

## Product Datasheet

# 10-port Full Gigabit Managed Ethernet Switch

(GWS-H3010FM)



## OVERVIEW

The GWS-H3010FM is a full gigabit L2+ managed Ethernet fiber switch independently developed by HZGWS. It has 8\*10/100/1000Base-T RJ45 ports and 2\*100/1000Base-X SFP fiber slot ports. Each port can support wire-speed forwarding.

The GWS-H3010FM has the L2+ full network management, supports IPV4 management, static route full line rate forwarding, complete security protection mechanism, ACL/QoS policy and rich VLAN functions, and is easy to manage and maintain. Supports multiple network redundancy protocols STP/ RSTP/ MSTP (<50ms) to improve link backup and network reliability. When one-way network fails, communication can be quickly restored to ensure important Uninterrupted communication for applications. According to the actual application requirements, you can configure multiple application services such as port traffic control, VLAN division, and SNMP through the Web network management mode. It satisfies high-density network application environment and is suitable for medium, large-scale scenes such as hotel, campus, park, shopping mall, scenic spot, hospital, bank to form an economical, efficient and reliable communication network.

## FEATURE

### ■ Gigabit access, Gigabit SFP fiber port uplink

- ◇ Support non-blocking wire-speed forwarding.
- ◇ Support full-duplex based on IEEE802.3x and half-duplex based on Backpressure.
- ◇ Support Gigabit Ethernet port and Gigabit SFP port combination, which enables users to flexibly build networking to meet the needs of various scenarios.

### ■ Security

- ◇ Support port isolation.
- ◇ Support port broadcast storm suppression.
- ◇ Support IP+MAC+port+VLAN quadruple flexible combination binding function.
- ◇ Support 802.1X authentication to provide authentication functions for LAN computers, and control the authorization status of controlled ports according to the authentication results.

### ■ Strong business processing capability

- ◇ IEEE802.1Q VLAN, flexible VLAN division.
- ◇ Support STP/ RSTP/ MSTP production tree protocol, eliminate layer 2 loops and realize link backup.
- ◇ Support IGMP Snooping V1/V2/V3 to meet the multi-terminal high-definition video surveillance and video conference access requirements.
- ◇ Support static and dynamic aggregation to effectively increase link bandwidth, realize load balancing, link backup, and improve link reliability.
- ◇ Support QoS, port-based, 802.1P-based and DSCP-based three priority modes and four queue scheduling algorithms: Equ, SP, WRR, and SP+WRR.
- ◇ Support ACL to filter data packets by configuring matching rule processing operations and time permissions, and provide flexible security access control policies.

### ■ Stable and reliable

- ◇ CCC,CE, FCC, RoHS.
- ◇ The user-friendly panel can show the device status through the LED indicator of PWR, Link .
- ◇ Self-developed power supply, high redundancy design, providing a long term and stable power output.
- ◇ Low power consumption, galvanized steel casing, and excellent heat dissipation ensure the stable operation of the switch.

### ■ Easy O&M management

- ◇ HTTPS, SSLV3, and SSHV1/V2.
- ◇ RMON, system log, LLDP, and port traffic statistics.
- ◇ Web management, CLI (Console, Telnet), SNMP (V1/V2/V3).
- ◇ CPU monitoring, memory monitoring, Ping test, and cable diagnose.

