

DPtech Ethernet Switches

LSW6600 Series



Overview

DPtech LSW6600 Series Switches are the next generation high-density 10G/25G Ethernet switches presented by DPtech. Based on the industry's leading 40G/100G hardware architecture and DPtech's ConPlat operating system, the Series is equipped with virtualization technology and rich data center features. It provides up to 48 wire-speed 10G/25G interfaces on 1U equipment. It also has 40G/100G uplink interfaces to meet the requirements of high-density 10G access and 40G/100G uplink in TOR deployment of the next generation data centers. In addition to 10G/25G access switches for cloud data centers, the LSW6600 can also serve as a core for small- or medium-sized secure networks or an aggregation equipment for large-scale secure networks.

Features

■ High-capacity high-density 10G interface

The LSW6600 Series provides a maximum switching capacity of 4Tbps, 1150Mpps forwarding performance, and full wire-speed switching architecture. It is the industry's first-class 1U cassette switch, with up to 72x10G interfaces capability, meeting the challenge of high density and high bandwidth access in next-generation cloud computing data centers.

■ Rich data center features

The LSW6600 Series is equipped with the TRILL (Transparent Interconnection of Lots of Links) technology to enable construction of ultra-large layer 2 networks consisting of more than 10,000 physical servers. In combination of ISIS routing, the TRILL technology calculates the forwarding paths to address the issue of a single forwarding path and loops, thus improving bandwidth utilization to 100%. In this way, it significantly enhances network stability and realizes quick convergence of the Layer 2 network.

Compatible with VXLAN, 802.3 Qbg, the LSW660 Series enables a highly integrated network combining traditional front-end server and back-end storage.

■ Multi-service support capability

With MCE, the LSW6600 Series creates and maintains separate routing tables for each VPN to ensure user isolation on the same device. It can serve as a reliable and economical solution for the secure isolation of multi-services in the network.

The LSW6600 Series supports multiple protocols such as IGMP, IGMP Snooping, GMRP, and PIM. It supports large-scale multicast entries to fully satisfy the requirements of IP HD video surveillance and other multicast services.

Compatible with fast ring network recovery protocol (FRRP) and fast link recovery protocol (FLRP), the LSW6600 Series provides a self-recovery performance of less than 20 milliseconds in applications that are prone to lose packets, such as video conferencing and IP HD video surveillance. Multiple services and heavy traffic will have no impact on convergence time, thus ensuring the normal business operation.

■ **Virtual Switching Matrix (VSM)**

The LSW6600 Series adopts Virtual Switching Matrix (VSM) technology, which performs virtualization of multiple physical devices into a single logical device for unified configuration and management. VSM brings about the following benefits to users:

Unified management: VSM technology enable users to log in to a logical device from any port of any device, achieving unified management of all devices in the Virtual Switching Matrix without physically connecting to each device for configuration and management.

Simplified services: VSM is compatible with various layer 2 and layer 3 network protocols. In a layer-3 network, VSM technology can perform virtualization of multiple layer-3 switches into a single logical device for unified routing computing. Thanks to the cross-device link aggregation technology, aggregation on physical ports of different devices can be realized. The Series also supports load sharing and can be used to replace the traditional spanning tree protocols, increasing bandwidth utilization and shorten the convergence time in case of a network failure.

Flexible expansion: Hot-plug is enabled when a new device joins or leaves the VSM group. Therefore, there will be no impact on the normal operation of other devices, ensuring flexible expansion as needed.

■ **Sound security control policy**

With a built-in authentication server, the LSW6600 Series provides multiple authentication modes based on MAC address, 802.1x, and Portal. It supports dynamic or static binding of user identity, such as user account, IP, MAC, VLAN, and interface. Dynamic distribution of policies is supported.

The LSW6600 Series is provided with enhanced ACL by supporting large-capacity ingress and egress ACLs. It also enables ACL distribution based on VLAN, which simplifies user configuration and avoids waste of ACL resources.

■ **Rich QoS policy**

The LSW6600 Series supports traffic identification on interfaces. It provides multiple stream classification based on source MAC address, destination MAC address, source IP address, destination IP address, TCP/UDP port number, protocol type, and VLAN. With priority queues based on hardware, it is compatible with multiple queue scheduling algorithms such as SP, WRR, and SP+WPP. Support congestion management and rate limits on interfaces.

- **Full support of IPV4/IPV6 dual stack**

The LSW6600 Series supports IPv4/IPv6 dual stack and IPv6 over IPv4 Tunnel (including manual Tunnel, 6to4 Tunnel, ISATAP Tunnel) as well as IPv6 layer 3 wire-speed forwarding. It can be flexibly deployed on a network with only IPv4 or IPv4, or with both IPv4 and IPv4, thus satisfying the transition requirements from IPv4 to IPv6.

- **Outstanding management**

With interface mirroring in both inbound and outbound directions, the LSW6600 Series can monitor packets on specified interfaces, and copy packets from these interfaces to monitoring interface for network detection and troubleshooting.

