE(SFP+)