

GIGAMEDIA

IP NETWORK PA SYSTEM

- GGM IPABC8POE/GGM IPABC15POE
- NETWORK AUDIO ADAPTER



OWNER'S MANUAL

Please follow the instructions in this manual to obtain the optimum results from this unit.
We also recommend that you keep this manual handy for future reference.

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1. SAFETY PRECAUTIONS

- Be sure to read the instructions in this section carefully before use.
- Make sure to observe the instructions in this manual as the conventions of safety symbols and messages regarded as very important precautions are included.
- We also recommend you keep this instruction manual handy for future reference.

Safety Symbol and Message Conventions

Safety symbols and messages described below are used in this manual to prevent bodily injury and property damage which could result from mishandling. Before operating your product, read this manual first and understand the safety symbols and messages so you are thoroughly aware of the potential safety



WARNING

Indicates a potentially hazardous situation which, if mishandled, could result in death or serious personal injury.



CAUTION

Indicates a potentially hazardous situation which, if mishandled, could result in moderate or minor personal injury, and/or property damage.



WARNING

When Installing the Unit

- Do not expose the unit to rain or an environment where it may be splashed by water or other liquids, as doing so may result in fire or electric shock.
- Use the unit only with the voltage specified on the unit. Using a voltage higher than that which is specified may result in fire or electric shock.
- Do not cut, kink, otherwise damage nor modify the power supply cord. In addition, avoid using the power cord in close proximity to heaters, and never place heavy objects -- including the unit itself -- on the power cord, as doing so may result in fire or electric shock.
- Be sure to replace the unit's terminal cover after connection completion. Because high voltage is applied to the speaker terminals, never touch these terminals to avoid electric shock.
- Be sure to ground to the safety ground (earth) terminal to avoid electric shock. Never ground to a gas pipe as a catastrophic disaster may result.
- Avoid installing or mounting the unit in unstable locations, such as on a rickety table or a slanted surface. Doing so may result in the unit falling down, causing personal injury and/or property damage.

When the Unit is in Use

- Should the following irregularity be found during use, immediately switch off the power, disconnect the power supply plug from the AC outlet and contact your nearest dealer. Make no further attempt to operate the unit in this condition as this may cause fire or electric shock.
 - If you detect smoke or a strange smell coming from the unit.
 - If water or any metallic object gets into the unit
 - If the unit falls, or the unit case breaks
 - If the power supply cord is damaged (exposure of the core, disconnection, etc.)
 - If it is malfunctioning (no tone sounds.)
- To prevent a fire or electric shock, never open nor remove the unit case as there are high voltage components inside the unit. Refer all servicing to your nearest dealer.
- Do not place cups, bowls, or other containers of liquid or metallic objects on top of the unit. If they accidentally spill into the unit, this may cause a fire or electric shock.
- Do not insert nor drop metallic objects or flammable materials in the ventilation slots of the unit's cover, as this may result in fire or electric shock.

CAUTION

When Installing the Unit

- Never plug in nor remove the power supply plug with wet hands, as doing so may cause electric shock.
- When unplugging the power supply cord, be sure to grasp the power supply plug; never pull on the cord itself. Operating the unit with a damaged power supply cord may cause a fire or electric shock.
- When moving the unit, be sure to remove its power supply cord from the wall outlet. Moving the unit with the power cord connected to the outlet may cause damage to the power cord, resulting in fire or electric shock. When removing the power cord, be sure to hold its plug to pull.
- Do not block the ventilation slots in the unit's cover. Doing so may cause heat to build up inside the unit and result in fire.
- Avoid installing the unit in humid or dusty locations, in locations exposed to the direct sunlight, near the heaters, or in locations generating sooty smoke or steam as doing otherwise may result in fire or electric shock.

When the Unit is in Use

- Do not place heavy objects on the unit as this may cause it to fall or break which may result in personal injury and/or property damage. In addition, the object itself may fall off and cause injury and/or damage.
- Make sure that the volume control is set to minimum position before power is switched on. Loud noise produced at high volume when power is switched on can impair hearing.
- Do not operate the unit for an extended period of time with the sound distorting. This is an indication of a malfunction, which in turn can cause heat to generate and result in a fire.
- Contact your dealer as to the cleaning. If dust is allowed to accumulate in the unit over a long period of time, a fire or damage to the unit may result.
- If dust accumulates on the power supply plug or in the wall AC outlet, a fire may result. Clean it periodically. In addition, insert the plug in the wall outlet securely.
- Switch off the power, and unplug the power supply plug from the AC outlet for safety purposes when cleaning or leaving the unit unused for 10 days or more. Doing otherwise may cause a fire or electric shock.

