



MARS3020

16 x 100M + 4G Layer2 Managed Ethernet Switch



Introduction

MARS3020 is an industrial grade, managed and redundancy Ethernet switch. It provided 16 100M ports and 4 Gigabit (SFP slot) ports. SM-Ring is an arithmetic designed as a rapid redundancy network. It provided recover technology for fault of rapid redundant network, the recovery time<20ms. Product accorded to CE, FCC standard and Industry grade 4 design requirement, support 2 redundant power input and 1 channel relay alarm output, and -40~75°C working temperature, can meet all kinds of Industrial environment requirement.

- 1.Support IEEE802.3, IEEE802.3u, IEEE802.3z, IEEE 802.3x, IEEE802.1Q, IEEE802.1p, IEEE802.1D, IEEE802.1W
- 2.SM-Ring ring network patent technology (Fault recovery time<20ms)
- 3.Support RSTP, way exchange time<50ms
- 4.Support WEB configuration
- 5.Store and Forward switching process type
- 6.Support configuration file up and download
- 7.Support GMRP, IGMP snooping and static Multicast
- 8.Support Port based VLAN and IEEE 802.1Q VLAN
- 9.Support flow control, Broadcast storm suppression
- 10.Support SNMP and IEEE802.1X authentication
- 11.Support 8K MAC address
- 12.Support 12.8Gbps backboard bandwidth
- 13.Support redundancy power supply(12~48VDC)
- 14.Support 1 channel relay alarm output
- 15.Operating temperature range from -40 to 75°C
- 16.DIN rail mounting
- 17.Metal shell, IP40 protection grade



Specification

Technology

Standard: IEEE802.3, IEEE802.3u, IEEE802.3z, IEEE802.3x, IEEE802.1Q, IEEE802.1p, IEEE802.1D, IEEE802.1W

Protocol: ARP, ICMP, TCP, DHCP, DNS, HTTP, Telnet, SM-Ring, RSTP, SNMP

Flow control: IEEE802.3x flow control, Back-pressure based flow control

Function

Switch function: SM-Ring, QOS, 802.1QVLAN, RSTP, SNMP, Port trunking, static multicast filter, port mirroring, bandwidth management, broadcast storm control, port flow statistics, upgrade online, up and download configuration file, user name access system

SM-Ring: Support Single, Couple, Chain, Dual homing

Exchange attribute

100M forward speed: 148810pps

1000M forward filter speed: 1488100pps

Transmit mode: store and forward

System exchange bandwidth: 12.8G

MAC address table: 8K

Memory: 4M

Interface

Electric port: RJ45 connector, 10Base-T/100Base-TX auto speed control, Half/full duplex and MDI/MDI-X auto detect;

1000M fiber port: 1000Base-FX (SFP port, LC connector)

Console port: debug serial port carry out CLI command

Alarm port: 2 bit 7.62mm terminal block

1 channel relay alarm output

Load ability: 1A@24VDC

Transfer distance

Twisted cable: 100M (standard CAT5/CAT5e cable)

LED indicator

Run indicator: Run

Interface indicator: Link (1~16/G1~G4)

Power supply indicator: P1, P2

Alarm indicator: Alarm

Power supply

Input Voltage: 12~48VDC

Type of input: 4 bits terminal block

Overload current protect: 4.0A

Support dual power supply redundancy

Consumption

No-load consumption: 6.48W@24VDC

Full-load consumption: 11.93W@24VDC

Working environment

Working temperature: -40~75℃



Storage temperature: -40~85℃

Relative Humidity: 5%~95 %(no condensation)

Mechanical Structure

Shell: IP40 protection grade, metal shell

Installation: DIN-Rail mounting

Size (W×H×D): 70mm×160mm×130mm

Industry Standard

EMI: FCC Part 15, CISPR (EN55022) class A

EMS: EN61000-4-2 (ESD), Level 4

EN61000-4-3 (RS), Level 3

EN61000-4-4 (EFT), Level 4

EN61000-4-5 (Surge), Level 4

EN61000-4-6 (CS), Level 3

EN61000-4-8, Level 5

Shock: IEC 60068-2-27

Free fall: IEC 60068-2-32

Vibration: IEC 60068-2-6

Certification

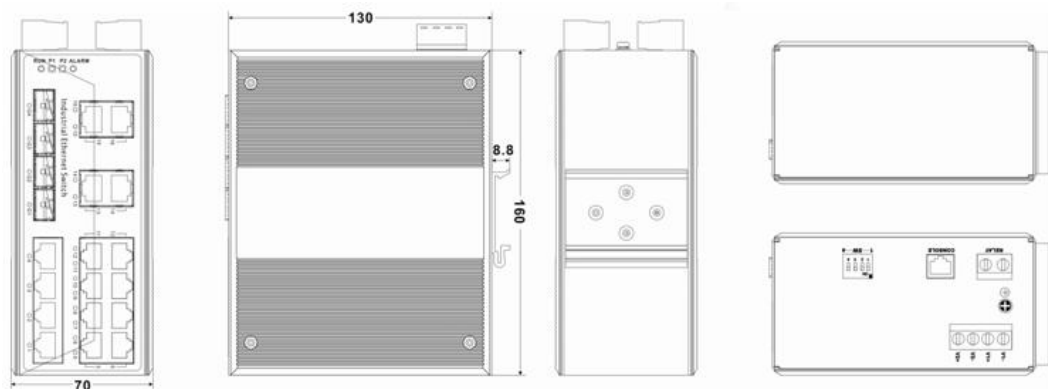
CE, FCC, RoHS, UL508 (Pending)

Warranty: 5 years

Packing list

1. Industrial Ethernet Switch MARS3020(plus terminal block) × 1
2. User manual × 1
3. Attached CD × 1
4. Certificate of quality × 1
5. Warranty card × 1

Dimension





Order Information

MARS3020-

Ports

Distance

Connector

FM

PS

Ports

16TX/4GS	=	16 x 10/100BASE-TX RJ45 Port, 4 x Gigabit SFP Slot
14TX/2FX/4GS	=	14 x 10/100BASE-TX RJ45 Port, 2 x 100BASE-FX fiber Port, 4 x Gigabit SFP Slot
12TX/4FX/4GS	=	12 x 10/100BASE-TX RJ45 Port, 4 x 100BASE-FX fiber Port, 4 x Gigabit SFP Slot

Distance: Fiber Distance

1302	=	1310nm, 2km (multimode fiber)
1320	=	1310nm, 20km
1340	=	1310nm, 40km
1580	=	1550nm, 80km

Connector: Fiber Connector

SC	=	SC Connector
ST	=	ST Connector
FC	=	FC Connector

FM: Fiber Mode

SM	=	Single mode fiber
MM	=	Multi mode fiber

PS: Power Supply

L2	=	12~48VDC, dual redundant power input
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Example Order Codes

MARS3020-16TX/4GS-L2

16 x 10/100BASE-TX RJ45 Port, 4x Gigabit SFP Slot, 12~48VDC, Dual redundant power input