

DCRS-5960 Dual Stack 10G Routing Switch Datasheet



DCRS-5960-28T



DCRS-5960-52T



DCRS-5960-28T-DC



DCRS-5960-52T-DC



DCRS-5960-28T-POE



DCRS-5960-52T-POE

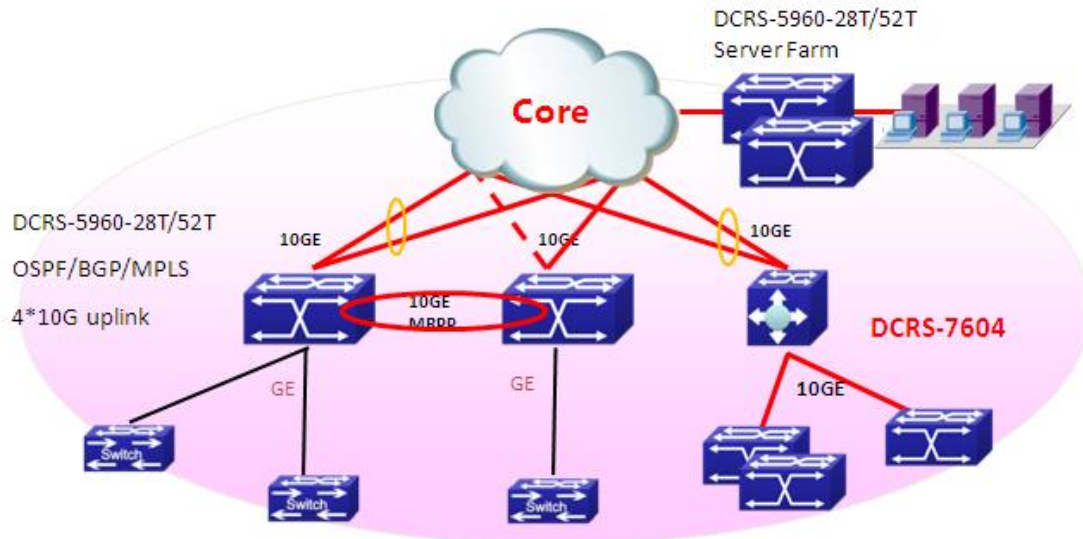
■ Product Overview

The DCRS-5960 series is a Gigabit Ethernet Layer 3 switch with 20/44 Gigabit Ethernet ports, 4 combo Gigabit Ethernet RJ-45/SFP ports and dual slots for optional 10G modules with max 4 10G Ethernet ports.

The DCRS-5960 series is ideal for aggregating servers or for aggregating access switches in the distribution layer of three-tier networks. It is also an excellent choice as a core switch for enterprise customers.

All ports of the DCRS-5960-28T-POE and DCRS-5960-52T-POE can support max 15.4W power supply for IP Phone, WIFI AP, IP camera etc with RPS/PSU support.

■ Application



■ Key Features

Performance and Scalability

- With 128Gbps/176Gbps switching capacity, the DCRS-5960 series delivers high performance IPv4 and IPv6* IP routing.
- The SFP-based Gigabit ports support various optional Gigabit Ethernet mini GBIC transceivers for different distance fiber connections.
- The 10 Gigabit Ethernet connectivity of DCRS-5960 series is accomplished via a hot-pluggable 10 Gigabit XFP/SFP+ transceiver which supports distance up to 300 meters over multimode fiber and 10 to 80km over single-mode fiber (The distance depend the optical module chosen) .
- The DCRS-5960 series switch supports redundant AC and DC power supplies for different environment applications.

Continuous Availability

- IEEE 802.1s Multiple Spanning Tree Protocol runs STP per VLAN base, providing Layer 2 load sharing on redundant links.
- IEEE 802.3ad Link Aggregation Control Protocol (LACP) increases bandwidth by automatically aggregating several physical links together as a logical trunk and providing load balancing and fault tolerance for uplink connections.
- MRPP (Multi-layer Ring Protection Protocol), is a link layer protocol applied on Ethernet loop protection which reduces network convergence time to 50ms-60ms.