An all-pole mains switch with a contact separation of at least 3 mm in each pole shall be incorporated in the electrical installation of the building.

Due to product upgrades, while some of the features and specification in the user manual does not match the actual functions, sorry for any inconvenience and thanks for your kind understanding.

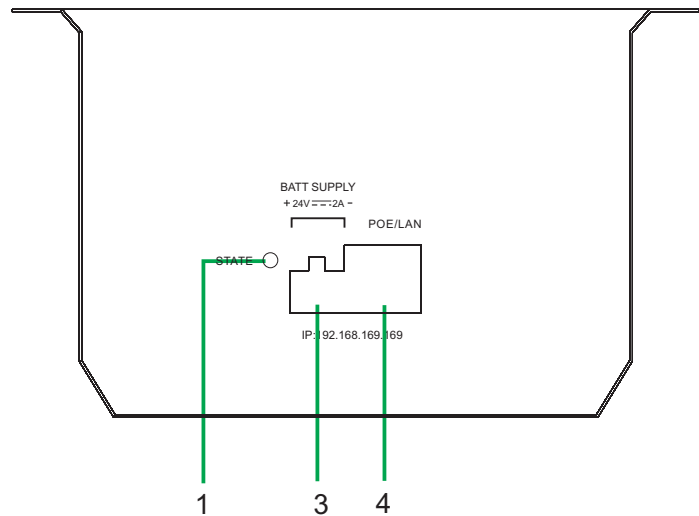
2. PRODUCT APPLICATION

Professional Integration ceiling speakers equip with network audio decoding function, built-in digital resistance power amplifier and high-fidelity speakers, installed in the designated control room, office, room, etc.

3. FUNCTION FEATURES

1. Embed PC technology, built-in DSP Audio processing technology design and high speed industrial chip.
2. Built-in 1 channel network hardware audio decoding module, supports TCP/IP, UDP protocol, realizes network transmission of 16-bit CD sound quality audio signal.
3. Support POE (IEEE 802.3af) power supply mode, only need one network cable to connect to the POE switch. The construction is simple and convenient, and the maximum connection distance is up to 80 meters.
4. Digital power amplifier with intelligent gain adjustment, adaptive power supply and automatic power adjustment was equipped. And it is always in the working state of performance optimization and efficiency maximization.
5. Built-in full band and high sensitivity speaker unit, also with abundant power and high fidelity sound quality
6. Equipped with a DC 24V standby power interface, suitable for power demand greater than 10W or for non-POE network power supply.
7. Compatible router, switch, bridge gateway, Modem, Internet, 2G, 3G, 4G and other arbitrary network architecture.
8. Support broadcasting system to upgrade terminal firmware remotely, no need to upgrade to the terminal locally, reduce the maintenance workload.

4. NAME AND UNCTION



1. The status indicator.
2. External 24V power supply.
3. POE power supply.

■ Indicator status description:

1. Power off: red and green light off.
2. Powering on, light green on, red light off.
3. The normal idle alternating: red and green alternately, 1.0 seconds interval, bright red and green two-color.
4. The normal broadcast: bright green on: red off.
5. The network failure: red flash and green off, 0.2 seconds interval, then bright red on.

■ Tips:

The factory terminal IP address is: 192.168.168.166

Subnet mask: 255.255.0.0

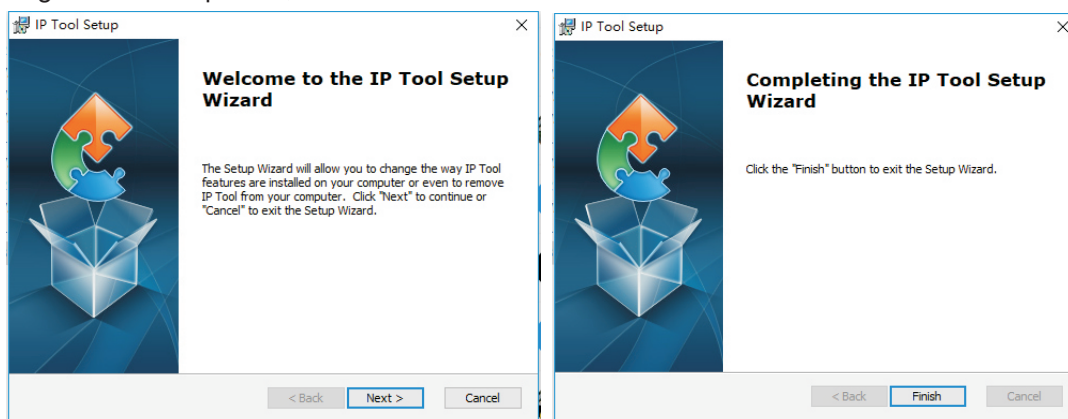
Gateway: 0.0.0.0

Service IP: 192.168.168.254

5. TERMINAL CONFIGURATION OPERATING INSTRUCTIONS

The terminal needs to be configured before installation, before installation, need make a installation plan including terminal name, terminal IP address, gateway IP address, server IP address, location of terminal installation, and label the information on the terminal to ensure the convenient use of the device. Please save the plan as an electronic document for future maintenance. After the system planning is completed, please configure parameters of each terminal includes “terminal IP address, subnet mask, gateway and server address”.

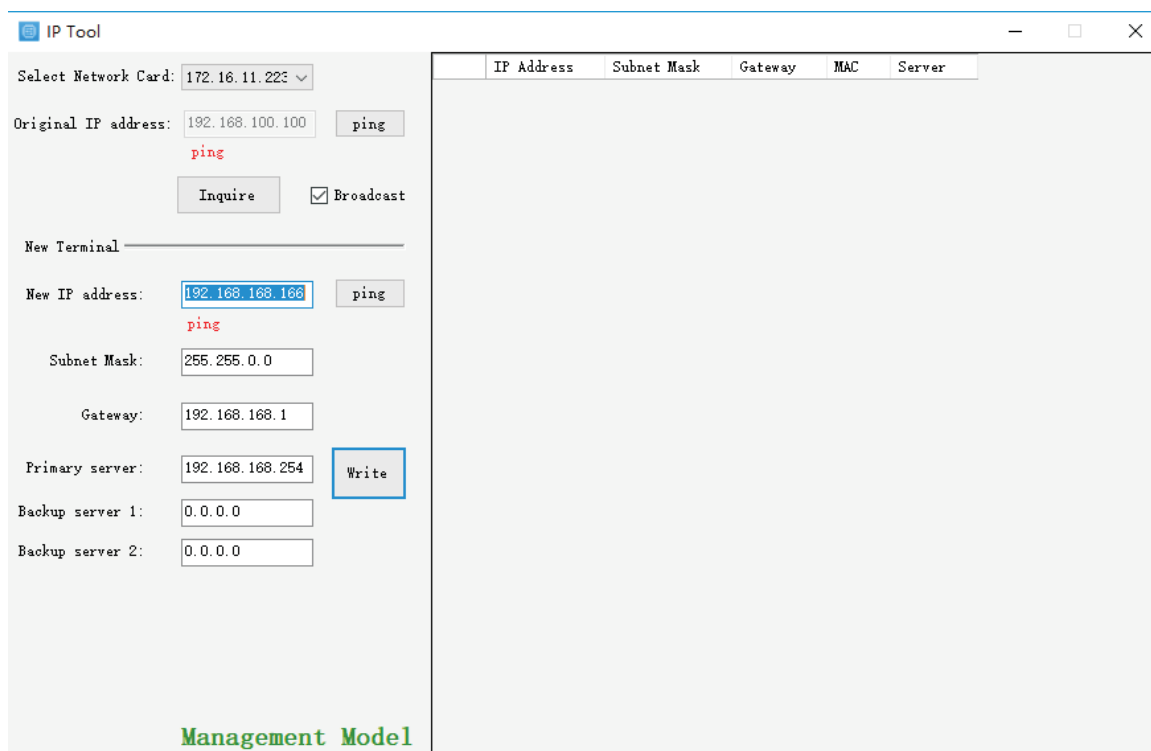
1. Installing software. Find the IP network broadcast system software installation package, double-click to open it, click on the program “terminal configuration tool”, after the installation of the program is completed, as shown below:



2. After the program is installed, a icon is generated on the desktop, as shown below:



3. Double-click the icon to run, and the “terminal configuration tool” window will pop up, as shown below:



5. TERMINAL CONFIGURATION OPERATING INSTRUCTIONS

The configuration steps:

Step 1: Connect the terminal and the computer installed with the terminal configuration tool program by the network wire, Plug in the power until the terminal power indicator is on.

