

DIGISOL 100G Datacenter TOR Switch

DG-GS2928FSQ28



Key Features:-

- 16×10G SFP+, 8×25G SFP28, 4×100G QSFP28 slots
- Advanced Hardware Architecture
- Switching Capacity: 1.52 Tbps
- Rich Data-Center Features
- VSS (Virtual Switch System)
- Complete IPv6 Solution
- 1+1N Dual power supplies



Introduction:-

DIGISOL DG-GS2928FSQ28 is a data-center-class 10 Gigabit TOR Switch for high-performance, data centers and premium campus networks. To meet the resource-pool requirements of cloud-computing data-center networks, the DG-GS2928FSQ28 supports extensive virtualization capabilities such as VSS (Virtual Switching System) and other data-center-specific features.

Combined with continuous software upgrades, non-stop forwarding, graceful restart, redundancy protection and other high-availability technologies, the platform guarantees maximum network uptime., the DG-GS2928FSQ28 dramatically reduces power consumption and carbon emissions, cutting data-center operating costs and delivering an eco-friendly, sustainable networking solution.

Key Highlights:-

Advanced Hardware Architecture & Industry-Leading Performance

Powered by a high-performance ASIC fabric and multi-core CPU, the DG-GS2928FSQ28 delivers Switching Capacity up to 1.52 Tbps, meeting the high-performance, high-capacity, high-density and future-proof expansion demands of modern data centers. Standard front-to-back / back-to-front data-center airflow can be selected in the field to match any rack-cooling design.

Rich Data-Center Feature Set

VSS (Virtual Switch System)

VSS virtual-cluster technology turns up to several physical switches into one logical device, offering unmatched advantages in performance, reliability, flexibility and management.

- **Double Performance:** Every inter-switch link is active-no STP blocking-doubling fabric utilization and preserving existing cable investment.
- **Hitless Resiliency:** Distributed control & data planes with cross-device link-aggregation deliver non-stop L3 forwarding; no single point of failure.
- **Long-Reach Flexibility:** Cluster links can stretch up to 80 km, breaking traditional geographical limits.
- **One-IP Simplicity:** The entire cluster is managed through a single IP address; physical topology is invisible to admins, cutting OPEX.
- **Data-Center-Class High Availability**

Built on the HPS (Hitless Protection System) architecture with redundant, hot-swappable power modules and seamless failover.

STP/RSTP/MSTP, VRRP, ring protection, dual-uplink active/standby and LACP link-bundling provide fast, simple redundancy.

ISSU (In-Service Software Upgrade) allows software upgrades and master/backup switchover without packet loss.

Sub-50 ms BFD (Bidirectional Forwarding Detection) coupled with L2/L3 protocols delivers millisecond-level fault detection and recovery.

Comprehensive Ethernet OAM (IEEE 802.3ah) enables real-time monitoring, rapid fault location and meets the 50 ms restoration requirement for 99.999 % carrier-class availability.

Key Highlights:-

• Comprehensive Service Features

Full L2/L3 multicast (IGMP, PIM-SM/DM, MLD, MLD Snooping) for IPTV, HD video surveillance and conferencing. Rich L3 unicast routing (RIP, OSPF, ISIS, BGP, static) with ultra-large routing tables for hyperscale data-center, campus, enterprise and vertical networks.

• Complete IPv6 Solution

Full IPv6 protocol suite-ND, ICMPv6, PMTU-D, DHCPv6, IPv6 Ping/Traceroute/Telnet/SSH/ACL.

IPv6 multicast (MLD, MLD Snooping) and IPv3 routing (static, RIPng, OSPFv3, BGP4+) deliver end-to-end IPv2/L3 services.

• Robust Security Framework

Device-level: hardware-based hierarchical queuing & protection against DoS, SYN Flood, UDP Flood, broadcast storms and high-volume attacks; CLI privilege levels restrict management access.

Authentication: IEEE 802.1X, RADIUS, TACACS+.

