


## CS6300 Series 100G Stackable Aggregation Routing Switch

### Product Overview

DCN CS6300 is a L3 stackable routing switch with 100GE fiber uplink ports. It has advanced hardware and software architecture design, built-in modular 1+1 AC redundant power supplies, 3+1 redundant fans, cross ventilation and wind direction adjustable. It is ideal for high-density aggregation in Enterprise networks or Campus networks. It also provides data center features, such as VxLAN, EVPN, M-LAG, Netconf, Telemetry, etc. So it is also ideal for the application scenarios of the new generation of 10G access and 100G aggregation data centers.

| Appearance   | Description   |
|--|---|
| <br>CS6300-24X6C-HI | <ul style="list-style-type: none"><li>● 24 x 10G SFP+ and 6 x 100G QSFP28</li><li>● 1+1 power supplies(AC), 3+1 fans</li><li>● 1 console, 1 USB, 1 RJ45 management ports</li><li>● Forwarding performance: 600Mpps</li><li>● Switching capacity: 1.68Tbps</li></ul> |
| <br>CS6300-48X6C-HI | <ul style="list-style-type: none"><li>● 48 x 10G SFP+ and 6 x 100G QSFP28</li><li>● 1+1 power supplies(AC), 3+1 fans</li><li>● 1 console, 1 USB, 1 RJ45 management ports</li><li>● Forwarding performance: 600Mpps</li><li>● Switching capacity: 2.16Tbps</li></ul> |

## Key Features and Highlights

### High Performance and scalability

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

The 10G Ethernet connectivity is accomplished via a hot-pluggable 10G SFP+ transceiver which supports distance up to 300 meters over multi-mode fiber and 10 to 40km over single-mode fiber (The distance depends the optical module chosen).

### High Reliability

The series of switches support modular 1+1 redundant power supplies and 3+1 redundant fans. Business won't be interrupted in case replacing power supplies and fans. System supports dual images. Even though the primary image was destroyed, system will still boot via backup image normally.

### VSF (Virtual Switch Framework)

As new generation data center switch, the switches support VSF which not only guarantees the flexibility, but also enhanced the scalability of datacenter network.

### Rich L3 Features

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

### MPLS/VPLS

The series of switches supports MPLS L3 VPN/MPLS L2 VPN (VPLS) and helps customer to construct more secure/extendable network. The switches could be deployed as P & PE devices, guarantees the variety of services.

### Abundant IPv6 Support

The series of switches 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 becomes critical, the switches will be a right product to meet the requirement. The series of switches passed IPv6 form Phase II certification, which is the best proof of the application.

### Strong Multicast

The series of switches supports abundant multicast features such as IGMPv1/v2/v3 snooping and fast leave and 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 detection functions, the switches provides great application experience for customer.

