

Outdoor Network PoE Switch User Manual

Notice: This Manual takes 8-port switch as an example

V3.0.1

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Foreword

General

This manual introduces the features and structure of PoE or others product (hereinafter referred to as "the Device")

Safety Instructions

The following categorized signal words with defined meaning might appear in the manual.

Signal Words	Meaning
 DANGER	Indicates a hazard with a high level of risk, which if not avoided, will result in death or serious injury.
 WARNING	Indicates a potentially hazardous situation, which if not avoided, could result in equipment damage, data loss, performance degradation, or unexpected results.
 CAUTION	Indicates a potential risk which, if not avoided, could result in property damage, data loss, lower performance, or unpredictable result.
 TIPS	Provides methods to help you solve a problem or save you time.
 NOTE	Provides additional information to emphasize or supplement important points of the main text.

About the Manual

The manual is for reference only. If there is inconsistency between the manual and the actual device, the actual device shall prevail.

1. We are not liable for any loss caused by the operations that do not comply with the manual.
2. The manual would be updated according to the latest laws and regulations of related jurisdictions. For detailed information, refer to the paper manual, CD-ROM, QR code or our official website. If there is inconsistency between paper manual and the electronic version, the electronic version shall prevail.
3. All the designs and software are subject to change without prior written notice. The device updates might cause some differences between the actual device and the manual. Please contact the customer service for the latest program and supplementary documentation.
4. There still might be deviation in technical data, functions and operations description, or errors in print. If there is any doubt or dispute, we reserve the right of final explanation.
5. Upgrade the reader software or try other mainstream reader software if the manual (in PDF format) cannot be opened.
6. All trademarks, registered trademarks and the company names in the manual are the properties of their respective owners.
7. Please visit our website, contact the supplier or customer service if there is any problem occurring when using the device.
8. If there is any uncertainty or controversy, we reserve the right of final explanation.

Important Safeguards and Warnings

The manual helps you to use our devices properly. To avoid danger and property damage, read the manual carefully before using the device, and we highly recommend you to keep it well for future reference.

Operating Requirements

1. Do not expose the device directly to the sunlight and keep it away from heat.
2. Do not install the device in the damp environment and avoid dust and soot.
3. Make sure the device is in horizontal installation and install the device on solid and flat surface to avoid falling down.
4. Avoid liquid spattering on the device. Do not place object full of liquid on the device to avoid liquid flowing into the device.
5. Install the device in the well-ventilated environment. Do not block the air vent of the device.
6. Use the device at rated input and output voltage.
7. Do not disassemble the device without professional instruction.
8. Transport, use, and store the device in allowed ranges of humidity and temperature.

Power Supply Requirements

1. Use locally recommended power cord in the limit of rated specifications.
2. Use the standard power adapter. We will assume no responsibility for any problems caused by nonstandard power adapter.
3. The power supply shall meet the SELV requirement. Use the power supply that conforms to Limited Power Source, according to IEC60950-1. Refer to the device label.
4. The coupler is the disconnecting apparatus. Keep it at the angle for easy to operate.

Main Characteristics

1. Using network patch cords support power for the wireless AP/CPE and IP camera/PTZ
2. Networking standard: IEEE802.3af/at/bt.
3. Some models have adaptive transmission of 250m
4. PoE Watchdog AI Function: Detection front-end PoE cameras and PD, Automatic detection, Automatic restart.
5. Upload port automatic flip (Auto MDI / MDIX).
6. 6KV lightning protection, 8KV surge protection, anti-reverse connection, over-current protection, over-voltage protection, over-temperature protection, Short circuit protection.
7. The Max output power of the port is 60W, which is convenient for hi-power equipment.
8. Zero configuration feature power supply is automatically supplied to the adaptive equipment.

WATCHDOG

Auto-detect and restart IP camera timely if the camera is halted



6KV LIGHTNING 8KV ESD

Reaching 6KV lightning and 8KV Static electricity protection, the PoE ports own the capacity to keep the PoE Switch from lightning strikes and other electrical surges, offering reliable performance even in some harsh environments.

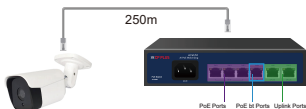
SUPPLY 60W HIGH POWER

60W high-power port to meet the needs of more and more high-power powered devices.



Adaptive 250m Transmission

Using the latest transmission technology, each port of the switch intelligently judges the transmission distance. When the distance exceeds 160m, the speed of the corresponding port is reduced from 100Mbps to 10Mbps. At this time, the farthest transmission distance of the corresponding port will reach 250m.



