

Features ▶▶▶

- Automatic MDI/MDI-X crossover for plug-and-play
- Each port supports both 10/100 Mbps speed auto negotiation
- Supports wide operating temperature -40 °C ~ +75 °C
- Full duplex IEEE 802.3x and half duplex backpressure flow control
- 3.2 Gbps high performance memory bandwidth
- Redundant Dual Power Inputs +12 V_{DC} ~ +48 V_{DC}
Power failure alarm by relay output
- Frame buffer memory: 1 Mbit
- 2048 MAC addresses
- Store-and-forward architecture
- DIN-Rail Mounting
- Modbus remote monitoring
- Supports Modbus OPC Server
- Built-in Cyber-Ring redundant technique

Introduction

The MSM-508 is an 8-port Industrial Ethernet (10/100 Base-TX) Layer 2 Managed Switch. MSM-508 supports 10/100M auto negotiation feature and auto MDI/MDI-X function. It can automatically switch the transmission speed (10 Mbps or 100 Mbps) for corresponding connections. The connectors of Ethernet port are shielded RJ-45. The shielded RJ-45 connectors offer a high reliability Ethernet environment for industrial control and automation.

It can be managed through RS-232 port via serial console or Ethernet port using telnet or Web browser. In addition, the switch supports a lot of powerful managed functions, such as 802.1Q Tag-based VLAN, Port-based VLAN, 802.1p QoS (Quality of Service), Port Trunking, Spanning Tree, Cable Testing and Port Mirroring. Built-in ICP DAS Cyber-Ring technique that enable multiple switches to be placed into a redundant ring. Typically the switch detects and recovers from a copper link failure within approximately 20 ms – for the majority of applications a seamless process. Modbus/TCP, Modbus/RTU and OPC supported, SCADA application can monitor status of Ethernet port with Modbus or OPC protocol.

MSM-508 provides two power inputs that can be connected simultaneously to live DC power sources. If one of the power inputs fails, the other live source will act as a backup to automatically support the it's power needs. And the relay output facility can deliver warning signal while power or network link failure.

Specifications

Models	MSM-508	MSM-506
Technology		
Standards	IEEE 802.3, 802.3u and 802.3x	
Processing Type	Store & forward, wire speed switching	
MAC Addresses	2048	
Memory Bandwidth	3.2 Gbps	
Frame Buffer Memory	1 Mbit	
Flow Control	IEEE 802.3x flow control, back pressure flow control	
Protocol	VLAN, QoS, Port Trunk, SMTP, TELNET	
Interface		
RJ-45 Ports	8-port 10/100 Base-TX auto negotiation speed, F/H duplex mode, and auto MDI/MDI-X connection	6-port 10/100 Base-TX auto negotiation speed, F/H duplex mode, and auto MDI/MDI-X connection
LED Indicators	Power, 10/100M, Link/Act, Master	
Ethernet Isolation	1500 V _{rms} 1 minute	
COM1	RS-232 (TxD, RxD and GND); Non-isolated	
COM2	RS-485 (D2+, D2-; self-tuner ASIC inside); Non-isolated	
Frame Ground for EMS Protection	Yes	
Digital Input/Output		
Digital Input	3-channel, Wet Contact, L: +11 V _{dc} Max., H: +19 V _{dc} ~ +30 V _{dc}	-
Digital Output	3-channel, Open Collector, Sink/NPN, 30V/100 mA Max.	-
Power		
Input Voltage Range	+12 V _{dc} ~ +48 V _{dc} Redundant Dual Inputs (Non-isolated)	
Power Consumption	0.25 A @ 24 V _{dc}	0.2 A @ 24 V_{dc}
Protection	Power reverse polarity protection	
Frame Ground for EMS Protection	Yes	
Connector	20-Pin Removable Terminal Block	6-Pin Removable Terminal Block
Mechanical		
Casing	Metal	
Environmental Rating	IP30 Protection	
Dimensions (W x L x H)	47 mm x 128 mm x 175 mm	25 mm x 119 mm x 168 mm
Installation	DIN-Rail Mounting or Wall mounting	DIN-Rail Mounting
Environmental		
Operating Temperature	-40 °C ~ +75 °C	
Storage Temperature	-40 °C ~ +85 °C	
Ambient Relative Humidity	10% ~ 90% RH, non-condensing	
Accessories		
Included Cable	CA-090510 x 1	