## TECHNICAL SPECIFICATION

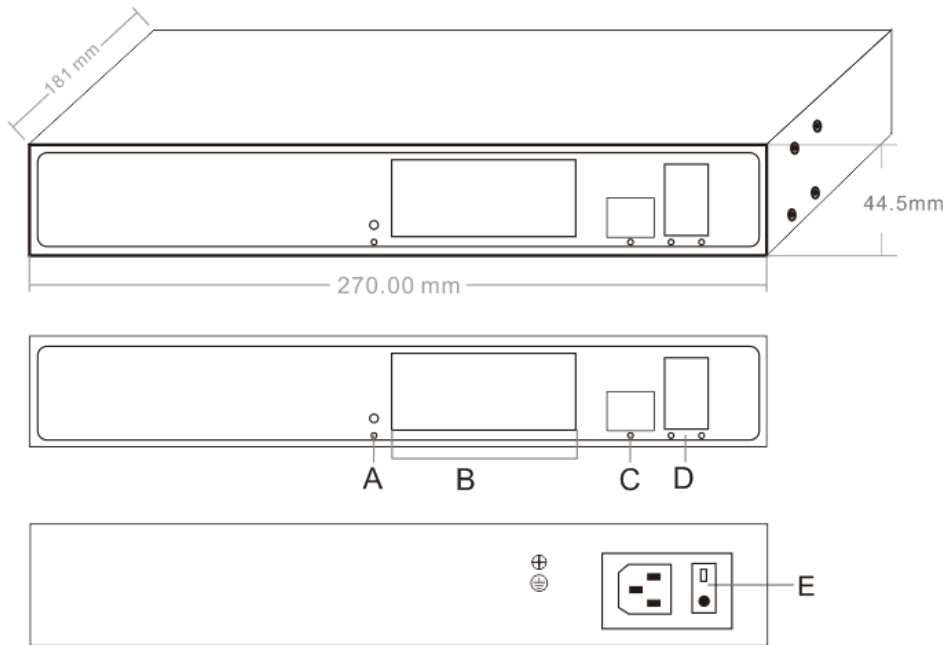
Model	GWS-H3010FM
<b>Interface Characteristics</b>	
Fixed Port	1*RS232 console port(115200,N,8,1) 8*10/100/1000Base-T RJ45 ports (Data) 2*100/1000Base-X uplink SFP ports (Data)
Ethernet Port	Port 1-8 support 10/100/1000Base-T auto-sensing, full/half duplex MDI/MDI-X self-adaption
Twisted Pair Transmission	10BASE-T: Cat3,4,5 UTP(≤100 meters) 100BASE-TX: Cat5 or later UTP(≤100 meters) 1000BASE-T: Cat5e or later UTP(≤100 meters)
SFP Slot Port	Gigabit SFP optical fiber interface, default no include optical modules (optional order single-mode / multi-mode, single fiber / dual fiber optical module. LC)
Optical Cable/ Distance	Multi mode: 850nm 0-550m, Single-mode: 1310nm 0-40km, 1550nm 0-120km.

<b>Chip Parameter</b>	
Network Management Type	L2+
Network Protocol	IEEE802.3 10BASE-T, IEEE802.3i 10Base-T, IEEE802.3u 100Base-TX IEEE802.3ab 1000Base-T, IEEE802.3z 1000Base-X, IEEE802.3x
Forwarding Mode	Store and Forward(Full Wire Speed)
Switching Capacity	20Gbps
Forwarding Rate@64byte	14.88Mpps
CPU(Hz)	500M
DRAM	1G
Flash	128M
MAC	8K
Buffer Memory	4.1M
Jumbo Frame	10K
LED Indicator	Power: PWR(Green), System: SYS (Green) Network: Link (Yellow), Fiber port: L/A(Green)
Reset Switch	Yes, One-button factory reset
<b>Power Supply</b>	
Total PWR / Input Voltage	30W (AC100-240V)
Power Consumption	Standby<6W, Full load<12W
Power Supply	Built-in power supply, AC100~240V 50-60Hz 0.56A
<b>Physical Parameter</b>	
Operation TEMP / Humidity	-20°C~+55°C, 5%~90% RH Non condensing
Storage TEMP / Humidity	-40°C~+75°C, 5%~95% RH Non condensing

