# S2300 Series L2 Gigabit Industrial Access Switch Datasheet

## Overview

S2300 series 8-Port L2 Gigabit industrial switch can be used in different scenarios, such as Railway, Transportation, Factory, and Telecom. It provides the stable, reliable and secure high-performance switching service for industrial environment. S2300 series is designed for harsh industrial environment, external DC wide range power input; IP40 protection grade metal chassis design, port surge protection up to 6KV; the working temperature range of -40~75°C can meet the special needs of industrial automation control.

S2300-10TFI-DC48(E1) provides 8*10/100/1000M electric ports and two 1000M SFP interfaces, DC Power Supply.

S2300-10TPI-DC48(E1) provides 8*10/100/1000M electric ports and two 1000M SFP interfaces, PoE/PoE+ enable, DC Power Supply.

S2300-12TUPI-DC48(E1) provides 8*10/100/1000M electric ports and four 1000M SFP interfaces, PoE/PoE+/UPoE enable, DC Power Supply.



S2300-10TPI-DC48(E1)      S2300-10TFI-DC48(E1)      S2300-12TUPI-DC48(E1)

## Key Features

- IP40 protection, industrial Fanless thermal conduction.
- DIN-rail aluminum alloy shell, which is compact and convenient.
- IEEE802.3af/at/bt standard, maximum 90W POE power of single port (S2300-12TUPI-DC48)
- Intelligent standard 48V POE power supply, self-negotiation power supply according to terminal type.
- Supports STP/RSTP/MSTP ring protection.
- Provides hierarchical bandwidth services through rate limiting and traffic shaping in the layer-2 QoS.
- Supports simple network management protocol (SNMP).

# Technical Specifications

| Item | S2300-10TFI-DC48 | S2300-10TPI-DC48 | S2300-12TUPI-DC48 |
|---|---|---|---|
| **Hardware Version** | **E1** | **E1** | **E1** |
| Interfaces | 8*10/100/1000Mbps RJ45 Ports<br>2*1000Mbps SFP Ports<br>1 Console Port | 8*10/100/1000Mbps RJ45 PoE/PoE+ Ports<br>2*1000Mbps SFP Ports<br>1 Console Port | 8*10/100/1000Mbps RJ45 PoE/PoE+/UPoE Ports<br>4*1000Mbps SFP Ports<br>1 Console Port |
| Indicators | PWR, LNK/ACT, SYS | PWR, LNK/ACT, PoE, SYS | PWR, LNK/ACT, PoE, SYS |
| DC Power Input | DC -12V~-55V | DC -48V~-57V | DC -48V~-57V |
| Operating Temperature | -40~75°C | -40~75°C | -40~75°C |
| POE Power Consumption | N/A | 120W | 180W |
| PoE Mode | N/A | 1/2(-), 3/6(+) | 1/2(-), 3/6(+) |
| PoE Standard | N/A | 802.3af/at | 802.3af/at/bt |
| Fanless | Yes | Yes | Yes |
| Working Temperature | -40°C~75°C | -40°C~75°C | -40°C~75°C |
| Storage Temperature | -40°C ~80°C | -40°C ~80°C | -40°C ~80°C |
| Operating Humidity | 5% ~ 95% non-condensing | 5% ~ 95% non-condensing | 5% ~ 95% non-condensing |
| Storage Humidity | 0% ~ 95% non-condensing | 0% ~ 95% non-condensing | 0% ~ 95% non-condensing |
| Dimensions(L*W*H) | 110*90*46mm | 110*90*46mm | 110*90*46mm |
| Surge Protection | Common mode ±4KV | Common mode ±6KV | Common mode ±6KV |
| Green Energy Saving | Yes | Yes | Yes |
| Hardware Protection | IP40 | IP40 | IP40 |
| Switching Capacity | 20Gbps | 20Gbps | 24Gbps |
| Forwarding Performance | 14.88Mpps | 14.88Mpps | 17.86Mpps |
| MAC Address Entry | 8K | 8K | 8K |
| VLAN ID | 4K | 4K | 4K |
| Jumbo Frame | 9216Byte | 9216Byte | 9216Byte |
| Buffer Size | 4.1MBit | 4.1MBit | 4.1MBit |
| MTBF | >100000 hour | >100000 hour | >100000 hour |
| Port | PoE Management<br>Bandwidth/Flow/MTU Control<br>Storm Control<br>Flow Control<br>Port Isolation<br>Port Security<br>Loop Detection<br>Virtual Cable Testing(VCT)<br>LLDP(802.1ab)<br>LLDP-MED | | |
| MAC Switching | Static configuration and dynamic learning of MAC address<br>Check and clear MAC address<br>Configuring of MAC address aging time | | |

