

### Managed 10G Ethernet Switch —DR5028XGSM

**Product Description:**

Devray DR5028XGSM is a Layer 2+ managed Gigabit Switch that features 24-Port 10/100/1000 Mbps + 4-Port 10G SFP+ and supports static Layer 3 routing in a 1U case. With 10Gbps uplink, the DR5028XGSM can handle extremely large amounts of data in a secure topology linking to an enterprise backbone or high-capacity servers. Each of the SFP+ slots support Dual-Speed, 10GBase-SR/LR or 1000Base-SX/ LX, meaning the administrator now can flexibly choose the suitable SFP/SFP+ transceiver according to the transmission distance or the transmission speed required to extend the network efficiently.

**Feature:**

- ◆ Support L2+ Switching features including 802.1Q VLAN, Mirroring, Port isolation, IGMP ,Snooping, DHCP Snooping, LLDP, IP Source Guard, ARP inspection, ACLs etc.
- ◆ Support spanning tree STP(802.1D) and RSTP(802.1W) and MSTP(802.1s)
- ◆ Support enhanced management through WEB, CLI, TELNET, SSH, SNMP
- ◆ Support cable diagnosis
- ◆ Support dual firmware back-up mechanism
- ◆ Support G.8032 quick ring protocol. Self-recovery time <20ms
- ◆ Support IEEE1588 v2, transparent clock(TC)
- ◆ Support DDM, SFP digital diagnostics monitoring
- ◆ Support IPV4 and IPV6 static routing functions
- ◆ Support memory and CPU monitoring

## Hardware Specification:

Model	DR5028XGSM
Copper Ports	24x10/100/1000BASE-T RJ45 auto-MDI/MDI-X ports
Fiber Ports	4x1G/10GBASE-X SFP interfaces, supports 1G/10Gbps dual mode
Console Ports	1 x RS-232-to-RJ45 serial port (115200, 8, N, 1)
Switch Architecture	Store-and-Forward
Switch Fabric	128Gbps/non-blocking
Throughput	95.2Mpps @64 bytes
Address Table	32K entries
Share Data Buffer	32 Mb
Jumbo Frame	9600 Bytes
SDRAM	2Gb
Flash Memory	128Mb
Flow Control	IEEE 802.3x pause frame for full-duplex Back pressure for half-duplex
Reset Button	>2 sec.: Factory default and reset
Power Supply	100~240V AC, 50/60Hz, 4A (max.)
Power Consumption	Max. 60 watts/1122 BTU
LED Indicators	Power: Green Solid on- power work normal, off- power disconnected System: Green Blink-work normally, solid on- soft work abnormal, fast Blink- soft upgrade 10/100/1000T RJ45 Interfaces (Port 1 to Port 24): 1000 LNK/ACT (Green),10/100 LNK/ACT (yellow), Blink- port connected with data transmission; Solid on- port connected without data transmission 1G/10G SFP Interfaces (Port 25 to Port 28): Blue Blink- port connected with data transmission; Solid on- port connected without data transmission
EMC	Surge Immunity: Per: IEC61000-4-5 ESD Protection: ESD Level 4 Per: IEC61000-4-2 EFT Level 4 Per: IEC61000-4-4
Dimension	440x240x44.5mm
Weight	3.2kg
Working Temperature	-10 °C to 45°C
Storage Temperature	-20°C to 70 °C
MTBF	50,000hrs

## Certificates

- CE Marking
- EN 300 386 V2.2.1:2022 Telecommunication network equipment - Harmonised Standard for ElectroMagnetic Compatibility (EMC) requirements
- EN 50121-4:2016+A1:2019 Railway applications. Electromagnetic compatibility Emission and immunity of the signalling and telecommunications apparatus
- EN 50155:2021, Railway applications. Rolling stock. Electronic equipment
- EN 55011:2016+A2:2021 Industrial, scientific and medical equipment. Radiofrequency disturbance characteristics. Limits and methods of measurement
- EN 55022:2010 Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement
- EN 60950-1:2005 Information technology equipment – Safety – Part 1: General requirements
- EN IEC 61000-3-2:2019, EN 61000-3-3:2013, EN 61000-4-2:2009, EN 61000-4-3:2006+A2:2010, EN 61000-4-4:2012, EN 61000-4-5:2014+A1:2017, EN 61000-4-6:2014, EN 61000-4-8:2010, EN 61000-4-11:2004+A1:2017, EN 61000-6-4:2007 Electromagnetic compatibility (EMC) Testing and measurement techniques
- IEC 60068-2-27:2008 Environmental testing-part2-27:test- test ea and guidance: shock
- IEC 60068-2-31:2008 Environmental testing-part2-31:Test- test Ec: Rough handling shocks, primarily for equipment-type specimens
- IEC 60068-2-64:2008 Environmental testing-part2-64:2008 Test- test Fh: Vibration, broadband random and guidance
- IEC 60215:2016 Safety requirements for radio transmitting equipment-General requirements and terminology
- IEC 61967-1:2018 Integrated circuits- Measurement of electromagnetic emissions-Part 1: General conditions and definitions
- IEC 62151: 2000 Safety of equipment electrically connected to a telecommunication network
- Directive 2002/95/EC (RoHS 1),
- CFR Part 15, Su voltage 2014/35/EU Directive
- UL (UNDERWRITERS LABORATORIES)