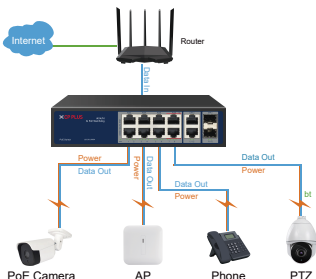
Installation Guidelines

Installation Steps:

Please follow installation steps as below:

1. Please turn off the signal source and the device's power, installation with power on may damage the device.
2. Use 8pcs network cables to connect 8pcs IP cameras with the product's 1~8 RJ45 Ethernet ports;
3. Use another network cable or (optical fiber) to connect switch's UPLINK port with NVR or computer.
4. Connect switch with power adapter.
5. Check if the installation is correct and device is good, make sure all the connection is reliable and power up the system.
6. Make sure every network device power supply works normally.

Installation Diagram:



Caution:

1. In order to safety, please non-professionals don't open the casing of product;
2. Please be careful the risk of strong current and security protection when products carry power;
3. Please select the right power adaptor provide power for PoE switch, before using please confirm if it is accord with the requirement of PoE switch;
4. Please don't use PoE switch under the humid environment, avoiding water go into the product inside caused PoE switch breakdown;
5. Please start the power after the circuit connected;
6. Please don't plug-in and plug-out the connection cable when product is carrying on power;
7. Please don't use PoE switch under somewhere with more dust and EME;
8. Please don't put heavy thing on PoE switch, in order to having an accident;
9. According to the IEEE802.3AF/AT/BT standard, Please use the Cat.5 or above, Some models can transmission distance 250M;
10. Please don't exceed the maximum output power of PoE switch when it connect more than one PD device;
11. Suggestion that PoE switch use for indoor, if you want to use for outdoor, Please use waterproof model No..

Port Description

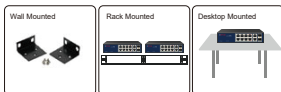
Indoor PoE++ Switch Items



Outdoor PoE++ Switch Items



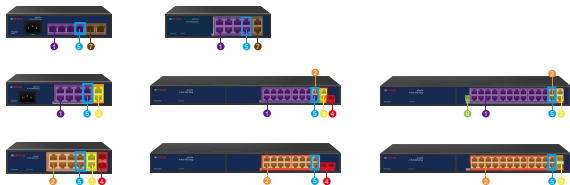
Indoor Switch installation diagram



Outdoor Switch installation diagram



Ports Description



① -100Mbps PoE Ports

② -1000Mbps PoE Ports

③ -1000Mbps Uplink Ports

④ -1000Mbps SFP Ports

⑤ -60W power supply Ports

⑥ DC Ports

⑦ -100Mbps Uplink Ports

Specification

Model	CP-ANW-HPU8H2D-N12
Ports	8 * 10/100Mbps PoE Ports (RJ45) 2 * 10/100Mbps Uplink Port (RJ45)
Transmission Rate	200Mbps Full Duplex. 10 or 100Mbps Half Duplex
Transmission Distance	1~2 ports 250m 10Mbps 3~8 ports 130m 100Mbps
Performance Specification	Bandwidth 2.0Gbps
	Network Latency (10 to 100Mbps): ≤ 16μs (use the 64byte package size)
	MAC address table: 2K
	The Frame Filter & Transmission Rate: 14880pps the most for 10M port, 14880pps the most for 100M port
Networking Standard	IEEE 802.3i 10BASE-T
	IEEE 802.3u 100BASE-TX
	IEEE 802.3x Flow Control
	IEEE 802.3af/at/bt Power over Ethernet
Power Support	Power Input: AC 180~240V Totals120W
	AI Watchdog: Port 1~8
	Power Output: PoE 1~6 Port:1/2(+52V),3/6(GND)≤30W PoE 7~8 Port:1245(+53V),3678(GND) Compatible 1/2(+52V),3/6(GND)≤60W
Protection Level	Lightning Protection: 6KV, Per: IEC61000-4-5
	ESD Protection: 8KV, Per: IEC61000-4-2
Physical Specifications	Size(L*W*H): 310mm*260mm*100mm, Weight: 1.6KG
Working Environment	Operating Temperature: -30°C~60°C
	Storage Temperature: -40°C~70°C
	Operating Humidity: 10%~90% non-condensing
	Storage Humidity: 5%~90% non-condensing
Certification	CE Mark
	FCC Part15, Class B
	RoHS 2.0
Warranty	Whole Device: 1 year
Package Content	AC Power Cable, User Manual

