DCS-3950-52C Fast Ethernet Intelligent Access Switch Datasheet
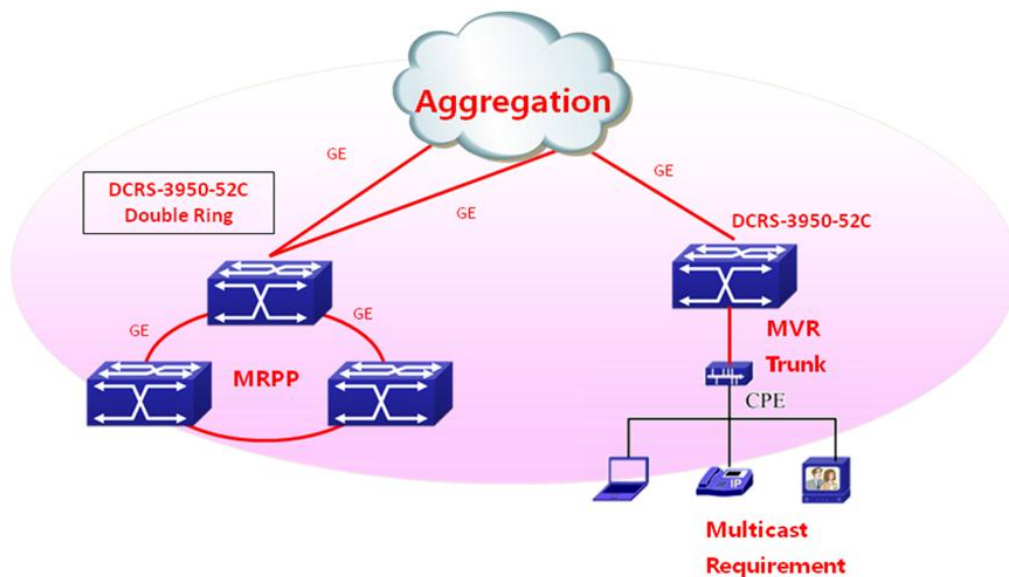

DCS-3950-52C

■ Product Overview

DCS-3950-52C 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 DCS-3950-52C is 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-3950-52C 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.

- DCS-3950-52C 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-3950-52C 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-3950-52C support large number as 4 Combo Gigabit uplink ports, which could be designed in various ring protection applications, effectively raised the expansibility and performance of network

- DCS-3950-52C support VCT, help to locate the error places in the link, make it fast to solve relative problems for network management

- DCS-3950-52C 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

➢ **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-3950-52C 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-3950-52C 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-3950-52C switch can classify stream by port, 802.1p, TOS, DSCP and assign different level of service, supports SWRR/WRR/SP to provide QOS for voice/data/video.

➢ Abundant Multicast Features

- DCS-3950-52C 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-3950-52C combine the Vlan data into the same link, saving lots of resources for users.

- The DCS-3950-52C could prevent multicast traffic from flooding through IGMP Snooping, while multicast traffic is forwarded to ports associated to multicast devices only

➢ Simple management

- DCS-3950-52C 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-3950-52C supports Secure Shell（SSH）, which will ensure the security of switch management and configuration.

- DCS-3950-52C can be managed by general network management platform with 3rd management software.

➢ Abundant IPv6 Support

- The DCS-3950-52C 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-3950-52C switch will be a right product to meet the requirement. The DCS-3950-52C passed IPv6 form Phase II certificate is the best proof of the application.

- The DCS-3950-52C switch also supports DHCPv6, based on IPv6, including DHCPv6 server, client, relay and snooping, etc.

➤ Integrated authentication and billing solution

- DCS-3950-52C 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-3950-52C
Ports	48*10/100Base-TX + 4*1000M/Gigabits Combo(SFP/GT)
Performance	
Switching Capacity	17.6Gbps
Forwarding Rate	13.2Mpps
MAC ADDRESS	8K
ACL TABLE	1k
Queues per port	8 for Gigabits ports, 4 for 10/100M ports
VLAN TABLE	4K
Physical	
Dimension（W×H×D）	440mm x 44mm x 230mm
Power Supply	Input AC: 100 V～240 V
Power Consumption	≤30W
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 id
		Support 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 Tunnel
	Link Aggregation	Support LACP 802.3ad, max 8 groups trunk with max 8 ports for each trunk,
		Support source / destination MAC 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
		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 FE port and 8 queues per GE port
		Support QinQ
		Traffic classification based on IEEE 802.1p CoS, IP Precedence, DSCP, 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, 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 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	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 option 82, DHCP Snooping, and DHCP Snooping option 82

■ Warranty

Limited Life Time

■ Ordering information

Model	Description
DCS-3950-52C	48*10/100Base-TX + 4* 1000M/Gigabits Combo(SFP/GT)

■ Connect us

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