ES5018G-2GS-16POE-300W

Gigabit Managed POE Switches

User manual

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【Summarize】

ES5018G-2GS-16POE-300W is Full gigabit , managed , 16-port Gigabit high power (IEEE 802.3at) PoE Switches,utilizing a compact factor which can be mounted in a 19-inch rack with rack-mounting kits or placed on desktop.

With data and power supported by one unit, the switches shall reduce cables and eliminate the need for dedicated electrical outlets on the wall,ceiling or any unreachable place. Auto PoE detection and Plug and play installation makes Gigabit PoE Switch easy to use and with clear LED indicators to tell the working condition.

【Packing list】

Please check the packaging and accessories by your first using.

- POE switch x 1
- User manual x 1
- CD x 1

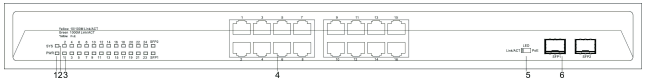
Please inform us or our distributor if your equipments have been damaged or lost any accessories, we will try our best to satisfy you.

【Features】

- Compatible with both IEEE802.3at(30W) and IEEE802.3af(15.4W), can supply power to PDs under these two standards
- Automatically detect and supply power to IEEE802.3at and IEEE 802.3af compliant powered devices(PDs)
- Advanced SAFC function, only supply power to IEEE 802.3af/at compliant PDs, no worry about damaging other private standard POE devices or devices without POE function
- Support port power supply prioritization, guarantee the continuous power supply of key nodes
- Up to 100m network cable transmitting distance
- Built-in PSE power supply module, plug-and play design, easy to install
- High security performance defending against power surge
- Support short-circuit protection function
- Energy-saving green design, support auto-switch to standby mode and auto-detect cable length
- Support simple WEB management, easy to configure the functions of switches

【Panel Layout】

Front pane



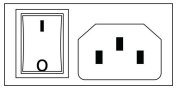
Back panel

1. Power Indicator
2. System Indicator
3. The corresponding interface LED indicator
4. 10Base-T /100Base-T/1000Base-TX port
5. Toggle switch
6. 1000Base-FX SFP port
7. Power input socket and switch

【Appearance and dimension】

Unit(mm)

【Power supply input】



ES5018G-2GS-16POE-300W provides three power socket rear panel Used in the AC power input (220 VAC).

【Toggle switch】

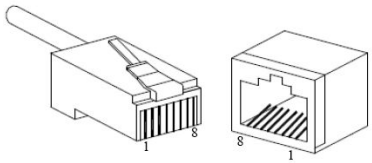
There is a toggle switch on the right side of front panel(beside the SFP ports).If sliding the toggle switch to the left “S-LED” side, The LED display the LINK state of the port ;if Sliding the toggle switch to the right “P-LED” side, The LED display corresponding port of POE function is normal work.

【Communication connector】

ES5018G-2GS-16POE-300W: 16*10/100/1000M PoE ports, 2*1000 Base-X SFP, 1*Console port.

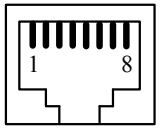
10/100/1000BaseT(X) Ethernet port

10Base-T/100Base-TX/1000 Base-TX Ethernet port use in front panel, It is RJ45 port, the PIN define of RJ45 is as follows: connection adopt UTP or STP, the distance is no more than 100m, 1000Mbps use cat5e, 100Mbps use cat5, 10Mbps use cat3,4, 5.



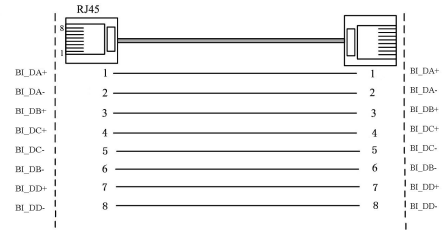
RJ45 port support MDI/MDI-X self-adaption. In (MDI), PIN1, 2, 3, 4, 5, 6, 7, 8 connect corresponding, in (MDI-X) PIN1→3, 2→6, 3→1, 6→2, 4→7, 5→8, 7→4, 8→5. In MDI/MDI-X, 1000 Base-TX PIN define is as follows:

PIN	MDI	MDI-X
1	BI_DA+/TX+	BI_DB+/RX+
2	BI_DA-/TX-	BI_DB-/RX-
3	BI_DB+/RX+	BI_DA+/TX+
4	BI_DC+/—	BI_DD+/—
5	BI_DC-/—	BI_DD-/—
6	BI_DB-/RX-	BI_DA-/TX-
7	BI_DD+/—	BI_DC+/—
8	BI_DD-/—	BI_DC-/—