Rich L3 and MPLS Features

- The DCRS-5960 series switch delivers high-performance, hardware based IP routing with

16K IP forwarding items.

- RIP, OSPF, BGP provide dynamic routing by exchanging routing information with other Layer 3 switches and routers.
- Policy based Route is important for customer when they need multi exit application.
- MPLS and MPLS VPN technology to build metro network.

Strong Multicast

- IGMP snooping prevents flooding of IP multicast traffic, and limits bandwidth intensive video traffic to only the subscribers.
- PIM-DM, PIM-SM, PIM-SSM, DVMRP multicast routing protocols, IGMP proxy and MVR (Multicast VLAN Register) make multicast application disposed easily and flexibly.

Comprehensive QoS

- 8 queues per port enable differentiated management of up to 8 traffic types.
- 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.
- Bi-directional rate-limiting, per port or traffic class, preserves network bandwidth and allows full control of network resources.

Enhanced Security

- Access Control Lists (ACLs) can be used to restrict access to sensitive network resources by denying packets based on L2/L3/L4 headers information. DCRS-5960 series supports ingress and egress ACL with max 3K rules.
- Secure Shell (SSH) encrypts network management information via Telnet providing secure network management.
- RADIUS and TACACS Authentication enables centralized control of the switch and restricts unauthorized users from altering the configuration of the switch.

IPv6 Support

- The DCRS-5960 series supports IPv6 routing in hardware and full-scale IPv6 protocols. As IPv4 addresses become exhausted, the DCRS-5960 series will be an excellent product to meet the requirement.

■ Specification

Attributes	DCRS-5960-28T-POE/52T-POE	DCRS-5960-28T/52T	DCRS-5960-28T-DC/52T-DC
Ports	20/44 10/100/1000 Ethernet ports 4 COMBO (SFP/GT) 2 slots (max 4 10GE)	20/44 10/100/1000 Ethernet Ports , 4 COMBO (SFP/GT) 2 slots (max 4 10GE)	20/44 10/100/1000 Ethernet Ports , 4 COMBO (SFP/GT) 2 slots (max 4 10GE)
Performance			

Switching Capability	128Gbps/196bps	128Gbps/196bps	128Gbps/196bps
Forwarding rate	95Mpps/131pps	95Mpps/131pps	95Mpps/131pps
MAC Address	16K	16K	16K
VLAN Table	4K	4K	4K
ACL TABLE	Max 3k	Max 3k	Max 3k
Routing Table	Max 13K	Max 13K	Max 13K
VRF	252	252	252
L3 Interface	Max 1K	Max 1K	Max 1K
Port Queues	8	8	8
Physical			
Dimension (WHD)	415mm×44mm×325mm	415mm×44mm×325mm	415mm×44mm×325mm
Relative Humidity	5% ~ 90%, non-condensing	5% ~ 90%, non-condensing	5% ~ 90%, non-condensing
Operating Temperature	0°C ~ 50°C	0°C ~ 50°C	0°C ~ 50°C
Storage Temperature	-40°C ~ 70°C	-40°C ~ 70°C	-40°C ~ 70°C
Power	AC: 100V ~ 240V, 50-60Hz DC: -48V POE: -52V	AC: 100V ~ 240V, 50-60Hz	AC: 100V ~ 240V, 50-60Hz DC: -48V
Power Consumption	130W/180W 15.4W per port for POE	130W/180W	130W/180W
MTBF	>80,000 hours	>80,000 hours	>80,000 hours
MEF Comply	Comply MEF 9,14	Comply MEF 9,14	Comply MEF 9,14
EMC safety	FCC, CE, RoHS,	FCC, CE, RoHS	FCC, CE, RoHS
Features			
Forwarding Mode	<ul style="list-style-type: none"> ■ Storage and forwarding 		
L2 Features	<ul style="list-style-type: none"> ■ IEEE802.3(10Base-T) ■ IEEE802.3u(100Base-TX) ■ IEEE802.3z (1000BASE-X) ■ IEEE802.3ab (1000Base-T) ■ IEEE802.3ae (10GBase) ■ 9k Jumbo Frame ■ Port loopback detect ■ LLDP and LLDP-MED ■ UDLD 		

