

Thank you for picking us over the competition. For years we have been a leading provider of PoE over cat5 and Power Fiber System. Please take a few minutes to read through this guide before you get start. Not only there are some helpful tips, but also we have some guides to help you plan and install your switch.

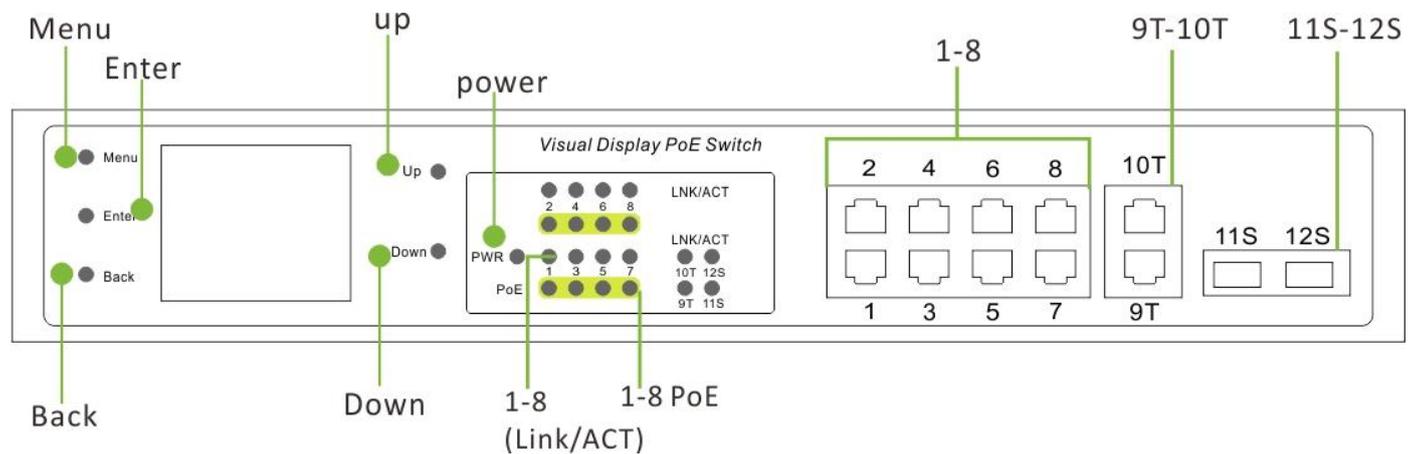
Installation requirements.

If this product is for indoor application, pick the cat5e (or higher grade) UTP cable. If this product is for outdoor application, the shield cat5e (or higher grade) UTP cable should be used for all Ethernet connections. We recommended you choose pure copper UTP cable. Pure copper not only can guarantee maximum transmission distance, but also the bandwidth.

NOTE: do not expose this switch to rain or moisture which may cause electric shock or fire. If the switch will be installed outside, it should be housed in a protective enclosure. Providing shade to avoid strong sunlight cooking the enclosure.

Hardware Overview

Front Panel

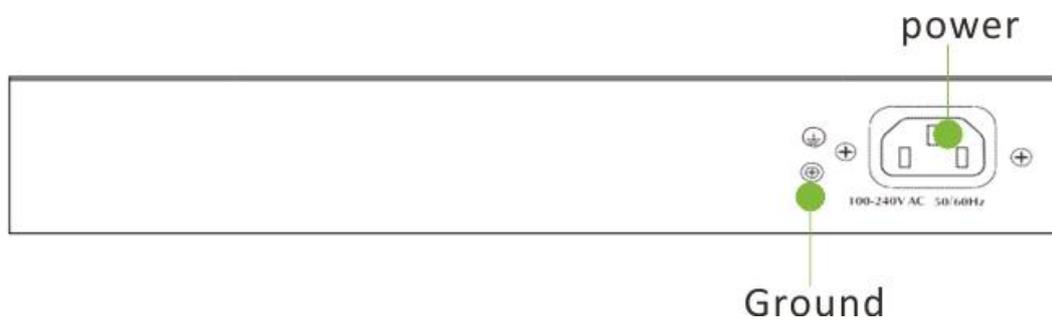


Port	Description
11S-12S	SFP port - support 100Mbps or gigabit SPF
9T-10T	RJ45 port - 10/100/1000 Ethernet for uplink
1-8	RJ45 port – 10/100/1000 Ethernet with PoE, support IEEE802.3af/at, enhance PD and Cisco device

LEDs	Status
Power	OFF – power off Yellow- Power ON
9T-12S Link/ATC	OFF -No Link Red-10/100/1000mbps link flashing indicates data exchanging.
1-8 (Link/ACT)	OFF-No Link Red-10/100/1000mbps link flashing indicates data exchanging.
1-8 PoE	OFF-No POE Yellow - 48V standard PoE.