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Managed Ethernet Switches

Comparison Table of MSM-508 and MSM-506

Mode Name	MSM-508	MSM-506
RJ-45 Ports	8-port 10/100 Base-TX	6-port 10/100 Base-TX
Digital Input	3-channel, Wet Contact	-
Digital Output	3-channel, Open Collector	-
Power Consumption	0.25 A @ 24 V _{dc}	0.2 A @ 24 V_{dc}
Connector	20-Pin Removable Terminal Block	6-Pin Removable Terminal Block
Dimensions (W x L x H)	47 mm x 128 mm x 175 mm	25 mm x 119 mm x 168 mm
Installation	DIN-Rail Mounting or Wall mounting	DIN-Rail Mounting

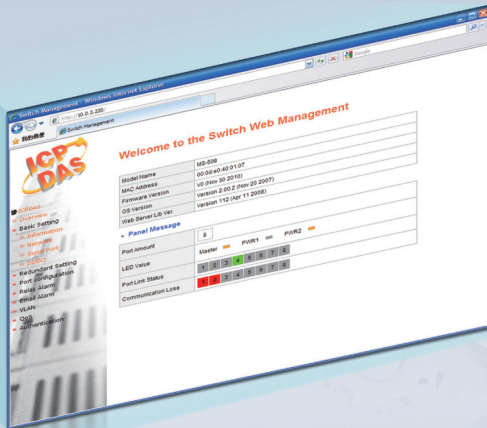
Applications

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Managed Ethernet Switches

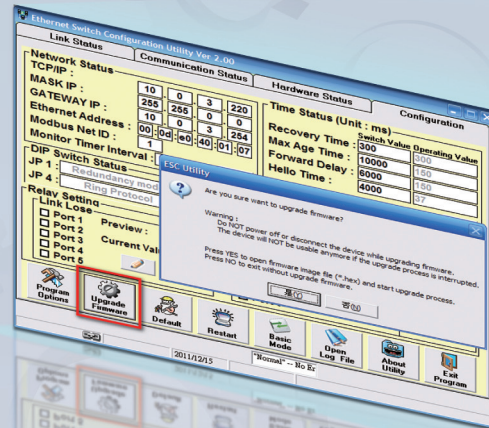
Web Configuration

Built-in web-based management, providing a more convenient UI for the user.