## Specifications

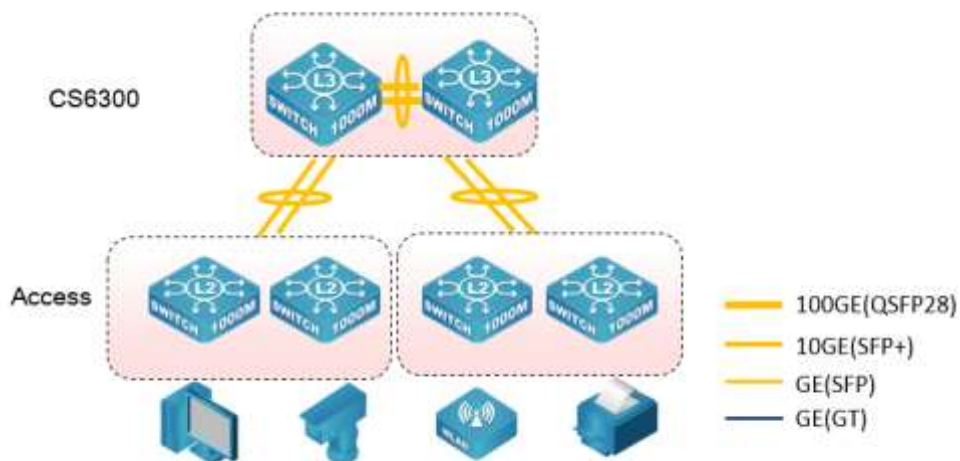
| Item                      | CS6300-24X6C-HI  | CS6300-48X6C-HI                  |
|---------------------------|--|----------------------------------|
| <b>Physical port</b>      | 24*10GbE(SFP+)+ 6*100GbE(QSFP28)   | 48*10GbE(SFP+)+ 6*100GbE(QSFP28) |
| <b>Management port</b>    | Console port RJ45<br>100/1000Mbps RJ45 Ethernet Management port<br>USB Management port   |                                  |
| <b>Performance</b>        |  |                                  |
| <b>Switching Capacity</b> | 1.68Tbps   | 2.16Tbps                         |
| <b>Forwarding Rate</b>    | 600Mpps  | 600Mpps                          |
| <b>MAC Address</b>        | 32K  |                                  |
| <b>ARP Table</b>          | 8K   |                                  |
| <b>Routing Table</b>      | 30K  |                                  |
| <b>Physical</b>           |  |                                  |
| <b>Dimension(W*H*D)</b>   | 442.5mm x 473mm x 43.95mm  | 442.5mm x 473mm x 43.95mm        |
| <b>Relative Humidity</b>  | 5%~95% non-condensing  |                                  |
| <b>Temperature</b>        | Working 0°C~45°C, storage -40°C~70°C   |                                  |
| <b>Power Input</b>        | AC: 100~240V,50~60 Hz  |                                  |
| <b>Power Supply</b>       | 1+1 Modular Redundant AC   |                                  |
| <b>Power consumption</b>  | 200w   | 230w                             |
| <b>Main Features</b>      |  |                                  |
| <b>L1, L2 Features</b>    | 10k Jumbo Frame<br>Port Loopback Detect<br>LLDP and LLDP-MED<br>UDLD<br>802.3ad LACP, 127 groups<br>LACP Load Balance  |                                  |
|                           | N:1 Port Mirroring<br>RSPAN<br>ERSPAN  |                                  |
|                           | IEEE802.1d(STP)<br>IEEE802.1w(RSTP)<br>IEEE802.1s(MSTP)<br>Root Guard<br>BPDU Guard<br>BPDU Tunnel<br>ERPS(ITU-T G.8032)   |                                  |
|                           | 802.1Q, 4096 VLAN<br>MAC VLAN, VOICE VLAN, Private VLAN, Protocol VLAN, Multicast VLAN<br>QinQ, Flexible QinQ<br>GVRP<br>N:1 VLAN Translation<br>Broadcast / Multicast / Unicast Storm Control |                                  |