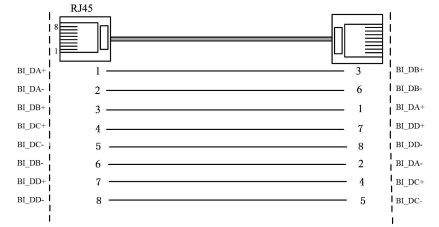


Note：“TX±”Transmit Data±，“RX±”Receive Data±，“—”Not Use。

MDI (straight-through cable):



MDI-X (Cross over cable)

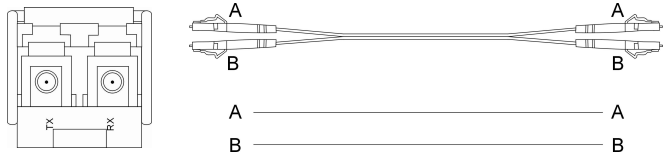


MDI/MDI-X auto connection makes switch easy to use for customers without considering the type of network cable.

1000SFP fiber port(mini-GBIC)

1000BaseSFP fiber port adopts gigabit mini-GBIC transmission, can choice different SFP module according to different transfer distance. Fiber interface must use for pair, TX port is transmit side, must connect to RX(receive side). The fiber interface support loss line indicator.

Suppose: If you make your own cable, we suggest labeling the two sides of the same line with the same letter (A-to-A and B-to-B, shown as below, or A1-to-A2 and B1-to-B2).



【LED indicator】

The switch LED indicator light on the front panel .the function of each LED is described in the table as below:

LED	Indicator	Description
PWR	ON	Power connection regularly
	OFF	Power supply have no connection or unwonted
Sys	Blinking	Software running in the CPU
	Destroy/ normally on	The software runs abnormally in the CPU
Link/ACT	ON	Established effective network connection
	Flashing	Network in activity statues
	OFF	Did not established effective network connection
	Yellow	The 10/100M ports auto-negotiate connected
	Green	The 1000Mbps ports auto-negotiate connected
POE	ON	The PoE function works
	Flashing	The PoE ports failed to work or the PDs are overloaded

【Installation】

Please read the following precautions carefully before operation, to avoid damaging the device or causing body injuries.

1). Please remove the power socket before cleaning the switch. Don' wipe the switch with wet cloth or wash the switch with liquid.

2). Don't stock the device in damp environment or near water, to avoid water or moisture penetrating into the inner device.

3). Don't put the device on a unstable box or desk, the device will get damaged from falling.

4). Please keep good ventilation indoor, and make sure the heat dissipation function of switch works well.

5). The switch only works normally in suitable voltage. Please check the working voltage first.

6). Please don't open the switch enclosure randomly, especially when the switch is powered on, there is risk of electric shock.

7). Please wear anti-static wrist strap when change the interface board,to avoid the static electricity damage the board.

Check Installation Environment

The switch is for indoor use only, please pay attention to the following problems when install the switch in a cabinet or put the device directly on the desktop.

1) The air vents of switch must have enough space to dissipate the heat inside enclosure.
2) A good heat dissipation system in the cabinet or on the desktop.
3) The cabinet or desktop strong enough to support the weight of switch and installation accessories.
4) Safe ground connection for the cabinet or desktop.

Installation Tools

1) Flathead screw driver
2) Cross screw driver
3) Anti-static wrist strap

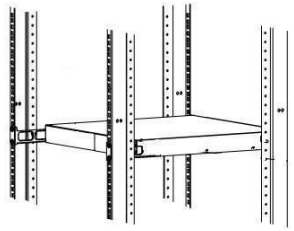
Installation

1.Install the Switch

1.1 Install the switch on a 19 inch standard cabinet

1) First fix the provided two L-shaped brackets on the two sides of switch.

2) Fix the switch on the rack with screws(screws are not provided).



1.2 Install the switch on the desktop

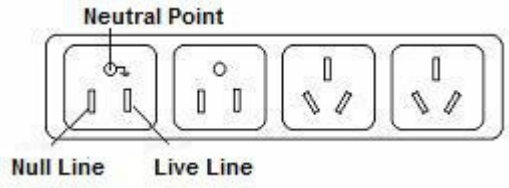
When there is no 19 inch standard cabinet, the switch is usually put on clean desktop. The operation is easier, please follow the below instructions:

1) Keep the desktop stable and safely grounded.
2) Set aside 10cm space around switch for heat dissipation.
3) Don't put any heavy device on the switch.

2.Connect the power cord and grounded cord

2.1 Select of AC Power Socket

The neutral one-phase 3-wire power socket is advised to adopt, or the multifunctional PC power socket. The neutral point of power supply must be well grounded, please check the grounded power supply before operation.



