



## Key features

10 Gigabit RJ45 Copper ports plus 4 100 / 1000 Based SFP(SX/LX/LHX) ports

Support 9K Jumbo frames

Layer 2 wired-Speed switching engine

Layer 4 ACL (Access Control List), QCL (QoS Control List), Port Control

Network redundancy LACP, Spanning Tree Protocol, STP, RSTP, MSTP

I.A. Ring, I.A.Chain (Network Load Balancing), 250pcs@20ms

Ring Coupling, Multiple Ring, Dual Homing

Port-based, Tag-based, Protocol-based VLAN, IEEE 802.1ad / QinQ, MVR

Multicasting support IGMP v1/v2, proxy & snooping, MLD snooping

IEEE 802.1X Port-based access control / RADIUS / TACACS+ Server

VeriPHY Cable Diagnostics, Per VLAN mirroring

Redundant Power Input (12-58 VDC) & Reverse power protection

SNMP v1/v2c/v3, Trap / Inform, RMON

Din-Rail and Wall Mount Installation

Port Power Saving

Loop Protection

-40~75°C operating temperature

2KV surge immunity on RJ45 Copper port

Rugged Fanless Design

## IS-DG514-DR Series

### 14-port Gigabit Din-Rail Managed Layer 2/4 Industrial Ethernet Switch

The IS-DG514-DR Series are full Gigabit Ethernet Switches with 14 Gigabit Ethernet ports, perfect for upgrading an existing network to a full Gigabit speed Infrastructure; a full Gigabit network provides higher throughput than legacy Fast Ethernet network. The IS-DG514-DR Series reduces the response time for timing sensitive applications which may combine all video, voice, and data streams in the traffic flow. With the powerful S/W and H/W features, the IS-DG514-DR Series prioritize, partition and optimize user's network while provide reliable and quality services. The IS-DG514-DR Series switches are suitable for all kinds of Industrial applications.



# Technical specifications

Ethernet	
<b>Operating Mode</b>	Store and Forward, L2 wire-speed/non-blocking switching engine
<b>MAC addresses</b>	8K
<b>Packet Buffer</b>	4 Mbits
<b>Jumbo frame</b>	9K
RJ45 copper ports	
<b>Speed</b>	10/100/1000 Mbps
<b>MDI/MDIX Auto-crossover</b>	Support straight or cross wired cables
<b>Auto-negotiation/Duplex</b>	10/100/1000 Mbps speed auto-negotiation; Full & Half Duplex
<b>Ethernet Port Protection</b>	1.5KV VRMS 1minute(Hipot), 2KV surge immunity on RJ45 Copper ports
Fiber Ports	
<b>Port Types supported</b>	100/1000 Base SFP Slot
<b>Fiber port connector</b>	LC/RJ45 connector for fiber ports
<b>Optimal fiber cable</b>	Typical 50 or 62.5/125 $\mu$ m for multimode (mm) Typical 8 or 9/125 $\mu$ m for single mode (sm)
Network Redundancy	
<b>I.A.Ring / I.A. Chain</b>	Link Loss Recovery < 20ms@250pcs
<b>Network Topology Optimize Functions</b>	Ring Coupling, Multiple-Ring, Dual-Homing
<b>Spanning Tree Protocol</b>	IEEE 802.1D/1w/1s, STP/RSTP/MSTP
<b>Port Trunk / LACP</b>	Static Trunk or LACP (Link Aggregation Control Protocol)
Bridge, VLANs, Protocols	
<b>Flow Control</b>	IEEE 802.3x (Full Duplex) and Back-Pressure (Half Duplex)
<b>Max VLANs</b>	256
<b>VLAN Types</b>	Port-Based VLAN, Private VLAN, MAC-Based VLAN IEEE 802.1Q tag-based VLAN, IP Subnet-Based VLAN, Voice VLAN IEEE 802.1ad Double Tagging (QinQ), Protocol-Based VLAN, VCL
<b>Multicast protocols</b>	IGMP v1, v2, V3, up to 255 multicast groups IGMP snooping, querying, MLD Snooping, GVRP Immediate leave and leave proxy, Throttling and filtering
<b>LLDP</b>	IEEE 802.1ab LLDP / LLDP-MED
Traffic management & QoS	
<b>Priority</b>	IEEE 802.1p QoS, Ingress / Egress, QCL
<b>Number of queues per port</b>	8
<b>Scheduling schemes</b>	SPQ, WRR, SPQ+WRR
<b>Traffic Shaper</b>	Port-based shaping
Security	
<b>Port Security</b>	IP and MAC-based Access Control/Filter, Auth User / Privilege Level Control IEEE 802.1X Authentication Network Access Control / RADIUS / TACACS+ Server
<b>Storm Control</b>	Multicast / Broadcast / Flooding Storm Control / Port Access Control / Limiters