Compatible with SNMPv1/v2/v3 standard network management protocol, the LSW6600 Series provides CLI command lines and a Web management interface, and realizes centralized management of the devices through DPtech's Unified Management Center (UMC).

Models



LSW6600-8GT32XGS-G



LSW6600-24XGS2CQ



LSW6600-24XGS4CQ-G



LSW6600-48XGS2QXP4CQ-G



LSW6600-48TFG8CQ-G

Specification

Product Name	LSW6600-8GT32XGS-G	LSW6600-24XGS2CQ	LSW6600-24XGS4CQ-G	LSW6600-48XGS2QXP4CQ-G	LSW6600-48TFG8CQ-G
Switching Capacity	656Gbps	880Gbps	1280Gbps	1920Gbps	4Tbps
Forwarding Performance	300Mpps	297Mpps	294Mpps	1130Mpps	1027Mpps

10/100/1000 Base-T ports	8	-	-	-	-
10G/1G BASE-X SFP+ ports	32	24	24	48	-
25GE SFP28	-	-	-	-	48
40GE QSFP+ ports	-	-	-	2	-
100GE QSFP28	-	2	4	4	8
Expansion Slot	-	1	-	-	-
Management Interfaces	1 x RJ45; 1 x RJ45 Console; 1 x Mini USB; 1 x USB;	1 x RJ45; 1 x RJ45 Console; 1 x USB;			
Dimension (w*d*h, mm)	440×439×44	444×400×44	440×439×44	444×375×44	450×375×44
Weight (KG)	5.05	4.75	4.95	7.40	7.65
Power Supply	AC: 100V ~ 240V AC, 50/60Hz DC: -48V ~ -60V DC Dual Power Supply with Hot Swap Function				
High Voltage DC	Support, 192VDC~290VDC (Available on AC power supply only)				
Power Consumption	130W	100W	250W	288W	288W
Operating Humidity	5%~95%, non-condensing	5%~95%, non-condensing	5%~95%, non-condensing	5%~95%, non-condensing	5%~95%, non-condensing
Operating Temperature	0°C~45°C	0°C~45°C	0°C~45°C	0°C~45°C	0°C~45°C
Storage Humidity	5%~95%, non-condensing	5%~95%, non-condensing	5%~95%, non-condensing	5%~95%, non-condensing	5%~95%, non-condensing
Storage Temperature	-40°C~+70°C	-40°C~+70°C	-40°C~+70°C	-40°C~+70°C	-40°C~+70°C
Interface Management	Support Port trunk, basic port functions, LACP, etc.				
Jumbo Frame	Support				
Ring Protocol	Support STP, RSTP, MSTP, FRRP, ERPS Ethernet ring protection protocol (G.8032) Support STP Root Guard, BPDU Guard Supports FLRP Fast Link Recovery Protocol				
DHCP	Support DHCP Client, DHCP Server, DHCP Relay, DHCP Snooping				
ARP	Support static table entry, gratuitous ARP Supports standard proxy ARP and local proxy ARP Support Dynamic ARP Inspection Support ARP anti-attack Support ARP source suppression, ARP source address check, ARP one-key binding, authorized ARP				

	Static Port Access Control
IP Routing	IPv4: Static routing, RIP v1/2, OSPF, BGP, ISIS, policy-go-together, etc. IPv6: IPv6 static routing, RIPng, OSPFv3, BGP4+, ISISv6, transition tunnel technology from IPv4 to IPv6, etc.
Virtualization Features	Support VSM virtualization
Multicast Features	Support GMRP Support IGMP Snooping v2/v3, IGMP Snooping Fast-leave, IGMP Snooping Group-policy, IGMP Proxy Support PIM-SM, PIM-SSM, PIM-DM
Data Center Features	Layer-2 VxLAN Layer-3 VxLAN Support 802.1Qbg, TRILL, EVPN Supports OpenFlow 1.3 etc.
QoS Features	Support traffic classification based on 802.1p/DSCP/TOS Support speed limit on ports and streams Support SP, WRR, SP + WRR queue scheduling
Security Features	Support local and centralized authentication based on MAC address Support local and centralized authentication based on 802.1x Support local and centralized authentication based on Portal Support dynamic ARP detection, one-click ARP binding, authorized ARP, ARP source suppression, ARP source address inspection; Support port isolation, Static Port Access Control Support broadcast storm suppression Support SSH2.0
Management and Maintenance	Support RMON Support debug information output Supports virtual cable detection Support real-time temperature detection and alarm Support NTP, uninterrupted service upgrade Support power supply, fan, temperature alarm Support Ping, Tracert, Track Support NetStream traffic statistics function Support Ethernet OAM (802.1ag and 802.3ah) Support SNMP, CLI, Web management, and Unified Management Center (UMC) Support local and remote output of system logs, operation logs, debugging information