

DH-S7803

L3 Managed S78 Series Switch with 3-Slot-DH-S7803



- Rich layer 3 features.
- Easy to manage.
- Supports Intelligent Resilient Framework.
- Comprehensive security control policies. Supports hot swapping for all components.
- High-performance IPv4 and IPv6 service capabilities.
- MACsec technology offers hardware-based encryption.
- Meets the needs of scenarios that have different port densities and performance requirements.

System Overview

With its modular design, S78 Series Switch is a high-performance switch that is reliable, intuitive, and easy to manage and maintain. It supports a variety of Ethernet ports, including 1000M optical ports, 1000M electrical ports, and 10G optical ports that meet the needs of multi-level link bandwidth. All the key components of the switch, such as its main processing units and power modules, have a redundancy design that is built to have carrier-grade reliability. It can be widely used in a variety of network environments, providing solutions for various industries.

Functions

Virtual Stacking

Virtual Stacking can virtualize multiple switches into one. Virtual stacking delivers the following benefits: High Availability (HA) – Provides data backup and non-stop forwarding to the control plane and data plane. This improves availability, performance, eliminates single-point failures and ensures service continuity. Distribution – Multi-chassis link aggregation that enables load sharing and backup over multiple uplinks, improving redundancy and link utilization. Easy Management – A single IP address for managing the entire virtual stack, which simplifies device and topology management, improves operating efficiency, and lowers network maintenance cost.

Abundant QoS Features

The switch offers abundant QoS features, including:

Priority Settings – Offers packet filtering based on packet header fields from layer 2 through layer 4, including source MAC, destination MAC, source IP, destination IP, TCP/UDP port number, protocol type, and VLAN. Advanced algorithms – Flexible queuing and scheduling algorithms configured on a per-port or per-queue basis, including strict priority (SP), weighted round robin (WRR), and SP+WRR. It also supports port mirroring in both outbound and inbound directions for network monitoring and troubleshooting.

Outstanding Management Capacity

The switch provides a variety of management features and is easy to manage. It offers the following features for device management:

Multiple management ports – Provides multiple management interfaces, including the console port, USB port, and out-of-band management Ethernet port.

Traffic monitoring and analysis – To help customers gain visibility into network application traffic, the switch provides a variety of traffic monitoring and analytics tools, including local port mirroring and layer 2 remote port mirroring. With these tools, multiple ports can be specified to collect network traffic data to evaluate the health status of the network, create traffic analysis reports, perform traffic engineering, and optimize resource allocation.

Scene

Suitable for scenarios such as SMEs, chain businesses, branches, government structures, schools, and hotels.

Specification	
Basic	
Layer	Layer 3
Switching Capacity	168 Tbps
Packet Forwarding Rate	36,000 Mpps
Operating Temperature	0 °C to +45 °C (+32 °F to +113 °F)
Operating Humidity	5%–95% (RH), non-condensing
Storage Temperature	-40 °C to +70 °C (-40 °F to +158 °F)
Storage Humidity	5%–95% (RH), non-condensing
Power Supply	Dual power supply: 100–240 VAC; 50/60 Hz; 5 A
Power Consumption	Idling: 7.5 W Full load: 490 W
Statics Protection	Air discharge: 8 kV Contact discharge: 6 kV
Lightning Protection	Common mode: 2 kV Differential mode: 1 kV
Net Weight	18 kg (39.68 lb)
Gross Weight	20.20 kg (44.53 lb)
Product Dimensions	436 mm × 420 mm × 216 mm (17.17" × 16.54" × 8.50") (L × W × H)
Packaging Dimensions	600 mm × 585 mm × 375 mm (23.62" × 23.03" × 14.76") (L × W × H)
Installation	Rack mount
Hardware	
Total Slots	5
Function Slots	3
MPU	2
Debugging	1 × Console port 2 × MGMT ports 1 × USB port 1 × Micro-USB port
Hot Plug	Yes
Performance	
Packet Buffer Size	24 Mbit
Jumbo Frame	9,600 Byte
MAC Table Size	320K
Communication Standard	IEEE802.3; IEEE802.3u; IEEE802.3x; IEEE 802.3ab; IEEE 802.3z; IEEE 802.3az; IEEE 802.3ad; IEEE 802.3ae
VLAN Number	4094
VLAN Interface	4000
IPv4 Routes	16K
Dynamic ARP	64K

