

# DH-S10506



- Fully compliant with 40GE Ethernet standards.
- Support virtualization technologies.
- Hardware level encryption technology MACsec.
- High-performance IPv4/IPv6 service capabilities.
- Comprehensive security control policies.
- Support hot swapping for all components.
- Advanced CLOS multistage and multi-plane switching architecture, delivering great bandwidth scalability.

## System Overview

With its modular design, S105 Series Switch is a high-performance switch that is reliable, intuitive, and easy to manage and maintain. It is a professional, multi-service routing switch that fully meets the 40GE Ethernet standards. It offers uninterrupted forwarding and updates, quick restart, loop protection and more. It also improves efficiency and maximizes on network uptime, reducing the total cost of ownership (TCO).

## Functions

### Virtual Stack

Virtual Stack can virtualize multiple switches into one. Virtual stack 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.

### Redundant Power Supply

Redundant power supply ensures that the device is still powered when one power port malfunctions, which improves device reliability.

**Specification**

## Hardware

PoE	No
Total Slots	12
Supervisor Engine Module	2
Line Card	6
Switch Fabric Card	4
Debugging	1 × Console port 1 × USB port 1 × RJ-45 port 1 × SFP port
Hot Plug	Yes
Power Supply	4 × Power supply, 100-240 VAC, 50/60 Hz
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 Consumption	Full load: 2470 W

## Performance

Layer	Layer 3
Management Type	Yes
Switching Capacity	384 Tbps
Packet Forwarding Rate	72000 Mpps
Packet Buffer Size	288 Mbit
Jumbo Frame	13312 Byte
MAC Table Size	498K
VLAN Number	4094
VLAN Interface	4094
IPv4 Routes	512K
Dynamic ARP	88K
Communication Standard	IEEE802.3; IEEE802.3u; IEEE802.3ab; IEEE802.3z; IEEE802.3x

## Feature

Ethernet Loop Protection	STP/RSTP/MSTP/ERPS/PVST
VLAN Function	Yes
Link Aggregation	Static link aggregation Dynamic link aggregation Multi-chassis link aggregation
IEEE 802.3x Flow Control	IEEE 802.3x flow control Priority-based flow control
Multicast	IGMPv1/v2/v3 IGMPv1/v2/v3 Snooping PIM-SM/PIM-DM/PIM-SSM MSDP

Reliability	virtual stack VRRP DLDP
ARP	ARP Dynamic ARP Inspection ARP anti-attack ARP source-suppression ARP Detection
DHCP Function	DHCP Client DHCP Snooping DHCP Relay DHCP Server
Security	Hierarchical user management and password protection AAA authentication support RADIUS authentication HWTACACS SSH2.0 Port security IP Source Guard 802.1X authentication and centralized MAC address authentication Portal authentication DHCP snooping Dynamic ARP detection BPDU guard and root guard uRPF IP/Port/MAC binding Plaintext authentication and MD5 authentication for OSPF and RIPv2 packets Public Key Infrastructure (PKI)
QoS/ACL	QoS/ACL
IPv6	Yes
Equipment Management	FTP; TFTP; Xmodem SNMP v1/v2/v3 RMON

## General

Statics Protection	Air discharge: 8 kV Contact discharge: 6 kV
Lighting Protection	Common mode: 2 kV Differential mode: 1 kV
Product Dimensions	440 mm × 520 mm × 442 mm (17.32" × 20.47" × 17.40") (L × W × H)
Packaging Dimensions	795 mm × 690 mm × 615 mm (31.30" × 27.17" × 24.21") (L × W × H)
Installation	Rack mount

**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, Single-mode[optional]
	GSFP-1310T-20-SMF	1.25G 1310/1550 nm, 20 km, LC, Single-mode [optional]
	SFP-1310T-20-SMF	155M 1310/1550 nm, 20 km, LC, Single-mode [optional]
	SFP-1310R-20-SMF	155M 1550/1310 nm, 20 km, LC, Single-mode [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, Single-mode [optional]
	TSFP-1270R-20-SMF	10G 1330/1270 nm, 20 km, LC, Single-mode [optional]
	QSFP-1310-10-SMF	SFP Optical Modul
	QSFP-850-MMF	SFP Optical Modul
	Accessories	S10506-MPU
S10506-NET		Switch Fabric Card
S105-PWR1600		Power Supply
S10506-FAN		Fan Tray
S105-16QFSF		16-Port QSFP+ Module
S105-32GF16XFSD		32-Port SFP and 16-Port SFP+ Module
S105-48XFSD		48-Port SFP+ Module
S105-48GT4XFSD		48-Port RJ45 and 4-Port SFP+ Module

**Dimensions (mm[inch])**

