LP Technical Development Ltd

MARS3016

16 x 100M Layer2 Managed Ethernet Switch

Introduction

MARS3016 is an industrial grade, managed and redundancy Ethernet switch which supports 16 100M Ethernet ports or Fiber ports. It provided some kinds of advanced network managed function, like as: SM-Ring redundancy ring network, VLAN, Trunking, Quality of Service, Speed control, port mirroring, fault alarm and firmware upgrade online. Standard Industry design can satisfied every requirement of the industry scene. All components used industry grade, it takes products high reliability. 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℃ working temperature, can meet all kinds of Industrial environment requirement.

1.Support IEEE802.3, IEEE802.3u, 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.Support Port based VLAN and IEEE 802.1Q VLAN

6.Support absolutely and opposite priority, support IEEE802.1P, DSCP priority

7.Store and Forward switching process type

8.Support MAC address auto-learning, auto-aging

9.Support 8K MAC address

10.Support 12.8Gbps backboard bandwidth

11.Support redundancy power supply(12～48VDC)

12.Support 1 channel relay alarm output

13.Operating temperature range from -40 to 75°C

14.DIN rail mounted

15.Metal shell, IP40 protection grade

Specification

Technology

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

Protocol: ARP, ICMP, TCP, DHCP, 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

100M maximum filter speed: 148810pps

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;

100M fiber port: 100Base-FX, SC/ST/FC connector, support single mode (20/40/60/80Km optional), multi mode (2Km), wavelength: 1310nm, 1550nm

Console port: debug serial port carry out CLI command

Alarm port: 2 bit terminal block

1 channel relay alarm output

Transfer distance

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

Multi-mode: 1310nm, 2/5Km

Single-mode: 1310nm, 20/40/60Km

                       1550nm, 80/100/120Km

LED indicator

Run indicator: Run

Interface indicator: Link (1~16)

Power supply indicator: P1, P2

Alarm indicator: Alarm

Power supply

Input Voltage: 24VDC (12~48VDC)

Type of input: 4 bits 7.62mm terminal block

Support DC dual power supply redundancy

Overload current protect: 1.2A

Consumption

No-load consumption: 6.43W@24VDC

Full-load consumption: 8.62W@24VDC

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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 mounted

Size (W×H×D): 70mm×160mm×130mm

Industry Standard

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

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

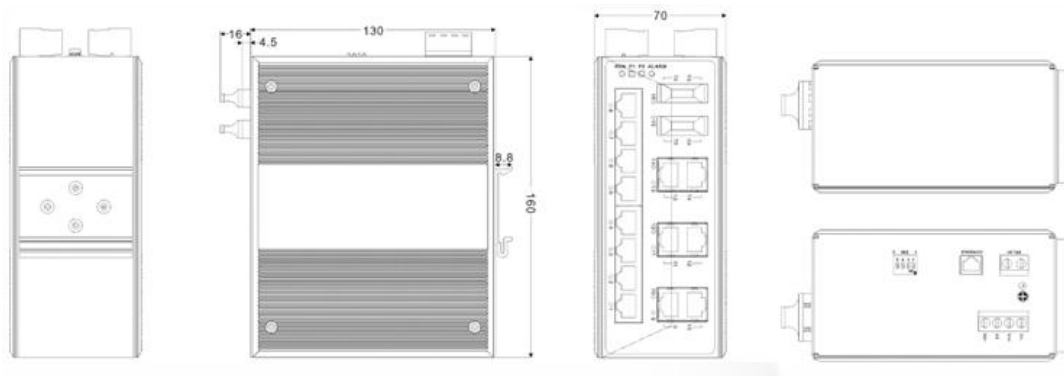Free fall: IEC 60068-2-32

Vibration: IEC 60068-2-6

Certification

CE, FCC, RoHS, UL508 (Pending)

Warranty: 5 years

Packing list

1. Industrial Ethernet Switch MARS3016 (plus terminal block) × 1

2. User manual × 1

3. Attached CD × 1

4. Certificate of quality × 1

5. Warranty card × 1

Dimension

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Order Information

MARS3016-	_____ -	_____ -	_____ -	_____ -	_____
	Ports	Distance	Connector	FM	PS

Ports

16TX	=	16 x 10/100BASE-TX RJ45 Port
14TX/2FX	=	14 x 10/100BASE-TX RJ45 Port, 2 x 100BASE-FX fiber Port
12TX/4FX	=	12 x 10/100BASE-TX RJ45 Port, 4 x 100BASE-FX fiber Por
10TX/6FX	=	10 x 10/100BASE-TX RJ45 Port, 6 x 100BASE-FX fiber Port
8TX/8FX	=	8 x 10/100BASE-TX RJ45 Port, 8 x 100BASE-FX fiber Por

Distance: Fiber Distance

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

Connector: Fiber Connetor

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, duel redundant power input

Example Order Codes

MARS3016-14TX/2FX-1320-SC-SM-L2

14 x 10/100BASE-TX RJ45 Port, 2 x 100BASE-FX fiber Port,1310nm 20km, single mode,SC,12~48VDC,duel redundant power input

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