Specification

Model	CP-ANW-HPU16G2F1D-N30
Ports	15 * 10/100Mbps PoE ports (RJ45) 1 * 10/100/1000Mbps PoE port (RJ45) 2 * 10/100/1000Mbps uplink ports (RJ45) 1 * 10/100/1000Mbps SFP port
Transmission Rate	2000Mbps Full Duplex, 10 or 100 or 1000 Mbps Half Duplex
Transmission Distance	100Mbps /10Mbps, Auto-Adaption 250m
Performance Specification	Bandwidth:12.8Gbps
	Network Latency (10 to 1000Mbps): $\leq 16\mu s$ (use the 64byte package size)
	MAC address table: 8K
	The Frame Filter & Transmission Rate: 14800pps the most for 10M port, 148800pps the most for 100M port;1488000pps the most for 1000M port
Networking Standard	IEEE 802.3i 10BASE-T/IEEE 802.3u 100BASE-TX
	IEEE 802.3ab 1000BASE-T
	IEEE 802.3x Flow Control
	IEEE 802.3af/at/bt Power over Ethernet
Power Support	Power Input: AC 180~240V Totals300W
	AI Watchdog: Port 1~16
	Power Output: PoE1~14 Port:1/2(+52V),3/6(GND) $\leq 30W$ PoE15~16 Port:1245(+53V),3678(GND) Compatible1/2(+52V),3/6(GND) $\leq 60W$
Protection Level	Lightning Protection:6KV, Per: IEC61000-4-5
	ESD Protection:8KV, Per: IEC61000-4-2
Physical Specifications	Size(L*W*H): 310mm*260mm*100mm, Weight: 2.2KG
Working Environment	Operating Temperature: -30°C~60°C
	Storage Temperature: -40°C~70°C
	Operating Humidity: 10%~90% non-condensing
	Storage Humidity: 5%~90% non-condensing
Certification	CE Mark
	FCC Part15, Class B
	RoHS 2.0
Warranty	Whole Device: 1 year
Package Content	AC Power Cable, User Manual

Specification

Model	CP-ANW-GPU8G2F2D-N12
Ports	8 * 10/100/1000Mbps PoE port (RJ45) 2 * 10/100/1000Mbps uplink ports (RJ45) 2 * 10/100/1000Mbps SFP port
Transmission Rate	2000Mbps Full Duplex, 10 or 100 or 1000 Mbps Half Duplex
Transmission Distance	130m
Performance Specification	Bandwidth:24Gbps
	Network Latency (10 to 1000Mbps): $\leq 16\mu s$ (use the 64byte package size)
	MAC address table: 8K
	The Frame Filter & Transmission Rate: 14800pps the most for 10M port, 148800pps the most for 100M port;148800pps the most for 1000M port
Networking Standard	IEEE 802.3i 10BASE-T/IEEE 802.3u 100BASE-TX
	IEEE 802.3ab 1000BASE-T
	IEEE 802.3x Flow Control
	IEEE 802.3af/at/bt Power over Ethernet
Power Support	Power Input: AC 180~240V Totals120W
	AI Watchdog: Port 1~8
	Power Output: PoE1~6 Port:1/2(+52V),3/6(GND) $\leq 30W$ PoE7~8 Port:1245(+53V),3678(GND) Compatible 1/2(+52V),3/6(GND) $\leq 60W$
Protection Level	Lightning Protection:6KV, Per: IEC61000-4-5
	ESD Protection:8KV, Per: IEC61000-4-2
Physical Specifications	Size(L*W*H): 310mm*260mm*100mm, Weight: 1.6KG
Working Environment	Operating Temperature: -30°C~60°C
	Storage Temperature: -40°C~70°C
	Operating Humidity: 10%~90% non-condensing
	Storage Humidity: 5%~90% non-condensing
Certification	CE Mark
	FCC Part15, Class B
	RoHS 2.0
Warranty	Whole Device: 1 year
Package Content	AC Power Cable, User Manual

Trouble Shooting

Please find the following solution when the device doesn't work

1. Please confirm if the installation is correct;
2. Please confirm if the RJ45 cable order is in accordance with the EIA/TIA568A or 568B industry standards;
3. The power supply of af / at PoE port is not more than 30W, and the power supply of BT Poe port is not more than 60W; please do not connect the PoE device which exceeds the maximum PoE power supply;
4. Please replace a failure device with a properly functioning one to check if the device is broken;
5. If the problem still exists, please contact the factory.

RJ 45 Making Method

Tools to make RJ45: wire crimper, network tester;

Wire sequence of RJ45 plug should conform with EIA/TIA568A or EIA/TIA568B standard;

1. Strip off the 2cm insulating layer to expose the 4 pairs UTP cable;
2. Separately the 4 pairs of UTP cable and straighten them;
3. Line up the 8 separated pieces of cables per EIA/TIA 568A or 568B;
4. Cut the cables to leave 1.5cm bare wire and make sure 8 thread ends are flat and neat;
5. Plug 8 cables into RJ45 plug, make sure each cable is in each pin;
6. Then use wire crimper to crimp the RJ45;
7. Do the above 5 steps again to make the another end of the twisted pair and make sure consistent cable order between two ends;
8. Using network tester to test the cable.

pin color	
1	white/green
2	green
3	blue
4	white/orange
5	white/blue
6	white/brown
7	orange
8	brown



EIA/TIA 568A

pin color	
1	white/orange
2	orange
3	white/green
4	blue
5	white/blue
6	green
7	white/brown
8	brown



EIA/TIA 568B



Notice

Make sure both ends use EIA/TIA568A connection method when using RJ45 port.

Make sure both ends use EIA/TIA568B connection method when using RJ45 port.

Thank You for Choosing CP Plus!

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