Feature	
Ethernet Loop Protection	STP/RSTP/MSTP PVST RRPP ERPS
VLAN Function	Port-based VLAN; MAC-based VLAN; Protocol-based VLAN; Subnet-based VLAN; QinQ, flexible QinQ; VLAN Mapping; MVRP
Link Aggregation	Multi-chassis Link Aggregation LACP Dynamic Aggregation Static Aggregation
Port Feature	IEEE 802.3x Flow Control Unknown Unicast Suppression Multicast Storm Control Broadcast Storm Control
Mirror	Flow Mirroring N:1 Mirroring Local Port Mirroring Remote Port Mirroring
Multicast	IGMP Snooping; IGMP Proxy; PIM Snooping; IGMP V1; IGMP V2; IGMP V3; PIM-SM; PIM-SSM; PIM-DM; Dual-way PIM; MSDP; MBDP
Reliability	IRF VRRP DLDP LLDP
Routing	Static Routing RIPv1 RIPv2 RIPv3 RIPng OSPFv2 OSPFv3 IS-ISv4 IS-ISv46 BGP4 BGP4+ ECMP; PBR
ARP	ARP, RARP, free ARP Dynamic ARP Inspection ARP anti-attack ARP source suppression ARP detection
DHCP Function	DHCP Client DHCP Snooping DHCP Relay DHCP Server
Security	Multi-level user management and password protection 802.1x/centralized MAC address authentication Guest VLAN RADIUS SSH 2.0 Port isolation Port security PORTAL authentication DHCP Snooping prevents spoofing DHCP servers Dynamic ARP detection protects the network from man-in-the-middle and DoS attacks uRPF prevents malformed or forged source IP attacks

QoS/ACL	Packet filtering (Layer 2 to Layer 4) Source MAC-, destination MAC-, Source IP (IPv4/IPv6)-, destination IP (IPv4/IPv6)-, TCP/UDP port number-, VLAN-based traffic classification Time-based ACL Two-way ACL policy (ingress and egress) VLAN-based ACL application RX and TX rate limit Minimum granularity of 8 Kbps Message redirection Remark 802.1p and DSCP priority CAR (Committed Access Rate) Each port has 8 egress queues; CPU port supports 48 queues The flexible queue scheduling algorithm supports SP, WRR, WFQ, SP + WRR, and WDRR modes (can be set based on the port and queue at the same time)
IPv6	ICMPv6 SSH2 V6 TFTP V6 ND ND Snooping ND Proxy ND Detection DHCPv6 Snooping DHCPv6 Client DHCPv6 Relay DHCPv6 Server IPv6 Port Binding
Equipment Management	CLI Configuration Telnet SSH SNMP v1 SNMP v2c SNMP v3 Console Port Configuration ROMN TFTP FTP NTP Logs; System Log; Fault Alarm; Level-based Alarm; Loopback Detection; Ping; Traceroute

Ordering Information		
Type	Model	Description
SFP Module	GSFP-1310-20-SMF	1.25G 1310nm, 20km, LC, Single-mode[optional]
	GSFP-1310R-20-SMF	1.25G 1550/1310 nm, 20 km, LC, Singlemode [optional]
	GSFP-1310T-20-SMF	1.25G 1310/1550 nm, 20 km, LC, Singlemode [optional]
	SFP-1310T-20-SMF	155M 1310/1550 nm, 20 km, LC, Singlemode [optional]
	SFP-1310R-20-SMF	155M 1550/1310 nm, 20 km, LC, Singlemode [optional]
	TSFP-850-MMF	10G 850 nm, 300m, LC, Multi-mode[optional]
	GSFP-850-MMF	1.25G 850 nm, 500 m, LC, Multi-mode[optional]
	SFP-850-MMF	155M 850 nm, 2km, LC, Multi-mode[optional]
	TSFP-1270T-20-SMF	10G 1270/1330 nm, 20 km, LC, Singlemode [optional]
	TSFP-1270R-20-SMF	10G 1330/1270 nm, 20 km, LC, Singlemode [optional]
Accessories	S7803-MPU	Main processing unit
	S7803-PWR300	Power module
	S78-16XF24GF	16-Port SFP+ and 24-Port SFP Module
	S78-24GF8GT	24-Port SFP and 8-Port RJ45 Module
	S78-24GT20GF4XF	"24-Port RJ45 and 20-Port SFP and 4-Port SFP+ Module"
	S78-24GT8GF	24-Port RJ45 and 8-Port SFP Module
	S78-48GF	48-Port SFP Module
	S78-48GT	48-Port RJ45 Module

Dimensions (mm[inch])

