

S5800-8TF12S Switch

High-performance 10G Switch for Hyper-converged Infrastructure

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The S5800-8TF12S is a high-performance Ethernet switch to meet the next generation Metro, Data Center and Enterprise network requirements. The S5800-8TF12S comes with the complete system software with comprehensive protocols and applications to facilitate the rapid service deployment and management for both traditional L2/L3/IPv6 networks. With support for advanced features, including MLAG, SFLOW, SNMP etc, this switch is ideal for a traditional or fully virtualized data center.

The S5800-8TF12S which provides high availability port with 8-port 1Gb RJ45 combo and 8-port 1Gb SFP combo and 12-port 10Gb uplink in a compact 1RU form factor is cost-effective Ethernet access platform to Metro, Data Center and Enterprise application.

Benefits

- Support MLAG and VARP
- Support NVGRE
- MEF9/14 Service Compliant
- ITU-T G.8031, G.8032
- Ethernet OAM: IEEE 802.1ag(CFM)
- IEEE 802.1q VLANs and QinQ
- Static Link Aggregation/LACP
- Address Resolution Protocol (ARP)

Technical Specification

S5800-8TF12S

Switching Capacity	240 Gbps
Forwarding Rate	178.57 Mpps
CPU	PowerPC P1010
Latency	2.8 us
Packet Buffer Memory	3 MB
Flash Storage Memory	2 GB
System Memory	1 GB
Jumbo Frame	9600 Bytes
DDM	Support
Typical/Max Power Draw	65 W
Switching Method	Store and Forwarding
Airflow Direction	Front-to-Back
Rack Mount	1 RU
Dimensions	440 x 340 x 43.6 mm (17.32 x 13.39 x 1.72")
Unit Weight	4.8 kg
Warranty	5 Years
Operating Temperature	0 to 45 °C (Long term) -5 to 55 °C (Short term)
Power Supply Range (AC)	Operating Voltage: 100 ~ 240V; 50/60Hz Maximum Voltage: 90 ~ 264V; 47~63Hz
Power Supply Range (DC)	Operating Voltage: -48 ~ -60V Maximum Voltage: -36 ~ -72V
Relative Humidity	10 to 90%, non-condensing

FEATURES

Functionality	Description
Data Center and Metro Ethernet	Support MLAG and VARP
	Support NVGRE
	Open API interfaces to achieve SDN
	MEF9/14 Service Compliant
	ITU-T G.8031, G.8032
	Ethernet OAM: IEEE 802.1ag (CFM)
L2/L3 Packet Processing	STP/RSTP/MSTP (BPDU Filter/BPDU Guard/Root Guard) Partitioned STP and BPDU tunnel
	IEEE 802.1q VLANs and QinQ
	Static Link Aggregation/LACP
	Address Resolution Protocol (ARP)
	IGMP Snooping v1/v2/v3
	Full IPv4 & IPv6 Routing including RIP/OSPF/BGP/ECMP
	Access Control List (ACL) L2-L4 classification
	Up to 64K MAC/8K IP LPM
	Flexible ingress/egress counter pools
Traffic Visibility and Trouble-shooting	CPU Traffic Rate Limit
	Integrated High Performance Smart Buffer Memory
	Storm Control (unicast, broadcast, multicast)
	IEEE 802.1AB Link Layer Discovery Protocol (LLDP)
	Class of Service (CoS): 802.1p or DSCP
	Telnet/SSH/FTP/TFTP/Ping (Fast Ping)/TraceRoute
Mac Table	Automatic learning and aging of MAC addresses (Support HW learning)
	Static, dynamic, and blackhole MAC address entries
	Packet filtering based on source MAC addresses
	Limitation on MAC address learning on interfaces (Port Security)
	Limitation on MAC address learning on Vlans (VLAN Security)

