

Features ▶▶▶

- Automatic MDI/MDI-X crossover for plug-and-play
- Each port supports both 10/100 Mbps speed auto negotiation
- Full duplex IEEE 802.3x and half duplex backpressure flow control
- Supports wide operating temperatures from -30 °C ~ +75 °C
- Built-in Cyber-Ring redundant technique
- Redundant Dual Power Inputs +12 V_{DC} ~ +48 V_{DC}
Power failure alarm by relay output
- Modbus remote monitoring
- Supports Modbus OPC Server
- Store-and-forward architecture
- Frame buffer memory: 1 Mbit
- 2048 MAC addresses
- 3.2 Gbps high performance memory bandwidth
- DIN-Rail Mounting

Introduction

The MSM-508F series is an 8-port Industrial Ethernet Layer 2 Managed Switch with 2-Fiber Port that secures data transmission by using fiber optic transmission to provide immunity from EMI/RFI interference. It is a perfect solution for applications where transmission must be protected from electrical exposure, surges, lightning or chemical corrosion.

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 enables multiple switches to be placed into a redundant ring. Typically the switch detects and recovers from a fiber or copper link failure within approximately 20 ms – for the majority of applications, it is seamless. Modbus/TCP, Modbus/RTU and OPC supported, SCADA application can monitor status of Ethernet and fiber port with Modbus or OPC protocol.

MSM-506F/MSM-508F 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 its power needs. And the relay output facility can deliver warning signal while power or network link failure.

Specifications

Models	MSM-506FC-T MSM-506FCS-T Series	MSM-506FT-T Series	MSM-508FC-T MSM-508FCS-T Series	MSM-508FT-T Series
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	4-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	
Fiber Optics Port	2-port 100 Base-FX			
LED Indicators	10/100M, Link/Act, Full duplex/Half duplex (Fiber Port)			
Ethernet Isolation	1500 V _{rms} 1 minute			
Multi-mode	Multi-mode Fiber Cables	50/125, 62.5/125 or 100/140 μm		
	Distance	2 km, (62.5/125 μm recommended) for full duplex		
	Wavelength	1300 or 1310 nm		
	Min. TX Output	-20 dBm		
	Max. TX Output	-14 dBm		
Single-mode	RX Sensitivity	-34 ~ -31 dBm		
	Single-mode Fiber Cables	8.3/125, 8.7/125, 9/125 or 10/125 μm		
	Distance	30 km, (9/125 μm recommended) for full duplex		
	Wavelength	1300 nm or 1310 nm		
	Min. TX Output	-15 dBm		
Max. TX Output	-8 dBm			
RX Sensitivity	-36 dBm ~ -31 dBm			
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	0.2 A @ 24 V _{DC}		0.3 A @ 24 V _{DC}	
LED Indicator	Yes			
Protection	Power reverse polarity protection			
Frame Ground for EMS Protection	Yes			
Connector	6-Pin Removable Terminal Block		20-Pin Removable Terminal Block	
Mechanical				
Casing	Metal			
Environmental Rating	IP30 Protection			
Dimensions (W x L x H) (Units: mm)	25 x 131 x 168	25 x 131 x 168	47 x 140 x 175	47 x 142 x 175
Installation	DIN-Rail Mounting		DIN-Rail Mounting or Wall mounting	
Environmental				
Operating Temperature	-30 °C ~ +75 °C			
Storage Temperature	-40 °C ~ +85 °C			
Ambient Relative Humidity	10% ~ 90% RH, non-condensing			
Accessories				
Included Cable	CA-090510 x 1			

