Accept specification

客　户　名　称（CUSTOMER）：	
客　户　料　号（PART NO.）：	
客　户　品　名（DESCRIPTION）：	
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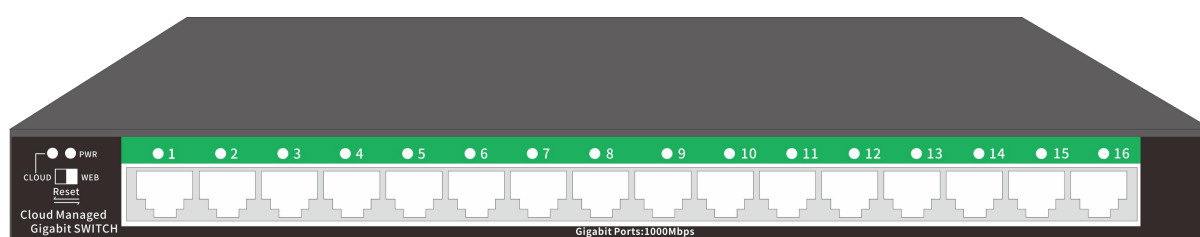
Archive update records：

Release Version	Release Date	Modified Content	Execution Confirmation
A/0	2024-07-18	First edition, Established new specification document based on samples	蓝鲜梅
A/1	2024-09-24	Update the switch function and description	蓝鲜梅

Category

Specification Document Of Cloud Network Management Series Switch (GS116)

1. Production Introduction：

> This product is a fully gigabit cloud-managed switch independently developed by our company. It provides 16 10/100/1000M adaptive RJ45 ports, It supports remote mobile phone access for monitoring the operating status of the switch and the management of various network functions. The switch can be remotely managed through the APP "Amitres IOT" , and the switch ports can be remotely viewed and managed. It also supports management through web page login.

2. Functional Features：

- Provides 16 10/100/1000Base-T RJ45 ports；
- Comply IEEE 802.3 Ethernet、 IEEE 802.3u Fast Ethernet、 IEEE 802.3ab standard protocol；
- Second gear pull: WEB + CLOUD (domestic factory default CLOUD, overseas default WEB)) ；
- Support remotely managing the switch through the App "Amitres IOT" and support local web management；
- Support ports management， such as ports rate limited、 ports duplex setting、 ports mirroring；
- Support 802.1Q VLAN、mtu-VLAN and port-VLAN, which suitable for a variety of networking business needs；
- Support spanning tree protocols: STP (IEEE802.1d), RSTP (IEEE802.1w)；
- Support storm suppression of broadcast multicast；
- Support detection of Network cycle;
- Support DHCP Snooping， restrict the access of illegal DHCP servers;
- Support self-learning and aging of MAC address and port binding of static MAC;
- Support 4 Mbits package cache；
- Support 15kbytes Jumbo Frame；
- All ports support the Auto MDI/MDIX functions;
- Support IEEE802.3X full-duplex flow and Backpressure half-duplex flow control;
- Cloud Network Management: Visual remote management, on-site problems, and remote solutions;
- Over-current, over-load, and short-circuit protection to eliminate hidden dangers and ensure power receiving safety;
- Plug and play

3. Functional Switch And Definition Of Indicator Light：

Indicator Light：

Indicator Light	Definition	Functional Description
Functional Indicator	PWR	Switch power status indicator, light up to indicate that the device is started
	CLOUD	ON: Remote cloud management function is turned on
Port Indicator	Link/ACT	ON: the port link is normal; Flashing: data transmission is in progress

Gear Description

Gear	Definition	Functional Description
CLOUD	Remote Management Mode	Enable local WEB management and remote APP management functions
WEB	Local Management Mode	WEB local management mode
RESET		The switch is at WEB, within 1 second, unplug to CLOUD and then unplug back to WEB, switch restart and restore factory settings