| | |
|---|---|
| | Limit on MAC address learning number<br>MAC address filtering function<br>MAC notification |
| VLAN | 802.1Q VLAN<br>MAC/Protocol/Subnet Based VLAN<br>GVRP<br>Private VLAN<br>Voice VLAN<br>Private/Guest VLAN<br>VLAN Translation<br>Basic QinQ/Selective QinQ |
| Ring protection | 802.1D (STP), 802.1W (RSTP), 802.1S (MSTP)<br>BPDU Guard/Root Guard<br>ERPS |
| Multicast | IGMP Snooping V1/V2/V3<br>IGMP Fast Leave<br>IGMP Proxy<br>MLD V1/V2 Snooping<br>Multicast VLAN |
| DHCP | DHCPv4/v6 Client/Server<br>DHCPv4/v6 Snooping<br>DHCPv4/v6 Relay<br>DHCP Option |
| ACL | IP Based ACL<br>TCP/UDP Port Based ACL<br>MAC Based ACL<br>IP+MAC Based ACL<br>ACL on VLAN<br>Time Based ACL<br>IPv6 ACL |
| QoS | COS/DSCP<br>SP/WRR/WDRR<br>CAR Stream Shaping<br>Port Rate Limitation<br>COS/802.1P<br>DSCP to DSCP/DP/Queue Mapping<br>COS to DP/Queue Mapping |
| Security | 802.1X based on Port/MAC/VLAN<br>DOS Attack Protection based on TCP-Flag/IP-Segment/ICMP<br>MAC/IP Address Counting Limit<br>ARP Guard/Dynamic Inspection<br>IP Source Guard |
| Reliability | CPU Protection<br>Static/Dynamic LACP(802.3ad)<br>ULPP for Uplink Protection<br>ULDP(Unidirectional Link Detection Protocol) |
| Monitoring | SPAN/RSPAN<br>Port/CPU/Flow Based Mirroring<br>Digital Diagnostic Monitoring(DDM) |
| Management and maintenance | Console, Telnet, SSH 2.0<br>HTTP/HTTPS WEB management<br>SNMP v1/v2/v3<br>Syslog, Radius, AAA<br>CFM(802.1ag), EFM(802.3ah)<br>IPv4/IPv6 DNS<br>IPv4/IPv6 NTP/SNTP<br>IPv4/IPv6 Ping/Traceroute/Telnet<br>IPv4/IPv6 TFTP/FTP |

| | Energy Efficient Ethernet(EEE) |
|---|---|

# Order Information

| Product Model | Description |
|---|---|
| **S2300 Series** | |
| S2300-10TFI-DC48 | E1 Version: Managed industrial switch with 8*10/100/1000M Base-T ports and 2*1000M SFP ports, DC -12~-55V redundant dual power inputs, -40~+75°C working temperature, IP40 Protection, DIN-rail installation. |
| S2300-10TPI-DC48 | E1 Version: Managed industrial switch with 8*10/100/1000M PoE/PoE+ ports and 2*1000M SFP ports, 802.3af/at standard, 120W PoE budget, DC -48~-57V redundant dual power inputs, -40~+75°C working temperature, IP40 Protection, DIN-rail installation. |
| S2300-12TUPI-DC48 | E1 Version: Managed industrial switch with 8*10/100/1000M PoE/PoE+/UPoE ports and 4*1000M SFP ports, 802.3af/at/bt standard, 180W PoE budget, DC -48~-57V redundant dual power inputs, -40~+75°C working temperature, IP40 Protection, DIN-rail installation. |

*Maipu Communication Technology Co., Ltd*
Maipu Mansion，No.16, Jiuxing Avenue
High-tech Park
Chengdu, Sichuan Province
P. R. China
610041
Tel: (86) 28-65544850,
**Fax:** (86) 28-65544948,
**URL:** http:// www.maipu.com
**Email:** overseas@maipu.com

S2300(E1) Series L2+ Gigabit Industrial Access Switch Datasheet