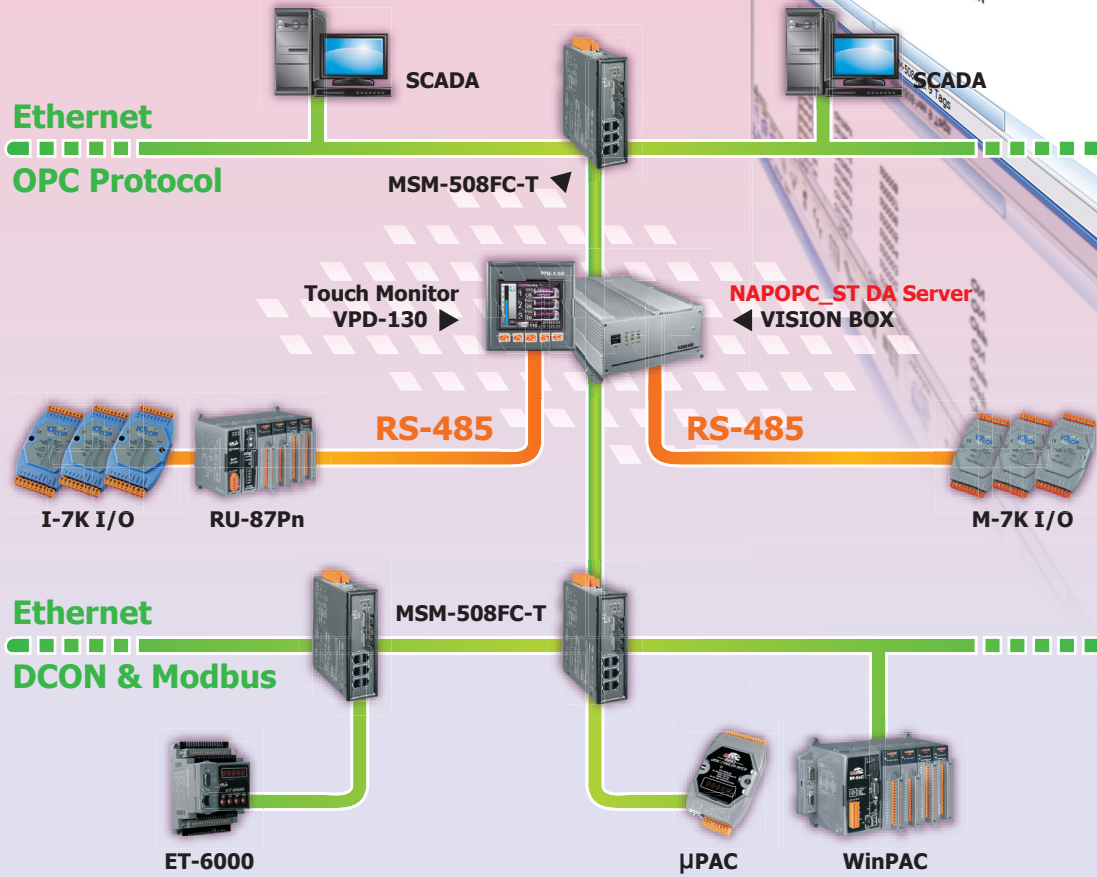
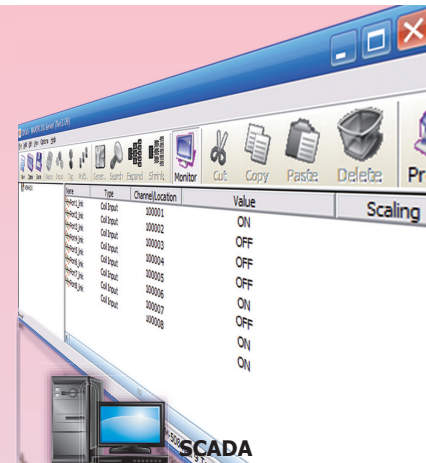
Applications

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Managed Ethernet Switches

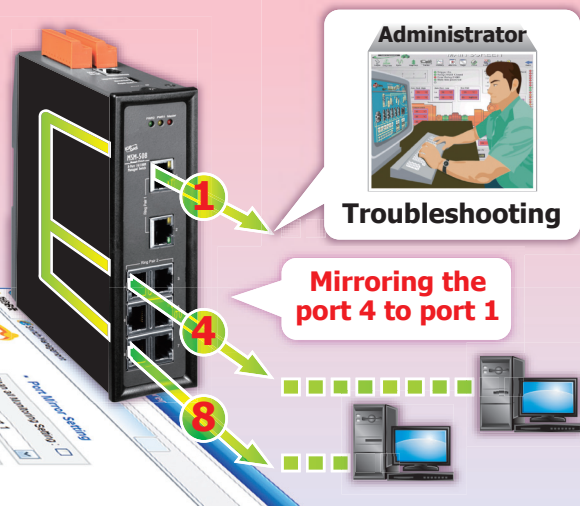
OPC Server

NAPOPC_ST DA Server is a **free** OPC DA Server (The "OPC" stands for "OLE for Process Control" and the "DA" stands for "Data Access") for ICP DAS products. NAPOPC_ST DA Server provides many benefits to users such as reduce time through lower system integration costs, integrate easily with plug-and-play SCADA/HMI/Database, connect and interoperate easily to custom applications, access to data by anyone in the automation hierarchy, reduce troubleshooting and maintenance cost, write to devices synchronously and asynchronously.



