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Reliable Connections




# MES5100-24T2S-2HV

## 19-inch 1U Rack Mounting

## 26-Port 100M Layer 2 Managed Industrial Ethernet Switch

- Support 24 100M copper ports and 2 100M SFP slots
- Adopt Ring patented technology, support single ring, coupling ring, chain, Dual-homing ring network function, automatic recovery time of network failure < 50ms
- Support MRP network redundancy, improve network reliability, reconfiguration time ≤200ms
- Support Modbus TCP protocol, and the client can read the switch information, which is convenient for integrated monitoring and management
- 2*110VDC, 220VAC/DC dual power supply input
- Support -40~75℃ wide operating temperature range
- Support IP40 protection grade

Industrial Grade RPS Fanless Desig IP40

# Introduction

MES5100-24T2S-2HV series product is a 26-port 100M layer 2 managed industrial Ethernet switch. The product provides 100M copper port, and 100M SFP slot. Copper ports can negotiate the port rate and duplex mode with the device at the opposite end through self-negotiation. Support 110VDC or 220VAC/DC power supply scheme, and adopt rack installation mode, which can meet the requirements of different application sites.

Network management system supports a variety of network protocols and industry standards, such as IPv4, VLAN, STP/RSTP/MSTP, ERPS, DHCP, LLDP, IGMP Snooping, QoS, Modbus TCP monitoring, port trunking, port mirroring, etc. It has perfect management functions, supporting port configuration, port statistics, ACL, 802.1X authentication, network diagnosis, rapid configuration, online upgrade, etc. CLI, WEB, Telnet, SNMP, SSH, and other access methods can be supported. Network management system could bring you great user experience through its friendly interface design and easy and convenient operation.

The input power supply is two independent power supply circuits which can ensure the normal operation of the device when one power supply fails. When power supply or port has link failure, ALM indicator will be bright and send out alarm, meanwhile, alarm device connected to the relay will send out alarm for rapid scene troubleshooting. The hardware adopts fanless, low power consumption and wide temperature design, which has passed rigorous industrial standard tests, and suits the industrial scene environment with harsh requirements for EMC. It can be used in smart grid, energy storage, photovoltaic, wind electricity, and other industrial fields.

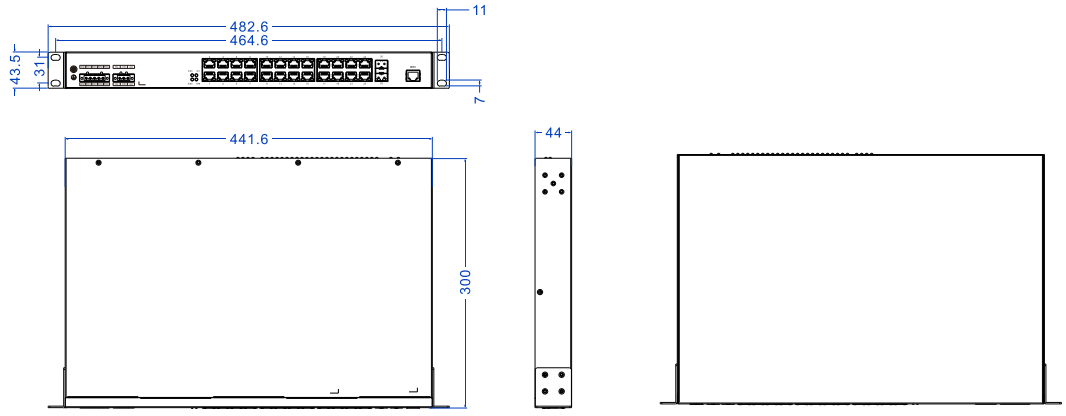
# Features and Benefits

- SNMPv1/v2c/v3 is used for network management of various levels
- RMON can be used for efficient and flexible network monitoring
- Port mirroring can conduct data analysis and monitoring, which is convenient for online debugging
- QoS supports real-time traffic classification and priority setting
- LLDP can achieve automatic topology discovery, which is convenient for visual management
- DHCP server and DHCP client could be used for allocating IP address of different strategies
- DHCP Snooping can ensure DHCP client gets IP address from legal DHCP server
- User privilege classification configuration can set user privilege level
- SSH configuration and HTTPS configuration can improve device's management security and guarantee data access security
- VLAN is used for simplifying network planning
- File management is convenient for the device rapid configuration and online upgrading
- Log management records Console log, RAM log and Flash log

