

# CS6200-28X-HI-24F L3+ 10G Routing Switch

### **Product Overview**

CS6200-28X-HI-24F next-generation 10G stackable routing switch has advanced hardware and software architecture design, built-in modular 1+1 redundant power supplies. CS6200-28X-HI-24F provides high availability, scalability, security, energy efficiency, and ease of operation with powerful features such as VSF (Virtual Switch Framework), redundant power supplies and OpenFlow. It is ideal for high-density aggregation or core layer for campus network, ISP, and enterprise.

Appearance	Description
CS6200-28X-HI-24F	<ul> <li>16 x GbE Combo (GT/SFP) + 8 x GbE (SFP) + 4 x 10GbE (SFP+) + 2 x Stacking port</li> <li>Redundant and modular AC+AC Power Supply</li> <li>1 console, 1 USB, 1 RJ45 management port</li> <li>Forwarding performance: 155Mpps</li> <li>Switching capacity: 208Gbps</li> </ul>
PARROCAL DESCRIPTION From Non-Month	<ul> <li>Dimensions (W x D x H):191mm x 300mm x 78mm</li> <li>Weight: 0.94 kg</li> <li>Rated input voltage range: 100V AC to 240V AC 50/60 Hz</li> <li>Maximum input voltage range: 90V AC to 264V AC, 47Hz to 63Hz</li> <li>Maximum input current: 90V AC to 136V AC:3A, 180V AC to 264V AC: 1.5A</li> <li>Maximum output current: 12.5A</li> <li>Rated output voltage:12V</li> </ul>
M6200-AC-A	<ul><li>Rated output power: 150W</li><li>Hot-swap: supported</li></ul>



### **Key Features and Highlights**

#### MPLS/VPLS

CS6200-28X-HI-24F supports MPLS L3 VPN/MPLS L2 VPN(VPLS) and helps the customer to construct a more secure/extendable network. With max.252 VRF instances, CS6200 series could be deployed as P & PE devices, guaranteeing the variety of services.

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

Virtual Switch Framework can virtualize multiple CS6200-28X-HI-24F 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 provides simplified management work for the network administrator and more reliability.

CS6200-28X-HI-24F has two hardware stacking ports that are specially used for VSF.

#### **OpenFlow**

CS6200-28X-HI-24F supports OpenFlow1.0 standard protocol. OpenFlow network is increasingly becoming a trend as the core protocol of the SDN network. It makes the network easier programming OpenFlow brings high performance to datacenter users via a 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.

#### **Rich L3 Features**

CS6200-28X-HI-24F 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 the CS6200 series, customers could easily achieve Policy-based Route (PBR), which is important when they need a multi exit application.

#### **Strong Multicast**

CS6200-28X-HI-24F 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 CS6200 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 advantages of fast convergence, simple protocol calculation, fewer system resources cost, and so on, which can improve the reliability of Ethernet network operation



