

DPtech Ethernet Switches

LSW5662 Series



Overview

DPtech LSW5662 series Ethernet switches are a new generation of high-performance Ethernet switching products launched by DPtech for industries with high security requirements such as government. This series of products adopts DPtech's leading high-performance hardware architecture and unified ConPlat operating system, with high-performance business processing capabilities, flexible Gigabit interfaces and high-density 10-Gigabit interfaces, and can flexibly expand high-density interface cards according to application requirements. It can be deployed in scenarios such as multi-service aggregation in the campus, core of small and medium enterprises, and server access in data centers, providing a full range of secure, stable, and reliable high-performance L2/L3 layer switching services from chips to hardware to software.

Features

■ High performance port density scalability

With maximum of 8x10-Gigabit optical interfaces and flexibly scalable Gigabit interfaces, the LSW5662 Series is a full wire-speed interconnection solution with the highest cost-effectiveness.

LSW5662 series switches support a wealth of high-performance expansion interface cards, including 2-port 40G Mega optical/electrical expansion interface cards and flexible Gigabit optical/electrical expansion interface cards realize high-performance port expansion and meet the diverse networking requirements of large-scale network aggregation or small-scale network cores.

■ Virtual Switching Matrix (VSM)

The LSW5662 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.

■ **Multiple services**

Integrating wireless controllers, the LSW5662 Series offers a seamless fusion of wired and wireless functions, eliminating bandwidth limitation of the wireless controllers and protecting users' investment.

With MCE, the LSW5662 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 LSW5662 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.

■ **Sound security control policy**

The LSW5662 Series provides multiple centralized authentication modes based on MAC address, 802.1x. 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 LSW5662 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.

■ **Guaranteed high reliability**

Compatible with fast ring network recovery protocol (FRRP) and fast link recovery protocol (FLRP), the LSW5662 Series provides a self-recovery performance of less than 20 milliseconds. Multiple services and heavy traffic will have no impact on convergence time, thus ensuring the normal business operation.

■ **Rich QoS policy**

The LSW5662 Series supports L2~L4 packet filtering and traffic detection on ports. It provides multiple stream classifications 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.

■ **Enhanced environmental adaptability**

The LSW5662 Series adopts an environment-enhanced design, which provides features such as a wide range of operating temperature (i.e., 0~70°C) and pressure, and lightning protection. This helps ensure highly reliable operation in complex electrical environments (e.g., corridor equipment room) and air-conditioning free deployment environments.

With low-power consumption hardware and optimized heat dissipation designs of air ducts and component layout, the LSW5662 Series ensures fully controllable power consumption. Besides, thanks to running status and environment monitoring, it can make adjustment to fan and interface statuses to reduce energy consumption in accordance with ambient temperature, time period and other operating conditions. A number of statuses and alarms can be provided, including environmental alarms, power supply and fan alarms, interface, and CPU status.

■ Full support of IPV4/IPV6 dual stack

The LSW5662 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 IPv6, or with both IPv4 and IPv6, thus satisfying the transition requirements from IPv4 to IPv6.

■ Outstanding management

With interface mirroring in both inbound and outbound directions, the LSW5662 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 LSW5662 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



LSW5662-48GT6XGS-G(-PWR)



LSW5662-48GP6XGS



LSW5662-28GT8XGS



LSW5662-28GP8XGS

Specification

Product Name	LSW5662-28GT8XGS	LSW5662-28GP8XGS	LSW5662-48GT6XGS-G	LSW5662-48GP6XGS	LSW5662-48GT6XGS-PWR
Switching Capacity	232Gbps	232Gbps	376Gbps	376Gbps	376Gbps
Forwarding Performance	172Mpps	172Mpps	279Mpps	279Mpps	279Mpps
10/100/1000 Base-T GE Ports	20	-	48	-	48
1000 Base-X SFP Ports	-	20	-	48	-
GE/SFP Combo Interfaces	8	8	-	-	-
10G/1G BASE-X SFP+ Ports	8	8	6	6	6
PoE Ports	-	-	-	-	48
Management Interfaces	1 RJ45 port, 1 RJ45 Console port, 1 USB port				
Expansion Slot	1				
Expansion Module	<ul style="list-style-type: none"> 8 x RJ45 8 x SFP 	<ul style="list-style-type: none"> 8 x RJ45 8 x SFP 	<ul style="list-style-type: none"> 8 x SFP+ 2 x QSFP+ 	<ul style="list-style-type: none"> 8 x SFP+ 2 x QSFP+ 	<ul style="list-style-type: none"> 8 x SFP+ 2 x QSFP+
Dimension (w*d*h, mm)	440×400×44	440×400×44	440×400×44	440×400×44	440×400×44
Weight	4.85	4.80	5.10	5.10	8.20
Power supply	AC: 100V ~ 240V AC, 50/60Hz, 2A 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	110W	110W	100W	110W	900W PoE: 720W Single PoE: 30W
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
Fan	2	2	2	2	2(hot swap)
MAC	Supports 128K MAC entries Support static MAC, dynamic MAC, black hole MAC, source MAC address filtering				
VLAN	Supports 4K VLAN Supports VLAN based on MAC/IP subnet/authentication policy/port/protocol				

	Support Voice VLAN, Guest VLAN, PVLAN Support QinQ, flexible QinQ, VLAN MAPPING, GVRP
Port Characteristics	Support port aggregation, port mirroring, port isolation, port traffic identification, RSPAN, unknown unicast suppression, multicast storm suppression, broadcast storm suppression
Ring Protocol	Support STP, RSTP, MSTP, FRRP, FLRP, ERPS Ethernet ring protection protocol (G.8032)
DHCP	Support DHCP Client, DHCP Server, DHCP Relay, DHCP Snooping
Virtualization features	Support VSM virtualization
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.
Multicast features	Support GMRP v1/v2/v3, IGMP Proxy Support IGMP Snooping v1/v2/v3, MLD v1/v2, MLD Snooping v1/v2 Support PIM-SM, PIM-SSM, PIM-DM
ACL	Support ACL based on VLAN, MAC address, IP address, TCP/UDP port number, etc.
QoS	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 dynamic ARP detection, one-click ARP binding, authorized ARP, ARP source suppression, ARP source address inspection; Supports CPU load protection, enhances the device's anti-attack capability, and ensures stable network operation Support port isolation, Static Port Access Control Support broadcast storm suppression Support SSH2.0
Management and Maintenance	Support RMON Support OAM Support NTP Support power supply, fan, temperature alarm Support ULDP (Unidirectional Link Detection Protocol) Unidirectional Link Detection Protocol Support SNMP, CLI, Web network management and UMC unified management center Support local and remote output such as system log, operation log, debugging information, etc. Support interface and static route configuration description function Support command line to switch the working mode of Layer 2/Layer 3 interface (any interface)