Button	Description
Menu	Press and hold the Menu button for 5 seconds, The switch menu screen will appear in the LCD display
Enter	Press Enter button to confirm the selection in the menu
Back	Press Back button to return previous screen
Up	Press Up button to select up option in the menu
Down	Press Down button to select down option in the menu

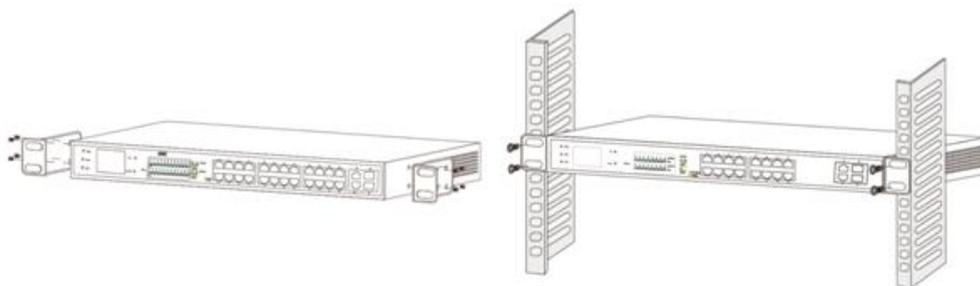
Back Panel



Detail	Description
Ground	ESD grounding for ESD protection. The screws and washer are included.
Power	Connect to AC power cord. 100V-240VCA 50/60Ghz

Hardware Installation

Place the visual PoE switch on the flat, horizontal surface or mount it on rack. The switch fit into EIA-19 inch rack. To mount it to rack, you will need to fix the mounting brackets on both sides on the switch with screws (included), and then attach the switch to the 19 inch rack, next fix the mounting bracket with screws.



Connecting the Switch

The switch accept AC voltage range from 100V-240VCA 50/60Ghz. The input voltage higher or lower than the range may damage the switch.

NOTE: Be sure you never connect two uplink ports to same core switch or router which will create ring network and block all the network accessing.

1. First, connect AC power cord to the power port at the rear of your switch.
2. Next, connect the other end to the power outlet. In a short while, the LCD screen will display with status information of PoE.
3. Then connect the Ethernet cable to one of the uplink ports, and connect the other end of this Ethernet cable to a core switch or router. Now you have attached this switch to your main network.
4. Next, you can choose one of the PoE ports and connect it to your IP devices such as IP camera, VoIP or access point.

Once the PoE IP device is connected to the switch, the PoE LEDs will be turned on in Yellow. In a short while, the corresponding LINK/ACT LEDs will be turned on in Red, then start flashing. All these means your IP device has been powered up and start exchange data with PoE switch (Watch the video below).



WATCH THE VIDEO
How to connect to Visual PoE switch
<https://youtu.be/PO661C806Ho>



If you just see the PoE indicate LEDs keep being ON and OFF. Usually, this means the PoE switch can't verify your IP device, so it will refuse to release the power in order to protect whatever is in the front-end. Either the failed on your IP device (including the IP device doesn't comply with IEEE802.3af/at) or the failed on the cable could cause the verification process unsuccessful.

Using the SFP port (optional)

The Visual PoE switch has dual SFP uplink port which provides long distance transmission with low latency over fiber. You will need SFP module (not included) to connect Visual PoE Switch to another fiber device. To use SFP port

1. First Remove the protective plug covering on the SFP port
2. Next Insert the SFP module into one of the SFP port.
3. Now connect the fiber to the SFP module, then connect the other end of the fiber to your another fiber device.

Using the display Screen.

Once the visual PoE switch is powered up, the LCD screen will display the relative information of PoE ports. If there's no operation over 10 minutes on the LCD screen, it will be turned off automatically to save energy. Press any of the button around the LCD display, the screen will be activated again. The below is the typical display with port information.