	<ul style="list-style-type: none"> ■ Support LACP 802.3ad, max 128 group trunk with max 8 ports for each trunk, ■ Support load balance
	<ul style="list-style-type: none"> ■ IEEE802.1d(STP) ■ IEEE802.1W(RSTP) ■ IEEE802.1S(MSTP) Max 48 instance ■ Root Guard ■ Bpdu Guard ■ BPDU forwarding
	<ul style="list-style-type: none"> ■ Support one to one or any to one port mirror ■ RSPAN
	<ul style="list-style-type: none"> ■ IGMP v1/v2/v3 Snooping and L2 query ■ ND snooping ■ MLDv1/v2 snooping
	<ul style="list-style-type: none"> ■ QinQ, GVRP, Broadcast / Multicast / Unicast Storm Control ■ Port/ MAC/ IP segment/ Portocol/ Voice/ Private/ Vlan support ■ Multicast Vlan register/MVR for IPv4 and IPv6 service
	<ul style="list-style-type: none"> ■ Support port-based 802.1Q, 4096 VLAN
	<ul style="list-style-type: none"> ■ MAC filter, MAC limit
MPLS	<ul style="list-style-type: none"> ■ MPLS, VRF, LDP
	<ul style="list-style-type: none"> ■ MPLS L3 VPN, MPLS L2 VPN(VPWS)
L3 Features	<ul style="list-style-type: none"> ■ IP Protocol (IP support both of IPv4 and IPv6) ■ Support manual configure IPv4/IPv6 tunnel ■ Support 6to4 tunnel ■ Support ISATAP tunnel
	<ul style="list-style-type: none"> ■ Default Routing, Static Routing, Black hole route, VLSM and CIDR,
	<ul style="list-style-type: none"> ■ RIPv1/V2, OSPFv2, BGP4, support MD5 authentication LPM Routing
	<ul style="list-style-type: none"> ■ OSPFv3, BGP4+
	<ul style="list-style-type: none"> ■ Policy based Routing(PBR) for IPv4 and IPv6
	<ul style="list-style-type: none"> ■ VRRP, VRRP v3
	<ul style="list-style-type: none"> ■ PIM-DM, PIM-SM, PIM-SSM, MSDP
	<ul style="list-style-type: none"> ■ Static Multicast route
	<ul style="list-style-type: none"> ■ PIM-SM/DM/SSM for IPv6, 6 to 4 Tunnels, configured Tunnels, ISATAP
	<ul style="list-style-type: none"> ■ Multicast receive control
	<ul style="list-style-type: none"> ■ Illegal multicast source detect
	<ul style="list-style-type: none"> ■ Any cast RP for Ipv4 and Ipv6
	<ul style="list-style-type: none"> ■ Support ECMP (Equal Cost Multi-Path) with maxim 8 groups
	<ul style="list-style-type: none"> ■ URPF for IPv4 and IPv6
	<ul style="list-style-type: none"> ■ Support BFD
	<ul style="list-style-type: none"> ■ ARP guard, Local ARP proxy, Proxy ARP, ARP binding, Gratuitous ARP, ARP limit
QoS	<ul style="list-style-type: none"> ■ 8 queues per port