Dimension (L*W*H)	270*181*44.5mm
Net /Gross Weight	<1.2kg / <1.7kg
Installation	Desktop, 19 inch 1U cabinet
<b>Certification &amp; Warranty</b>	
Lightning Protection	Lightning protection: 6KV 8/20us, Protection level: IP30
Certification	CCC, CE mark, commercial, CE/LVD EN62368-1, FCC Part 15 Class B, RoHS
Warranty	3 years, lifelong maintenance.
<b>Network Management Features</b>	
Interface	IEEE802.3X (Full-duplex) Port temperature protection setting Port green Ethernet Energy-saving setting Broadcast storm control based on port speed Speed limit of message flow in the access port. The min particle size is 64Kbps.
Layer 3 Features	L2+ Network management, IPV4 management Static route, Default route @ 128 pcs, APR @ 1024 pcs
VLAN	VLAN based on the protocol, 4K VLAN based on port IEEE802.1q, Port configuration of Access, Trunk, Hybrid
Port Aggregation	LACP, Static aggregation Max 5 aggregation groups and 8 ports per group.
Spanning Tree	STP (IEEE802.1d), RSTP (IEEE802.1w), MSTP (IEEE802.1s)
Multicast	Fast log out, Multicast VLAN IGMP Snooping v1/v2, Max 1024 multicast groups
Port Mirroring	Bidirectional data mirroring based on port
QoS	Diff-Serv QoS, Priority Mark/ Remark Queue scheduling algorithm (SP, WRR, SP+WRR) Flow-based rate limiting, Flow-based packet filtering 8*output queues of each port, 802.1p/ DSCP priority mapping

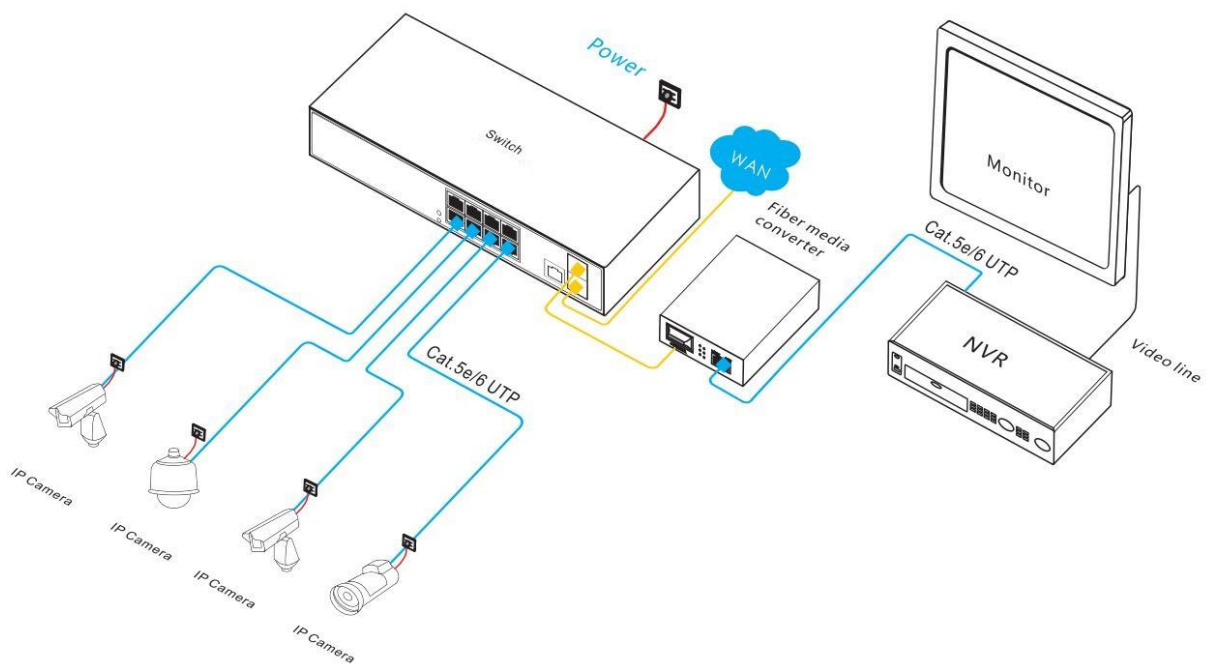
ACL	<p>Port-based Issuing ACL,ACL based on port and VLAN</p> <p>L2 to L4 packet filtering, matching first 80 bytes message. Provide ACL based on MAC, Destination MAC address, IP Source, Destination IP, IP Protocol Type, TCP/UDP Port, TCP/UDP Port Range, and VLAN, etc.</p>
Security	<p>Broadcast storm control, Backup for host datum</p> <p>SSH 2.0, SSL, Port isolation, ARP message speed limit</p> <p>User hierarchical management and password protection</p> <p>AAA &amp; RADIUS, MAC learning limit, IP source protection</p> <p>Mac black holes, IEEE802.1X &amp; MAC address authentication</p> <p>IP-MAC-VLAN-Port binding, ARP inspection, Anti-DoS attack</p>
DHCP	<p>DHCP Client, DHCP Snooping, DHCP Server, DHCP Relay</p>
Management	<p>CPU instant utilization status view</p> <p>Console/ AUX Modem/ Telnet/ SSH2.0</p> <p>One-key recovery, Cable Diagnose, LLDP, CLI</p> <p>NMS platform cluster management (LLDP+SNMP)</p> <p>Web Management (HTTPS), NTP, System work log, Ping Test</p> <p>Download &amp; Management on FTP, TFTP, Xmodem, SFTP, SNMP</p> <p>V1/V2/V3</p>
System	<p>Category 5 Ethernet network cable</p> <p>Web browser: Mozilla Firefox 2.5 or higher, Google browser chrome V42 or higher, Microsoft Internet Explorer10 or later</p> <p>TCP/IP, network adapter, and network operating system (such as Microsoft Windows, Linux, or Mac OS X) installed on each computer in a network</p>