# **Specifications**

Routing Table L3 Interface Max 1K  Physical  Dimension (W*H*D)  Relative Humidity Temperature Power Supply  Main Features  IEEE802.3(10Base-T), IEEE8 IEEE802.3ab(1000Base-T), II IEEE802.3ak(10GBASE-CXAR Port loopback detection LLDP and LLDP-MED UDLD 802.3ad LACP, max 128 grout LACP load balance N:1 Port Mirroring RSPAN, ERSPAN IEEE802.1d(STP) IEEE80 Root Guard BPDU Guard BPDU Guard BPDU Tunnel 802.1Q, 4096 VLAN	CS6200-28X-HI-24F
Intervent	2.10.10.10.10.10.10.10.10.10.10.10.10.10.
Console port   USB2.0 interface	· /
USB2.0 interface   Performance   Switching Capacity   208Gbps   Forwarding Rate   155Mpps   32k(standard)/40k(routee)/64    Routing Table   16K   L3 Interface   Max 1K   Physical   Dimension   440mm*44mm*350mm   (W*H*D)   Relative Humidity   10%~90% non-condensing   Temperature   Working 0°C~50°C, storage-Power Supply   2 power slots, 1+1 Modular R   Main Features   IEEE802.3(10Base-T), IEEE8   IEEE802.3ak(10GBASE-CX-Port loopback detection   LLDP and LLDP-MED   UDLD   802.3ad LACP, max 128 grou   LACP load balance   N:1 Port Mirroring   RSPAN, ERSPAN   IEEEE802.1d(STP) IEEE80   Root Guard   BPDU Guard   BPDU Guard   BPDU Tunnel   802.1Q, 4096 VLAN   MAC VLAN, Voice VLAN, Foing   Qing, Selective Qing, Flexib   GVRP   N:1 VLAN Translation   Broadcast / Multicast / Unicast   IGMP v1/v2/v3 Snooping   MLDv1/v2 Snooping   MLDv1/v2 Snooping   Port Security   Flow Control: HOL, IEEE802   Bandwidth Control   Static Routing, RIPv1/v2, OS   OSPFv3, BGP4+   OSPF multiple processes	net Management port
Performance Switching Capacity   208Gbps Forwarding Rate   155Mpps   32k(standard)/40k(routee)/64; Routing Table   16K L3 Interface   Max 1K Physical   Union   Max 1K   Max 1	
Switching Capacity   208Gbps	
Forwarding Rate   155Mpps   32k(standard)/40k(routee)/64    Routing Table   16K   L3 Interface   Max 1K	
MAC Address   32k(standard)/40k(routee)/64    Routing Table   16K     L3 Interface   Max 1K     Physical     Dimension   440mm*44mm*350mm     W*H*D)   Relative Humidity   10%~90% non-condensing     Temperature   Working 0°C~50°C, storage - Power Supply   2 power slots, 1+1 Modular R     Main Features   IEEE802.3(10Base-T), IEEE8     IEEE802.3ak(10GBASE-CX4     Port loopback detection     LLDP and LLDP-MED     UDLD   802.3ad LACP, max 128 grou     LACP load balance     N:1 Port Mirroring     RSPAN, ERSPAN     IEEE802.1d(STP) IEEE80     Root Guard     BPDU Tunnel     802.1Q, 4096 VLAN     MAC VLAN, Voice VLAN, F     QinQ, Selective QinQ, Flexib     GVRP     N:1 VLAN Translation     Broadcast / Multicast / Unicas     IGMP v1/v2/v3 Snooping     MLDv1/v2 Snooping     Port Security     Flow Control: HOL, IEEE802     Bandwidth Control     Static Routing, RIPv1/v2, OS     OSPFv3, BGP4+     OSPF multiple processes	
Routing Table L3 Interface Max 1K  Physical  Dimension (W*H*D)  Relative Humidity Temperature Power Supply    Dimension	
L3 Interface Physical Dimension (W*H*D) Relative Humidity Temperature Power Supply    IEEE802.3(10Base-T), IEEE8   IEEE802.3ab(1000Base-T), IEEE8   IEEE802.3ab(1000Base-T), IEEE8   IEEE802.3ak(10GBASE-CX-Port loopback detection   LLDP and LLDP-MED   UDLD   802.3ad LACP, max 128 grout   LACP load balance   N:1 Port Mirroring   RSPAN, ERSPAN   IEEEE802.1d(STP) IEEE80   Root Guard   BPDU Guard   BPDU Tunnel   802.1Q, 4096 VLAN   MAC VLAN, Voice VLAN, Foing Qinq, Selective Qinq, Flexib   GVRP   N:1 VLAN Translation   Broadcast / Multicast / Unicast   IGMP v1/v2/v3 Snooping and ND Snooping   MLDv1/v2 Snooping   Port Security   Flow Control: HOL, IEEE802   Bandwidth Control   Static Routing, RIPv1/v2, OS OSPFv3, BGP4+   OSPF multiple processes	(bridgee) UFT configuration, default is standard mode
Physical  Dimension (W*H*D)  Relative Humidity  Temperature  Working 0°C~50°C, storage - Power Supply  Dimension  Working 0°C~50°C, storage - Power Supply  Main Features  IEEE802.3(10Base-T), IEEE8 IEEE802.3ak(10GBASE-CX-Port loopback detection LLDP and LLDP-MED UDLD  802.3ad LACP, max 128 grout LACP load balance N:1 Port Mirroring RSPAN, ERSPAN IEEEE802.1d(STP) IEEEE80 Root Guard BPDU Guard BPDU Guard BPDU Tunnel  802.1Q, 4096 VLAN MAC VLAN, Voice VLAN, For QinQ, Selective QinQ, Flexib GVRP N:1 VLAN Translation Broadcast / Multicast / Unicast IGMP v1/v2/v3 Snooping MLDv1/v2 Snooping Port Security Flow Control: HOL, IEEE802 Bandwidth Control  Static Routing, RIPv1/v2, OS OSPFv3, BGP4+ OSPF multiple processes	
Dimension (W*H*D)	
Relative Humidity   10%~90% non-condensing     Temperature	
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Temperature Power Supply    2 power slots, 1+1 Modular R   3 power slots, 1+1 Modular R   4 power Supply   2 power slots, 1+1 Modular R   5 power Slots, 1+1 Modular R   6 power Supply   2 power slots, 1+1 Modular R   6 power Supply   2 power slots, 1+1 Modular R   6 power Supply   2 power slots, 1+1 Modular R   6 power Slots, 1+1 Modular R	
Power Supply    2 power slots, 1+1 Modular R	40°C~75°C
IEEE802.3(10Base-T), IEEE8   IEEE802.3ab(1000Base-T), IEEE802.3ab(1000Base-T), IEEE802.3ak(10GBASE-CXAPort loopback detection LLDP and LLDP-MED UDLD   802.3ad LACP, max 128 grout LACP load balance   N:1 Port Mirroring   RSPAN, ERSPAN   IEEE802.1d(STP) IEEE800   Root Guard   BPDU Guard   BPDU Tunnel   802.1Q, 4096 VLAN   MAC VLAN, Voice VLAN, FQinQ, Selective QinQ, Flexib GVRP   N:1 VLAN Translation   Broadcast / Multicast / Unicast IGMP v1/v2/v3 Snooping   MLDv1/v2 Snooping   Port Security   Flow Control: HOL, IEEE802   Bandwidth Control   Static Routing, RIPv1/v2, OS OSPFv3, BGP4+ OSPF multiple processes	
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Port Security Flow Control: HOL, IEEE802 Bandwidth Control Static Routing, RIPv1/v2, OS OSPFv3, BGP4+ OSPF multiple processes	p trunks with max 8 ports for each trunk  2.1w(RSTP) IEEEE802.1s(MSTP)  PVLAN, Protocol VLAN, Multicast VLAN le QinQ  st Storm Control
L3 Features Policy-based routing (PBR) for VRRP URPF, ECMP	PFv2, BGP4

