



ZETA[®] Low-Power Wide Area Networks

ZETA AP

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1. Product Description

ZETA IIoT gateway, supporting LPWAN ZETA protocol, to meet the full range of ZETA sensor device access. Ethernet or Cellular link way to connect to the cloud platform, while supporting sensor data back through BACnet, MODBUS and other protocols. It can be widely used in different industrial data communication scenarios, such as: energy, transportation, municipal, agriculture, etc.

2. Applications

ZIntelligent manufacturing, smart farms, industrial control, factory equipment and other data collection and transmission.

3. Appearance & Interface



Figure 1: The appearance of the gateway

4. Device Specifications

Model No.		APZT-UI01/APZT-GI01/APTG-GI01
Wireless	Protocol	ZETA
	Frequency band	920-925
	Output power	20±3 mW
	Number of channels	61
Electrical	Power supply	DC 5-12V
	Power	≤5W
Physical	Size	137*124*30mm
	Enclosure material	SPCC
	Ingress level	IP30
	Antenna	External Antenna
Environmental	Operating temperature	-20℃~+75℃
	Storage temperature	-30℃~+85℃

5. Installation

5.1. Installation safety notice

- ◆ It is forbidden to operate with electricity when installing, wiring and dismantling the equipment.
- ◆ Place the equipment in a ventilated place to ensure that the equipment is installed in a dry environment.
- ◆ Avoid placing the equipment in a high temperature or low temperature environment.
- ◆ The installation location of the equipment should be far away from high-voltage cables to avoid electromagnetic interference during operation.
- ◆ The equipment should be far away from the environment of strong thunderstorm and strong electric field.
- ◆ Please fix the equipment firmly.

5.2. Installation environment check

- ◆ The RF antenna is installed vertically, and there should be no large metal shields such as metal pillars, large metal boxes, etc. within 1 meter around (the upper and lower metal will not affect it).
- ◆ The installation location needs to consider the power supply of the equipment. This equipment uses AC100 ~ 240V, a 2-hole power adapter, and the power cord is 3 meters in length.

5.3. Installation tool

Before installing the equipment, prepare the following installation tools and auxiliary materials:

Name	No.	Use Case
Screwdriver	1	For AP bracket, antenna, hoop and other screws
Wrench(#10)	1	For fixing screw nuts
Expansion screw	few	Used for equipment installation
Electric percussion drill	1	For wall turning for the expansion screw
Tool pliers	1	Used to screw the ground wire
Strapping tape	few	For wire fixing

5.4. Installation steps

- 1) Confirm the installation hole spacing: the four-corner hole can be used for fixed installation.
- 2) Use the supporting expansion screws to fix the equipment on the wall of the building.

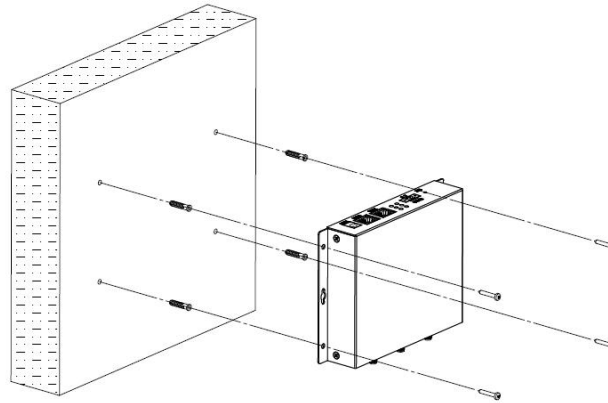


Figure 2: Installation diagram

- 3) Connect the RF antenna and the 4G antenna. The GPS antenna may not be connected when it is installed in a fixed place in the indoor environment.

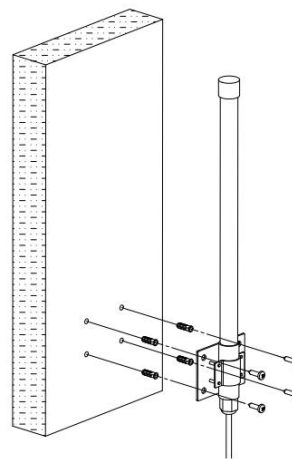


Figure 3: RF antenna installation

- 4) Arrange the cables and confirm that they comply with the corresponding cable laying specifications.

6. System Testing

6.1. Check after power-on

After power-on, observe the status of the indicator lights next to the power interface, and note that the lower two indicator lights are enabled. The specific functions are shown in the figure below.。

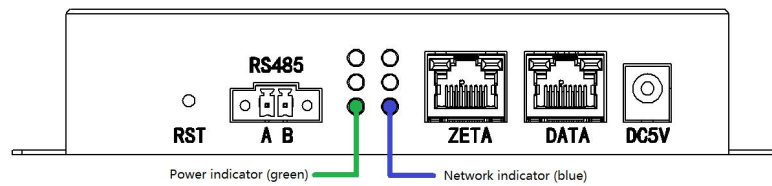


Figure 4: Schematic diagram of power indicator

6.2. Installation information record

After the indicator shows normal, the installation information can be recorded. Including installation location, equipment code, etc., to facilitate future maintenance and upgrades.

Photograph record of equipment installation:

- 1) Close view of the gateway, the following gateway ID label content is clearly visible



Figure 5: Photograph of gateway label

- 2) Gateway installation panorama, all parts of the gateway can be clearly seen

7. Common faults and handling

- Check the power supply to ensure that the gateway is powered normally.
- Check the antenna, whether the antennas are connected correctly, and whether they are properly tightened.
- Check the network cable and check if the network cable is properly connected.
- Check the status light to check whether the two status lights on the gateway core board are normal (one is always on, and one flashes twice in one second)
- View the platform device status. In the (Management Platform - Gateway Management) list, check whether the current device status is "Online".
- Check whether the heartbeat packet of the gateway (once per minute) is normal.
- If it still does not work, you can power it on again, start the gateway device, and check to see if it is restored.
- Contact ZFiSense for more solutions.

FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with FCC PART15 Rules. Operation is subject to the following two conditions:(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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