# Technical specifications

Management	
<b>User Management Interfaces</b>	Cisco-Like CLI (Command Line Interface)
	Web-based Management, Windows Utility for quick startup
	SNMP V1, V2c, V3 USM, RMON, Trap / Inform / Retry, Telnet (5 sessions)
<b>Management Security</b>	HTTPS, SSH, Access Management, Loop Protection
	RADIUS Client for Management
<b>Upgrade &amp; Restore</b>	TFTP for Configuration Import / Export
	TFTP for Firmware Upgrade
<b>Diagnostic</b>	Syslog, Level Info / Warning / Error, Detailed Syslog
	Port Mirror, Per VLAN mirroring, CPU Load Monitor, Traffic Counter
	VeriPHY Ethernet Cable Diagnostics, ICMP Ping
<b>MIBs</b>	RFC 1757RMON 1, 2, 3, 9; RFC 2674 Q-Bridge MIB
	RFC 1213 MIB II; RFC 1493 Bridge MIB; RFC 2233 IF MIB
<b>DHCP</b>	Client Mode, Server Mode, Relay Mode, Snooping, Option 82
<b>NTP/SNTP</b>	YES
<b>System Status</b>	Device info/status; Ethernet port status
<b>Green Ethernet</b>	Port Power Savings
<b>Layer 4 Security</b>	Access Control List

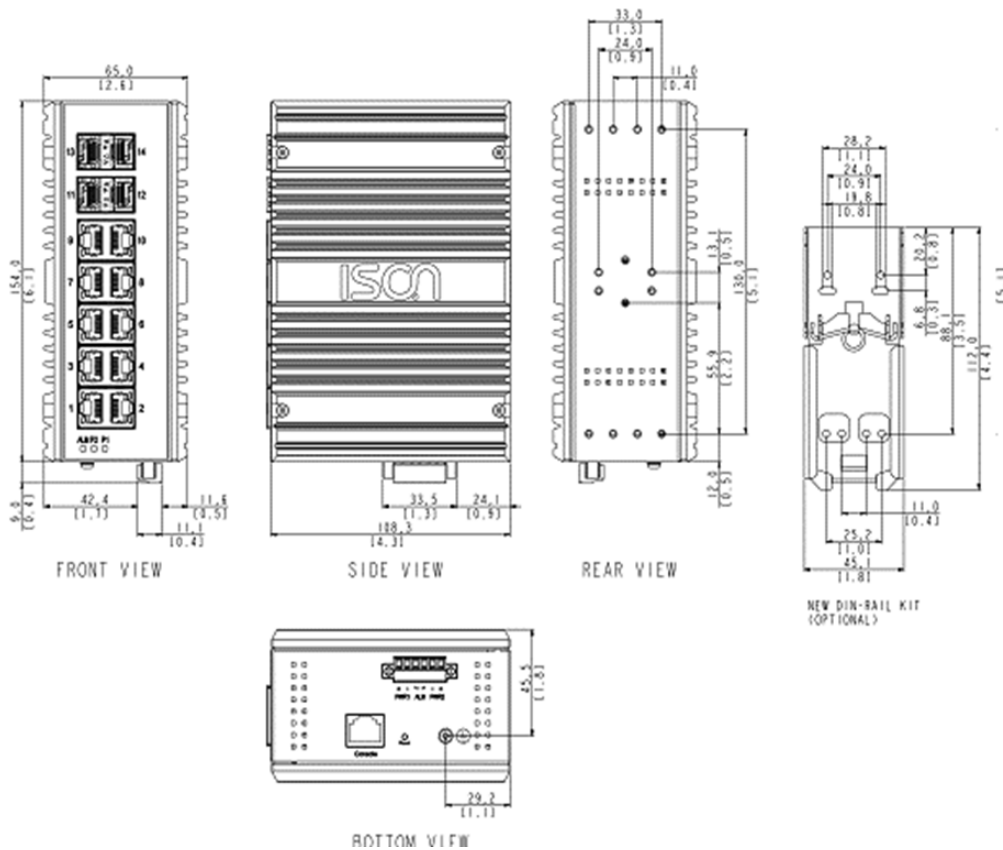
Power	
<b>Power Input</b>	Redundant Power Input, Removable Terminal Block
<b>Input Voltage Range</b>	12-58 VDC
<b>Reverse power protection</b>	YES
<b>Transient protection</b>	> 15, 000 Watts peak
<b>Power Consumption</b>	17 Watt

Indicators	
<b>Power status indication</b>	Power Input status
<b>Ethernet port indication</b>	Link & speed

Environmental & Compliances	
<b>Operating Temperature</b>	-40~75°C (Cold startup at -40°C)
<b>Storage Temperature</b>	-40~85°C
<b>Humidity</b>	5~95% (Non-Condensing)
<b>Vibration, shock, free fall</b>	IEC-60068-6, -27, -32
<b>Certification Compliance</b>	CE, FCC,DNV, IACS E10, IEC 60945
<b>Electrical safety</b>	CE
<b>EMC</b>	FCC Part 15, CISPR 22 (EN55022) Class A IEC-61000-4-2, -3, -4, -5, -6 (Level 3)
<b>RoHS &amp; WEEE</b>	RoHS (Pb free) and WEEE Compliant
<b>MTBF</b>	>25 years

Mechanical	
<b>Protection</b>	IP30
<b>Dimension</b>	154mm x 65mm x 108mm(Lx-WxD)
<b>Weight</b>	1.2 kg
<b>Installation</b>	Din-Rail Mount, Wall mount
<b>Relay Output</b>	1A, 24V, Normal Open

# Dimension Diagram



# Ordering information

Available Models	Description	10/100/1000Mb TX	100/1000Mb FX
<b>IS-DG514-4F-DR</b>	Industrial 14 port Gigabit Layer 2/4 Managed Ethernet Switch, -40~75°C	10	4

# Accessories

1. 100 Mb SFP Modules
2. Gigabit SFP Modules