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20 Port Gigabit Managed Ethernet PoE Switch

www.hrgdkj.com

CE FC RoHS

The 20-Ports Gigabit Managed PoE Switch . It adopts High-Quality and High-Speed Network IC and the most stable PoE Chip. The PoE port meets the IEEE802.3af or IEEE802.3at standard. This model can provide seamless connection for 10/100/1000M Ethernet, and the PoE power port can automatically detect and power the powered devices that comply with the IEEE802.3af or IEEE802.3at standards. The Non-PoE devices are forcibly powered and only transmit data.

Main Features

- 16 x 10/100/1000Mbps auto-sensing PoE Ports, 2 x 10/100/1000Mbps Ethernet Uplink Ports, 2 x Gigabit SFP Uplink Ports, 1 x Console Port
- Support IEEE802.3/IEEE802.3i/IEEE802.3u/IEEE802.3 ab/IEEE802.3z
- Compatible with IEEE802.3at (30W) and IEEE802.3af (15.4w)
- Ethernet port supports 10/100/1000M adaptive
- Panel indicator monitoring the status and help failure analysis
- Fanless design, Natural Cooling, 1U Rack Mount
- Support 802.1x port authentication, support AAA authentication, support TACACS+ authentication
- Support WEB, TELNET, CLI, SSH, SNMP, RMON management
- Support PoE Power Management, PoE watch dog
- Lightning Protection Surge: General Mode 6KV, Differential Mode 4KV, ESD 15KV

Application Environment

Metro Optical Broadband Network:
Data network operators such as telecommunications, cable TV, and network system integration,etc.

Broadband private network:
Suitable for financial, government, oil, railway, electric power, public security, transportation, education and other industries

Multimedia transmission:
Integrated transmission of images, voice and data, suitable for remote teaching, conference TV, videophone and other applications

Real-time monitoring:
Simultaneous transmission of real-time control signals, images and data

DATA SHEET

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Specifications	
I/O Interface	
Power	AC 100-240V/50-60Hz
Ethernet	16 * 10/100/1000Mbps PoE Port 2* 10/100/1000Mbps Uplink Port 2* 1000Mbps SFP Port 1 * RJ45 Console Port
Performance	
Bandwidth	40Gbps
Packet Forwarding rate	29.76Mpps
Packet Buffer Memory	4M
Flash Memory	16MB
DDR SDRAM	128MB
MAC Address	8K
Jumbo frame	9.6Kbytes
VLANs	4096
MTBF	100000 hour
Standard	
Network protocol	IEEE 802.3：Ethernet MAC Protocol IEEE 802.3i：10BASE-T Ethernet IEEE 802.3u：100BASE-TX Fast Ethernet IEEE 802.3ab：1000BASE-T Gigabit Ethernet IEEE 802.3z：1000BASE-X Gigabit Ethernet (optical fiber) IEEE 802.3ad：Standard method for performing link aggregation IEEE 802.3x：Flow control IEEE 802.1ab： LLDP/LLDP-MED (Link Layer Discovery Protocol) IEEE 802.1p：LAN Layer QoS/CoS Protocol Traffic Prioritization(Multicast filtering function) IEEE 802.1q：VLAN Bridge Operation IEEE 802.1x：Client/Server Access Control and Authentication Protocol IEEE 802.1d：STP IEEE 802.1s：MSTP IEEE 802.1w：RSTP

DATA SHEET

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PoE protocol	IEEE802.3af （15.4W） IEEE802.3at （30W）
Industry Standard	EMI: FCC Part 15 CISPR (EN55032) class A EMS: EN61000-4-2 (ESD)、 EN61000-4-4 (EFT)、 EN61000-4-5 (Surge)
Network Medium	10BASE-T: Cat3、4、5 or above UTP(≤100 M) 100BASE-TX: Cat5 or above UTP(≤100 M) 1000BASE-TX: Cat5 or above UTP(≤100 M)
Fiber Medium	Multi-mode Fiber: 50/125、62.5/125、100/140um Single-mode Fiber: 8/125、8.7/125、9/125、10/125um

Certification

Safety Certificate	CE、FCC、RoHS

Environment

Working Environment	Working Temperature： -10~50°C Storage Temperature： -40~80°C Working Humidity： 10%~90%，non-condensing Storage Temperature： 5%~90%，non-condensing Working Height： Maximum 10,000 feet Storage heigh： Maximum 10,000 feet

Physical specifications

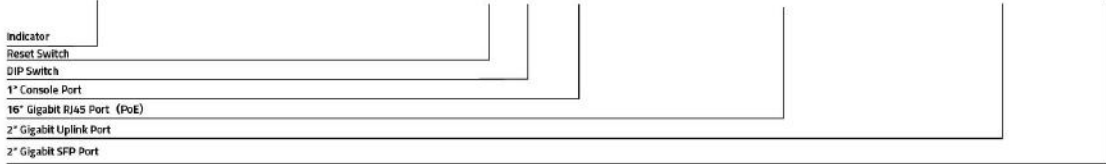| Structure Size	Product Dimensions: 440*205*44mm Package Dimensions: 500*275*85mm Product N.W: 2.7KG Product G.W: 3.2KG
Packing Info	Carton Dimensions: 520*445*300mm Packing Qantity: 5台 Packing weight: 17KG
Power Voltage	Input Voltage : AC 100-240 V/50-60Hz Power Supply： 52V5.76A
Package List	Ethernet switch: 1 Set、Instruction manual: 1 PCS、Certificate: 1 PCS、Power cord: 1PCS Serial cable: 1PCS、Rack ear: 1 Pairs、Operation manual CD: 1 PCS

