

IS-DG512 Series

Managed 12 Giga ports Layer 2 / 4 Industrial Ethernet Switch



ISON IS-DG512 series are full Gigabit Ethernet Switches that providing 12 Gigabit Ethernet ports to upgrade the existing network to a full Gigabit speed Infrastructure. A full Gigabit network provides higher throughput than legacy Fast Ethernet network. Besides, it reduces the response time for timing sensitive applications which may mix of video, voice, and data stream in the traffic flow. With the powerful S/W, H/W features, IS-DG512 series managed switches are easily to prioritize, partition and optimize user' s network and provide reliable and good quality services. Especially suitable for all kind of Industrial applications.



Key Features

- > 8 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
- > VertiPHY Cable Diagnostics, Per VLAN mirroring
- > Redundant Power Input (12~58 VDC) & Reverse power protection
- > SNMP v1/v2c/v3, Trap / Inform
- > Din-Rail and Wall Mount Installation
- > Port Power Saving
- > Loop Protection
- > IP 30 Protection
- > 2KV surge immunity on RJ45 Copper port
- > 1.5KV Hipot
- > Rugged Fanless Design

Specifications

Ethernet

Operating Mode	Store and Forward, L2 wire-speed/non-blocking switching engine
MAC addresses	8K
Jumbo frames	9K Bytes
Packet Buffer	4Mbits

Copper RJ45 Ports

Speed	10/100/1000 Mbps Support straight or cross wired cables
MDI/MDIX Auto-crossover	10/100/1000 Mbps speed auto-negotiation; Full & Half Duplex
Ethernet isolation	1500 VRMS 1minute(Hipot), 2KV surge immunity on RJ45 Copper ports

SFP (pluggable) Ports

Port Types supported	100/1000 Base SFP Slot
Filter port connector	LC/RJ45 connector for fiber ports
Optimal fiber cable	Typical 50 or 62.5/125 µm for multimode (mm) Typical 8 or 9/125 µm for single mode (sm)

Network Redundancy

I.A.Ring / I.A. Chain	Link Loss Recovery < 20ms@250pcs
Network Topology Optimize Functions	Ring Couping, Multiple-Ring, Dual-Homing
Spanning Tree Protocol	IEEE 802.1D/1w/1s, STP/RSTP/MSTP
Port Trunk with LACP	Static Trunk or LACP (Link Aggregation Control Protocol)

Bridge, VLANs & Protocols

Flow Control	IEEE 802.3x (Full Duplex) and Back-Pressure (Half Duplex)
Max VLANs	256
VLAN Types	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
Multicast protocols	IGMP v1, v2, up to 255 multicast groups IGMP snooping, querying, MLD Snooping, GVRP Immediate leave and leave proxy
	Throttling and filtering
LLDP	IEEE 802.1ab LLDP / LLDP-MED

Traffic management & QoS

Priority	IEEE 802.1p QoS, Ingress / Egress, QCL
Number of queues per port	8
Scheduling schemes	SPQ, WRR
Traffic Shaper	Port-based shaping

Security

Port Security	IP and MAC-based Access Control/Filter, Auth User / Privilege Level Control
Storm Control	IEEE 802.1X Authentication Network Access Control / RADIUS / TACACS+ Server Multicast / Broadcast / Flooding Storm Control / Port Access Control / Limiters

Management

User Management Interfaces	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)
Management Security	HTTPs, SSH, Access Management, Loop Protection RADIUS Client for Management
Upgrade & Restore	TFTP/FTP for Configuration Import / Export TFTP/FTP for Firmware Upgrade
Diagnostic	Syslog, Level Info / Warning / Error, Detailed Syslog Port Mirror, Per VLAN mirroring, CPU Load Monitor, Traffic Counter VertiPHY Ethernet Cable Diagnostics, ICMP Ping
MIBs	RFC 1757RMON 1, 2, 3, 9; RFC 2674 Q-Bridge MIB RFC 1213 MIB II; RFC 1493 Bridge MIB; RFC 2233 IF MIB
DHCP	Client Mode, Server Mode, Relay Mode, Snooping, Option 82
NTP/SNTP	YES
System Status	Device info/status; Ethernet port status
Green Ethernet	Port Power Savings
Layer 4 Security	Access Control List

Power

Power Input	Redundant Power Input, Removable Terminal Block
Input Voltage Range	12-58 VDC
Reserve Power protection	YES
Transient protection	> 15, 000 Watts peak
Power Consumption	15 Watt