|                    |  |
|--------------------|--|
|                    | <p>IGMP v1/v2/v3 Snooping and L2 Query</p> <p>ND Snooping</p> <p>MLDv1/v2 Snooping</p> <p>Port Security</p> <p>Flow control: HOL, IEEE802.3x</p> <p>Bandwidth Control</p>  |
| <b>L3 Features</b> | <p>Static Routing, RIPv1/v2, OSPFv2, BGP4</p> <p>OSPFv3, BGP4+</p> <p>OSPF Multiple Process</p> <p>LPM Routing</p> <p>Policy-based Routing (PBR) for IPv4 and IPv6</p> <p>VRRP</p> <p>URPF,</p> <p>ECMP</p> <p>BFD</p> <p>IGMP v1/v2/v3, IGMP Proxy,</p> <p>DVMRP, PIM-DM, PIM-SM, PIM-SSM, any cast RP, MSDP</p> <p>Static Multicast Route</p> <p>Multicast Receive Control</p> <p>Illegal Multicast Source Detection</p> <p>ARP Guard, Local ARP Proxy, Proxy ARP, ARP Binding, Gratuitous ARP, ARP Limit</p> <p>Anti ARP Cheat, Anti ARP Scan</p> <p>DNS Client</p> <p>GRE Tunnel</p> |
| <b>IPv6</b>        | <p>6to4 Tunnel, Configured Tunnel, ISATAP Tunnel, GRE Tunnel</p> <p>ICMPv6, ND, DNSv6</p> <p>IPv6 LPM Routing, IPv6 Policy-Based Routing (PBR)</p> <p>IPv6 VRRPv3, IPv6 URPF, IPv6 RA</p> <p>RIPng, OSPFv3, BGP4+</p> <p>MLD Snooping, IPv6 multicast VLAN</p> <p>MLDv1/v2, PIM-SM/DM for IPv6, IPv6 Anycast RP, IPv6 ACL, IPv6 QOS</p>  |
| <b>MPLS</b>        | <p>MPLS, VRF, LDP</p> <p>MPLS L3 VPN, MPLS L2 VPN(VPLS), VPWS</p>  |
| <b>QoS</b>         | <p>8 Queues</p> <p>SP/WDRR/SP+WDRR,</p> <p>Traffic Classification Based on 802.1p CoS, ToS, DiffServ DSCP, ACL, port number</p> <p>Traffic Shaping</p> <p>PRI Mark/Remark</p>  |
| <b>ACL</b>         | <p>IP ACL, MAC ACL, IP-MAC ACL</p> <p>Standard and Expanded ACL Based on source/destination IP or MAC, IP protocol, TCP/UDP port, DSCP, ToS, IP Precedence), VLAN, Tag/Untag, CoS</p> <p>REDIRECT and accounting-based ACL</p> <p>Rules can be configured to port, VLAN</p> <p>Time ranged ACL</p>   |

|                             |   |
|-----------------------------|---|
| Security                    | 802.1x AAA<br>Port, MAC based authentication<br>Accounting based on time length and traffic<br>Guest VLAN and Auto VLAN   |
|                             | RADIUS for IPv4 and IPv6  |
|                             | TACACS+ for IPv4 and IPv6   |
|                             | MAB   |
| DHCPv4/v6                   | DHCP Server/Client for IPv4/IPv6<br>DHCP Relay/Option 82<br>DHCP Snooping/Option 82   |
| Traffic Monitor             | sFlow Traffic Analysis, Telemetry   |
| Security Network Management | CLI, WEB, Telnet, SNMPv1/v2c/v3 through IPv4 and IPv6<br>Syslog and external Syslog server<br>HTTP SSL<br>SNMP MIB, SNMP TRAP<br>FTP/TFTP<br>SNTP/NTP<br>RMOM 1,2,3,9<br>Authentication by radius<br>SSH v1/v2<br>Dual firmware images/ Configuration files<br>802.3ah OAM, 802.1ag OAM |
| Data Center Features        | VXLAN EVPN, MLAG, Netconf,<br>VSF (Virtual Switch Framework, support mixed stacking among models CS6300-24X6C-HI and CS6300-48X6C-HI)   |

## Application

CS6300 are deployed as full 10G Core switches in campus networks



## Order Information

| Product                | Description  |
|------------------------|--|
| <b>CS6300-24X6C-HI</b> | 100G Advance Enhanced Datacenter Switch (24*10GbE(SFP+)+6*100GbE(QSFP28)), Redundant and modular Design, High performance. Full L3 features, Default with two hot-swap AC power supply, Default with 4(3+1) fans |
| <b>CS6300-48X6C-HI</b> | 100G Advance Enhanced Datacenter Switch (48*10GbE(SFP+)+6*100GbE(QSFP28)), Redundant and modular Design, High performance. Full L3 features, Default with two hot-swap AC power supply, Default with 4(3+1) fans |