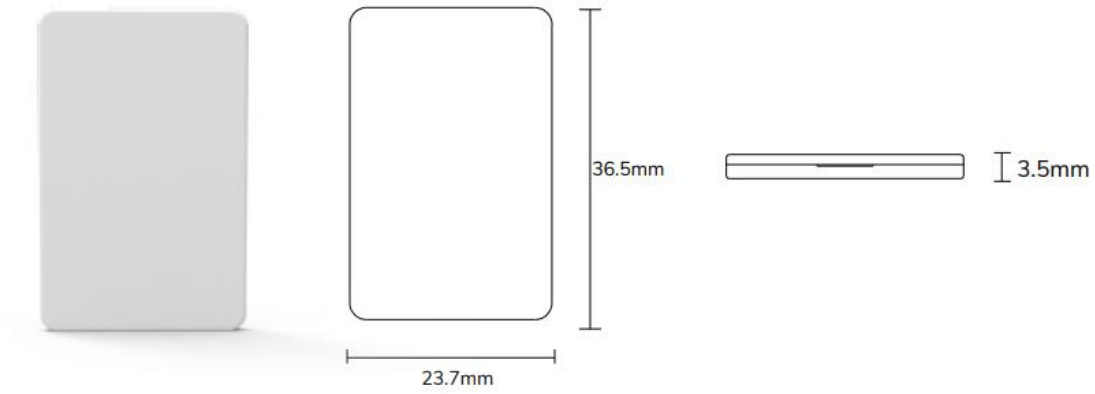
QS-DPS

Disposable Broadcasting Device Datasheet



Product Overview

The QS-DPS is an ultra-thin Bluetooth® LE Disposable Broadcasting Device for asset management and precision marketing. It is slick and slim which can be flexibly installed on various assets or placed inside the transparent tag set worn by exhibition personnel. While capable of broadcasting over 100 meters, it is perfectly suitable for asset management, personnel management and content push in museums, exhibitions, and commercial complexes.

Key Features

Cost-effective
100 m broadcast transmission distance
3.5 mm ultra-thin design
Dual-channel broadcast
Easy installation, replaceable battery

Market Applications

Asset Management

The QS-DPS is compact, lightweight, and cost-effective that is ideal to be deployed in large venues such as exhibitions and museums. Customers can determine the location and vacancy status of various assets in venues along with related technologies, to achieve efficiency and balance resource management.

Content Push

The QS-DPS can be deployed in supermarkets, aquariums, and commercial complexes. With the customer's app, QS-DPS can provide users with corresponding information according to their locations. Therefore, content push, online exposition, and retail promotion can be achieved while user experience and working efficiency can be

improved.

Note: Application cases above are only as a reference, more applications realized are based on users' software algorithm ability.

Product Specifications

Basic Specifications

Material	ABS
Color	White
Size (L * W * H)	36.5 * 23.7 * 3.5 mm
Weight	4.3 g (battery included)
Battery type	1 CR battery
Battery capacity	90 mAh
Battery life	4 months (default settings)
Sensor	/
LED	/
Button	/
OTA	Not supported
Information view app	BeaconSET or BeaconSET+

Note: BeaconSET or BeaconSET+ can only be used to view the broadcast information, not to connect to the device.

Technical Specifications

Bluetooth® version	Bluetooth® LE 5.3
Broadcast power	Options: -20, -1, -11, -7, -3, 0, 3 dBm Default 0 dBm
Broadcast interval	100 ms ~ 10 s, default 900 ms
Broadcast distance	100 m (open space)
Working temperature	-20℃ ~ 60℃
Storing temperature	20℃ ~ 35℃ (ideal temperature for storing battery)
Security	Non-connectable mode, data cannot be altered

Broadcast Specifications

Type/ channel	Item	Default settings
iBeacon (Activated by default)	UUID (16 bytes)	E2C56DB5-DFFB-48D2-B060-D0F5A71096E0 (configurable)
	Major (2 bytes)	0 (0 - 65535, configurable)
	Minor (2 bytes)	0 (0 - 65535, configurable)
	Measured power	-59 dBm (0xC5)
	Tx power	0 dBm
	Interval (ms)	900 ms
MBeacon INFO (Activated by default)	Device name	QS-DPS
	Battery voltage (mV)	Depends on the status.
	MAC address	Assigned before shipment.

	Measured power	-24 dBm (0xE8）
	Tx power	0 dBm
	Interval (ms)	4000 ms

Note:

①The product only supports 2 broadcast frames, which can be selected from iBeacon, MBeacon INFO, UID, URL, and TLM, and the broadcast power must be consistent.

②The parameters of the finished product need to be determined at the time of production. Once programmed into the chip, the parameters cannot be modified.

Compatibilities

Supported systems	Supported models.
iOS 10.0 and above	iPhone6/ 6 Plus/ 6S/ 6S Plus., iPhone 7/ 7 Plus，iPhone 8/ 8 Plus，iPhone x/ xr/ xs/ xs max，iPhone SE/ SE2，iPhone 11/ 11 pro/ 11 pro, etc.
Android 4.3 and above	LG, Samsung, Xiaomi, Huawei, Honor, OnePlus, Google Pixel, etc.

Instruction

Power on: Unplug the insulating sheet, and the device will start when it is powered on.

Shutdown: Remove the battery.

Battery check: The product has no indicator light, and the battery power information can be judged by the voltage information in the MBeacon INFO frame.

Broadcast viewing: Check whether the device is broadcasting by BeaconSET or BeaconSET+ App.

Precautions

1. After the product is powered on, it will be in broadcast mode and cannot be connected.
2. The finished product does not support burning firmware provided by customers.
3. To extend the battery life if needed, it is recommended to choose a low broadcast power and a long broadcast interval firmware version at the manufacturing stage.
4. If the operating temperature is exceeded, there could be damage to the product.
5. Please avoid direct sunlight for an extended period to avoid aging of the shell when in use.

Installations

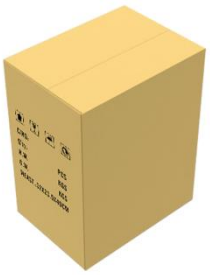
Methods: Double-side adhesive tape

Details:

Recommended Installation Environment: The material surface should be Aluminum, galvanized steel, enamel steel, stainless steel, ceramic, glass/epoxy resin, acrylic, PBT, ABS, PC, hard PVC, etc. It is not recommended to paste the default double-sided tape on walls (cement, etc.) with gray texture, incomplete drying, aging, and humidity, etc. due to the risk of falling off.

Requirements: No dust on the material surface and clean it before installation. Before pasting, increasing the viscosity of the double-sided paste with a hairdryer firstly, and then pressing for seconds sequentially and sticking over half-hours; or leave the device over 24 hours after pasting for better stability.

Package

Items	Internal carton	External box
Pictures		
Units	100 pcs	1000 pcs
Sizes	30.5 * 11 * 7.2 cm	32 * 23.5 * 40 cm
Gross weight	541 g	5.9 kg

Quality Assurance

Warranty Period: 12 months from the date of shipping (Battery and other accessories excluded).

FCC WARNING

This device complies with part 15 of the FCC 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.
Any changes or modifications not expressly approved by the party responsible for compliance
could void the user's authority to operate the equipment.
NOTE: 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.
The device has been evaluated to meet general RF exposure requirement.
The device can be used in portable exposure condition without restriction