



## MARS5028G

28G or 24G+4x10G Layer3 Managed Ethernet Core Switch



### Introduction

MARS5028G is a high-performance, cost-effective smart rack-mounted industrial layer 3 switch. It is equipped with 16\*10/100/1000BaseT(x) Ethernet ports, 8 Gigabit combo ports and 4\*1000Base-X SFP ports or with 16\*10/100/1000BaseT(x) Ethernet ports, 8 Gigabit combo ports and 4\*10G SFP+ ports. The increase in bandwidth elevates the data transmission capability, and it's very suitable for the application of large-scale industrial network.

MARS5028G supports IPv4 platform, and various advanced administration functions such as IGMP, GMRP, DHCP Server/Client, STP/RSTP/MSTP, QOS, port mirroring, LLDP, static routing, RIP V1/V2, OSPF, VRRP, etc. The IPv4 layer 3 routing protocol, multicast technologies and policy routing mechanism provide users with complete IPv4 solutions; meanwhile, this series of products also support SNMPv1/v2/v3 (Simple Network Management Protocol), CLI, Web Management, TELNET management for more convenient device management. Combined with enhanced ACL control and anti-attack function, the management will be more secure.

MARS5028G is in compliance with the FCC and CE standards, and supports 2-way redundant AC inputs and 2-way relay fault alarm output. Users can select flexibly according to actual environment. It adopts industrial no fan design, and is fit for severe industrial environment at a working temperature of -40 °C-75 °C, which can meet various industrial application requirements and provide reliable and economic solutions for Ethernet access.

1. Support 16-port 10/100/1000BaseT(x), 8-port Gigabit combo and 4-port 1000Base-X SFP or 4-port 10Gbe SFP+
2. Support IGMP Snooping and GMRP filter multicast packet

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3. Support QOS of IEEE 802.1p/1Q TOS/DiffServ to promote network stability
4. Support SNMP v1/v2/v3
5. Support IEEE802.1X, HTTPS, and SSH to enhance network security
6. Support link static / dynamic aggregation to optimize bandwidth
7. Support ACL function to enhance flexibility and security of network management
8. Support bandwidth management, ensuring network stability
9. Support RMON, effectively improve network monitoring and predictive ability
10. Support port mirroring for online debugging
11. Support STP/RSTP/MSTP to enhance network stability
12. Support IEEE802.1Q VLAN for easy network planning
13. Support static routing, RIP, VRRP, OSPF Layer 3 Switching Technology
14. Working temperature: -40°C-75°C
15. Support two 100VAC~240VAC power inputs
16. Support two power supplies for redundancy and high reliability
17. Support two relay alarms to enhance reliability
18. No fan design, industrial and rack-mounted installation

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### Specification

#### Technology

Standard: IEEE802.3, IEEE802.3u, IEEE802.3z/ab, IEEE802.3x, IEEE802.1d, IEEE802.1w, IEEE802.1s, IEEE802.1q, IEEE802.1p, IEEE802.1x, IEEE802.3ad

Flow control: IEEE802.3x flow control, Back Pressure flow control

#### Protocol

IGMP Snooping, GMRP, SNMPv1/v2/v3, QOS, STP/RSTP/MSTP, DHCP Server/Client, DHCP, VLAN, LLDP, STP, Telnet, HTTP/HTTPS, SSH, LACP

#### Layer 3 Switching Technology

Static routing, RIP V1/V2, OSPF, VRRP, BGP

#### Interface

RJ45 port: 10/100/1000BaseT(X), flow control, full / half duplex, adaptive work mode, MDI/MDI-X adaptive

SFP port: 100/1000Base-FX (Combo port)

10GbE SFP+ (10-gigabit port)

Console port: CONSOLE Admin Port (RJ45)

Alarm port: 5-core 5.08mm wiring terminal (R+/R-),

2-way relay alarm output

#### Transmission distance

Twisted-pair: 100m (standard CAT5/CAT5e cable)

Multi-mode fiber: 850nm, 2km

1310nm, 2km/5km

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



1550nm, 20/40/60/80/100/120Km

**LED indicator**

Power indicator: P1/P2

Alarm indicator: ALM

Operation indicator: RUN

Port connection / operation status indicator: Link/ACT

**Switch attribute:**

Transmission mode: store-and-forward

MAC address: 16K

Cache: 12Mb

Switched Bandwidth: 128G

100M forwarding rate: 148810pps

1000M forwarding rate: 1488100pps

10000M forwarding rate: 14881000pps

**Power Supply**

AC input voltage: 100VAC~240VAC

AC input terminal: three-phase socket with rocker switch

Support 2-way AC input

**Consumption**

No-load consumption: 20W

Full-load consumption: 28W

Mechanical characteristics

Shell: IP30 protection, metal shell

Installation: 19" rack-mounted

Weight: 3.9kg

Dimension (L\*W\*H): 440mm×284mm×43mm

**Working environment**

Working temperature: -40℃ - 75℃

Storage temperature: -40℃ - 85℃

Humidity: 5%~95% (no condensation)

