DCS-3950 Series Fast Ethernet Intelligent Access Switch Datasheet

DCS-3950-10C

DCS-3950-26C   DCS-3950-28C

■ Product Overview

DCS-3950 Series switch is Fast Ethernet intelligent security access switch for carrier and MAN networks. It supports comprehensive QoS, enhanced VLAN functions (Vlan VPN, Voice Vlan, QinQ, etc), classified bandwidth control, multi link aggregation, intelligent security control, which fulfill the network requirements for carrier network, MAN security access, and so on.

The 3950 series carrier level switch includes DCS-3950-10C/R/DC, DCS-3950-26C, DCS-3950-28C,.The product designed for ipv4 and ipv6 dual stack network. With the abundant ipv6 features, the product can still work for next generation network.

■ **Application**
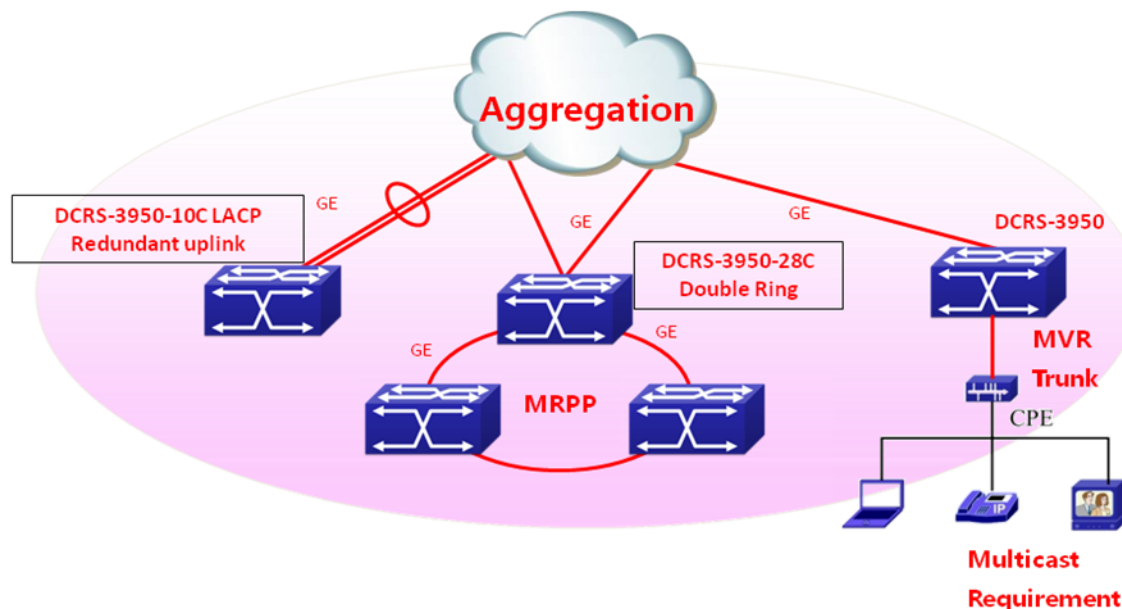
■ **Main Features**

➢ **High adaptability VLAN Features**

● DCS-3950 series support 802.1q and port based VLAN, as well as MAC based VLAN. When user move from one port to another, system can still record it as the same user through identified MAC and then keep the same VLAN for the user.

● DCS3950 series has unique Stacking Vlan technology, supporting up to 16 million VLAN, thus can provide one VLAN to each user. The advantages are: most small broadcast domain, with high efficiency; separate data between users on L2 with high security; unique VLAN for each user to identify the user; and VLAN for each user improves the management and operation level.

● DCS-3950 series Vlan VPN（QinQ）technique provide low cost, easy operation, manageable L2 VPN function, and differentiate data packets by its service and area to support more and more business.

● Voice Vlan function enables to add IP Phone to voice VLAN to ensure effective QoS.

➢ **High Reliability**

● DCS-3950 series support large number as 2~4 Combo Gigabit uplink ports, which could be designed in various ring protection applications, effectively raised the expansibility and performance of network

● DCS-3950 series support VCT & DDM(Digital Diagnostic Monitoring), help to locate the error places in the link, make it fast to solve relative problems for network management

- DCS-3950 series support STP, RSTP, MSTP based on 802.1D, 802.1W, 802.1S, to avoid loop link and configure abundant backup link in network. 802.3ad port aggregation supported, to add link bandwidth and abundant connection between equipments

- With Lightning Protection supported, DCS-3950 series could ensure the network stability in physical aspect.

