DATA SHEET

L2+ Industrial 8-Port 10/100/1000T + 4-Port 100/1000X SFP Managed Ethernet Switch

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Features

- 8-Port 10/100/1000T + 4-Port 100/1000X SFP
- Compatible with mainstream industrial automation protocols, Modbus TCP, Ethernet/IP, Profinet RT, EthernetCat, etc.
- Using high-performance chips and the latest industrial design
- DIN35 rail mounting (install inside control cabinet or directly on automation equipment)
- Supports the ERPS ring network protocol
- Supports IPv4/IPv6 static routing, broadcast storm suppression, port mirroring, port priority QoS settings, and port aggregation functions.
- Fanless design, efficient wave-shaped aluminum alloy shell heat dissipation surface.
- Supports redundant DC 48-57V wide voltage and reverse polarity protection
- Wide temperature operation from -40℃ to 80℃



Overview

The 20127690 is an all-in-one industrial Ethernet switch with optical-electrical convergence function, independently developed by our company. This product is mainly designed for point-to-point networks, star networks, tree networks, chain networks and ring networks in the industrial field. It features 8 gigabit Ethernet adaptive electrical ports and 4 100/1000Base-X SFP optical ports.

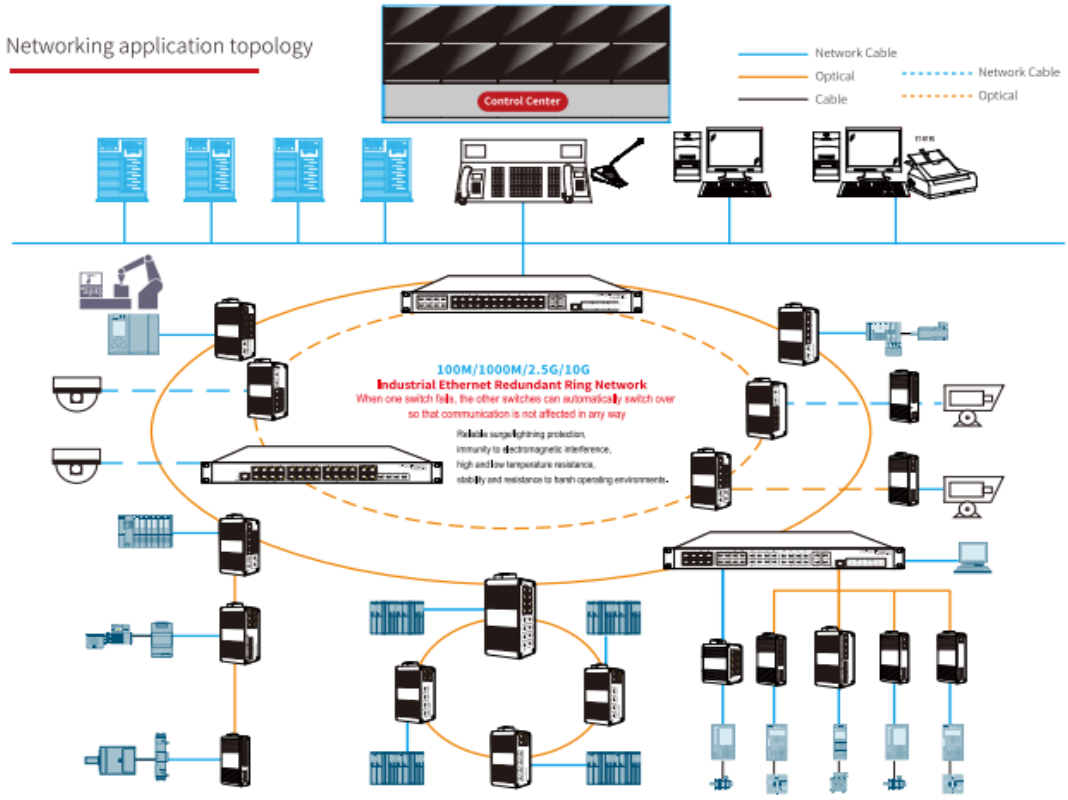
The equipment is equipped with a high-performance switching engine and supports redundant self-healing ring network function. The ring network fault recovery time is less than 20ms, and it can form various ring network topologies such as single ring, intersecting ring, and intersecting ring. At the same time, it integrates practical functions such as broadcast storm suppression, port mirroring, QoS port priority, and port aggregation.