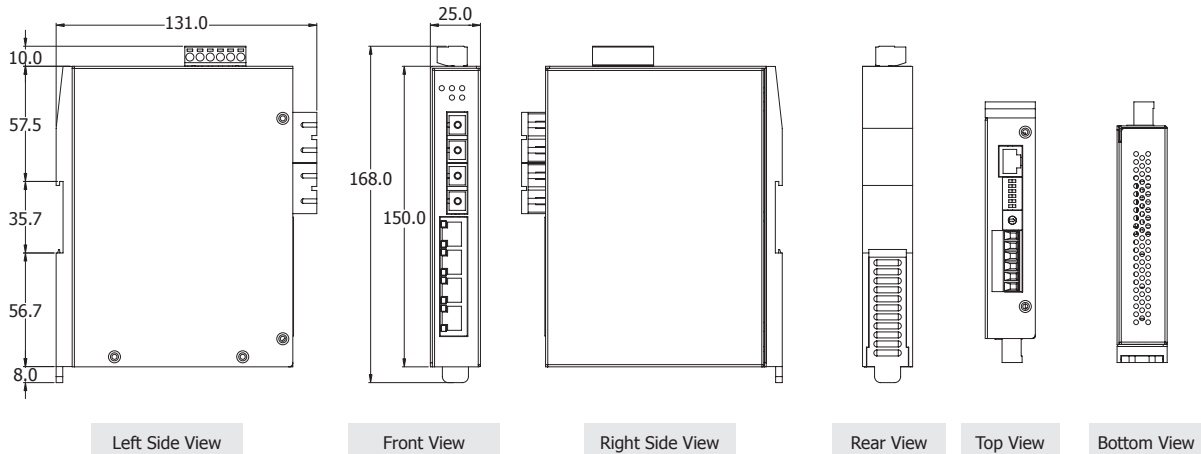
Port Mirroring

Port Mirroring is used on a network switch to send a copy of network packets seen on one switch port to a network monitoring connection on another switch port. This is commonly used for network appliances that require monitoring of network traffic, such as an intrusion-detection system. Network Engineers or Administrators use port mirroring to analyze and debug data or diagnose errors on a network. It helps the administrator keep a close eye on network performance and will alert them when problems occur. It can be used to mirror either inbound or outbound traffic on single or multiple interfaces.



Dimensions (Units: mm)

MSM-506F Series



Left Side View

Front View

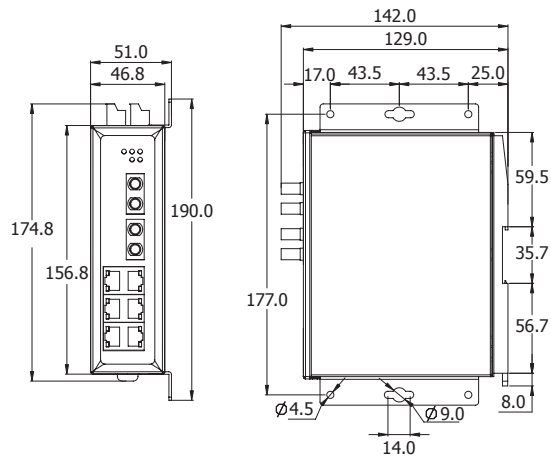
Right Side View

Rear View

Top View

Bottom View

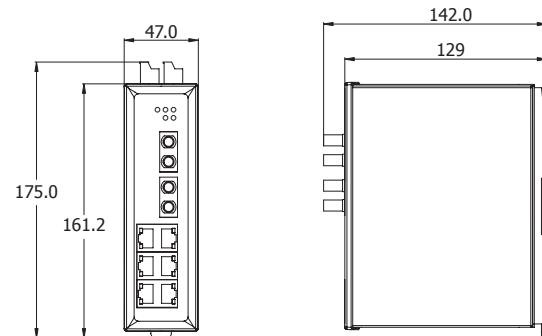
MSM-508F Series Wall Mounting



Front View

Right Side View

MSM-508F Series DIN-Rail Mounting



Front View

Right Side View

Ordering Information

MSM-506FT-T CR	6-port Layer 2 Managed Switch with 2-Fiber Port, Multi-mode, ST Connector (RoHS)
MSM-506FC-T CR	6-port Layer 2 Managed Switch with 2-Fiber Port, Multi-mode, SC Connector (RoHS)
MSM-506FCS-T CR	6-port Layer 2 Managed Switch with 2-Fiber Port, Single-mode, SC Connector (RoHS)
MSM-506FCS-60T CR	6-port Layer 2 Managed Switch with 2-Fiber Port, Single-mode 60 km, SC Connector (RoHS)
MSM-508FT-T CR	8-port Layer 2 Managed Switch with 2-Fiber Port, Multi-mode, ST Connector (RoHS)
MSM-508FC-T CR	8-port Layer 2 Managed Switch with 2-Fiber Port, Multi-mode, SC Connector (RoHS)
MSM-508FCS-T CR	8-port Layer 2 Managed Switch with 2-Fiber Port, Single-mode, SC Connector (RoHS)
MSM-508FCS-60T CR	8-port Layer 2 Managed Switch with 2-Fiber Port, Single-mode 60 km, SC Connector (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