## DIMENSION



- A. Working indicator
- B. 8\*10/100/1000M RJ45 ports
- C. Console Port
- D. 2\*100/1000M SFP ports
- E. Power input port 100-240VAC , 50/60Hz

## APPLICATION



## ORDERING INFORMATION

Model	Description
GWS-H3010FM	L2+ managed Ethernet fiber switch with 8*10/100/1000M RJ45 ports and 2*100/1000M SFP fiber ports. Built-in 30W power supply and support 1U/19 inch rack installation.

**Note:**The SFP optical module is not included by default and needs to be purchased separately.

## PACKING LIST

	Content	Qty	Unit
Packing List	10-port full gigabit managed Ethernet switch	1	SET
	AC Power Cable	1	PC
	Mounting Kits(Hanging Ear)	1	SET
	User Guide	1	PC
	Warranty Card	1	PC

## RELATED PRODUCT

Model	Description
GWS-H3006FM	L2+ managed Ethernet fiber switch with 2*10/100/1000M RJ45 ports and 2*100/1000M SFP fiber ports. Built-in 30W power supply and support 1U/19 inch rack installation.
GWS-H3026FM	L2+ managed Ethernet fiber switch with 24*10/100/1000M RJ45 ports and 2*100/1000M SFP fiber ports. Built-in 20W power supply and support 1U/19 inch rack installation.
GWS-H3052FM	L2+ managed Ethernet fiber switch with 48*10/100/1000M RJ45 ports and 4*100/1000M SFP fiber ports. Built-in 60W power supply and support 1U/19 inch rack installation.



## OPTICAL MODULE

Product	Model	Description	Unit
1.25G Optical Module	2630	SFP optical module, 1.25G, multi-mode dual fiber 850nm, transmission distance: 550m, LC interface, support DDM, hot plug and pull.	PC
	2632	SFP optical module, 1.25G, single-mode dual fiber 1310nm, transmission distance: 20km, LC interface, support DDM, hot plug and pull.	PC
	2612-T	SFP optical module, 1.25G, single-mode single fiber TX1310nm/ RX1550nm, transmission distance: 20km, LC interface, support DDM, hot plug and pull.	PC
	2613-R	SFP optical module, 1.25G, single-mode single fiber TX1550nm/ RX1310nm, transmission distance: 20km, LC interface, support DDM, hot plug and pull.	PC
	2612-T-SC	SFP optical module, 1.25G, single-mode single fiber TX1310nm/ RX1550nm, transmission distance: 20km, SC interface, support DDM, hot plug and pull.	PC
	2613-R-SC	SFP optical module, 1.25G, single-mode single fiber TX1550nm/ RX1310nm, transmission distance: 20km, SC interface, support DDM, hot plug and pull.	PC
Power Module	2633	1.25G SFP optical module transfers to 10/100/1000M RJ45 port.	PC

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