

# DH-S10508



- 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 40G 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              | 16   |
| Supervisor Engine Module | 2  |
| Line Card                | 8  |
| Switch Fabric Card       | 6  |
| Debugging                | 1 × Console port<br>1 × USB port<br>1 × RJ-45 port<br>1 × SFP port |
| Hot Plug                 | Yes  |
| Power Supply             | 6 × 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: 3680 W  |

|                        |   |
|------------------------|---|
| Performance            |   |
| Layer                  | Layer 3   |
| Management Type        | Yes   |
| Switching Capacity     | 512 Tbps  |
| Packet Forwarding Rate | 96000 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;<br>IEEE802.3x |

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

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

|                      |  |
|----------------------|--|
| General              |  |
| Statics Protection   | Air discharge: 8 kV<br>Contact discharge: 6 kV                     |
| Lighting Protection  | Common mode: 2 kV<br>Differential mode: 1 kV                       |
| Net Weight           | 46.5 kg (102.51 lb)  |
| Gross Weight         | 80.5 kg (177.47 lb)  |
| Product Dimensions   | 440 mm × 640 mm × 531 mm<br>(17.32" × 25.20" × 20.91") (L × W × H) |
| Packaging Dimensions | 950 mm × 750 mm × 890 mm<br>(37.40" × 29.53" × 35.04") (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]   |
| Accessories          | QSFP-1310-10-SMF  | SFP Optical Modul                                     |
|                      | QSFP-850-MMF      | SFP Optical Modul                                     |
|                      | S10508-MPU        | Supervisor Engine Module                              |
|                      | S10508-NET        | Switch Fabric Card                                    |
|                      | S105-PWR1600      | Power Supply  |
|                      | S10508-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])

