

# IS-RG520 Series

## 20-port Gigabit 19" Managed Layer 2/4 Industrial Ethernet Switch



The IS-RG520 Series are full Gigabit Ethernet Switches with 20 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-RG520 Series reduces the response time for timing sensitive applications which may be mix of video, voice, and data stream in the traffic flow. With the powerful S/W and H/W features, the IS-RG520 Series prioritize, partition and optimize user's network while provide reliable and quality services. The IS-RG520 Series switches are suitable for access level network connection.



### Key features

- ▶ 16 Gigabit RJ45 Copper ports plus 4 100 / 1000 Based SFP (SX/LX/LHX) ports
- ▶ Support 9K Jumbo frames
- ▶ 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/v3, proxy & snooping
- ▶ IEEE 802.1X Port-based access control / RADIUS Server
- ▶ Per VLAN mirroring
- ▶ Redundant Power Input 12~58 VDC or 100/240 VAC, 50Hz ~ 60Hz
- ▶ Reverse power protection
- ▶ SNMP v1/v2c/v3, Trap / Inform, RMON
- ▶ Port Power Saving
- ▶ -40~75°C operating temperature
- ▶ IP 30 Protection
- ▶ 1.5KVHipot, 2KV surge immunity on RJ45 Copper port
- ▶ Rugged Fan-less design

### Specification

#### Ethernet

Operating Mode	Store and Forward, L2 wire-speed/non-blocking switching engine
MAC addresses	16K
Packet Buffer	8 Mbits
Jumbo frame	9K

#### RJ45 Copper ports

Speed	10/100/1000 Mbps
MDI/MDIX Auto-crossover	Support straight or cross wired cables
Auto-negotiation/Duplex	10/100/1000 Mbps speed auto-negotiation; Full & Half Duplex
Ethernet Port Protection	1.5KV VRMS 1minute(Hipot), 2KV surge immunity on RJ45 Copper ports

#### Fiber Ports

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

#### Network Redundancy

I.A. Ring / I.A. Chain	Link Loss Recovery < 20ms@250pcs
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Network Topology Optimize Functions	Ring Coupling, Multiple-Ring, Dual-Homing
Spanning Tree Protocol	IEEE 802.1D/1w/1s, STP/RSTP/MSTP
Port Trunk / 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	2048
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
Multicast protocols	IGMP v1, v2, V3, up to 512 multicast groups
	IGMP snooping, querying, MVR, 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, SPQ+WRR
Traffic Shaper	Port-based shaping

### Security

Port Security	IP and MAC-based Access Control/Filter, Auth User / Privilege Level Control
	IEEE 802.1X Authentication Network Access Control / RADIUS Server
Storm Control	Multicast / Broadcast / Flooding Storm Control / Port Access Control / Bandwidth 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
Upgrade & Restore	TFTP for Configuration Import / Export
	TFTP for Firmware Upgrade
Diagnostic	Syslog, Level Info / Warning / Error, Detailed Syslog
	Port Mirror, Per VLAN mirroring, CPU Load Monitor, Traffic Counter
	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
NTP/SNTP	YES
System Status	Device info/status; Ethernet port status
Green Ethernet	Port Power Savings
Layer 4 Security	Policy / Profile-based Access Control List

### Power

Power Input	Redundant Power Input, AC/DC Input, IEC Connector / Terminal Block
Input Voltage Range	12-58 VDC or 100/240 VAC, 50Hz~60Hz
Reverse power protection	YES
Transient protection	> 15, 000 Watts peak
Power Consumption	23 Watt

### Indicators

Power status indication	Power Input status
Ethernet port indication	Link & speed

### Environmental and Compliances

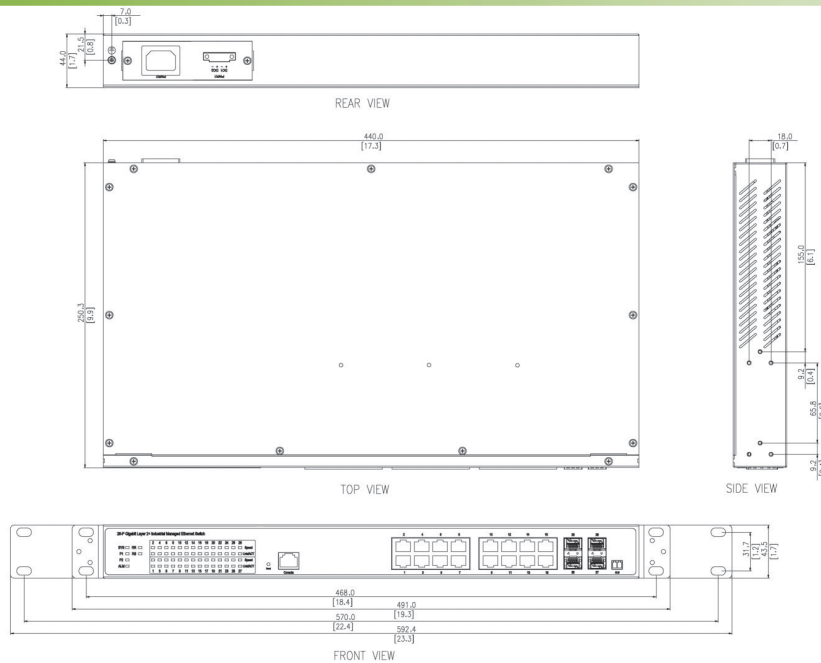
Operating Temperature	-40~75°C (Cold startup at -40°C)
Storage Temperature	-40~85°C
Humidity	5~95% (Non-Condensing)

Vibration, shock, free fall	IEC-60068-6, -27, -32
Certification Compliance	CE, FCC
Electrical safety	CE
EMC	FCC Part 15, CISPR 22 (EN55022) Class A IEC-61000-4-2, -3, -4, -5, -6 (Level 3)
RoHS & WEEE	RoHS (Pb free) and WEEE Compliant
MTBF	>220,000 HRs

## Mechanical

Protection	IP30
Dimension	570mm x 43.5mm x 250mm(LxWxD)
Weight	3.0 kg
Installation	19" Rack mount
Relay Output	1A, 30V, Normal Open

## Dimension Diagram



## Ordering Information

Available Models	Description	10/100/1000Mb TX	100/1000Mb FX
IS-RG520-4F-2A	Industrial 20 port Gigabit Layer 2/4 Managed Switch, Dual AC, -40~75°C	16	4
IS-RG520-4F-A	Industrial 20 port Gigabit Layer 2/4 Managed Switch, Single AC, -40~75°C	16	4
IS-RG520-4F-D	Industrial 20 port Gigabit Layer 2/4 Managed Switch, Dual DC, -40~75°C	16	4

## Accessories

- 100 Mb SFP Modules
- Gigabit SFP Modules