

DPtech Industrial Switches

LSW3000 Series



Overview

The DPtech LSW3000 series industrial switches are a high-cost-effective industrial Ethernet communication solution designed to adapt to complex and variable industrial and outdoor application scenarios. Addressing the practical needs of industrial applications, DPtech industrial switches resolve issues related to communication real-time performance, network security, intrinsic safety, and explosion-proof safety. Compared to commercial switches, industrial switches have more stringent design and component selection, making them better suited for harsh industrial control environments.

Traditional industrial switches are mostly developed based on open-source operating systems and depend on the industrial automation field background. They not only have numerous open-source system vulnerabilities and defects, resulting in poor reliability, but also lack support for many new Ethernet protocols, making them unable to meet the increasingly complex demands of industrial networking environments. With a deep understanding of the application needs in various industrial scenarios accumulated over the years, DPtech has launched a new generation of LSW3000 series industrial switches, developed in strict accordance with numerous industrial standards.

The LSW3000 series industrial switches, based on the self-developed ConPlat software platform, support a rich set of L2-L4 network protocols, such as VLAN, STP/RSTP, QoS, flow control, ACL, and port mirroring, enabling seamless connectivity with traditional enterprise networks. This series of industrial switches features a fanless cooling circuit design, achieving a wide operating temperature range of -40~85°C and an IP40 high protection level. They offer excellent industrial-grade quality, including resistance to vibration, shock, high/low temperatures, corrosion, dust, and pulse magnetic field interference, meeting the growing demands of wireless and IP surveillance. The rich functionality and rugged hardware design of the LSW3000 series industrial switches can help users establish high-speed, reliable, and flexible outdoor industrial-grade networks.

Features

■ **Adaptability to Harsh Environments:**

The fanless heat dissipation circuit design reduces potential failure points and supports operating temperatures ranging from -40°C to 85°C. It achieves an IP40 protection level, adopts a redundant power supply design, follows industrial-grade design standards, it performs stringent selection on components, enabling shock resistance, vibration resistance and dust protection..

■ **Comprehensive Security Protection:**

The self-developed DPtech ConPlat software platform ensures high availability while guaranteeing the security of critical data transmission.

■ **Rich Network and Security Features:**

Supports VLAN, STP/RSTP, multicast, port mirroring, QoS, port security, and other Layer 2 features. It also fully supports IPv6, providing a smooth transition for future network upgrades.

■ **High-Density Port Features:**

The device offers up to 24 Ethernet FE and GE interfaces, supporting various topologies such as ring, star, tree, and hybrid.

■ **Convenient Management:**

Supports multiple management methods, including SNMP, WEB, and CLI. It comes with various default configuration templates to simplify management and configuration. The UMC graphical management platform enables efficient centralized management in unattended environments and large-scale discrete deployments.

Models



LSW3000-24GT4GP-I-R



LSW3003-4GP-I-R

Specification

| Model | LSW3000-24GT4GP-I-R | LSW3003-4GP-I-R |
|------------------------|--|--|
| Dimension (W*D*H) | 440mm×340mm×44mm | 440mm×360mm×44mm |
| Weight | 4.5KG | 5.1KG |
| Max Power Consumption | 20W | 50W |
| Power Supply | AC:90Vac-264Vac DC:127-370VDC (Support HVDC) Rated Current: 2A | AC: 90Vac-264Vac 50/60Hz&&100Vdc-300Vdc DC: 36Vdc-72Vdc Rated Current: 1A |
| Switching Capacity | 56Gbps | |
| Packet Forwarding Rate | 42Mpps | |
| Interface | 24* EF/GE RJ45+4*EF SFP | 4*GE SFP+3*Expansion slot Rear cable mode |
| Expansion Slot | - | 8*GE RJ45: LSW-8GT-E 8*GE SFP: LSW-8GP-E |
| Working Temperature | -40 ~ 85°C | |
| Relative Humidity | 0% ~ 95%RH, non-condensing | |
| Protection Class | IP40 | |
| MTBF (Year) | > 35 | |

| Fan | No-fan Design |
|-------------------------|--|
| 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 |
| Ring Network Technology | Supports FRRP fast ring network recovery protocol: Enables single ring, multiple ring, tangent ring, star, and chain topologies, with ring network convergence time $\leq 20\text{ms}$. Supports ERPS Ethernet Ring Protection Switching technology. |
| Multi-cast | Support GMRP、IGMP Snooping |
| Management | SNMP, DHCP Client, DHCP Relay Web management and command line management modes Features include system log viewing, traffic monitoring, software version management, and interface management. |
| Industrial 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 |