DATA SHEET

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function&Indication	
LED Indicators	PWR，SYS，SW、PoE/ACT、Link/ACT
PWR（Power Indicator）	Lighting：Powered Un-Light：No Power
SYS（System Indicator）	Flashing: System Start-up Lighting: System Running
SW（DIP Indicator）	Lighting: VLAN Un-Light: Default Flashing: Extend
PoE/ACT（PoE Indicator）	Lighting：PoE on Un-Light：PoE off
Link/ACT（Link &Data Indicator）	Lighting: Link connection Flashing: Data transmission Un-Light: Link disconnect
DIP Switch	VLAN、Default、Extend、Reset
VLAN	1-16 ports are isolated from each other, and the PoE Watchdog function is open (hardware takes precedence over software)
Default	All ports can communicate with each other, PoE Watchdog is closed
Extend	13-16 Port: Supports 250m link extension at a rate of 10M, other ports normal, PoE Watchdog open (hardware takes precedence over software)
Reset	Short press restart, long press 5 seconds to restore factory Settings

Software function	
Basic function	Support hardware watchdog, factory reset, system and port LED
	Support global information, statistical information, log information
	Support User management, alarm management, configuration management
	Support Port rate, duplex, flow control, maximum frame length configuration
	Support Port mirroring, port speed limit, port energy saving
PoE function	Support PoE time management
	Support PoE automatic monitoring / PoE Watchdog

	Support PoE port power configuration
VLAN	Support 4K VLAN
	Support 802.1Q VLAN，baesd on port VLAN
	SupportAccess、Trunk、Hybrid VLAN mode
	Support GVRP (VLAN registration protocol)
	Support MAC VLAN 、IP VLAN
	Support Voice VLAN
MAC	Support MAC address automatic learning and aging
	Support Static, dynamic, filtered address table
Security features	Password protection
	Support Restrict user access based on port number, IP address, MAC address
	Support HTTPS、SSH V1/V2
	Support VLAN-IP-MAC-PORT binding
	Support ARP detection, IP source protection, DoS protection
	Support DHCP Snooping、DHCP Attack protection
	Support 802.1X Certification
	SupportAAA (Authentication, Authorization, Accounting), Support RADIUS protocal
	Support Port security, port isolation
Access control	Support L2(Layer 2) ~ L4(Layer 4) Packet filtering function
	Support Port mirroring, flow rate limiting, QoS remarking
QOS	Support 8 port queues
	Support Port priority, 802.1P priority, DSCP priority
	Support SP, WRR Priority scheduling algorithm
Spanning tree	Support STP(IEEE 802.1d), RSTP(IEEE 802.1w) and MSTP(IEEE 802.1s) protocal
	Support Multi-instance, Support Aggregate interface
	Support BPDU protection
Multicast	Support IGMP v1/v2/v3 Snooping
	Support MLD v1/v2 Snooping
	Support Layer 2 multicast fast leave mechanism, querier

Multicast	Support Layer 2 IPv4 static multicast
	Support Layer 2 IPv6 static multicast
	Support IGMP v1/v2/v3 Layer 3 multicast
Storm suppression	Support multicast suppression
	Support broadcast storm suppression
	Support unknown unicast suppression
Ring protection	Support Ring protection
Link Aggregation	Support Static Aggregation
	Support LACP Dynamic Aggregation
	Support based on IP, MAC, mixed load-balancing modes
	Maximum support 8 aggregation groups (8 ports per aggregation group)
IPv6	Support IPv6 Ping、IPv6 Traceroute、IPv6 Telnet
	Support IPv6 SSH
	Support IPv6 HTTP 、IPv6 HTTPS
Management and Maintenance	Support WEB Management (HTTP、HTTPS)
	Support CLI (Telnet, SSH V1/V2, Local serial port)
	Support SNMP V1/V2/V3
	Support RMON V2
	Support LLDP Device discovery
	Support SNTP Time synchronization
	Support CPU Monitoring, Memory Monitoring
	Support System log, classification warning
	Support Ping, Traceroute detection, cable detection
	Support WEB Management (HTTP、HTTPS)

Order Information	
HR-AFGM-1622S	20 Port Gigabit Managed Ethernet PoE Switch

DATA SHEET

Panel description

Indicator
Reset Switch
DIP Switch
1* Console Port
16* Gigabit RJ45 Port （PoE）
2* Gigabit Uplink Port
2* Gigabit SFP Port

Product structure

440MM

44MM

205MM