

DCRS-5980 Dual Stack 10G Ethernet Routing Switch Datasheet



DCRS-5980-28T-DC/28T-POE



DCRS-5980-52T-DC/52T-POE

■ Product Overview

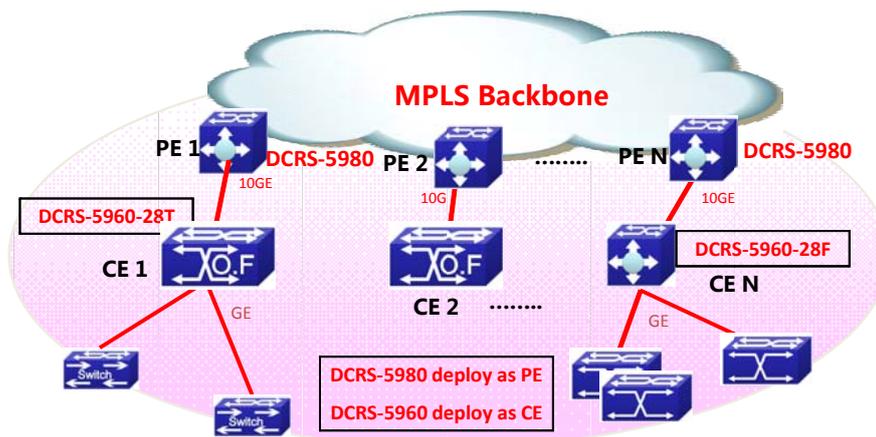
The DCRS-5980 series is Gigabit Ethernet Layer 3 switches with 20/44 Gigabit Ethernet ports, 4 combo Gigabit Ethernet GT/SFP ports and dual slots for optional 10G modules with max 4 10G Ethernet ports.

The DCRS-5980 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-5980-28T-POE and DCRS-5980-52T-POE can support max 15.4W power supply for IP Phone, WIFI AP, IP camera etc with RPS/PSU support.

■ **Target Market**

DCRS-5980 Series application



■ **Key Features and Benefits**

Performance and Scalability

- With 128Gbps/176Gbps switching capacity, the DCRS-5980 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-5980 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-5980 series supports both AC and DC power supplies for different environment applications.

Continuous Availability

- 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 Features

- The DCRS-5980 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.

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-5980 series supports ingress and egress ACL with max 4K rules.
- RADIUS and TACACS Authentication enables centralized control of the switch and restricts unauthorized users from altering the configuration of the switch.
- MAC-in-MAC as IEEE 802.1ah-2008 offers complete separation of customer and provider domains.

MPLS Support

- MPLS technique is very popular and widely applied in carrier user. As a result the DCRS-5980 supports Hardware-based forwarding of MPLS and MPLS VPN with max 255 VRF instances to help customer construct more security network.
- Hierarchical VPLS (H-VPLS), Virtual Private LAN Service (VPLS)

IPv6 Support

- The DCRS-5980 series supports IPv6 routing in hardware and full-scale IPv6 protocols. As IPv4 addresses become exhausted, the DCRS-5980 series will be an excellent product to meet the requirement.

■ Specification

Attributes	DCRS-5980-28T-POE	DCRS-5980-52T-POE	DCRS-5980-28T-DC	DCRS-5980-52T-DC
Ports	20 10/100 /1000 Ethernet Ports 4 COMBO (SFP/GT) 2 slots and max 4 10GE,	44 10/100/1000 Ethernet Ports 4 COMBO (SFP/GT) 2 slots and max 4 10GE	20 10/100 /1000 Ethernet Ports , 4 COMBO (SFP/GT) 2 slots and max 4 10GE	44 10/100/1000 Ethernet Ports 4 COMBO (SFP/GT) 2 slots and max 4 10GE
Performance				
Switching Capability	128Gbps	176Gbps	128Gbps	176Gbps
Throughput	96Mpps	131Mpps	96Mpps	131Mpps
MAC Address	32K	32K	32K	32K
VLAN Table	4K	4K	4K	4K
ACL TABLE	Max 4k	Max 4k	Max 4k	Max 4k
Routing forwarding Table	16k	16k	16k	16k
L3 Interface	1K	1K	1K	1K
VRF interface	252	252	252	252
Port Queues	8	8	8	8
Physical				
Dimension (WHD)	440mmx44mmx325mm	440mmx44mmx325mm	440mmx44mmx325mm	440mmx44mmx325mm
Relative Humidity	5% ~ 90%, non-condensing	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	0°C ~ 50°C
Storage Temperature	-40°C ~ 70°C	-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 DC: -48V POE: -52V	AC: 100- 240V, 50-60Hz DC: -48V	AC: 100- 240V, 50-60Hz DC: -48V
Power Consumption	130W for device 15.4W per port	180W for device 15.4W per port	130W	180W
MTBF	>80,000 hours	>80,000 hours	>80,000 hours	>80,000 hours
MEF Comply	Comply MEF 9,14	Comply MEF 9,14	Comply MEF 9,14	Comply MEF 9,14
EMC safety	FCC, CE, RoHS,	FCC, CE, RoHS	FCC, CE, RoHS	FCC, CE, RoHS
Features				
Forwarding Mode	■ 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 ■ ERSPAN 	
	<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 	
	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 ■ Static Multicast route ■ PIM-SM/DM/SSM for IPv6, 6 to 4 Tunnels, configured Tunnels, ISATAP ■ Multicast receive control ■ Illegal multicast source detect ■ 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 ■ 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/destination 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 ■ Mac-in-Mac

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
Management	<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 		
Supervision and Trouble Shooting	<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

3 years

■ Order Information

Product	Description
DCRS-5980-52T-DC	10G IPv6 Routing Switch, 44 10/100/1000Base-T + 4 Gigabit Combo (SFP/GT) ports+2 slot, AC+DC redundant power supply
DCRS-5980-28T-DC	10G IPv6 Routing Switch, 20 10/100/1000Base-T + 4 Gigabit Combo (SFP/GT) ports+2 slot, AC+DC redundant power supply
DCRS-5980-52T-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-5980-28T-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**

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