



# DIGISOL®

## SWITCHING SOLUTIONS

### DIGISOL L3 10G Fiber Routing Switch

## DG-GS4652FSE2



#### Key Features:-

- Performance and Scalability
- VSF (Virtual Switching Framework)
- Rich L3 Features
- Strong Multicast
- High Reliability network
- Comprehensive QoS
- Abundant IPv6 Support



#### Introduction:-

**DIGISOL** DG-GS4652FSE2 switch is a full fibre, stackable, routing switch with fixed, built-in 10GbE SFP+ ports. This fully managed switch provides high availability, scalability, security, energy efficiency and easy operation with rich L3 features. It is ideal for aggregation or access layer for campuses, enterprises, government offices and service provider networks.

#### Performance and Scalability

With high switching capacity, DG-GS4652FSE2 supports wire-speed L2/L3 forwarding and high routing performance for IPv4 and IPv6 protocols.

#### VSF (Virtual Switch Framework)

Virtual Switch Framework can virtualize multiple Digisol DG-GS4600 series switches into one logical device, achieving the sharing of information and data tables between them. The performance and ports density of the virtualized device is greatly enlarged by times under VSF. VSF also simplifies management work for the network administrator and provides more reliability.

#### Rich L3 Features

DG-GS4652FSE2 delivers high-performance, hardware-based IP routing. RIP, OSPF, and BGP provide dynamic routing by exchanging routing information with other Layer 3 switches and routers. Customers could easily achieve Policy-based Route (PBR), which is important when they need a multi exit application on DG-GS4652FSE2.

#### Strong Multicast

DG-GS4652FSE2 supports abundant multicast features. In Layer 2, such as IGMPv1/v2/v3 snooping and fast leave, L3 multicast protocols such as IGMPv1/v2/v3. It supports Multicast VLAN Register (MVR), multicast receiver/sender control and illegal multicast source detect functions.

#### High-Reliability network

The switch supports MRPP - Multi layer Ring Protection Protocol. Comparing to spanning tree protocol, it has the advantages of fast convergence, simple protocol calculation, fewer system resources cost which can improve the reliability of Ethernet network operation.

#### Comprehensive QoS

With 8 queues per port, DG-GS4652FSE2 enables differentiated management of up to 8 traffic types. The 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. The switch also supports Bi-directional rate-limiting, per port or traffic class preserves network bandwidth, and allows full control of network resources.

#### Abundant IPv6 Support

The switch supports IPv6 switching and routing based on hardware for maximum performance. With increased network devices growing the need for larger addressing and higher security become critical, DG-GS4652FSE2 will be the right product to meet this requirement.



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### DIGISOL L3 10G Fiber Routing Switch

#### Technical Specifications:-

Item	DG-GS4652FSE2
Physical Port	48 x 100/1000Base X (SFP) + 4 x 10GbE (SFP+) Auto MIDX
Management port	1 x RJ45 Ethernet Management port
	1x Console port
	1x USB2.0 interface
<b>Performance</b>	
Switching Capacity	176Gbps
Forwarding rate	131Mpps
Jumbo Frame	10K
MAC Address	16K
ARP Table	4K
Routing Table	1K
ACL Table	1K
Physical Dimension (W*H*D)	440mm*44mm*320mm
Relative Humidity	10%~90% non-condensing, storage 95%
Temperature Working	0°C~50°C, storage -40°C~70°C
Power Supply	AC:100~240VAC, 50~60Hz + 48V DC
Power Consumption	<60W
<b>Main Features</b>	
L1, L2 Features	IEEE802.3(10Base-T), IEEE802.3u(100Base-TX), IEEE802.3z(1000BASE-X),
	IEEE802.3ab(1000Base-T), IEEE802.3ae(10GBase),
	IEEE802.3x, IEEE802.3ak(10GBASE-CX4)
	IEEE802.1d(STP)
	IEEE802.1w(RSTP)
	IEEE802.1s(MSTP)
	Root Guard
	BPDU Guard
	BPDU Tunnel
	Port loopback detection LLDP and LLDP-MED UDLD
	802.3ad LACP, max 128 group trunks with max 8 ports for each trunk LACP load balance
	ERPS (G.8032)
	N:1 Port Mirroring RSPAN
	IEEE802.1d(STP) IEEE802.1w(RSTP) IEEE802.1s(MSTP)
	Root Guard BPDU Guard BPDU Tunnel
	802.1Q, 4K VLAN
	MAC VLAN, Voice VLAN, PVLAN, Protocol VLAN, Multicast VLAN QinQ, Flexible QinQ
	GVRP
	N:1 VLAN Translation