➤ Enhanced Security

- IEEE 802.1X port-based access control ensures all users are authorized before being granted access to the network. User authentication is carried out using any standard-based RADIUS server.

- One thousand large number of Access Control Lists (ACLs) can be used to restrict access to sensitive network resources by denying packets and forward by different policies.

- The DCS-3950 series support DHCP snooping, which prevents DHCP attacks and illegal DHCP SERVER by setting trust ports and untrust ports. With DHCP Snooping binding and option82 enabled, it can combine modules like dot1x and ARP, or implement user-access-control independently

- The DCS-3950 product support much more L2 security features such as ARP guard, Anti-ARP scanning, and other ARP and MAC security technology to protect network security and reliability.

➤ Comprehensive QoS

- DCS-3950 series switch can classify stream by port, 802.1p, TOS, DSCP, TCP/UDP ports and assign different level of service, supports SWRR/WRR/SP to provide QOS for voice/data/video.

- With QinQ, Selective QinQ, Flexible QinQ supported, DCS-3950 series can also differentiate data packets effectively by its service, vlan and area

➤ Abundant Multicast Features

- DCS-3950 series also support MVR(Multicast VLAN Register), selectively allows traffic to cross between different VLANs for bandwidth and security reasons. With MVR Trunk function, which could associate multicast Vlan to trunk port, DCS-3950 series combine the Vlan data into the same link, saving lots of resources for users.

- The DCS-3950 series could prevent multicast traffic from flooding through IGMP Snooping, while multicast traffic is forwarded to ports associated to multicast devices only

➤ Simple management

- DCS-3950 supports Simple Network Management Protocol （SNMP）, in-band and out-of-band. Supports Command Line Interface（CLI） and WEB, supports Security IP function to prevent illegal users log in or

change the configuration.

- As an important feature of carrier network, OAM can help the user to monitor and manage the network across different protocols and equipments.

- DCS-3950 supports Secure Shell（SSH）, which will ensure the security of switch management and configuration.

- DCS-3950 can be managed by general network management platform with 3rd management software.

➢ Abundant IPv6 Support

- The DCS-3950 series switch supports IPv6 in hardware for maximum performance. As more network devices growing and the need for larger addressing and higher security become critical, the DCS-3950 series switch will be a right product to meet the requirement. DCN passed IPv6 form Phase II certificate is the best proof of the application.

- The DCS-3950 series switch also supports DHCPv6, based on IPv6, including DHCPv6 server, client, relay and snooping, etc.

➢ Integrated authentication and billing solution

- DCS-3950 support DCN enhanced 802.1x authentication and billing solution, and authentication by port and MAC address. Working with DCN DCBI3000 and 802.1x client, it can bill by time/flow, and strict bundle for account, password, IP, MAC, VLAN, port, and switches. It support anti spam, internet time control. With user based dynamic VLAN and bandwidth authorization, it can allocate IP address based on group policy without DHCP server.

■ Specifications

Item	DCS-3950-10C/R/DC	DCS-3950-26C	DCS-3950-28C/R/DC
Ports	8*10/100Base-TX+2*1000M/Gigabits Combo(SFP/GT)	24*10/100Base-TX+2*1000M/Gigabits Combo(SFP/GT)	24*10/100Base-TX+4*1000M/Gigabits Combo(SFP/GT)
Performance			

Switching Capacity	5.6Gbps	8.8Gbps	12.8Gbps
Forwarding Rate	4.2Mpps	6.6Mpps	9.6Mpps
MAC ADDRESS	16k	16K	16K
ACL TABLE	1k	1K	1K
Queues per port	4	4	4
VLAN TABLE	4k	4K	4K
Physical			
Dimension（W×H×D）	282mm x 44mm x 178mm	440mm x 44mm x 171mm	440mm x 44mm x 230mm
Power Supply	Normal Model: Input AC: 100 V～240 V /R Model: Input AC: 100 V~240V, RPS DC: 12V /DC Model Input DC: -48V		
Power Consumption	15W	20W	20W
MTBF	>80000 hours		
Temperature	Working 0°C～50°C, storage -40°C～70°C		
Relative Humidity	5%～95%，non-condensing		
EMC safety	FCC, CE, RoHS,		
Main Features			
Forwarding	Storage and forwarding		
L1,L2 Features	VLAN Type	802.1Q based Vlan and support upto 4K vlan	
		Support QinQ， selective QinQ, Flexibe QinQ	
		Support Voice vlan	
		Port based Vlan	
		MAC based Vlan	
		IP subnet Vlan	
		Protocol based Vlan	
		Private VLAN	
		Support GVRP	
	Spanning Tree	802.1D STP, 802.1W RSTP, 802.1S MSTP	
		Support Root guard, BPDU guard, BPDU forwarding, BPDU Tunnel	
	Link Aggregation	Support LACP 802.3ad, max 14 groups trunk with max 8 ports for each trunk,	
		Support source / destination MAC/IP based load balance	
	MAC Operation	Support MAC binding	
		Support MAC filter	
		Support MAC limit per port	
	Broadcast storm control	Support Broadcast / Multicast / Unicast Storm Control	
		Supports control and can set rate for broadcast	
	Port	Support VCT & DDM	