Service security: routing-protocol authentication (plain-text or MD5), uRPF, deep packet inspection/filtering at wire speed to isolate illegal traffic and protect control-plane integrity.

• Innovative Green Design

Inherited "GreenTouch" philosophy for energy-saving operation.

Smart power management: high-efficiency conversion, in-rush current suppression, real-time monitoring and dynamic adjustment.

Intelligent fan system: auto speed control based on temperature, selectable airflow direction, lower noise and longer fan life.

Compliant with IEEE 802.3az Energy-Efficient Ethernet to cut power consumption and reduce carbon footprint.

Technical Specifications:-

Hardware Features:

Item	DG-GS2928FSQ28
Switching Capacity	1.52 Tbps
Packet Forwarding Rate	1,130.9 Mpps
Power-Supply Slots	2 (redundant, hot-swappable)
Fan Trays	4 (built-in, auto-speed, front-to-back or back-to-front airflow)
Data Ports	16×10G SFP+
	8×25G SFP28
	4×100G QSFP28
Chassis Dimensions	442 × 280 × 44 mm (1U)
Power Input	AC 100–240 V, 50 Hz ±10 %
Environmental Range	Operating: 0°C – 45°C, 10 %–90 % RH non-condensing
	Storage: –20 °C – 70 °C, 5 %–95 % RH non-condensing
Data-Center Features	VSS (Virtual Switch System) virtualization
MAC Switching	Static / dynamic MAC learning & display, configurable aging, MAC-limit per port, MAC filtering, black-hole MAC entries
VLAN	4KVLAN entries, GVRP, 1:1 & N:1 VLAN mapping, basic & flexible Q-in-Q, Private VLAN
STP	802.1D STP, 802.1W RSTP, 802.1S MSTP; BPDU-guard, root-guard, loop-guard
Multicast	IGMP v1/v2/v3, IGMP Snooping, fast-leave, multicast policy & group limit, Cross-VLAN multicast replication, PIM-SM / PIM-DM
IPv4 Unicast	Static, RIPv1/v2, OSPF, BGP, IS-IS, EIGRP; policy-based routing, ECMP load-balancing, BFD for OSPF / BGP
IPv6	ICMPv6, DHCPv6, ACLv6, IPv6 Telnet; ND, PMTU-D; MLD v1/v2, MLD Snooping; static, RIPng, OSPFv3, BGP4+

Technical Specifications:-

Software Features:

Item	DG-GS2928FSQ28
QoS	L2/L3/L4 field-based classification, CAR rate-limit, 802.1P / DSCP re-marking, SP / WRR / SP+WRR scheduling, Tail-Drop / WRED congestion avoidance, traffic policing & shaping, ingress / egress ACL (L2–L4 & 5-tuple), hash-based symmetric load-balancing for session consistency
Security	L2/L3/L4 ACL, anti-DDoS, SYN-Flood, UDP-Flood protection; broadcast / multicast / unknown-unicast suppression, port-isolation, IP+MAC+port binding, DHCP-Snooping & Option-82, 802.1X, RADIUS / TACACS+, uRPF, CLI privilege levels
Reliability	Optional 1+1 redundant hot-swap power, static / LACP link aggregation (cross-card), EAPS / ERPS ring protection, VRRP, GR for OSPF / BGP, BFD for OSPF / BGP
Management	Console, Telnet, SSH v2, Zero-Touch Provisioning (ZTP), Web GUI, SNMP v1/v2/v3, TFTP file transfer, RMON event history
Green Energy	IEEE 802.3az Energy-Efficient Ethernet

Rear View



Ordering Information:-

DG-GS2928FSQ28 : DIGISOL 100G data center switch with 16-port 10 GbE SFP+ + 8-port 25 GbE SFP28 + 4-port 100 GbE QSFP28 routing switch, 2 powerslots, shipped with 2× AC 220V

*Warranty shall be subject to terms and conditions specified in the DIGISOL PRODUCT WARRANTY displayed on the website of the company.

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