



DCRS-5960T Dual Stack 10G Routing Switch Datasheet



DCRS-5960-28T/ 28T-R/28T-DC/28T-POE



DCRS-5960-52T/ 52T-R/52T-DC/52T-POE



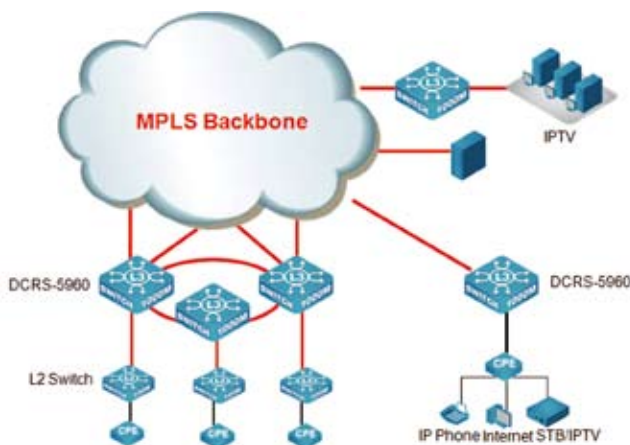
Product Overview

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 and Benefits

► 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 VRF 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.

Supports multiple VRF function to be deployed as MPLS MCE and helps customer to construct more security VPN 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-R/28T-DC DCRS-5960-52T-R/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/176bps	128Gbps/176bps	128Gbps/176bps
Forwarding rate	96Mpps/132Mpps	96Mpps/132Mpps	96Mpps/132Mpps
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)	440mm×44mm×325mm	440mm×44mm×325mm	440mm×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	DCRS-5960-28T-POE/52T-POE RPS: AC+DC AC: 100V ~ 240V DC: -48V ~ -60V POE input: -52V ~ -55V	DCRS-5960-28T/52T AC: 100V ~ 240V	DCRS-5960-28T-DC/52T-DC RPS: AC+DC AC: 100V ~ 240V DC: -48V ~ -60V
			DCRS-5960-28T-R/52T-R RPS: AC+DC AC: 100V ~ 240V DC: 11.4V ~ 12.6V
Power Consumption	35W/65W 15.4W per port for POE	35W/65W	35W/65W
MTBF	>80,000 hours	>80,000 hours	>80,000 hours
EMC safety	FCC, CE, RoHS,	FCC, CE, RoHS	FCC, CE, RoHS
Features			
Forwarding Mode	Storage and forwarding		
L2 Features	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		
	Support LACP 802.3ad, max 128 group trunk with max 8 ports for each trunk, Support load balance		

Attributes	DCRS-5960-28T-POE/ 52T-POE	DCRS-5960-28T/52T	DCRS-5960-28T-R/28T-DC DCRS-5960-52T-R/52T-DC
L2 Features	IEEE802.1d(STP) IEEE802.1W(RSTP) IEEE802.1S(MSTP) Max 48 instance Root Guard Bpdu Guard BPDU forwarding		
	Support one to one or any to one port mirror RSPAN		
	IGMP v1/v2/v3 Snooping and L2 query ND snooping MLDv1/v2 snooping		
	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		
	Support port-based 802.1Q, 4096 VLAN		
	MAC filter, MAC limit		
L3 Features	Support MPLS VRF function		
	IP Protocol(IP support both of IPv4 and IPv6) Support manual configure IPv4/IPv6 tunnel Support 6to4 tunnel Support ISATAP tunnel		
	Default Routing, Static Routing, Black hole route, VLSM and CIDR,		
	RIPv1/V2, OSPFv2, BGP4, support MD5 authentication LPM Routing		
	OSPFv3, BGP4+		
	Policy based Routing(PBR) for IPv4 and IPv6		
	VRRP, VRRP v3		
	Support ECMP(Equal Cost Multi-Path)with maxim 8 groups		
	URPF for IPv4 and IPv6		
	Support BFD ARP guard, Local ARP proxy, Proxy ARP, ARP binding, Gratuitous ARP, ARP limit		
ACL	8 queues per port		
	Support traffic classification based on IEEE 802.1p, ToS, port and DiffServ		
	Support SP, WRR.SWRR		
	Support Traffic Shaping		
	Support PRI Mark/Remark		
Reliability	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	DCHP Client, Relay, Snooping, Option 82		
	DHCP Server for IPv4 and IPv6		
	DHCP v6 and DHCP snooping V6		
Security	802.1X Support guest vlan and auto vlan MAB GRE tunnel BPDU tunnel		
POE	Support max 15.4W per port and full 10/100/1000 Base-T port can support POE *The feature need RPS/PSU support	NA	NA

Attributes	DCRS-5960-28T-POE/ 52T-POE	DCRS-5960-28T/52T	DCRS-5960-28T-R/28T-DC DCRS-5960-52T-R/52T-DC
Management	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 and managed by single IP		
Supervision and Trouble Shooting	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		

The contents marked with “*” need future upgrade or are under development

Warranty

3 years

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-R	10G IPv6 Routing Switch, 44 10/100/1000Base-T + 4 Gigabit Combo(SFP/GT) ports+2 slot, AC+12VDC redundant power supply
DCRS-5960-28T-R	10G IPv6 Routing Switch, 20 10/100/1000Base-T + 4 Gigabit Combo(SFP/GT) ports+2 slot, AC+12VDC redundant 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	2* 10G module(XFP interface) for DCRS-5750, DCRS-5960, DCRS-5980 series
MRS-2GB	2 *1G module(SFP interface) for DCRS-5750, DCRS-5960, DCRS-5980 series
MRS-2SFP+	2* 10G module(SFP+ interface) for DCRS-5750, DCRS-5960, DCRS-5980 series

Connect us

Digital China Networks Limited

For more detail information about DCN product, contact:

URL: <http://www.dcn-global.com>

Email: dcn_service@digitalchina.com

Address: Digital Technology Plaza, NO.9 Shangdi 9th Street, Haidian District, Beijing, China