PORT INFO										
01	O LP	---	M	631M	08	13.4W	---	M	920M	
02	8.4 W	---	M	921M	09	18.9W	856M	856M		
03	U LP	---	M	---	10	---	W	238M	238M	
04	S CP	125M	---	M	11	OFF	---	M	---	M
05	2.2W	---	M	---	12	23.3W	323M	323M		
06	23.7W	---	M	---	13	5.8W	983M	983M		
07	16.8W	---	M	---	14	7.3W	223M	223M		
PB: 300W		TP: 120.0W		PD: 0		Norm				

PoE ▼ ▲				PoE ▼ ▲						
01	O LP	---	M	631M	08	13.4W	---	M	920M	
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03	U LP	---	M	---	10	---	W	238M	238M	
04	S CP	125M	---	M	11	OFF	---	M	---	M
05	2.2W	---	M	---	12	23.3W	323M	323M		
06	23.7W	---	M	---	13	5.8W	983M	983M		
07	16.8W	---	M	---	14	7.3W	223M	223M		
PB: 300W		TP: 120.0W		PD: 0		Norm				

The LCD is divided into two groups in the screen. The number in the first column match the port number. If the visual switch has more than 12 PoE ports, you will need to press up/down button to see the port status in the next screen.

1. The second column indicates the power of the relative ports sending to your IP devices, e.g. 8.4W which means your IP device is taking 8.5W power from the PoE switch. If your IP devices don't receive power from the PoE switch, you may see one of the below message.

---W: Without -- No PoE IP device is connected to the port

OLP: Over Load Protection – The current is too high, The port is shut down.

ULP: Ultra Low Load Protection - Once the current is low than 0.75mA on UTP cable, the switch will shut down the port.

SCP: Short Circuit Protection - the switch has detected the short circuit in the IP device, The port is shut down.

OFF in Green: The PoE port is disabled by operator in the menu

OFF in Red: The PoE port is disable trigger by the restriction of bandwidth configuration.

2. The third column indicates the data receiving by the switch

---M, No data in

<1M, Current data input is less than 1Mbps

856M in green, The current data input is 856M.

856M in White, You have enable the bandwidth restriction for this port in the menu, and the data rate has reach the upper limit. If upper limit has been hit for 10 times within one hour, The PoE switch will turn off this port automatically and label the column to OFF in RED.

3. The four column indicate the data sending out from the switch.

(It is the same as third column above.)

4. PB: The maximum total power capacity of the PoE switch

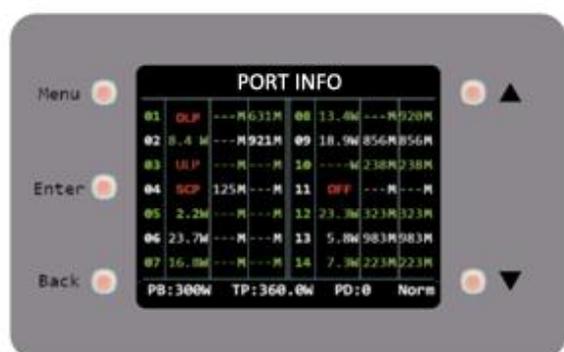
TP: The current usage power.

PD: The total number of PoE IP devices in this switch.

Narm: Current switch mode (standard, VLAN, CCTV)

Configure the PoE in the menu.

Press and hold the menu button for more than 5 seconds, you will be taken to the new screen with menu configuration (See below). Press the Back button, it will take you back to the previous screen with port information. You can manage the PoE port with 5 buttons (Menu-Enter-Back-Up-Down)around the screen.



First, let take “changing idle time of LCD” for example, and get you familiar with the operation.

1. Press and hold the menu button on the upper right for 5 seconds, You will be taken to the next screen labeled “Menu”
2. Keep press the “Down” button until the “09 -- LCD” option change to Green, and press “Enter” button, you will be taken in next screen.
3. In the next screen, press “Down” button to select the time range for keeping the LCD display ON.
4. Press “Enter” button, your selection will be confirmed and the green arrow will point to whatever time frame you choose.
5. Press “Exit” button, you will be taken back to screen labeled “Menu”. Press “Exit” button again to exit the Menu.

The below is the list of the feature in the visual PoE switch.

- 01 - Network. The PoE switch can work under three different network mode.

Standard - the PoE switch will work as conventional PoE switch.

VLAN – All the PoE port is isolated and only can exchange data with uplink port, It will not discover each other in the same switch level.

CCTV – Choose CCTV model will boost up the transmission distance up to 250 meters, meanwhile low down the bandwidth to 10Mbps.