Firmware Upgrade

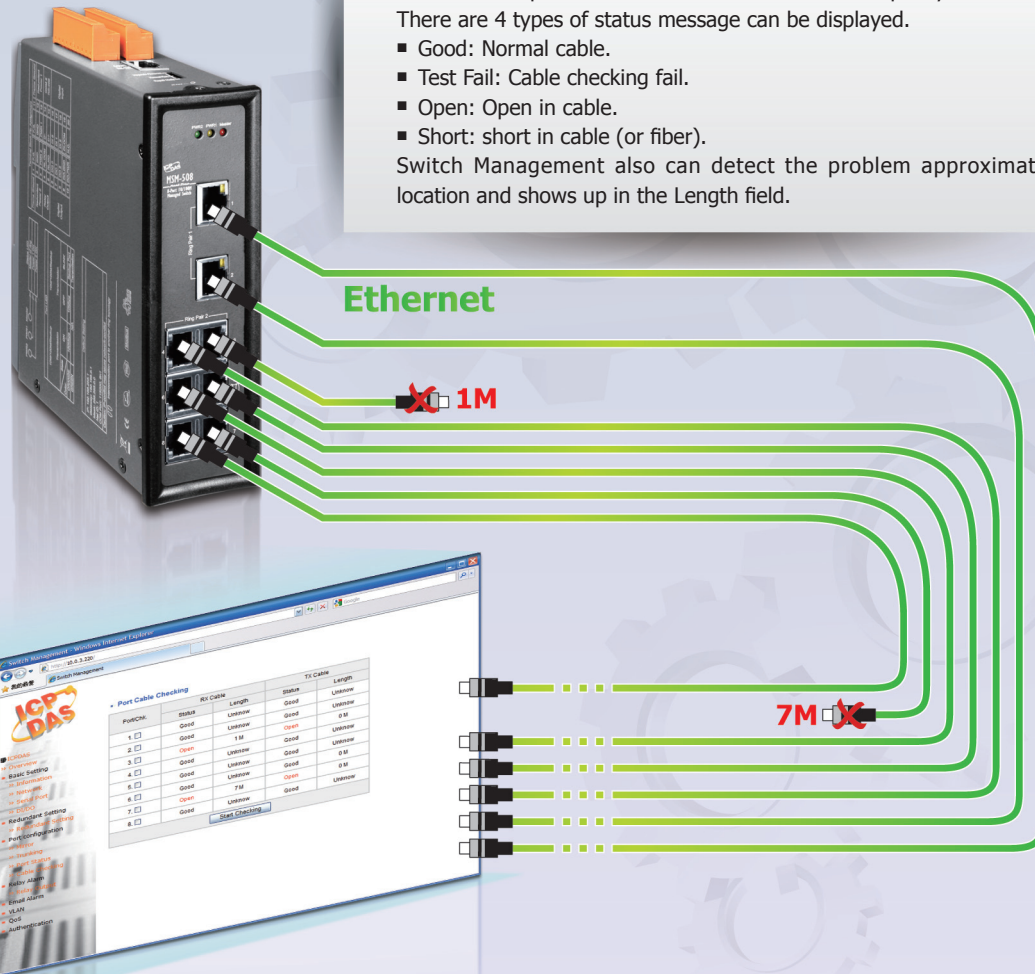
Use ESC Utility to upgrade firmware.