	<ul style="list-style-type: none"> ■ Support traffic classification based on IEEE 802.1p, ToS, port and DiffServ ■ Support SP, WRR.SWRR ■ Support Traffic Shaping ■ Support PRI Mark/Remark 		
ACL	<ul style="list-style-type: none"> ■ Support standard and expanded ACL ■ Support IP ACL and MAC ACL ■ Support ACL based on source/definition IP, MAC, L3 IP, TCP/UDP port number, IP PRI(DSCP, ToS, Precedence), Time ■ Support time-based security auto-negotiation ■ ACL rules can be configured to port, VLAN, VLAN routing interfaces ■ Can be used for QoS classification 		
Reliability	<ul style="list-style-type: none"> ■ Support MSTP(802.1s) ■ Support VRRP, LACP load balance ■ MRPP - Multi-layer Ring Protection Protocol ■ Redundant power supply, power load balancing ■ Support Firmware & Configure dual fault tolerance backup 		
DHCP	<ul style="list-style-type: none"> ■ DHCP Client, Relay, Snooping, Option 82 ■ DHCP Server for IPv4 and IPv6 ■ DHCP v6 and DHCP snooping V6 		
Security	<ul style="list-style-type: none"> ■ 802.1X ■ Support guest vlan and auto vlan ■ MAB ■ GRE tunnel ■ BPDU tunnel 		
POE	<ul style="list-style-type: none"> ■ Support max 15.4W per port and full 10/100/1000 Base-T port can support POE <p>*The feature need RPS/PSU support</p>	NA	NA

<p>Management</p>	<ul style="list-style-type: none"> ■ CLI, Console (RS-232) , Telnet (Ipv4/Ipv6), SSH(Ipv4/Ipv6),SSL connection ■ Support WEB based NMS ■ Support SNMPv1/v2c/v3 for IPv4, SNMPv1/v2c for IPv6 ■ Strict management hosts by ACL ■ AAA or Local Authentication ■ SNTP and NTP, Daylight Saving time ■ Configuration file backup ■ Multiple configuration files ■ Support FTP/TFTP server or client upgrade ■ Support X-modem protocol upgrade ■ Support max 24 units cluster with 10GE ports and managed by single IP
<p>Supervision and Trouble Shooting</p>	<ul style="list-style-type: none"> ■ Supervise abnormality of task, memory, CPU, stack, switch chip, temperature and raise alarm ■ Mirror based on port and flow, RSPAN ■ Syslog ■ Sflow for IPv4 and IPv6 ■ RMON 1, 2, 3, 9 ■ Ping and trace route command

■ **Warranty**

Limited lifetime warranty

■ **Order Information**

Product	Description
DCRS-5960-52T	10G IPv6 Routing Switch, 44 10/100/1000Base-T + 4 Gigabit Combo (SFP/GT) ports+2 slot, AC power supply
DCRS-5960-28T	10G IPv6 Routing Switch, 20 10/100/1000Base-T + 4 Gigabit Combo (SFP/GT) ports+2 slot, AC power supply
DCRS-5960-52T-DC	10G IPv6 Routing Switch, 44 10/100/1000Base-T + 4 Gigabit Combo (SFP/GT) ports+2 slot, AC+DC redundant power supply
DCRS-5960-28T-DC	10G IPv6 Routing Switch, 20 10/100/1000Base-T + 4 Gigabit Combo (SFP/GT) ports+2 slot, AC+DC redundant power supply

DCRS-5960-52T-POE	10G IPv6 Routing Switch, 44 10/100/1000Base-T + 4 Gigabit Combo (SFP/GT) ports+2 slot, AC+DC+POE redundant power supply
DCRS-5960-28T-POE	10G IPv6 Routing Switch, 20 10/100/1000Base-T + include 4 Gigabit Combo (SFP/GT) ports + 2 slot, AC+DC+POE redundant power supply
DC-PSU-650	PSU power 650W, Supply DC(-48V) and 12V RPS
MRS-2XFP	DCRS-5960 series 2 10G module(XFP interface) for DCRS-5960 series
MRS-2SFP+	DCRS-5960 series 2 10G module(SFP+ interface) for DCRS-5960 series

■ **Connect us**

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