

# 12-Port 10G SFP+ Managed Switch



## Product Highlights

- Comply with IEEE 802.1d, IEEE 802.1w, IEEE 802.1s, IEEE 802.1p, IEEE 802.3, IEEE 802.3u, IEEE 802.3x, IEEE 802.3z, IEEE 802.3ab, IEEE 802.3ae standards
- Support L3 management, DHCP Server, QoS, ACL control, SNMP V1/V2/V3, IGMP Snooping v1/v2
- Support Spanning Tree Protocol STP/RSTP/MSTP (ERPS), Loop Detection and Self Healing, and Remote Loop Monitoring and Control
- Support multiple VLAN partitions, including MAC VLAN and protocol VLAN
- Support IP address+MAC address+VLAN+port binding, DHCP Snooping, IP source and DAI protection
- Support IPV4/IPV6, RIP v1/v2, OSPFv2

## Hardware Features

Description	Specification
Model	HR-SWTG3C12F
Interface	12*10Gbps SFP+ ports 1*Console port
Port Standard	IEEE802.3u (Fast Ethernet) IEEE 802.3ab (Gigabit Ethernet) IEEE 802.3z (Gigabit Ethernet Fiber Standard) IEEE 802.3ae (10G Ethernet) IEEE802.3x (Flow Control) IEEE 802.3az (Efficient and Energy saving Ethernet) IEEE 802.3ad (Link Aggregation) IEEE 802.1AB LLDP/LLDP MED (Link Layer Discovery Protocol) IEEE 802.1D Spanning Tree Protocol IEEE 802.1w Rapid Spanning Tree Protocol IEEE 802.1s Multiple Spanning Tree Protocol (Fast Spanning Tree) IEEE 802.1Q (Virtual Local Area Network) IEEE 802.1p (VLAN Tag) IEEE 802.1X (User Authentication)
Switching Bandwidth	240Gbps
Packet Forwarding Rate	178.56Mpps
Packet Buffer	16Mbit
MAC Address Table	32K
Jumbo Frame	10K
VLAN	VLAN range 1-4094, maximum active VLAN is 4K
Transmission Method	Store and Forward
Power Supply	AC 100-240V 50/60Hz DC 12V 8A

## Hardware Features

Description	Specification
Mainboard Power Consumption	29.6W
Structure Information	Product Dimensions: 440*205*44mm Packaging Dimensions: 500*290*85mm Product Net Weight: 2.50KG Product Gross Weight: 3.12KG
Packing Information	Carton Dimensions: 520*445*310mm Packing Quantity: 5PCS Packing Weight: 16.6KG
Package Contents	Switch 1pcs, Power Cord 1pcs, Manual 1pcs, Certificate of Inspection 1pcs, Rack-mounted kit 1 pair
Fan Quantity	1
Installation	Desktop, Rack-mounting
Surge Protection	Electrostatic ESD: Air 8KV, Contact 6KV (Class B)
Operating Temperature	0~40°C
Storage Temperature	-40~70°C
Operation Humidity	10%~90%, non condensing
Storage Humidity	5%~95%, non condensing
PWR Red LED	On: Powered on Off: Powered off
SYS Green LED	Flashing: System startup in progress On: The system is running normally
Link/ACT Green LED	On: Link normal Off: Link blocked Flashing: Data transmitting
10G Green LED	On: Link normal Off: Link blocked Flashing: Data transmitting
Reset	Long press for 6 seconds to restore factory settings

## Software Features

L3 Function	
IPv4	IPv4 VLAN Interface
	IPv4 Static Routes
	ARP
IPv6	IPv6 VLAN Interface
	IPv6 Static Routes
	IPv6 ND
RIP	V1/V2
OSPF	Router-ID
	Authentication
	V2
L2 Function	
Port	Port Switch configuration
	Port Description configuration
	Port Speed configuration
	Port Duplex configuration
	Port Flow Control configuration
	Support 10G/2.5G
	Jumbo Frame, Up to 10K
	EEE
	Fiber Module(DDM)
Link Aggregation	Support load balance policy; Base on MAC and IP-MAC
	Static and Dynamic Group
	Support LACP
Storm Control	Up to 8 groups
	Boardcast suppression
	Unknown Multicast
Port Mirroring	Unknown Unicast
	One to one monitor
	Many to one monitor
	Ingress/Egress/Both
Port Security	Up to 4 session groups
	MAC Address Constraints
	Port Security MAC Address
Port Isolation	Protect/Restrict/Shutdown
	Support
Port Rate-limit	Support
Loopback Detection	Support

