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› PDDAXLQUE DX-CP27 BLE 5.1 Beacon User Manual

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Model: DX-CP27

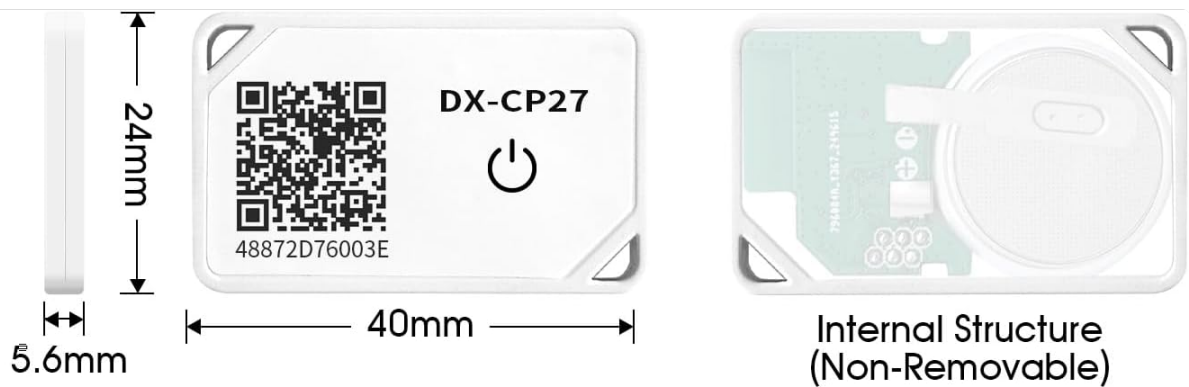
1. INTRODUCTION AND OVERVIEW

The PDDAXLQUE DX-CP27 is a compact and versatile BLE 5.1 Beacon designed for various tracking and management applications. It supports both iBeacon and Eddystone protocols, allowing for flexible integration into existing systems. Its robust IP67 waterproof rating and long battery life make it suitable for use in diverse environments.

This manual provides detailed instructions for setting up, operating, and maintaining your DX-CP27 Beacon, ensuring optimal performance and longevity.

2. KEY FEATURES

- **Dual Protocol Support:** Compatible with both iBeacon and Eddystone protocols, including UID, URL, and TLM frames.
- **Custom Broadcast Data:** Configurable for custom broadcast data to meet specific application needs.
- **Extended Range:** Offers an open-air communication distance of 50-70 meters.
- **Long Battery Life:** Provides 6 months to 1 year of operation with its non-removable lithium battery.
- **Durable Design:** IP67 waterproof rating ensures reliability in humid or challenging environments.
- **Compact Size:** Mini tag design (40x24x5mm) allows for easy attachment or hanging.
- **Free Companion App & SDK:** Available for Android ("DX-Ibeacon" or "DX-SMART") and iOS ("DX-SMART") for configuration and development.
- **Simultaneous Broadcasting:** Supports broadcasting of up to six different packet types concurrently.



CP27 Key Features

- Renesas DA14531 Chip
- Bluetooth BLE 5.1 protocol
- Support 6 UUID Broadcast
- Battery Life: 6 months to 1 year.
Non-removable lithium battery.
- Protection Level: IP67
- Working power consumption: 22.13 μ A
- Support iBeacon & Eddystone
- Open visual communication distance:
50~70 m(164.04~229.66ft)
- Module Size: 36(L)x16.5(W)x4(H)mm
- CE, FCC,ROHS certification

Image: The DX-CP27 Beacon showing its dimensions (40mm length, 24mm width, 5.6mm thickness) and internal structure. Key features listed include Renesas DA14531 Chip, Bluetooth BLE 5.1 protocol, support for 6 UUID broadcasts, 6 months to 1 year battery life, IP67 protection, 22.1 μ A working power consumption, iBeacon & Eddystone support, 50-70m communication distance, 36x16.5x4mm module size, and CE, FCC, ROHS certification.

3. PACKAGE CONTENTS

The DX-CP27 Bluetooth Beacon package typically includes the following items:

- DX-CP27 User Manual (x1)
- Product Guide (x1)
- DX-CP27 Beacons (quantity varies by package, e.g., 3, 10)
- Foam Tape (quantity matches beacons)

Your browser does not support the video tag.

Video: This video demonstrates the unboxing of the DX-CP27 Bluetooth Beacon, showing the user manual, product guide, multiple beacons, and foam tapes included in the package. It also illustrates the power-on and power-off procedures for the beacon, indicated by the blinking of the indicator light.