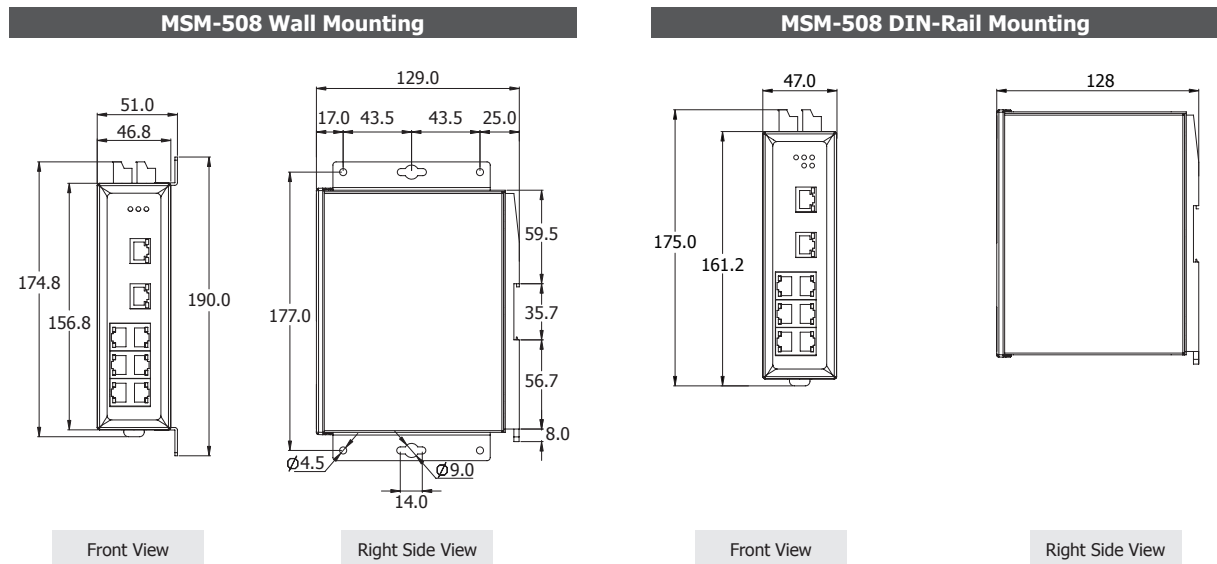
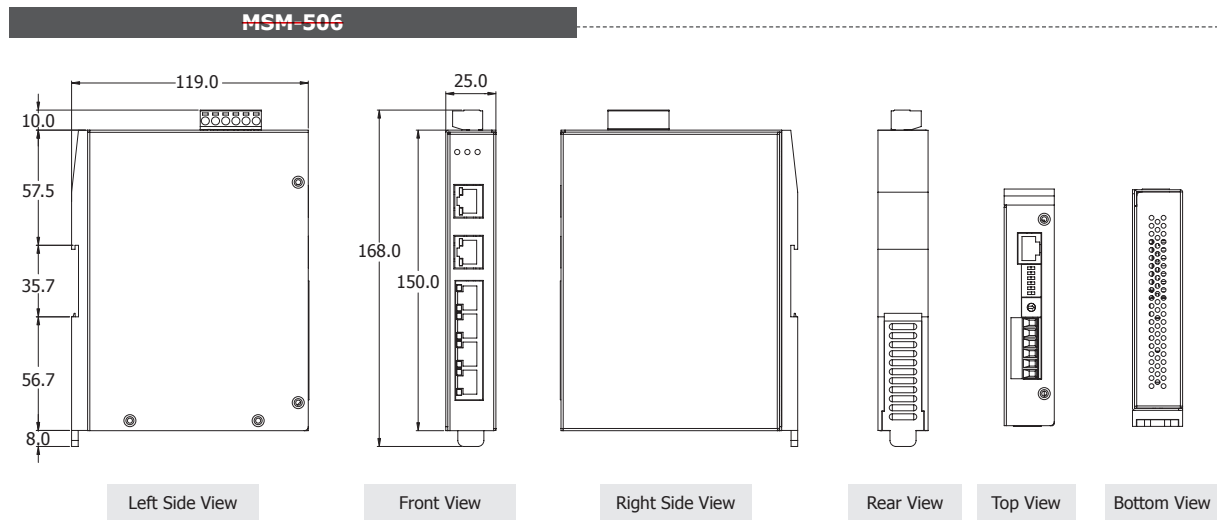
Cable Test

This function provides a useful tool to detect the quality of cables. There are 4 types of status message can be displayed.

- Good: Normal cable.
 - Test Fail: Cable checking fail.
 - Open: Open in cable.
 - Short: short in cable (or fiber).
- Switch Management also can detect the problem approximate location and shows up in the Length field.



Dimensions (Units: mm)



Ordering Information

MSM-506 CR	6-port Layer 2 Managed Switch with metal casing (RoHS)
MSM-508 CR	8-port Layer 2 Managed Switch with metal casing (RoHS)

Accessories

CA-090510	9-Pin Female D-Sub & RJ-45 Cable, 1 M Cable
MDR-20-24	24 V/1 A, 24 W Power Supply with DIN-Rail Mounting
MDR-60-48	48 V/1.25 A, 60 W Power Supply with DIN-Rail Mounting
DIN-KA52F	24 V/1.04 A, 25 W Power Supply with DIN-Rail Mounting
DR-120-24	24 V/5 A, 120 W Power Supply with DIN-Rail Mounting