The product adopts an IP40 protection level enclosure and a fanless design. It achieves efficient heat dissipation through the wave-shaped aluminum alloy shell. The power port has overcurrent, overvoltage and EMC protection capabilities, and the RJ45 network port also has excellent electromagnetic compatibility performance, which can adapt to various harsh industrial environments for a long time and provide a stable and reliable solution for industrial Ethernet equipment networking.

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Application



Specifications

Hardware Features		
Model Number		20127690
Interface	Down Link	8*10/100/1000BASE-T
	Up Link	4*100/1000BASE-X SFP
	CONSOLE	x 1, RS232
	Reset button	x1 (Short press to reset; long press to restore factory defaults)
	DI/DO	x 1 Relay output, pure resistive load：5A@30VDC；8A@250VAC
Hardware framework	CPU framework	MIPS-34Kc, 800MHz
	Internal storage	128MB
	Flash	32MB
	RTC	Support
Switch Attributes	Packet Forwarding Rate	17.856Mpps
	Switching Capacity	24Gbps
	Jumbo Frame	10KB

	MAC Address Table	8K
	Packet buffer	4.1M bits
	VLAN quantity	4K
LED	Power indicator light	Green: Power on Number: 2
	Alarm output indicator light	Yellow: Alarm Number: 1
	System indicator light	Green: SYS Number: 1
	Downlink port light	Green: Port Link/ACT Number: 1 per port,
	Uplink port light	Green: Port Link/ACT Number: 1 per port
Power Supply	Power Input	Dual Power Input Voltage Range: 48V - 57VDC
	Power Consumption	12W Max
	Power Protection	Supports overcurrent, overvoltage, and reverse polarity protection
MTBF	Machine	300K Hr Telcordia Issue-2, Bel- SR332
Physical properties	Material	Aluminum
	Dimensions (width x depth x height)	150 x 138 x 53mm
	Weight (kg)	0.75Kg
	Installation method	DIN-Rail
Working environment	Noise	None
	Working temperature	-40°C to 80°C, at an altitude of 1800 to 5000m: For every 220m increase in altitude, the maximum temperature specification decreases by 1°C.
	Working humidity	10% ~ 90% RH
	Storage temperature	-40~85℃
	Storage humidity	5% ~ 95% RH
	Working altitude	-500 to 5000m (for every 220m increase in altitude, the maximum temperature specification decreases by 1°C)
	IP Rating	IP40
	Shock resistance	Calculated based on an 8-degree intensity
	Vibration	4.9 Newtons per square meter (50 Hz to 200 Hz)
Certification	Environmental protection requirements	RoHS
	EMC certification	CE/FCC，IEC61850-3
	EMI standard	FCC CFR47 Part 15, EN55022/CISPR22, Class A

	EMS standard	IEC 61000-4-2 ESD: Contact: 8 kV; Air: 15 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 10 V/m IEC 61000-4-4 EFT: Power: 4 kV; Signal: 4 kV IEC 61000-4-5 Surge: Power(CM/DM): 4 kV; Signal: 6 kV(DM) IEC 61000-4-6 CS: 10 V IEC 61000-4-8 PFMF
Standard	Ethernet standard	IEEE 802.3 for 10BaseT IEEE 802.3u for 100BaseT(X) and 100BaseFX IEEE 802.3ab for 1000BaseT(X) IEEE 802.3z for 1000BaseSX/LX/LHX/ZX IEEE 802.3x for flow control IEEE 802.1D-2004 for Spanning Tree Protocol IEEE 802.1w for Rapid Spanning Tree Protocol IEEE 802.1s for Multiple Spanning Tree Protocol IEEE 802.1p for Class of Service IEEE 802.1Q for VLAN Tagging IEEE 802.1X for authentication IEEE 802.3ad for Port Trunk with LACP