- Bandwidth management can reasonably distribute network bandwidth, preventing unpredictable network status
- Port statistics can be used for the port real time traffic statistics
- User password can conduct user hierarchical management to improve the device management security
- ACL can enhance network flexibility and security
- Relay alarm is convenient for troubleshooting of construction site
- Storm suppression can restrain broadcast, unknown multicast and unicast
- Port Trunking can increase network bandwidth and enhance the reliability of network connection to achieve optimum bandwidth utilization
- IGMP Snooping and static multicast can be used to filter multicast data to save network bandwidth
- STP/ RSTP/ MSTP could implement network redundancy and prevent network storm
- With high reliability and stability, ERPS could avoid broadcast storm caused by data loopback
- Support Modbus TCP protocol which can monitor device information in real time.
- Network diagnosis and troubleshooting could be conducted via Ping, Traceroute, Cable Diagnosis, SFP Digital Diagnosis

# Dimension

Unit: mm




# Specification

| | |
|---|---|
| Standard & Protocol | IEEE 802.3 for 10Base-T<br>IEEE 802.3u for 100Base-TX and 100Base-FX<br>IEEE 802.3x for Flow Control<br>IEEE 802.1D for Spanning Tree Protocol<br>IEEE 802.1w for Rapid Spanning Tree Protocol<br>IEC 62439-2 for MRP |

| | |
|---|---|
| | IEEE 802.1Q for VLAN<br>IEEE 802.1p for CoS<br>IEEE 802.1X for 802.1X Authentication<br>IEEE 802.1AB for LLDP |
| Management | SNMP v1/v2c/v3, RMON, LLDP, QoS, DHCP Server, DHCP Snooping, port settings, dynamic/static MAC addresses, storm suppression, log management, port statistics, link flapping protection, Modbus TCP monitoring |
| Security | User Privilege Classification, SSH Configuration, HTTPS Configuration, Access Control, SNMP, RMON, Port Limit Control, ACL, IP Source Guard, RADIUS Server Authentication, TACACS + Server Authentication, Port Alarm, Temperature Alarm, Power Supply Alarm, MRP Alarm, Network Load Alarm |
| Switch Function | 802.1Q VLAN, link aggregation, static aggregation, flow control, LACP |
| Unicast / Multicast | Multicast filtering, IGMP Snooping, GMRP |
| Redundancy Technology | Ring, STP/RSTP/MSTP, ERPS |
| Troubleshooting | Log record, port mirroring, Ping, Traceroute, network cable diagnosis, SFP Digital Diagnosis |
| Time Management | NTP, Time Zone Configuration |
| Interface | 100M copper port: 10/100Base-T(X) self-adaption, RJ45, Automatic Flow Control, Full/Half Duplex Mode, MDI/ MDI-X Autotuning<br>100M SFP slot: 100Base-X SFP slot<br>CONSOLE port: CLI command line management port (RS-232), RJ45<br>Fault/Alarm port: support 1 relay alarm output and 1 fault output, adopt a 3-pin 5.08mm pitch terminal block |
| Indicator | Power indicator, operation indicator, alarm indicator, abnormal interruption indicator, status indicator, Link/Act indicator |
| Switch Property | Transmission mode: store and forward<br>Backplane bandwidth: 12.8Gbps<br>Packet buffer size: 4.1Mbit<br>MAC address: 8K<br>Switch delay: <10μs |
| Power Supply | Access terminal: 5-pin 5.08mm pitch terminal block |

| | |
|---|---|
| | Power input: 110VDC, 220VAC/DC, dual power supply redundancy, DC power input anti-reverse connection |
| Power Consumption | No-load at normal temperature: 4.21W@220VAC<br>Full-load at normal temperature: 7.01W@220VAC<br>Full-load at high temperature: 7.43W@220VAC |
| Working Environment | Operating temperature: -40~75℃<br>Storage temperature: -40~85℃<br>Relative humidity: 5%~95% (no condensation) |
| Mechanical Structure | Housing: IP40 protection, metal<br>Installation: 19-inch 1U rack mounting<br>Dimension (W x H x D): 441.6mm×44mm×300mm (lugs are not included) |
| Industrial Standard | IEC 61000-4-2 (ESD, electronic static discharge), Level 4<br>● Contact discharge: ±8kV<br>● Air discharge: ±15kV<br><br>IEC 61000-4-4 (EFT, electrical fast transient pulses), Level 4<br>● Power supply: ±4kV<br>● Copper port: ±2kV<br>● Relay: ±4kV<br><br>IEC 61000-4-5 (Surge), Level 4<br>● Power supply: differential mode±2kV, common mode±4kV<br>● Copper port: differential mode±2kV, common mode±4kV<br>● Relay: differential mode±2kV, common mode±4kV<br><br>Shock: IEC 60068-2-27<br>Free fall: IEC 60068-2-31<br>Vibration: IEC 60068-2-6 |
| Authentication | CE, FCC, RoHS |
| Warranty | 5 years |

# Ordering Information

| Model | 100M Copper Port | 100M SFP Slot | Power Supply |
|---|---|---|---|
| MES5100-24T2S-2HV | 24 | 2 | 110VDC, 220VAC/DC dual power redundancy |

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