4. SETUP AND OPERATION

4.1 Powering On/Off the Beacon

1. **Power On:** Long press the power key on the beacon for 2 seconds. The indicator light will blink twice, signifying successful startup.
2. **Power Off:** Long press the power key for 5 seconds. The indicator light will stay on steadily and then turn off, indicating the beacon has shut down.

4.2 Installing the Companion App

To configure and manage your DX-CP27 Beacon, you need to download the companion app:

1. Ensure your phone's Bluetooth is enabled.
2. For Android devices, search for "DX-Ibeacon" or "DX-SMART" in the Google Play Store.
3. For iOS devices, search for "DX-SMART" in the Apple App Store.
4. Download and install the app.
5. Once installed, open the app to access the home screen.

Free APP & SDK



- The APP supports modification and query of broadcast parameters, such as iBeacon parameters (UUID, MAJOR, MINOR) and Eddystone parameters (UID, URL, TIM, Device Info).
- The APP can be used to set button functions, and to restart the device or restore it to factory settings.
- For the APP: Android users can search for "DX-IBEACON" in the Google Play Store to download it; iOS users can search for "DX-SMART" in the Apple Store to download it.
- We provide the APP's SDK to enable you to quickly develop your own APP.

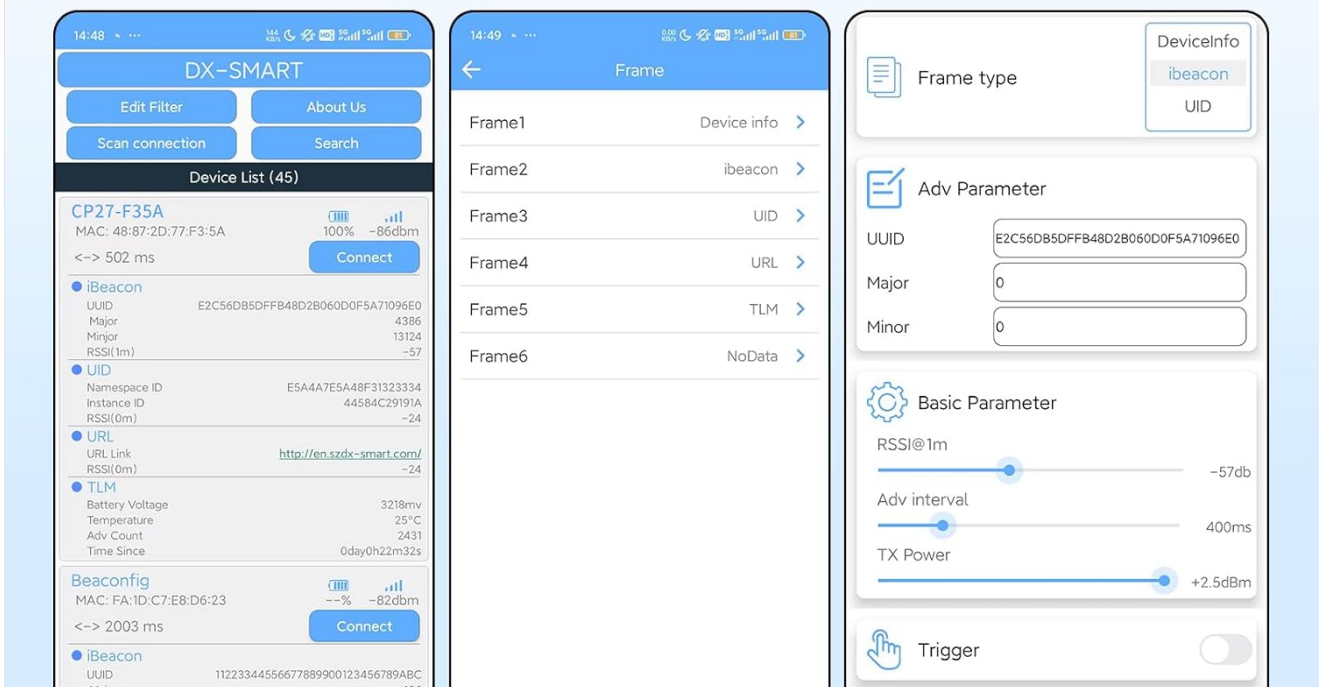


Image: Screenshots of the DX-SMART app interface, demonstrating how to search for the app, connect to a beacon, and access parameter settings for iBeacon, UID, URL, and TLM frames. It highlights the ability to modify broadcast parameters like UUID, Major, Minor, and BLE Name.

