CS6200 Dual Stack 10G Dater Center Ethernet Switch

CS6200-28X-EI

CS6200-28X-P-EI

CS6200-28X-HI-24F

CS6200-52X-P-EI

■ Product Overview

CS6200 series next-generation 10G stackable routing switch has advanced hardware and software architecture design, built-in modular 1+1 redundant power supplies. These switches provide high availability, scalability, security, energy efficiency, and ease of operation with innovative features such as VSF, IEEE 802.3at optional, redundant power supplies and OpenFlow. It is ideal for high-density aggregation or core layer as its high performance, availability and reliability.

■ Key Features and Benefits

➢ Performance and Scalability

With high switching capacity, CS6200 series support wire-speed L2/L3 forwarding and high routing performance for IPv4 and IPv6 protocols.

The 10 Gigabit Ethernet connectivity of CS6200 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 the optical module chosen).

CS6200 series support modular redundant AC and DC power supplies for different environment applications.

➢ OpenFlow

CS6200 supports OpenFlow1.0 standard protocol. OpenFlow network is increasingly becoming a trend as the core protocol of SDN network. It makes the network easier programming OpenFlow brings the high performance to datacenter users via self-defined network. With OpenFlow, this product is ideal to build SDN test-bed for research institutes and SDN Experimental Bureau for large ISP and operator.

➢ 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 virtualized device are greatly enlarged by times under VSF. VSF also provides simplified management work for network administrator and more reliability.

➢ **Rich L3 Features**

CS6200 series delivers high-performance, hardware based IP routing.

RIP, OSPF and BGP provide dynamic routing by exchanging routing information with other Layer 3 switches and routers.

With CS6200 series, customers could easily achieve Policy based Route(PBR), which is important when they need multi exit application.

➢ **Strong Multicast**

CS6200 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; CS6200 series provides great application experience for customer.

➢ **MPLS/VPLS**

CS6200-HI series supports MPLS L3 VPN/MPLS L2 VPN(VPLS) and helps customer to construct more secure/extendable network. With max.252 VRF instances, CS6200 series could be deployed as P & PE devices, guaranteeing the variety of services.

➢ **Easy High Reliability network**

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

➢ **Comprehensive QoS**

With 8 queues per port, CS6200 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.

CS6200 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 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.

➢ **Abundant IPv6 Support**

CS6200 series supports IPv6 switching and routing based on hardware for maximum performance. With increased network devices growing and the need for larger addressing and higher security become critical, CS6200 series will be a right product to meet the

requirement.

> ### Green-Energy

Temperature monitoring, alarming, automatic cooling, energy saving features are realized on CS6200. According to the temperature monitoring, Fan speed can be adjusted or stopped to reduce energy consumption and noise.

> ### 60W PoE support

CS6200-52X-P-EI support IEEE 802.3af, IEEE 802.3at, IEEE 802.3bt PoE standard and totally 740W PoE output. IEEE 802.3bt is supported on up to 8 ports and IEEE 802.3at is supported on all ports.