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	Broadcast / Multicast / Unicast Storm Control
	IGMP v1/v2/v3 Snooping and L2 Query ND Snooping
	MLDv1/v2 Snooping
	Port Security
	Flow Control: HOL, IEEE802.3x
	Bandwidth Control
<b>L3 Features</b>	Static Routing, RIPv1/v2, OSPFv2, BGP4 OSPFv3, BGP4+
	OSPF multiple processes LPM Routing
	Policy-based routing (PBR) for IPv4 and IPv6 VRRP
	URPF, ECMP BFD
	IGMP v1/v2/v3, IGMP Proxy, Static Multicast Route Multicast Receive Control
	Illegal Multicast Source Detect
	ARP Guard, Local ARP proxy, Proxy ARP, ARP Binding, Gratuitous ARP, ARP Limit
	Anti ARP Cheat, Anti ARP Scan
	DNS Client, DNS Relay
	GRE Tunnel
	6to4 Tunnel, Configured Tunnel, ISATAP Tunnel, GRE Tunnel ICMPv6, ND, DNSv6
	IPv6 LPM Routing, IPv6 Policy-based Routing (PBR) IPv6 VRRPv3, IPv6 URPF, IPv6 RA
RIPng, OSPFv3, BGP4+	
<b>IPv6</b>	MLD Snooping, IPv6 Multicast VLAN
	MLDv1/v2, IPv6 Anycast RP, IPv6 ACL, IPv6 QoS
<b>QoS</b>	8 Queues
	SP, WDRR, SWDRR
	Traffic Classification Based on 802.1p COS, ToS, DiffServ DSCP, ACL, port number Traffic Policing
	PRI Mark/Remark
<b>ACL</b>	IP ACL, MAC ACL, IP-MAC ACL
	Standard and Expanded ACL Based on source/destination IP or MAC, IP Protocol, TCP/UDP port, DSCP, ToS, IP Precedence), VLAN, Tag/Untag, CoS
	Redirect and statistics
	Rules can be configured to port, VLAN, VLAN routing interfaces Time Ranged ACL
	ACL rules can be configured to port, VLAN
<b>Security</b>	802.1x AAA
	Port, MAC-based authentication Accounting based on time length and traffic Guest VLAN and auto VLAN
	RADIUS for IPv4 and IPv6
	TACACS+ for IPv4 and IPv6
	MAB



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DHCPv4/v6 Traffic Monitor	DHCP Server/Client for IPv4/IPv6 DHCP Relay/Option 82
	DHCP Snooping/Option 82
Traffic Monitor	sFlow Traffic Analysis
	CLI, WEB, Telnet, SNMPv1/v2c/v3 through IPv4 and IPv6 Syslog and external Syslog Server
	HTTP SSL
	SNMP MIB, SNMP TRAP FTP/TFTP
	SNTP/NTP RMOM 1,2,3,9
Security Network Management	Authentication by Radius/TACACS SSH v1/v2
	Dual firmware images/ Configuration files 802.3ah OAM, 802.1ag OAM
Data Center Features	VSF (Virtual Switch Framework)

#### Ordering Information:-

**DG-GS4652FSE2: 10G Ethernet Routing Switch, 48 x 100/1000Base-X (SFP) + 4 x 10GbE (SFP+), AC + 48VDC power supply**

\*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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