

DPtech Industrial Switches

LSW2300 Series



Overview

The DPtech LSW2300 series industrial switches are specifically designed to meet the needs of substation automation systems, distribution network automation, intelligent transportation, and other industrial systems. Addressing the actual needs of industrial applications, DPtech industrial switches solve issues related to communication real-time performance, network security, intrinsic safety, and explosion-proof safety. Compared to commercial switches, industrial switches have stricter design and component selection requirements, making them more suitable for harsh industrial environments.

Traditional industrial switches are often developed based on open-source operating systems within the context of industrial automation. They not only have numerous open-source system vulnerabilities and deficiencies, resulting in poor reliability, but also lack support for many new Ethernet protocols, making them inadequate for the increasingly complex industrial networking environment. With years of understanding the diverse application requirements of various industrial scenarios, DPtech has launched the new generation LSW2300 series industrial switches, developed in strict accordance with numerous industrial standards.

The LSW2300 series industrial switches, based on the self-developed ConPlat software platform, support a wide range of L2-L4 network protocols such as VLAN, STP/RSTP/MSTP, QoS, flow control, ACL, and port mirroring etc., ensuring seamless integration with traditional enterprise networks. This series of industrial switches employs a fanless cooling circuit design, supports a wide operating temperature range of -40 to 85°C, and features an IP40 high protection level. They offer excellent industrial-grade qualities such as vibration resistance, impact resistance, high/low temperature resistance, corrosion resistance, dust resistance, and pulse magnetic field immunity.

Integrated with various rich protocols for routing, switching, and security, the LSW2300 series greatly enhances networking capabilities, improving the reliability and security of industrial networks. The series' rich functionality and robust hardware design meet the deployment requirements in substations, intelligent distribution network transformation, factory automation, intelligent transportation, and other harsh application environments.

Features

- **Portable Installation:**
Compact design for easy and flexible installation.
- **Outstanding Network Performance:**
16K MAC address table, with 1K multicast group entries.
- **Adaptability to Harsh Environments:**

Ability to adapt to harsh environments. Uses fanless heat dissipation circuit design, supports operating temperatures from -40 to 85°C, IP40 protection level, dual power redundancy, impact and vibration resistance.

■ **Autonomous Reliability:**

DPtech self-developed ConPlat software platform ensures high availability, guarantees critical data transmission and reliable security.

■ **Rich Network Features:**

Supports VLAN, STP/RSTP, multicast, port mirroring, QoS, port security, IPsec VPN encryption, and fully supports of IPv6.

■ **Redundant Networking Mechanism:**

Supports FRRP for rapid network fault recovery, achieving 20ms network fault switchover.

■ **Network-wide Clock Synchronization:**

Supports NTP, SNTP, IEEE 1588v2 PTP precise time synchronization for whole network clock synchronization.

■ **Easy Operations and Maintenance:**

Convenient management supports SNMP, WEB, and CLI management methods, with various default configuration templates to simplify management and configuration.

Models



LSW2300-8T4GP-I



LSW2300-4GT2GP-I



LSW2300-8GT2GP-I



LSW2300-8GT4GP-I



LSW2300-16GT4GP-I



LSW2300-8GT2GP-I-PWR



LSW2300-8GT4GP-I-PWR

Specification

Model	LSW2300-8T4GP-I	LSW2300-4GT2GP-I	LSW2300-8GT2GP-I	LSW2300-8GT4GP-I	LSW2300-16GT4GP-I
Dimension (W*D*H)	68mm*130mm*150mm	72mm*130mm*150mm	72mm*130mm*150mm	68mm*130mm*150mm	68mm*130mm*180mm
Weight	0.9Kg	1.1Kg	1.1Kg	0.9Kg	1.5Kg
Max Power Consumption	11W	15W	15W	15W	15W
Power Supply	Redundant AC/DC Power Supply AC: 90V-265V DC: 24V-48V Rated Current: 0.5A				
Switching Capacity	9.6Gbps	12Gbps	20Gbps	24Gbps	40Gbps
Packet Forwarding Rate	≥7.2Mpps	≥9Mpps	≥15Mpps	≥18Mpps	≥30Mpps
Interface	8*FE RJ45+4*FE/GE SFP	4*FE/GE RJ45+2*FE/GE SFP	8*FE/GE RJ45+2*FE/GE SFP	8*FE/GE RJ45+4*FE/GE SFP	16*FE/GE RJ45+4*FE/GE SFP
Working Temperature	-40°C ~ 85°C				
Relative Humidity	0% ~ 95%RH, non-condensing				
Protection Class	IP40				
MTBF (Year)	>35				
L2 Function	Supports 16K MAC address table entries, 802.1Q VLAN, IGMP Snooping, STP/RSTP/MSTP, 802.3x flow control, QoS (congestion management), 8 hardware priority queues, port-based rate limiting, link aggregation with up to 16 ports, and port mirroring for both ingress and egress traffic.				
L3 Function	Support Static Routing, RIPv1/v2, OSPFv1/v2				
Multi-cast	Support GMRP、IGMP Snooping				
Management	IEEE 1588 PTP precision time synchronization protocol, SNMP, DHCP Client, DHCP Relay. Web management and command line management method, with features such as system log viewing, traffic monitoring, software version management, and interface management.				
Reliability	Supports FRRP fast ring network recovery protocol, enabling single ring, multiple ring, tangent ring, star, and chain topologies, with ring network convergence time ≤20ms. Supports FLRP fast link recovery protocol. Supports ERPS Ethernet ring protection switching. Supports redundant power supplies.				

Standard	GB/T 17626 (Electromagnetic Compatibility) Q/GDW 429-2010 (Technical specifications for intelligent substation network switches) IEC61850-3 EN 61000-3-2/EN 61000-3-3 FCC Part 15, EN55022/CISPR22, Class A
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Model	LSW2300-8GT2GP-I-PWR	LSW2300-8GT4GP-I-PWR
Dimension (W*D*H)	95mm*130mm*175mm	95mm*130mm*175mm
Weight	2.0Kg	2.0Kg
Max Power Consumption	150W	150W
Power Supply	Redundant AC/DC Power Supply AC: 90Vac-264Vac 50/60Hz DC: 48Vdc-60Vdc Rated Current: 2.5A	
Switching Capacity	20Gbps	24Gbps
Packet Forwarding Rate	≥15Mpps	≥18Mpps
Interface	8*FE/GE RJ45+2*FE/GE SFP	8*FE/GE RJ45+4*FE/GE SFP
Working Temperature	-40°C ~ 85°C	
Relative Humidity	0% ~ 95%RH, non-condensing	
Protection Class	IP40	
MTBF (Year)	> 35	
L2 Function	Supports 16K MAC address table entries, 802.1Q VLAN, IGMP Snooping, STP/RSTP/MSTP, 802.3x flow control, QoS (congestion management), 8 hardware priority queues, port-based rate limiting, link aggregation with up to 16 ports, and port mirroring for both ingress and egress traffic.	
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