4. Basic Specification

Item	Data
Port Composition	16 10/100/1000Mbps RJ45 ports, Meanwhile, 2 ports are uplink 10/100/1000M adaptive RJ45 ports
Backplane Bandwidth	32G
MAC Address	8K
Packet forwarding rate@64byte (throughput)	23.808Mpps
Power Supply	AC Input 100~240V 12V/1A，External power
Network media and transmission distance	1000Base-T: 4 pairs of Super Class 5 (Cat5e) or above UTP/STP (≤ 100m) 100Base-TX: 2 pairs of 5 (Cat5) or above UTP/STP (≤100m) 10Base-TX: 2 pairs of 5 (Cat5e) or above UTP/STP (≤250m)

5. Software Specification

Item	Data
Basic functions	Comply with IEEE 802.3 Ethernet IEEE802.3u Fast Ethernet protocol standards store and forward MAC automatic learning and aging IEEE802.3X full-duplex flow control & Backpressure half-duplex flow control
Ethernet protocols and standards	IEEE 802.3 Ethernet Media Access Control Protocol IEEE 802.3i 10BASE-T Ethernet IEEE 802.3u 100BASE-TX Fast Ethernet IEEE 802.3ab 1000BASE-T Gigabit Ethernet IEEE 802.3x flow control
Data transmission rate	Ethernet 10Mbps half-duplex, 20Mbps full duplex Fast Ethernet 100Mbps half-duplex, 200Mbps full duplex Gigabit Ethernet 2000Mbs Full Duplex

Item	The supported contents of the remote control end (through the APP "Amitres IOT")
Cloud Network Management: Information View	Switch SN information, device model, firmware version, real-time IP, real-time port power, port LINK status, link duplex, up and down rate, VLAN status;
Cloud Management: Device Operation	Port isolation setting, port restart, port shutdown, port speed limit, port remote switch, switch whole machine restart, whole machine setting reset, port duplex setting, firmware upgrade, VLAN setting;
Security Features	Password-based protection Support MAC/PORT binding Support DHCP Snooping and DHCP attack protection Support port security and port isolation Support CPU protection function
Access control (ACL)	Support port mirroring, port redirection, flow rate limiting, and QoS remarking
Quality of Service (QoS)	Support 16 ports queue Support port priority, 802.1P priority, DSCP priority Support SP, WRR, SP+WRR, and Equ priority scheduling algorithms
Management and Maintenance	Support WEB network management Support PC client management Support remote management via APP "Amitres IOT"

6. Environment Requirements

Environment	Parameter
Temperature	Working temperature: 0℃～40℃
	Storage temperature: -40℃～70℃
Humidity	Working humidity: 10%～90% RH non-condensing
	Storage humidity: 5%～90% RH non-condensing
Altitude	Working altitude: Maximum 6500 feet (2000 meters)
	Storage altitude: Maximum 6500 feet (2000 meters)

7. Weight

Item	Weight
Bare Metal(Without package)	About 0.51Kg
FCL(30PCS)	About 21kg

8. Size Specification

Category	parameter
Bare Metal	269mm*85mm*26mm (With ear hook)
Whole Machine（Neutral package）	355mm*95mm*36mm
FCL(30PCS/carton)	380mm*370mm*490mm

9. Package、Transportation、Storage

Packing Contents	Data
Filled Protection	Wrapped on the left and right by pearl cotton sleeves for comprehensive protection.
Packing Box	Premium cow card cardboard box, sized 480mm*470mm*280mm
Packing Number	30PCS(carton)
QR code	The packaging box and the device body should have a unique device SN number.
Others	The packaging box should have a label marking the product model code and quantity. This model can be adapted to the rack mounting ears.

Transport Requirement：Domestic designated express logistics can transport the whole box, and it is suitable for transportation by car, ship and plane. During transportation, it should be covered, sun-proof, and loaded and unloaded in a civilized manner.

Store Requirement：

Index	Requirements
Humidity Environment	5% to 90% RH（relative humidity）　without condensation
Temperature Environment	-40 ℃ to 70 ℃, considering in combination with the humidity, the most reasonable state is recommended to be the room temperature condition
Stacking Limit	In the complete packaging state, the maximum upper limit is 4 layers.
Points For Attention	Storage warehouses should be clean, ventilated, free of corrosive gases, free of flammable, explosive and other corrosive chemicals, and away from heat sources, strong mechanical vibration sources.
Storage Cycle	According to the above requirements, reasonable storage can last for one year, and it is recommended to re-examine and use again after two years.