Note: A free app SDK is also provided for user development convenience. The app allows for configuration of broadcast data such as UUID, Major, Minor, UID, and URL.

4.3 Connecting and Configuring the Beacon

1. On the app's home screen, refresh the device list to find your DX-CP27 Beacon.
2. If there are many nearby Bluetooth devices, use the "Edit Filter" function or scan the QR code on the beacon for quicker connection.
3. Tap on the found DX-CP27 Beacon and enter the default password "dx1234" (this can be changed later).
4. Enter the parameter settings interface and select any Frame (e.g., Frame1 for DeviceInfo) for verification.
5. You can change parameters like the "BLE Name" (e.g., to "Beacon Test").
6. Click "SAVE" to apply changes. A "Save Success" prompt indicates the settings have been saved successfully.
7. Return to the home screen and refresh the device list to confirm the updated parameters.

Important: This product needs to be used with an APP or a backend management system with a gateway.

5. APPLICATION SCENARIOS

The DX-CP27 Beacon is suitable for a wide range of applications due to its versatile features:

- **Personnel Tracking:** Monitor the location and movement of staff within a defined area.
- **Warehouse Asset Management:** Track inventory, equipment, and other assets in warehouses or storage facilities.
- **Goods Labeling:** Attach to products for identification and tracking throughout the supply chain.
- **Advertising Push:** Deliver location-based notifications or promotions to nearby mobile devices.
- **Cargo Tracking:** Monitor the status and location of cargo during transit.

IP67 Waterproof



Application Scenarios

Support customization.
More scenarios waiting for you to develop,
Feel free to contact us at any time!

Personnel Tracking



Warehouse Asset Management Tracking



Push Advertising



Goods Tracking



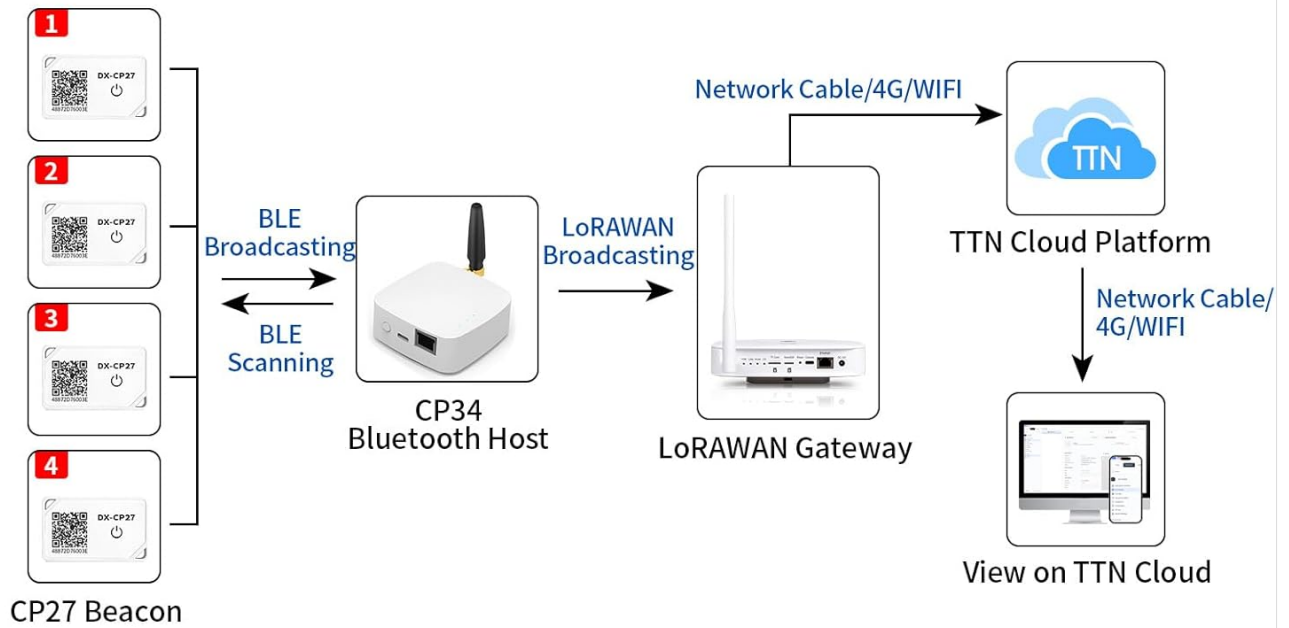
Image: Various application scenarios for the IP67 waterproof DX-CP27 Beacon, including personnel tracking, warehouse asset management tracking, push advertising, and goods tracking. The beacon is shown in different environments to illustrate its

versatility.