FEATURES

Functionality	Description
Interface	Ethernet interface operating modes: full duplex, half duplex, and auto-negotiation
	Ethernet interface operating rates: 10 Mbit/s, 100 Mbit/s, 1000 Mbit/s, 10 Gbit/s, and auto-negotiation
	Flow control on (TX and RX direction)
	Jumbo frames (9600 Bytes)
	Link aggregation (Static/LACP)
	Load balancing among the links of a Link aggregation
	Interface isolation and forwarding restriction Storm Control (unicast, broadcast, multicast)
Link Aggregation	Static Link Aggregation/LACP
	Load Balance Mode: Hash
	MLAG and VARP
VLAN	Vlan access modes: access, trunk, and QinQ
	MAC based VLAN Classification
	IP based VLAN Classification
	Protocol based VLAN Classification
	Default VLAN
	Selective QinQ
	VLAN mapping Voice VLAN/Private VLAN
Redundancy	Smart Link/ SmartLink multi-instance/MonitorLink
	VRRP (Virtual Router Redundancy Protocol)
	MLAG
Network Reliability	CFM (802.1ag/Y.1731)
	EFM(802.3ah)
	UDLD (Unidirectional Link Detection)

FEATURES

Functionality	Description
Loop Protection	STP/RSTP/MSTP (BPDU Filter/BPDU Guard/Root Guard) Partitioned STP and BPDU tunnel
	ERPS (Ethernet Ring Protection Switching)
	Single ERPS ring, tangent ERPS rings, and intersecting ERPS rings
	Hybrid networking of ERPS rings and other ring networks
	G.8031(Linear network protection)
	G.8032 (Ring network protection)
	ERPS(RFC3619)
Port Error Disable when Loop detected	
Network Monitor	S-flow
DHCP	DHCP Client
	DHCP Snooping
	DNS
	NTP
	DHCP Server
	DHCP Snooping
	DHCP packet filtering (Option 82)
ARP	Static and dynamic ARP entries
	ARP Proxy
	Gratuitous ARP
	Dynamic ARP Inspection
	Aging of ARP entries
IPv4 Route	Static Route
	RIP/OSPF/BGP/ECMP
	VRF
	Up to 8 ways ECMP
	uRPF check
	Routing policies and policy-based routes

FEATURES

Functionality	Description
IPv6	ND (Neighbor Discovery)
	PMTU
	ICMPv6
	IPv6 ACL
	IPv6 Prefix-list
	RIPng/OSPFv3
	DHCPv6 Relay/Snooping
	Static Tunnel / ISTAP Tunnel / 6 to 4 Tunnel
IPv4 Multicast	IGMP Snooping v1/v2/v3
	IGMP Snooping Fast-leave
	IGMP Snooping Group-policy
	IGMP v1/v2/v3
	IGMP Proxy
	PIM-SM, PIM-SSM
	MVR (Inter-VLAN multicast replication)
	Static Multicast Group
IPv6 Multicast	MLD v1/v2
	MLD Snooping v1/v2
	MVR6
	PIM-SMv6
	PIM-SSMv6
ACL	Ingress/Egress ACL
	Standard L3/L4 ACL and Extended L2/L3/L4 ACL
	Permit/deny/redirect/remark
Mirror	Ingress/egress port/flow mirror
	RSPAN(mirror to vlan)

FEATURES

Functionality	Description
QoS	Rx/Tx Policing (1R2C or 2R3C), Port/Flow Policing Cos/Dscp remark Traffic classification based on the combination of the MAC address, IPv4/IPv6 address, L2 protocol header, TCP, UTP, outgoing interface, and 802.1p field Shapping based on Interfaces and queues
Security	Multiple Level User management and Password protection Switch Table Management (Flexible system profiles) Hierarchical CLI protection to prevent unauthorized users from accessing Switch 802.1x port security AAA (Both Radius and TACACS+) SSH v2.0 Instruction lock (link detection) IP Source guard Prevent CPU DDoS attack (ICMP Flood/Smurf/Fraggle/LAND/SYN Flood) BHM (Beat Heart Monitor) CPU Traffic Rate Limit
Management and Trouble-Shooting	CLI/WEB/SNMP Telnet/SSH/FTP/TFTP/Ping (Fast Ping)/TraceRoute Online upgrade software image Online upgrade of the BootROM Smart config LLDP Syslog/Trap/Online Diagnostic/Debug



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