Software Functions

Software Functions	
L2 Switching	• Flow Control - 802.3x (Full Duplex) - Back-Pressure (Half Duplex)
	• Ring Network Protocol - IEEE 802.1D (STP) - IEEE 802.1w (RSTP) - IEEE 802.1S (MSTP) - ERPS
	• Link Aggregation - IEEE 802.3ad LACP - Static Trunk - Max 16 Group - Each group supports a maximum of 8 ports - Load balancing
VLAN	• Monitoring VLAN
	• GARP VLAN Registration Protocol (GVRP)
	• 4096 static VLANs
	• Implementation methods -Supports IEEE802.1Q VLAN -Port-based VLAN -Protocol-based VLAN
	• QinQ -Basic QinQ -Flexible QinQ

	-QinQ Mapping
Multicast	• Common Functions - Create multicast group - Immediate Leave
	• IGMP Snooping - IGMP v1/v2 - IGMP v3 Basic - IGMP v2/v3 Querier
QoS	• Traffic Policing
	• Queue Scheduling - WRR - Strict Priority
	• Service Class - 802.1p - IP DSCP
	• Rate Limiting - Port-based (Ingress/Egress)
ACL	• ACL Type - L2/L3/L4 - MAC ACL -Basic ACL -Advanced ACL
Security	• AAA authentication
	• TACACS+
	• RADIUS
	• Authentication Manager - IEEE 802.1X - MAC Authentication - Web Authentication -Guest VLAN - Port-based - Host-based
	•Management - Local authentication - Supports multiple account creation - Multi-level security (Administrator/Operator)
	• Management Access - Management VLAN
	• SSL - SSLv2 - SSLv3 - TLSv1
	• Web Interface - HTTP
	• CLI - telnet