## Layer 2 functions

Port configuration	Auto-negotiation Flow Control Port Mirror: TX/RX/BOTH; Many-to-1 monitor Traffic statistics
Link Aggregation	Static link aggregation LACP Algorithm based on Source/Destination MAC Algorithm based on Source/Destination IP
MAC Table	Aging Time Static MAC address Dynamic MAC address management
VLAN	4094 Active VLANs 4094 VID 802.1Q Tag VLAN Port VLAN Protocol VLAN MAC VLAN Voice VLAN 802.1ad Q-in-Q tunneling Private VLAN (Protected port) GARP/GVRP
ACL	512 ACLs L2, L3 e L4 Time-based ACL
Spanning tree	802.1D Spanning Tree Protocol (STP) 802.1w Rapid Spanning Tree Protocol (RSTP) 802.1s Multiple Spanning Tree Protocol (MSTP) Loop Guard Root Guard TC-BPDU Guard BPDU Guard BPDU Filter
Ring Protection	<20ms G.8032 ERPS Ring
Multicast	1024 groups

	IGMP v1/v2/v3 Snooping, Fast Leave MLD Snooping Multicast VLAN
QOS	8 mapping IDs to 8 level priority queues CoS port-based CoS 802.1p-based CoS DSCP-based Scheduling algorithms SP, WRR, SP+WRR Storm Control (Broadcast, Multicast, Unknown Unicast) Bandwidth control per port
Security Features	Port Security MAC address filter ARP Association (Manual, ARP scanning, DHCP snooping)ARP Protection DoS (Denial of Service) Classification of packages based on: End.MAC, IP End, TCP / UDP Ports, Protocol Type; 802.1x Authentication (port-based e MAC-based) TACACS/TACACS+ Authentication RADIUS Authentication DHCP Filter Guest VLAN SSLv2/SSLv3/TLSv1 SSHv1/SSHv2 Restriction of WEB access based on: IP Address, And. MAC and Port;Port Isolation Loopback detection
Management	SNMP v1/v2c/v3 with Full Private MIBs RMON 4 groups WEB (HTTP/HTTPS) CLI (Telnet, Console, SSHv1/v2) Firmware upgrade via console/web/TFTP Configuration Backup/Reload Dual Firmware LLDP
Synchronization, IEEE1588	Support IEEE1588v2 transparent clock

Other Features	DNS Client DHCP Relay DHCP Client DHCP Snooping DHCP Option 82 NTP/SNTP Client UPNP UDLD
Maintenance	Cable Diagnostics Ping SFP DDM(Digital Diagnostics Monitoring) Thermal protection System log (Local and Remote) Memory and CPU Monitoring

**Layer 3 functions**

Static Routing	IPv4 Unicast: Static Routing(Software and hardware base) IPv6 Unicast: Static Routing(Software and hardware base)
IPV6	IPv6 neighbor discovery (ND) Path maximum transmission unit (MTU) discovery Internet Control Message Protocol (ICMP) version 6 TCPv6/UDPv6 Ping6 Telnet(v6) Http/Https Interface IPV6 ACL IPV6

**Order Information:**

Product Model: DR5028XGSM

Product Description: 24-Port 10/100/1000BASE-T+4-Port 1G/10G SFP, 1x console port, support L2+ management function

Order note: SFP module is not included, need to order it separately

Package lists	24-Port 10/100/1000BASE-T+4-Port 1G/10G SFP, 1x console port, support L2+ management function(DR5028XGSM)
	Power Cable
	Mounting Kits
	Warranty Card
	User Guide