2.2 Connection of AC power cord

Step one: please connect one end of power cord to the power jack on the switch rear panel,

Connect the other end to the AC power socket.

Step two: check the power indicator(PWR) on the front panel, if the LED is on, connection is

Successful.

3.Test after Installation

Make sure the working voltage is the same with the rated voltage of switch.

Check the connection of grounded cord.

Check the connection of configuration cable and power input cord.

If the interface cable is partly deployed outdoor, please check the connection of anti-thunder

AC power strip and interface anti-thunder device.

【Specification】

Technology:

Standard and Protocols: IEEE 802.3af，Power Over Ethernet、IEEE 802.3at，Power Over Ethernet Plus

IEEE 802.3u，100BASE-TX、IEEE 802.3ab，1000 BASE-T、IEEE 802.3z，1000 BASE-X、IEEE 802.3ad，Static or Dynamic Link Aggregation、IEEE 802.3x，Full-Duplex Flow Control、IEEE 802.3az，EEE(Energy Efficient Ethernet)、IEEE 802.1q，VLAN IEEE 802.1p，QoS/CoS、IEEE 802.1d，STP(Spanning Tree Protocol)、IEEE 802.1w，Rapid Spanning Tree Protocol、

POE Standard: IEEE802.3af/at

Flow control：Back-pressure traffic control under Half-Duplex mode，IEEE 802.3x traffic control under Full-Duplex mode

Ports:

Fixed ports: 16*10/100/1000M PoE ports+2* Gigabit SFP ports

PoE Pin-out: 1/2(+)，3/6(-)；Customized 4/5(+),7/8(-)

Exchange Properties:

100M forwarding rate: 1488095pps

100M forwarding rate: 148809pps

10M forwarding rate：14880pps

Transmit type: Full wire-speed storage and forwarding

MAC address: 16K，Support auto-update, two-way learning

VLAN：Support up to 4096 VLANs,Port-based VLANs,VLANs based on IEEE 802.1q

Switching Capacity：≥32Gbps

Spanning Tree: Spanning Tree Protocol，Rapid

Spanning Tree Protocol(RSTP)，

Link Aggregation:Support 8 aggregation groups, and a maximum of 4 ports in each aggregation group

Ring Protection:Support Ring Protection, provide real-time detecting, quick alarm,precise localization, smart blocking and auto-recovery

Port Isolation：Isolation between downlink ports without influence the communication between downlink and uplink ports

Port Flow Control:Back-pressure traffic control under Half-Duplex mode,IEEE 802.3x traffic control under Full-Duplex mode

Port Rate Restriction：Port-based ingress or egress rate limiting

Jumbo Frame:Maximum supports 9216 Byte

Storm Suppression：Support the suppression of broadcast storm based on forwarding rate

Multicast Control：Support IGMPv1/2/3 and MLDv1/2 Snooping;

Security:Port-base MAC address binding,Security restriction on port-based MAC address quantity

QOS:SP（Strict Priority）、WFQ (Weighted Fair Queuing)、WRR (Weighted Round Robin)、802.1p(Port Queuing Priority)、Differentiated Service Code Point(DSCP Priority)

IPv6:IPv6 Parsing

PoE ouput priority Management：Supported

Physic Medium：

10/100Base-TX：UTP category 3/4/5 cables(Maximum 100m)

1000Base-T：UTP Category 5 cable(Maximum 100m)

1000Base-SX：fiber with 850nm wavelength，supports a max transmission distance of 550m

1000Base-LX：fiber with 1310nm / 1550nm wavelength，supports a max transmission distance of 80km

Network Cable Deployment:Support Auto-MDIX function, automatically identify straight forward cable and cross-over cable

Negotiation Pattern: Support port auto-negotiation function(automatically negotiate transmission rate and Duplex modes)

Maintenance：Detect the connectivity of network cables,Uploading or downloading of the configuration data,Uploading of upgrade patch,WEB-based reset to factory defaults,Support port short-circuit reset to factory defaults

Management：Support WEB-based management

Indicator light:

Interface light: Link/Act，POE Status

Power light: PWR

Power:

Input Power Supply: 90～264VAC/50～60Hz/300W

Energy Saving:Comply with “EEE” Energy Efficient Ethernet

Working Environment:

Working Temperature: -20~50°C

Storage Temperature: -40~70°C

Operation Humidity:10%～90%(non-condensing)

Storage Humidity:5%～95%(non-condensing)

Mechanical Properties:

Weight: <8Kg

Dimensions（L×W×H）:440×285×44.5mm

Warranty:

Warranty time: 3 years