# S6500-24TF-2QF

## L3 Full Routing Switch 24-port 10G SFP+

Datasheet

## Overview

It series switches are next-generation L3 10G box switches based on high-performance hardware and TG-NET Operating System Platform (TOS). It can function as an access switch in an Internet data center (IDC) or a core switch on a campus network.

It has industry-leading performance and provides up to 24 or 32 line-speed 10GE ports and 2*40GE ports. It can be used in a data center to provide 10 Gbit/s access to servers or function as a core switch on a campus network to provide 10 Gbit/s traffic aggregation. In addition, It provides a wide variety of services, comprehensive security policies, and various QoS features to help customers build scalable manageable reliable and secure data centers.

## Product Appearance

### S6500-24TF-2QF

24* 10 GE SFP+ ports

4*10/100/1000 Base-T ports

10G subcard or 40G subcard

1 * Console port

1 * Management port

# Product Features and highlights

- **Large-capacity, high-density, 10 Gbit/s access**

  To provide sufficient bandwidth for users, many servers, particularly those in data centers, use 10G network adapters. It can be used in data centers to provide high forwarding performance and 10GE ports.

  It has the high density of all 10GE ports and the large switching capacity. Each S6500 provides a maximum of 32 line-speed 10GE ports.

  It ports support 1GE and 10GE access and can identify optical module types, maximizing the return on investment and allowing users to flexibly deploy services.

  It has a large buffering capacity and uses an advanced buffer scheduling mechanism to ensure non-block transmission when data center traffic volume is high.

- **Comprehensive security policies**

  It provides multiple security measures to defend against Denial of Service (DoS)attacks, as well as attacks against networks or users. DoS attack types include SYN Flood attacks, Land attacks, Smurf attacks, and ICMP Flood attacks. Attacks to networks refer to STP BPDU/root attacks. Attacks to users include bogus DHCP server attacks, man-in-the-middle attacks, IP/MAC spoofing attacks, and DHCP request flood attacks. DoS attacks that change the CHADDR field in DHCP packets are also attacks against users.

  It supports DHCP snooping, which discards invalid packets that do not match any binding entries,such as ARP spoofing packets and IP spoofing packets. This prevents hackers from using ARP packets to initiate attacks on campus networks. The interface connected to a DHCP server can be configured as a trusted interface to protect the system against bogus DHCP server attacks.

It supports strict ARP learning, which prevents ARP spoofing attacks that exhaust ARP entries.It also provides an IP source check to prevent DoS attacks caused by MAC address spoofing, IP address spoofing, and MAC/IP spoofing. URPF, provided by It, authenticates packets by checking the packet transmission path in reverse, which can protect the network against source address spoofing attacks.

It supports centralized MAC address authentication and 802.1x authentication. It authenticates users based on statically or dynamically bound user information such as the user name,IP address, MAC address, VLAN ID, access interface, and flag indicating whether antivirus software is installed. VLANs, QoS policies, and ACLs can be dynamically applied to users.

It can limit the number of MAC addresses learned on an interface to prevent attackers from exhausting MAC address entries by using bogus source MAC addresses. This function minimizes the packet flooding that occurs when users' MAC addresses cannot be found in the MAC address table.

- **Higher reliability mechanism**

It supports redundant power supplies. You can choose a single power supply or use two power supplies to ensure device reliability.

It supports MSTP multi-process that enhances the existing STP, RSTP, and MSTP implementation.This function increases the number of MSTPs supported on a network.

It supports Ethernet Ring Protection Switching (ERPS), also referred to as G.8032. As the latest ring network protocol, ERPS was developed based on traditional Ethernet MAC and bridging functions and uses mature Ethernet OAM function and a ring automatic protection switching (R-APS) mechanism to implement millisecond-level protection switching. ERPS supports various services and allows flexible networking, helping customers build a network with lower OPEX and CAPEX.

- **Easy deployment and maintenance free**

Supports SNMP v1/v2/v3 and provides flexible methods for managing devices. Users can manage It using the CLI and Web NMS.

Supports SSH2.0 and other encryption, which makes management much more secured.

Supports LLDP protocol for simpler management.

## Product Specifications

| Items | S6500-24TF-2QF |
|---|---|
| Fixed port | 24* 10 GE SFP+ ports |
|  | 4*10/100/1000 Base-T ports |
|  | 1*Console port |
|  | 1*Management port |
| Extended slot | 10G subcard or 40G subcard |
| subcard | 2*40G QSFP+ subcard |
|  | 8*10G SFP+ subcard |
| Switching Capacity | 650Gbps |
| Packet Forwarding Capacity | 484Mpps |
| Operating environment | Operating temperature: 0℃－50℃ |
|  | Relative humidity: 5%–95% (non-condensing) |
| Dimensions | 444(L)×425(W)×44.5(H)mm |
| Weight | <8Kg |
| Input Voltage | AC:110～240V/50～60Hz,Two swappable power supply modules |
| Power Consumption | <100W |

## Service Features

| Items | S6500-24TF-2QF |
|---|---|
| Standards | IEEE 802.3ad, Link Aggregation |
| | IEEE 802.3,10BASE-T |
| | IEEE 802.3u,100 BASE-TX |
| | IEEE 802.3ab,1000 BASE-T |
| | IEEE 802.3z,1000 BASE-X |
| | IEEE 802.3ae, 10Gb/s Ethernet |
| | IEEE 802.3ba,40/100Gb/s Ethernet |
| | IEEE 802.3x, Ethernet flow control |
| | IEEE 802.1AB-2005,LLDP( Link Layer Discovery Protocol) |
| | IEEE 802.1d, Spanning Tree Protocol |
| | IEEE 802.1w, Rapid Spanning Tree Protocol |
| | IEEE 802.1s,Multiple Spanning Tree Protocol |
| | IEEE 802.1q, VLAN |
| | IEEE 802.1p,QoS |
| MAC Address | 128K MAC addresses |
| | MAC address learning and aging |
| VLAN | 4K VLANs |
| | Port-based VLANs |
| Spanning Tree | STP(Spanning Tree Protocol) |
| | RSTP( Rapid Spanning Tree Protocol) |
| | MSTP(Multiple Spanning Tree Protocol) |
| Link Aggregation | Max 16 aggregation groups |
| Port Mirroring | Many-to-one port mirroring |
| Reliability | ERPS(G.8032) |
| | VRRP |

| | |
|---|---|
| IP Routing | Static Routing |
| | RIPv1/v2 |
| | OSPFv2 |
| | BGP |
| IPv6 routing | Static route |
| Multicast | IGMP v1/v2/v3 snooping and IGMP fast leave |
| | Multicast VLAN |
| DHCP | DHCP Server/Client |
| | DHCP Snooping |
| | DHCP Relay |
| QoS | Rate limiting on packets sent and received by an interface |
| | Eight queues on each port |
| | SP,WRR queue scheduling algorithms |
| Security | Binding of the IP address, MAC address, interface |
| | Port isolation |
| | IP ACL, MAC ACL on hardware |
| | 802.1x authentication |
| | SSH v2.0 |
| | User privilege management and password protection |
| Management and maintenance | SNMP V1/V2c/V3 and RMON |
| | Remote configuration and maintenance using Telnet |
| | Web NMS |
| | System logs and alarms of different levels |