		Support UDLD, LLDP, LLDP-MED
		Support 1:1 and N:1 port mirror
		Jumbo Frame
		Loopback interface
		Port loop detection
		Bandwidth control: At least 64Kbps step
		Support HOL preventing first packet jam, semi-duplex backpressure, duplex IEEE802.3x
		GE combo ports could be compatible with FE SFP module
		Port Protection
QOS Features		4 hardware queues per port
		Support QinQ, Selective QinQ, Flexible QinQ
		Traffic classification based on IEEE 802.1p CoS, IP Precedence, DSCP, TCP/UDP port number, Access Control List
		Supports SP, WRR, SWRR for scheduling
		Support flow shaping
Security	**IEEE 802.1x**	Port, MAC based authentication
		Support account based on time length and traffic
		Support guest vlan and auto vlan
		Work with private client can manage P2P traffic
	AAA	RADIUS for Ipv4 and Ipv6
		TACACS+ for Ipv4
	ACL	Support 1K Access Control Lists(ACL) based on source/destination IP address, source/destination MAC address, IP type, TCP/UDP port number, IP precedence, time range, ToS.
		ACL on VLAN interface
		Flow redirect based on ACL
	Enhanced	Monitor pingSweep, and anti illegal multicast, controlled traffic
		Ip source guard support under controlled L3 forwarding block
		Prevent illegal multicast source and limited multicast.
		Support DHCP Snooping, and DHCP Snooping option 82
Multicast		Support IGMP v1/v2/v3 snooping
		Support Multicast Vlan Register (MVR) based on port
		Support Multicast receive control
		Support illegal multicast source detect
		Support multicast policy configuration
IPv6		ICMPv6, NDP, SNMP over IPv6, HTTP over Ipv6, Ipv6 Ping/tracer, Ipv6 Telnet, Ipv6 RADIUS+, Ipv6 Syslog, IPv6 SNTP, IPv6 FTP/TFTP

		Support DHCPv6 Server, Relay, Snooping
		Support MLD Snooping
		Support IPv6 MVR
Management	Switch Management	CLI, WEB, Telnet, SNMPv1/v2c/v3 through IPv4 and IPv6
		RMON 1,2,3,9
		SSHv1,v2 & SSL support
		RJ45 Console
		Support Public & Private MIB interface
		Supports SNTP/NTP, Summer Saving Time
		Support Multiple sys-log servers
		Support OAM 802.3ah
		Support NMS software management
		Support MAX 24 unites cluster
		Supports IPv4 and IPv6 Security IP management
	Firmware & Configuration	Multiple firmware images/ configuration files
		Firmware upgrade via TFTP/FTP server
		Configuration file upload/download via TFTP/FTP server
	DHCP	Supports BOOTP, DHCP server/client for IP address assignment
		Support DHCP relay, DHCP relay option 82, DHCP Snooping, and DHCP Snooping option 82

■ **Warranty**

Limited lifetime warranty

■ **Ordering information**

Model	Description
DCS-3950-10C	8 * 10/100M ports + 2 Gigabit Combo (SFP/GT) ports.，AC power.
DCS-3950-10C/R	8 * 10/100M ports + 2 Gigabit Combo (SFP/GT) ports，AC+12V RPS power.
DCS-3950-10C/DC	8 * 10/100M ports + 2 Gigabit Combo (SFP/GT) ports，-48V DC power.
DCS-3950-26C	24 10/100M ports + 2 Gigabit Combo (SFP/GT) ports.
DCS-3950-28C	24*10/100Base-TX + 4* 1000M/Gigabits Combo(SFP/GT)， AC power
DCS-3950-28C/R	24*10/100Base-TX + 4* 1000M/Gigabits Combo(SFP/GT), AC+12V RPS power.

DCS-3950-28C/DC	24*10/100Base-TX + 4* 1000M/Gigabits Combo(SFP/GT), -48V DC power.

■ Connect us

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