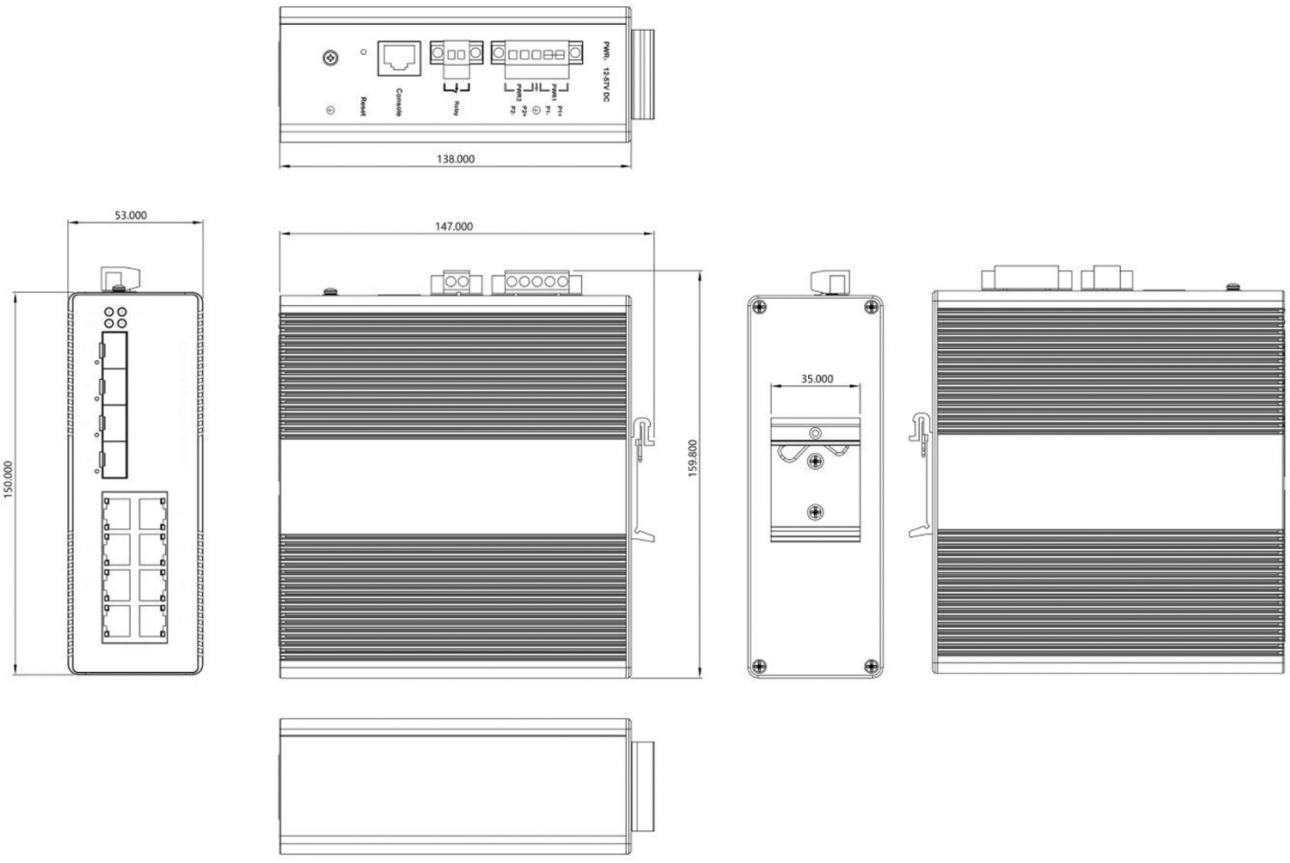
	• Storm Control - Broadcast - Unknown multicast - Unknown unicast
	• Spanning Tree Protocol - BPDU Guard
Management	• CLI - Multiple console operations - Telnet (RFC854)session
	• Web Interface - HTTPS
	• SNMP (v1, v2c, v3)
	• File Management - Firmware Upgrade - Configuration Information Management
	• Time Management - Local - SNTP
	• Command-line Management - CLI - Telnet (RFC854)
	• DHCP - Client - Server
	• Reset Button
	• IEEE (802.3az)
Discovery Protocols	• IEEE 802.1AB Link Layer Discovery Protocol (LLDP)
	• ANSI/TIA-1057 LLDP Media Endpoint Discovery (LLDP -MED)
Diagnostic Functions	• Mirror Function - Port Mirroring
	• Syslog - Local RAM - Local Flash
	• System Diagnosis - CPU Utilization - Memory Utilization - Port Utilization
	• Port Utilization - Optical Port Block DDM Information
	• Optical Port Block DDM Information - Ping Test
MIB	• RFC1213 MIB-II (System, Interfaces, AT, IP, ICMP, TCP, UDP, SNMP)
	• RFC2819 RMON I (Groups 1, 2, 3, and 9))
	• RFC1215: (coldStart, warmStart, linkDown, linkUp, authenticationFailure)
	• RFC1493 Bridge (Base Port, STP, TP Port)

	• RFC2674 Bridge MIB Extension (RFC2674 P-BRIDGE-MIB, Q-BRIDGE-MIB)
	• RFC3635 EtherLike-MIB (Some objects：dot3StatsTable)
	• RFC2863 IF-MIB (Some objects：ifTable, ifXTable)
	•SNMPv3-MIB (SNMP-FRAMEWORK-MIB, SNMP-USER-BASED-SM-MIB, SNMP-VIEW-BASED-ACM-MIB)

Order Information

Model	Description
20127690	L2+ Industrial 8-Port 10/100/1000T + 4-Port 100/1000X SFP Managed Ethernet Switch, not including SFP module, standalone, Support DIN-Rail mounting installation, not including power supply adapter
SFP Options	► SFP option. Please select your SFP on our SFP Options Page (Industrial SFP).
	► SFP module is to be purchased separately.
Mounting Options	► Default DIN-Rail Bracket installed.
Power Options	►DIN-Rail Power Supply. Open Wire for Terminal Block.
	► Power Supply is to be purchased separately.

Dimension (Unit: mm)



Installation Method