## Software Features

VLAN	<ul style="list-style-type: none"> <li>Access/Trunk/Hybrid</li> <li>VLAN Tunnel (Q-in-Q Tunnel)</li> <li>VLAN range 1-4094, maximum active VLAN is 4K</li> <li>Voice VLAN</li> <li>MAC VLAN</li> <li>Surveillance VLAN</li> <li>Protocol VLAN</li> <li>GVRP</li> </ul>
MAC Address	<ul style="list-style-type: none"> <li>Dynamic MAC address</li> <li>Static MAC address</li> <li>Filtering MAC Address</li> </ul>
Spanning Tree Protocol	<ul style="list-style-type: none"> <li>STP/RSTP/MSTP</li> <li>BPDU Filter</li> <li>BPDU Guard</li> <li>Edge Port</li> </ul>
LLDP	<ul style="list-style-type: none"> <li>LLDP</li> <li>LLDP MED</li> </ul>
Multicast	<ul style="list-style-type: none"> <li>IGMP Snooping</li> <li>IGMP V1/V2/V3</li> <li>Router Port</li> <li>Static IGMP group address</li> <li>IGMP groups filtering</li> <li>Querier</li> <li>MLD Snooping</li> <li>MVR</li> </ul>
QoS	<ul style="list-style-type: none"> <li>Traffic classification based, Strict priority and WRR</li> <li>Port Priority</li> <li>802.1P Priority</li> <li>IP TOS Priority</li> <li>IP DSCP Priority</li> <li>Support up to 8 queues per port</li> <li>Priority Remarking</li> </ul>
ERPS Services	<ul style="list-style-type: none"> <li>Only SFP port</li> </ul>
DHCP	<ul style="list-style-type: none"> <li>DHCP Server</li> <li>IP Pool</li> <li>Static Binding</li> <li>Option 43</li> <li>DHCP Relay</li> </ul>
Access Protocol	<ul style="list-style-type: none"> <li>HTTP</li> <li>HTTPS</li> <li>Telnet</li> <li>SSHv2</li> <li>Manager ACL</li> <li>Session Timeout</li> <li>Password Retry Count</li> <li>Silent Time</li> </ul>

## Software Features

Security	
AAA	RADIUS
	TACACS+
	802.1X
DHCP Snooping	Base on port/MAC/local/WEB
	Global/VLAN
	Option 82
IP Source Guard	Circuit ID
	Support
Dynamic ARP Inspection	Support
DoS	Support
ACL	MAC ACL
	IPv4 ACL
	IPv6 ACL
Diagnostics	
Syslog	Logging Message
	Remote Server
Ping	Support
Traceroute	Support
UDLD	Support
Equipment Management	
Manager Access	Console
	HTTP/HTTPS
	Telnet
	SSH
	SNMP
Manager IP	Static Address
	DHCP Client
	Support IPv4 and IPv6 address
	Manager VLAN
Time Synchronization	DNS
	SNTP
	Manual Time

## Software Features

SNMP	V1/V2C/V3
	Community
	V3 User
	Group
SNMP MIB	Trap Host
	RFC 1213 MIB-II
	RFC 1493 Bridge MIB
	RFC 1643 Ethernet MIB
	RFC 2819 RMON MIB (Groups 1, 2, 3 and 9)
	RFC 2863 Interface MIB
	LLDP
RMON	Private MIB
	Statistics
	History Configuration
	Event Configuration
User Management	Alarm Configuration
	Support
Firmware Management	Firmware upgrade
	Double Image; Swap between Active and Alternate firmware image
Configuration Management	Upload and download
	Upload and download via USB interface
Save	Support
Restart	Support
Factory Defaults	Support

## Software Features

### Standard Compliance

IEEE 802.3x flow control and back pressure

IEEE 802.3ad port trunk with LACP

IEEE 802.1D Spanning Tree Protocol

IEEE 802.1w Rapid Spanning Tree Protocol

IEEE 802.1s Multiple Spanning Tree Protocol

IEEE 802.1p Class of Service

IEEE 802.1Q VLAN tagging

IEEE 802.1x Port Authentication Network Control

IEEE 802.1ab LLDP

RFC 768 UDP

RFC 793 TFTP

RFC 791 IP

RFC 792 ICMP

RFC 2068 HTTP

RFC 1112 IGMP v1

RFC 2236 IGMP v2

RFC 3376 IGMP v3

RFC 2710 MLD v1

FRC 3810 MLD v2

RFC 2328 OSPF v2



# Product Structure Diagram