Step 2: double-click to open the shortcut icon of "terminal configuration tool", select the network card first, and left-click the "query" button in the window, to query the terminal's original IP address. Please pay attention to: local IP address of the computer should be set in the same network segment as the terminal, because the default IP of terminal is: 192.168.168.166, so the computer's local IP address should also be set to: 192.168.168.X, otherwise it maybe not match the IP terminal address.

Step 3: In the window of "Terminal Configuration Tool", fill in correct "IP address", "Subnet mask", "Gateway IP" and "Server IP", as below:

The screenshot shows the "IP Tool" window. On the left, there are input fields for "Original IP address" (172.16.11.20), "New Terminal" section with "New IP address" (172.16.11.20), "Subnet Mask" (255.255.255.0), "Gateway" (172.16.11.254), "Primary server" (172.16.11.217), "Backup server 1" (0.0.0.0), and "Backup server 2" (0.0.0.0). There are "ping", "Inquire", and "Write" buttons. On the right, a table displays terminal information:

| IP Address | Subnet Mask | Gateway | MAC | Server |
|--------------|---------------|---------------|--|---------------|
| 172.16.11.20 | 255.255.255.0 | 172.16.11.254 | 42-4c-45-01-28-be0A-20180814-REV-1.18-EN | 172.16.11.217 |

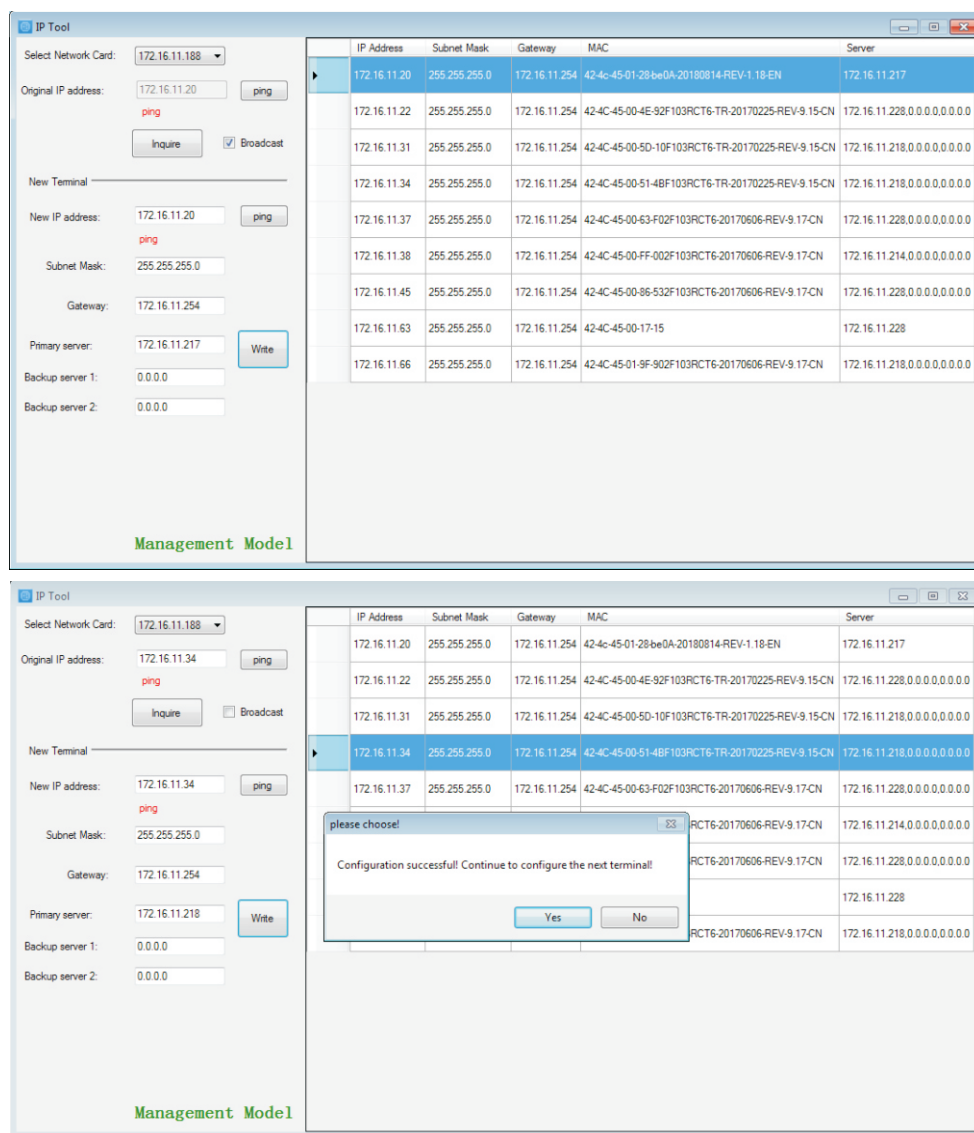
At the bottom left, it says "Management Model".