**Certification**

Security: UL508 (pending)

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

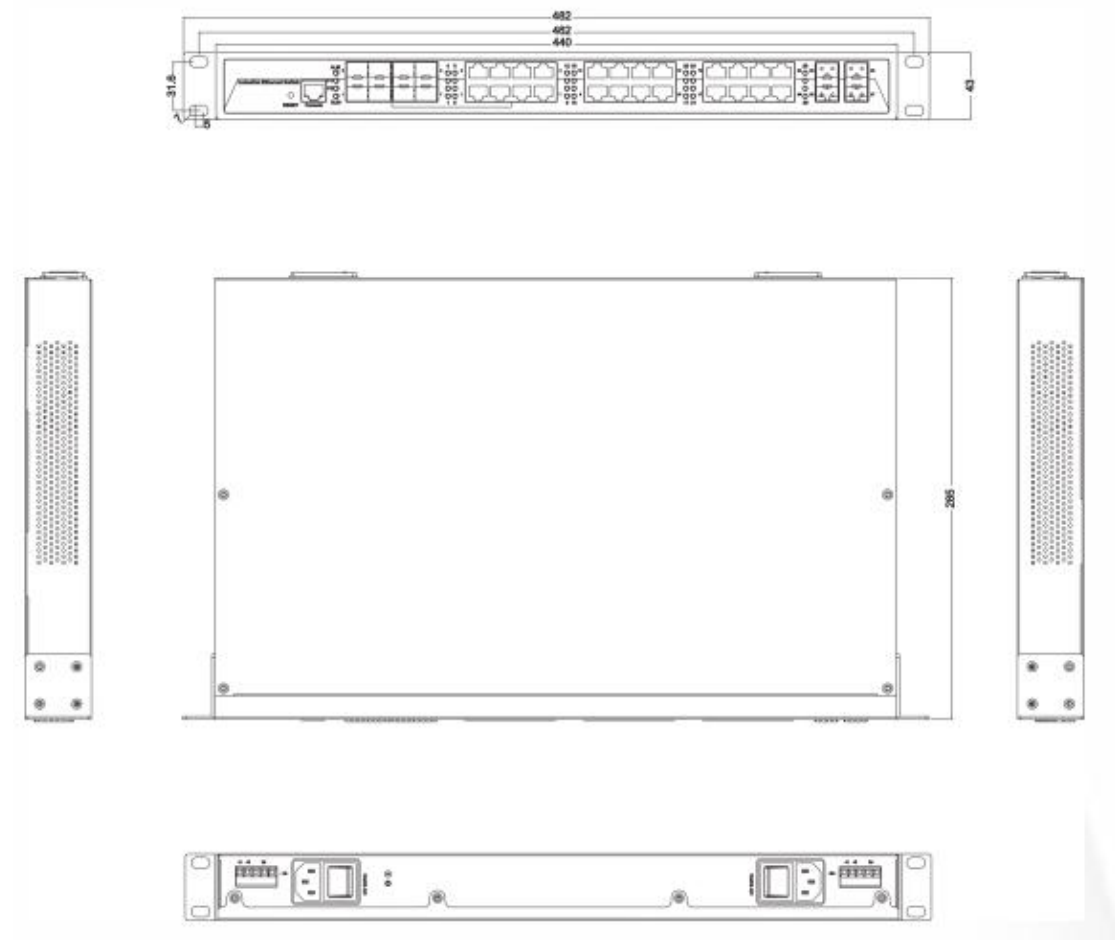
EN61000-4-4 (EFT), Level 4

EN61000-4-5 (Surge), Level 4

Warranty: 5 years



## Dimension



## Order Information

MARS5028G-

Ports PS

### Ports

16GT/8GC/4 GS	=	16 x 10/100/1000BASE-TX RJ45 Port, 8 x Gigabit Combo Port, 4 x Gigabit SFP Slot
16GT/8GC/8 TS	=	16 x 10/100/1000BASE-TX RJ45 Port, 8 x Gigabit Combo Port, 4 x 10 Gigabit SFP+ Slot,

### PS: Power Supply

HV	=	100VAC~240VAC, single power input
HV-HV	=	100VAC~240VAC, dual redundant power input



Example Order Codes

MARS5028G-16GT/8GC/4GS-HV-HV

16 x 10/100/1000BASE-TX RJ45 Port, 8 x Gigabit Combo Port, 4 x Gigabit SFP Slot, 100VAC~240VAC,  
Dual redundant power input