Managed Gigabit PoE Switch —DR7028XGSM

Product Description:

Devray DR7028XGSM is a Layer 2+ managed Gigabit PoE Switch that features intelligent PoE functions to improve the availability of critical business applications. It provides **IPv6/IPv4 management** and built-in L2+ Gigabit Switching engine along with 24 10/100/1000BASE-T ports featuring **30-watt 802.3at PoE+**, **4*10G SFP** slots. With a total power budget up to 370W for different kinds of PoE applications, can provides quick, safe and cost-effective Power over Ethernet network solutions to security IP surveillance for small businesses and enterprises.

The DR7028XGSM is programmed for advanced switch management functions such as **802.1Q VLAN** and **Q-in-Q VLAN, Multiple Spanning Tree protocol (MSTP), loop** and **BPDU guard, IGMP snooping**, and **MLD snooping**. Also, the **Link Layer Discovery Protocol (LLDP)** is the Layer 2 protocol included to help discover basic information about neighboring devices on the local broadcast domain.

Feature:

◆ Support L2+ Switching features including 802.1Q VLAN, Mirroring, IGMP Snooping, DHCP Snooping, LLDP, POE+ management, IP Source Guard, ARP inspection, ACL 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 and SFP DDM.

◆ Support PoE management, like PoE schedule, PoE PD-alive.

◆ Support G.8032 quick ring protocol. Self-recovery time <20ms.

◆ Support IEEE1588 v2, transparent clock(TC)

◆ Support IPV4 and IPV6 static routing functions

◆ Support memory and CPU monitoring

◆ 4KV surge protection, 6KV contact/8KV air protection

Hardware Specification:

Model	DR7028XGSM
Copper Ports	24-10/100/1000BASE-T RJ45 auto-MDI/MDI-X ports
Fiber Ports	4-10G SFP interfaces
PoE Ports	1~24-802.3af/802.3at PoE Injector Ports
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	94.23Mpps @64 bytes
Address Table	32K entries
Share Data Buffer	32Mb
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,
Power Consumption	Max. 400 watts/1122 BTU
PoE Standards	IEEE 802.3af Power over Ethernet/PSE IEEE 802.3at Power over Ethernet Plus/PSE
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 upgradePoE: Yellow Solid on- PoE work normally, Off- PoE doesn't work, Blink - PoE overload10/100/1000T RJ45 Interfaces (Port 1 to Port 48): 1000 LNK/ACT (Green) 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：4KV Per: IEC61000-4-5 ESD Protection：ESD Level 4 Per: IEC61000-4-2 EFT Level 4 Per: IEC61000-4-4
Dimension	440x290x44.5mm
Weight	4.5kg
Working Temperature	-10 ℃to 45℃
Storage Temperature	-20℃to 70 ℃
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 CPU Mirror Traffic statistics
Link Aggregation	Static link aggregation LACP Dynamic Trunk/Static Trunk） 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	512ACLs L2, L3 e L4 Time-based ACL IP ACL MAC ACL MAC-IP ACL User-Defined ACL ICMPv6
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 Fast Ring
Multicast	1024 groups IGMP v1/v2/v3 Snooping, Fast Leave MLD Snooping Multicast VLAN IGMP filter MVR Multicast Routing
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 SWRR, DWRR for Scheduling Flow Redirect Precedence TOS Rate Limiting Ingress/Egress〉Stri Priority
Security Features	Port Security MAC address filter ARP Association (Manual, ARP scanning, DHCP snooping) ARP Protection AAA DAI 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 Configuration Export/Import CDP Aware OAM (IEEE802.3ah) CFM (IEEE802.1ag) sFlow Telnet client
Synchronization, IEEE1588	Support IEEE1588v2 transparent clock

Other Features	DNS Client DHCP Relay DHCP Client DHCP Snooping DHCP Option 66 DHCP Option 67 DHCP Option 82 NTP/SNTP Client UPNP UDLD
PoE management	Total PoE power budget control

	Per port PoE function enable/disable PoE admin-mode control PoE port power feeding priority Per PoE port power limitation PD classification detection PD alive check PoE schedule Soft-reboot PoE Non-stop
Maintenance	Cable Diagnostics Ping SFP DDM (Digital Diagnostics Monitoring) Thermal protection System log (Local and Remote) Memory and CPU Monitoring Tracert/ tracert 6

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

Dimension:

Order Information:

Product Model: DR7028XGSM

Product Description: 24-Port 10/100/1000BASE-T 802.3at PoE +4-10G SFP, 1x console port. 24RJ45

ports support PoE power supply function, IEEE802.3af/at standard. Max Power per PoE Port: 30W;

Switch's total power: 370W.

Order note: 1. Default PoE power supply type is end-span, mid-span optional

        2. SFP module is not included, need to order it separately

Package lists	24-Port 10/100/1000BASE-T 802.3at +2-Port 10G SFP Managed PoE Switch (DR 7028XGSM)
	Power Cable
	Mounting Kits
	Warranty Card
	User Guide