Step 4: left click on the "write" button, there will be a window prompt after the successful configuration; after that, left click on the "query" button, the parameters of the terminal will be re-read by the configuration program, if it display as the same as entered one, means that the configuration was successful.

This screenshot is similar to the previous one, but with a confirmation dialog box overlaid. The dialog box has the title "please choose!" and the message "Configuration successfull! Continue to configure the next terminal!". It has "Yes" and "No" buttons. The "Write" button in the background is highlighted.

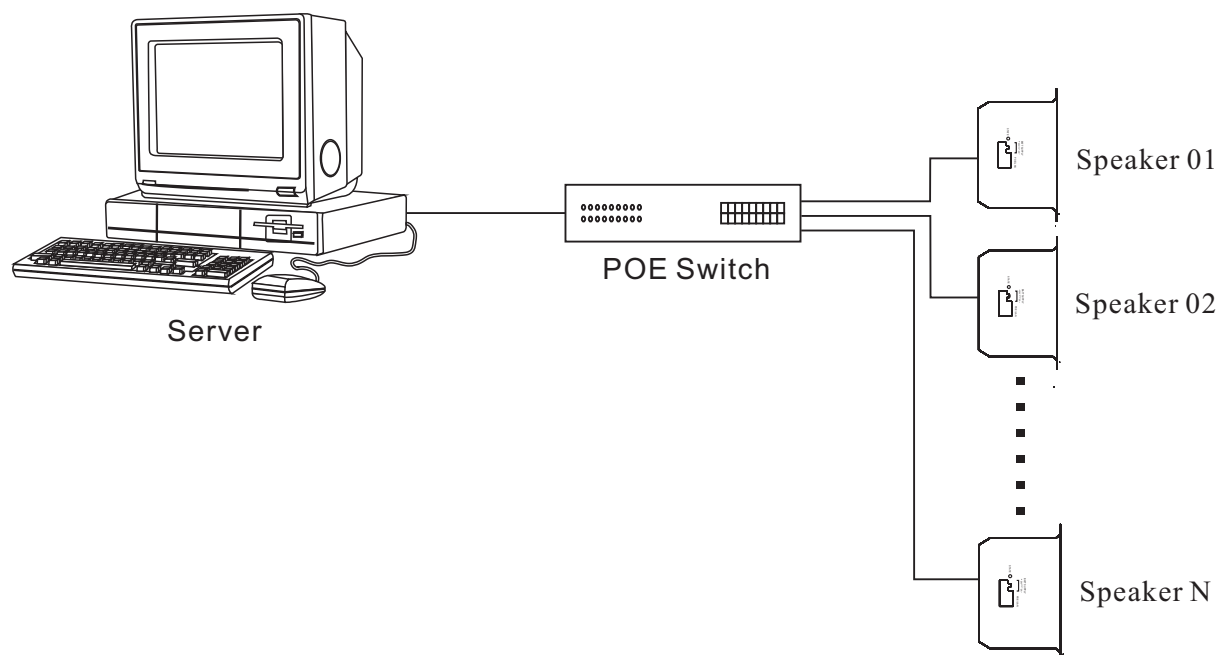
5. TERMINAL CONFIGURATION OPERATING INSTRUCTIONS

Step 5: If multiple terminals are in the same network segment, you only need to modify the IP address of one terminal, it is needed to click on the terminal in the queried terminals list, then cancel the choice of broadcast on the left interface, modify the IP address and click for configuration.