Indicator

Power Status Indication
Ethernet port Indication

Indication for power input status
Link & speed

Environment & Compliances

Operation Temperature
Storage Temperature
Humidity (Non-condensing)
Vibration, shock, freefall
Certification compliance
Electrical safety
EMC

-40~75°C (Cold startup at -40°C)
-40~85°C
5~95% RH
IEC-60068-2-6, -27, -32
CE, FCC
CE
FCC Part 15, CISPR 22 (EN55022) Class A
IEC61000-4-2, -3, -4, -5, -6 (Level 3)
RoHS (Pb free) and WEEE compliant
> 25 years

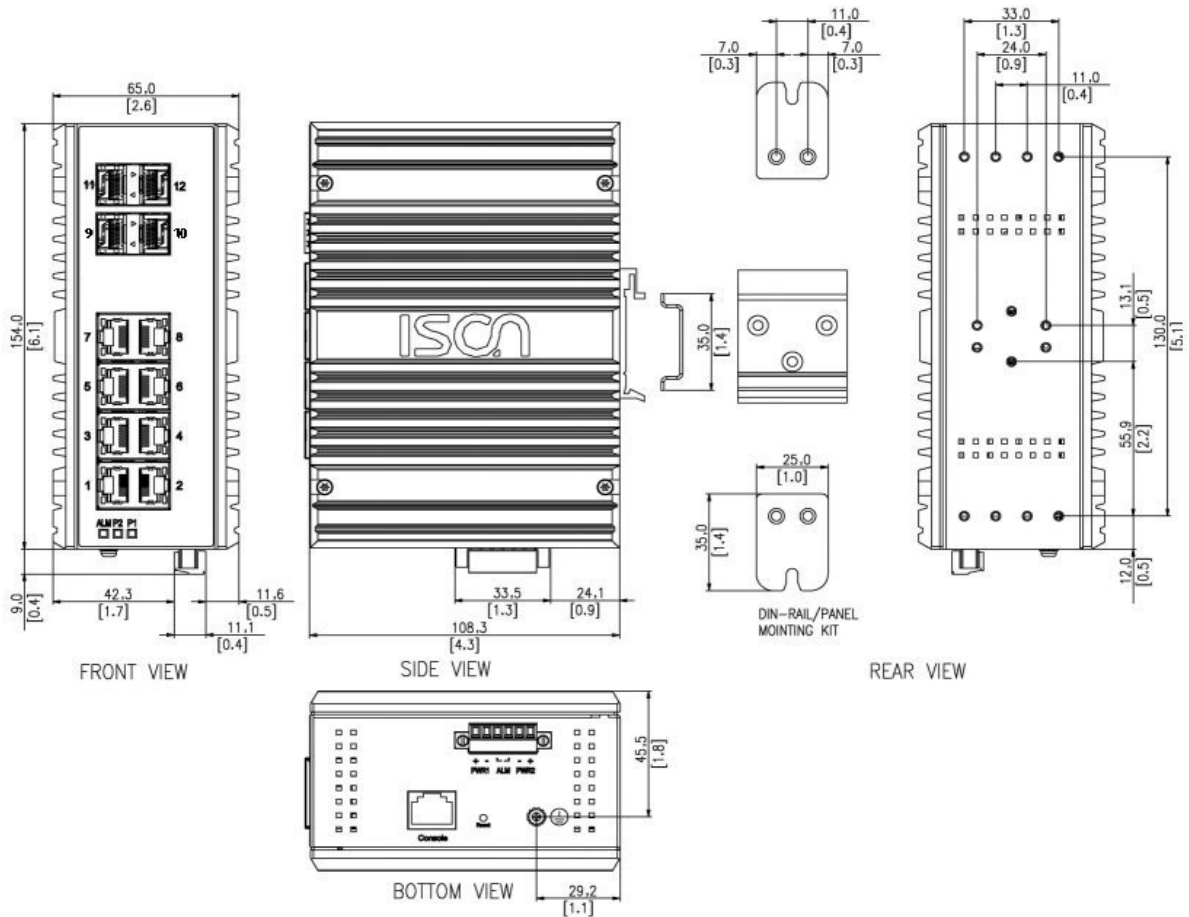
RoHS & WEEE
MTBF

Mechanical

Protection
Installation
Relay Output
Weight

IP30
Din-Rail Mount, Wall Mount
1A, 24V, Normal Open
1.2 kg

Dimension Diagram



Ordering information

Available Models	Description	Gigabit Ethernet Port	
		10/100/1000BaseT(X)	100/1000BaseSFP
IS-DG512-4F	Industrial 12 port Gigabit Layer 2/4 Managed Ethernet Switch	8	4

Accessories

- SFP Modules