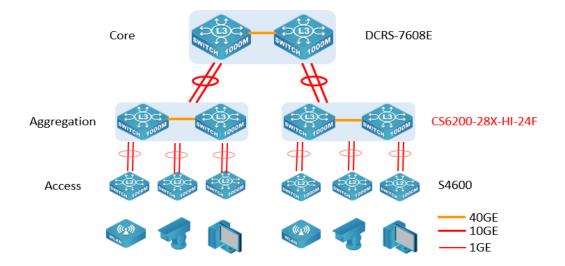


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	DVMRP, PIM-DM, PIM-SM, PIM-SSM, Anycast RP, MSDP
	Static Multicast Route
	Multicast Receive Control
	Illegal Multicast Source Detect
	ARP Guard, Local ARP proxy, Proxy ARP, ARP Binding, Gratuitous ARP, ARP Limit
	Anti ARP Cheat, Anti ARP Scan
	DNS Client, DNS Relay
	GRE Tunnel
	6to4 Tunnel, Configured Tunnel, ISATAP Tunnel, GRE Tunnel
	ICMPv6, ND, DNSv6
	IPv6 LPM Routing, IPv6 Policy-based Routing (PBR)
IPv6	IPv6 VRRPv3, IPv6 URPF, IPv6 RA
11 10	RIPng, OSPFv3, BGP4+
	MLD Snooping, IPv6 Multicast VLAN
	1 0
	MLDv1/v2, PIM-SM/DM for IPv6, IPv6 Anycast RP, IPv6 ACL, IPv6 QoS
MPLS	MPLS, VRF, LDP
	MPLS L3 VPN, MPLS L2 VPN(VPLS), VPWS
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 Statistics
	Rules can be configured to port, VLAN, VLAN routing interfaces
	Time Ranged ACL
	802.1x AAA
	Port, MAC-based authentication
	Accounting based on time length and traffic
a	Guest VLAN and auto VLAN
Security	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
Traine Montor	CLI, WEB, Telnet, SNMPv1/v2c/v3 through IPv4 and IPv6
	Syslog and external Syslog Server
Security Network Manage- ment	HTTP SSL
	SNMP MIB, SNMP TRAP, RMON 1,2,3,9
	FTP/TFTP  CNITD/NITD
	SNTP/NTP
	Authentication by Radius/TACACS
	SSH v1/v2
	Dual firmware images/ Configuration files
	802.3ah OAM, 802.1ag OAM
Data	VSF (Virtual Switch Framework)
Center Features	Openflow1.0 (support open controller Opendaylight, Floodlight, Ryu, Pox, etc.)



# **Application**

CS6200-28X-HI-24F is ideal deployed as aggregation switch providing Gigabit downlink and 10G uplink in a campus or enterprise network



## **Order Information**

Product	Description
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 Module (150W) for CS6200-28X-HI-24F, 100V-240V. Could be pur-
	chased alone as accessory