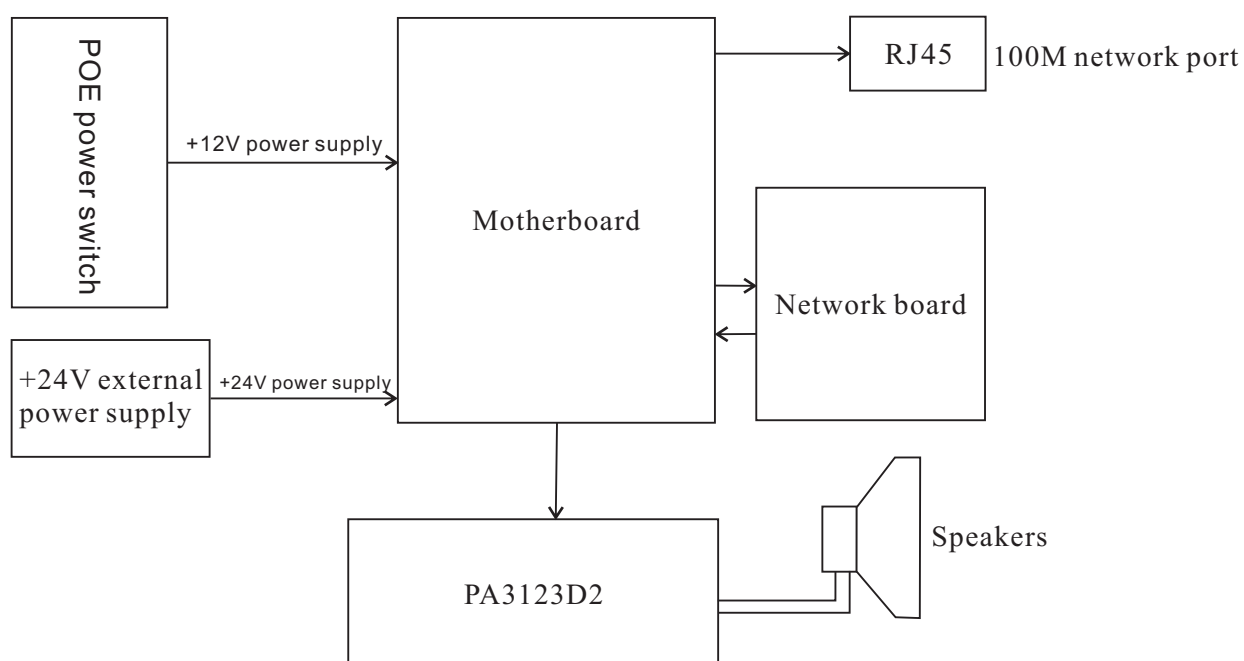


Notes: If the terminal data can't be queried or the network is blocked, the pop-up window will say Reconfigure the IP address or IP address writing error. In this case, please reconfigure the network, check the network cable, and turn off the firewall, etc.

6. CONNECTION DIAGRAM



7. BLOCK DIAGRAM



8. TECHNICAL PARAMETERS

| Mode | GGM IPABC8POE | GGM IPABC15POE |
|--------------------------|--|------------------|
| Rated power output | 8W/8W | 8W/15W |
| Network Input | RJ45 | |
| Protocol Support | TCP/IP,UDP,IGMP(group broadcasting) | |
| Audio Format | MP3 | |
| Sampling Rate | 8K~48K | |
| Bit rate | 8K~512Kbps | |
| Transmit Speed | 100Mbps | |
| Audio Mode | 16 digit CD tone | |
| Frequency Output | 60Hz~18KHz(+1dB,-3dB) | |
| T.H.D | $\leq 1\%$ | |
| S.N | $\geq 68\text{dB}$ | |
| Loaded speakers | 8 Ω /6W | 8 Ω /20W |
| | Woofer | Coaxial speakers |
| Power protection circuit | Overvoltage / overcurrent circuit | |
| Working Temperature | 5℃~40℃ | |
| Working Humidity | 20%~80% Relative humidity, no condensing | |
| Power Consumption | 12W/12W | 12W/24W |
| Power Specifications | POE(IEEE 802.3af)/DC 24V 2A | |
| Installation dimensions | 160mm | 184mm |
| Dimension (mm) | 180X98 | 212X147 |
| N.W | 0.8Kg | 1.2Kg |

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VersionV0.1

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