Image: Further examples of the DX-CP27 Beacon's use in practical settings, such as attached to items in a warehouse, storage cabinets, toolboxes, and various equipment, demonstrating its integration with a mobile phone app for scanning and displaying product information.

Asset Tracking/Management



Goods Label

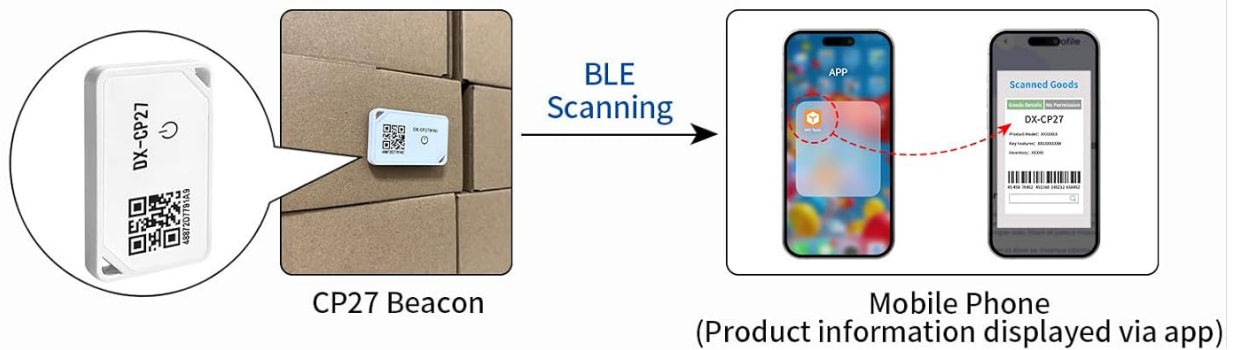


Image: A diagram illustrating two primary uses: Asset Tracking/Management, where CP27 Beacons broadcast BLE signals to a CP34 Bluetooth Host, which then sends data via LoRAWAN to a LoRAWAN Gateway and TTN Cloud Platform; and Goods Labeling, where a CP27 Beacon attached to goods is scanned by a mobile phone app to display product information.

6. SPECIFICATIONS

Feature	Detail
Model	DX-CP27
Brand	PDDAXLQUE
Bluetooth Version	BLE 5.1

Feature	Detail
Protocols Supported	iBeacon, Eddystone (UID, URL, TLM), Custom Broadcast Data
Communication Distance	50-70 meters (open air)
Battery Type	CR2032 (Lithium Polymer, non-replaceable)
Battery Capacity	210 Milliamp Hours
Battery Life	6-12 months
Dimensions	40mm x 24mm x 5mm (approx.)
Protection Level	IP67 Waterproof
Recommended Uses	Cargo tracking, personnel tracking, personnel management, warehouse management, goods labeling, advertising push.

7. MAINTENANCE AND CARE

- **Cleaning:** Wipe the beacon with a soft, dry cloth. Avoid using harsh chemicals or abrasive cleaners.
- **Battery:** The DX-CP27 features a non-replaceable battery due to its waterproof design. When the battery life ends, the unit should be replaced.
- **Storage:** Store the beacon in a cool, dry place away from direct sunlight and extreme temperatures.
- **Water Resistance:** While IP67 waterproof, avoid prolonged submersion or exposure to high-pressure water jets to maintain integrity.

8. TROUBLESHOOTING

- **Beacon not powering on:** Ensure the power button is pressed for the correct duration (2 seconds for on). If still unresponsive, the battery may be depleted.
- **App not detecting beacon:**
 - Verify the beacon is powered on.
 - Ensure Bluetooth is enabled on your mobile device.
 - Refresh the device list in the app.
 - Move closer to the beacon to improve signal strength.
 - Check for any physical obstructions that might interfere with the signal.
- **Parameters not saving:** Ensure you click the "SAVE" button in the app after making changes. Confirm the "Save Success" prompt appears.

- **Inconsistent range:** Environmental factors such as walls, metal objects, and other wireless signals can affect range. Test in an open area for optimal performance.

9. SUPPORT AND WARRANTY

PDDAXLQUE is a manufacturer supporting OEM and ODM services, including customization of product firmware, gateways, and apps. For technical support or any issues encountered, please contact us directly. You can typically find support information by navigating to "User Guide" → "Product Information" → "Support" within the app or on the official website.

Please refer to your purchase documentation for specific warranty details.