■ Specification

Item	CS6200-28X-EI	CS6200-28X-P-EI	CS6200-52X-P-EI	CS6200-28X-HI-24F
Physical port	20 x 10/100/1000BaseT + 4 x GE Combo(GT/SFP) + 4 x 10GE(SFP+)	20 x 10/100/1000BaseT + 4 x GE Combo(GT/SFP) + 4 x 10GE(SFP+)	48 x 10/100/1000BaseT + 4 x 10GE(SFP+) + 2 x Stacking port	16 x GE Combo(GT/SFP) + 8 x GE(SFP) + 4 x 10GE(SFP+) + 2 x Stacking port
Management port	10/100/1000Mbps RJ45 Ethernet Management port			
	1 Console port (Micro USB for CS6200-52X-P-EI / RJ45 for others)			
	USB2.0 interface			
Performance				
Switching Capacity	128Gbps	128Gbps	256Gbps	208Gbps
Throughput	95Mpps	95Mpps	191Mpps	155Mpps
MAC Address	16K	16K	32k(standard)/40k(routee)/64k(bridgee)	32k(standard)/40k(routee)/64k(bridgee)
Routing Table	Max 13K	Max 13K	16K	16K
L3 Interface	Max 1K	Max 1K	Max 1K	Max 1K
Physical				
Dimension (W*H*D)	440mm*44mm*350mm	440mm*44mm*350mm	440mm*44mm*330mm	440mm*44mm*350mm
Relative Humidity	10%~90% non-condensing			
Temperature	Working 0°C~50°C, storage -40°C~75°C			
Power Supply	2 power slots, 1+1 Modular Redundant			
PoE	NA	IEEE 802.3af (15.4W) IEEE 802.3at (30W) Total PoE power: 740W	IEEE 802.3af (15.4W) IEEE 802.3at (30W) IEEE 802.3bt (60W) (up to 8 ports) Total PoE power: 740W	NA
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
	N:1 Port Mirroring
	RSPAN
	ERSPAN
	IEEEE802.1d(STP)
	IEEEE802.1w(RSTP)
	IEEEE802.1s(MSTP)
	Root Guard
	BPDU Guard
	BPDU Tunnel
	802.1Q, 4096 VLAN
	MAC VLAN, Vocie VLAN, PVLAN, Protocol VLAN, Multicast VLAN
	QinQ, Selective QinQ, Flexible 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,OSPFv2,BGP4
	OSPFv3, BGP4+
	OSPF multiple process
	LPM Routing
	Policy-based Routing(PBR) for IPv4 and IPv6
	VRRP
	URPF,
	ECMP
	BFD
	IGMP v1/v2/v3, IGMP Proxy,
	DVMRP,PIM-DM,PIM-SM,PIM-SSM, Any Cast 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
	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 Muticast VLAN MLDv1/v2, PIM-SM/DM for IPv6, IPv6 Any Cast RP, IPv6 ACL, IPv6 QoS
MPLS	MPLS, VRF, LDP (only CS6200-28X-HI-24F)
	MPLS L3 VPN, MPLS L2 VPN(VPLS), VPWS (only CS6200-28X-HI-24F)
QoS	8 Queues SWRR, SP, WRR, DWRR, SDWRR, 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 Accounting based ACL Rules can be configured to port, VLAN, VLAN routing interfaces Time Ranged ACL
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	DHCP Server/Client for IPv4/IPv6 DHCP Relay/Option 82 DHCP Snooping/Option 82
Traffic Monitor	sFlow Traffic Analysis IPFIX

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
	RMOM 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)*
	Openflow1.0*
	(support open controller Opendaylight, Floodlight, Ryu, Pox, etc.)

The contents marked with "*" need future upgrade or are under development

■ Order Information

Product	Description
CS6200-28X-EI	10G Ethernet Routing Switch, 20 x 10/100/1000BaseT + 4 x GE Combo(GT/SFP) + 4 x 10GE(SFP+), modular power (2 power modules at most, 1+1 redundancy. Standard with no power module)
CS6200-28X-P-EI	10G PoE Ethernet Routing Switch, 20 x 10/100/1000BaseT + 4 x GE Combo(GT/SFP) + 4 x 10GE(SFP+), modular power (2 power modules at most, 1+1 redundancy. Standard with no power module), up to 740W for PoE
CS6200-52X-P-EI	10G PoE Ethernet Routing Switch, 48 x 10/100/1000BaseT + 4 x 10GE(SFP+) + 2 Stacking port, modular power (2 power modules at most, 1+1 redundancy. Standard with no power module), up to 740W for PoE
CS6200-28X-HI-24F	10G Ethernet Routing Switch, 16 x GE Combo(GT/SFP) + 8 x GE(SFP) + 4 x 10GE(SFP+) + 2 stacking port, modular power (2 power modules at most, 1+1 redundancy. Standard with no power module)
M6200-AC-A	AC power supply, 150W, fit for CS6200-28X-EI and CS6200-28X-HI-24F
M6200-AC-B	AC power supply, 600W, fit for CS6200-28X-P-EI and CS6200-52X-P-EI
M6200-AC-C	AC power supply, 920W, fit for CS6200-28X-P-EI and CS6200-52X-P-EI
M6200-DC-A	DC power supply, 150W, fit for CS6200-28X-EI and CS6200-28X-HI-24F
CAB-SFPX-0.5M	10G stacking cable with two 10G SFP+ module. It is working with VSF feature and the cable length is 0.5 meters.
CAB-SFPX-5M	10G cable with two 10G SFP+ module. It is working with VSF feature and the cable length is 5 meters.

CAB-QSFP-5M	Stacking cable with 40G QSFP+ transceivers, length 5 meters, used as VSF and stacking link cable for SFP+ ports. Suitable for all DCN switches with 40G QSFP+ ports

■ Contact us

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