- 02 - Bandwidth – You can configure the bandwidth’s upper limit for PoE ports. Once the upper limit is hit, the current data in the third column will change from Green to White. If the upper limit is hit over 10 time within one hours, that PoE port will be turned off automatically and labeled with OFF in red. This function is disable by default.

- 03 - PD Type

EN – Enhance PoE. Select EN will change PD class 0 to AT mode, meanwhile, Increase current upper limit to match AT standard.

ST – Standard PoE. Select ST to fully conforms the Sifos test (IEEE802.3 at/af standard)

LG- Legacy PoE. Select LG to support Cisco capacitance tag IP device.

- 04 - Reboot PD

In practical application, the IP cameras may get video freeze after keep running for a long period of time. Usually, disconnect the Ethernet cable can reboot IP camera and bring the video back. The visual PoE switch can simulate this operation by detecting the data input. If there’s no data receiving from the IP devices but still taking the power for a specific of time, the visual PoE switch will pull off the power for that port, then send it back, so the IP camera will be rebooted, similar as the manual operation by operator, only it is done automatically.

OFF – The time for waiting before sending back the power after it is pull off (between 5s-60s)

Interval – The no data time period for trigger the power disconnecting (between 60s-300s).

Start – The time for initialing the new PoE connection (between 60s-300s).

- 05 - Boost PSE

As each PoE port can be set with upper limit for the power output (08 - Port Energy) which may cause power allocation is not effective. Boost the PSE will try to take use of the power as much as possible.

IMPORTANT: Be sure the current power output (TP) after boost up is less than capacity of switch’s power (PB), otherwise, it may damage the switch.

06 - Port Priority

Port Priority allows the high priority ports receiving the sufficient power before low priority ports. The port can be set to three priority level(1-2-3). The 1 standard the first priority, and 2 for second priority and 3. Those ports within first (1) priority will stay with physical sequence. For example, in the first (1) priority (port-2 / port-6 / port 12), the port 2 will be on the top in the first priority group to be satisfied with the power demand and the port 12 will be the last in the first priority group after port-2 and port-6 are satisfied.

07 - Port ON/OFF

Each of PoE ports can be shut down manually by Port ON/OFF. The port status will labeled "OFF" in green after it is shutdown.

08 - Port Energy

Each PoE port can be set with upper limit for the power output. The upper limit range from 8W-36W. Only enhance PD and Cisco PD allows set up the upper limit. This function is not available with standard PD type which is locked to 32W.

09 - LCD

The idle time of LCD on can be change within always ON, 10 minute, 20 minutes, and 30 minutes.

10 - FAN

The timing to start running the fan inside the switch can be set basing on the current total power output. Select 20% means the fan will be turned on when IP devices are pulling 20% of total power from the switch. For example, if the total power of switch is 320W, the fan will start running when the total output is 64W ($320W * 20\%$)

11 - Language – Switching the language.

12 - Default – Restore the factory default setting.

Electrical Safety Information

1. Compliance is required with respect to voltage, frequency, and current requirements indicated on the manufacturer's label. Connection to a different power source than those specified may result in improper operation, damage to the equipment or pose a fire hazard if the limitations are not followed.
2. There are no operator serviceable parts inside this equipment. Service should be provided only by a qualified service technician.
3. This equipment is provided with a detachable power cord which has an integral safety ground wire intended for connection to a grounded safety outlet.
4. Do not substitute the power cord with one that is not the provided approved type. Never use an adapter plug to connect to a 2-wire outlet as this will defeat the continuity of the grounding wire.
5. The equipment requires the use of the ground wire as a part of the safety certification, modification or misuse can provide a shock hazard that can result in serious injury or death.
6. Contact a qualified electrician or the manufacturer if there are questions about the installation prior to connecting the equipment.
8. Protective bonding must be installed in accordance with local national wiring rules and regulations.

Need More help?

If you require more help setting up your visual PoE switch, please head to our help site where you will be able to find all the help guides and video tourist.

Visit our help site
fastcabling.com/support/

Declaration of Conformity

We, Fastcabling LTD., hereby declare that the products:

Fastcabling Visual PoE Switch

is in conformity with all the essential requirements of **EMC Directive 2014/30/EU**

Assessment of compliance of the product with the requirements relating to the following specifications:

EN 60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013

EN 55032:2015+AC:2016 Class A

AS/NZS CISPR 32:2015 Class A

EN 61000-3-2:2014 Class A

EN 61000-3-3:2013

EN 55035:2017



The Person Responsible for this declarations is

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