

Digital Broadcasting Device

(iBeacon & Eddystone)

Datasheet V1.0

Model	Description
D40-W	External USB power supply, white color, digital broadcasting device, RoHS

The D40 digital broadcasting device is a very popular and modern iBeacon with ARM core chipset nRF51822 and leverage BLE 4.0 technology; it has an external ON/OFF button, accurate hardware and robust firmware. It is designed for the commercial advertising and indoor location-based service.

Minew Beacons broadcast 2.4GHz radio signals at regular and adjustable intervals. D40 can be heard and interpreted by iOS and Android BLE-enabled devices that are equipped with many mobile apps.

FEATURES

- Programmed MiniBeacon standard firmware
- External USB power supply
- The max. 100 meters advertising distance
- Ultra-low power consumption chipset nRF51822 with ARM core
- Easy to print the logo on the center of top case;



D40 digital broadcasting device

Image 1

CERTIFICATIONS

- iBeacon MFi License (iBC-14-00582)
- FCC Regulation (FCC Part 15.)
- CE Regulations (Included EN300328/301489/60950/62479)

SPECIFICATION

Compatibility

- Supported iOS 7.0+ and Android 4.3+ system;
- Compatible with Apple iBeacon™ standard;
- Compatible with all Bluetooth 4.0 (BLE) devices;

External USB Power Supply

- Red LED displays the power supply status;
- Plug and Play

Soft-reboot

- Reboot the device via command without any tools;

OTA and J-Link

- Supported upgrade via Over-The-Air;
- Reserved J-Link port on the board for programming;

Connection Mode

- Advertising mode, non-connectable;
- Configuration mode, connectable;

Configurable Parameters

- UUID, Major, Minor, Device Name, Password etc.
- Special Configuration APP;

Transmission Power Levels

- 8 adjustable levels, range from 0 to 7
- Transmission power range: -30dBm to +4dBm;

Long Range

- The max. Range 100 meters in the open space;
- The range depends on the physical environment;

Security

- 8 characters password (Lock/Unlock parameters);
- Broadcast the encrypted data if needed;
- AES HW encryption

Mounting

- 3M branded adhesive for direct mounting to wall;

CONFIGURABLE PARAMETERS

Characteristic	Item	Default Settings
0xFFFF1	UUID	E2C56DB5-DFFB-48D2-B060-D0F5A71096E0 (Proximity)
0xFFFF2	Major	0
0xFFFF3	Minor	0
0xFFFF4	Measured Power	-59 (0xC5)
0xFFFF5	Transmission Power	6 (0dBm)
0xFFFF6	Change Password	minew123 (Must be 8 characters)
0xFFFF7	Broadcasting Interval	9(900mS)
0xFFFF8	Serial ID	Random (Unique serial ID for beacon)
0xFFFF9	iBeacon Name	MiniBeacon_ (the maximum 14 characters)
0xFFFFE	Connection Mode	0 (connectable, configuration mode)
0xFFFFF	Soft Reboot	minew123 (it is same as the value of Change Password)

ELECTRONIC PARAMETERS

Item	Value	Remarks
Case Color	white, pink, green	Other colors can be customized
Operation Voltage	5.0V	DC, Micro USB
Transmission Circuit	10.5mA (Max.)	Tested at 0dBm transmission power
Transmission Range	100 meters	Maximum
Antenna	50ohm	On board / PCB Antenna
Accessories	Double adhesive	1pc, high-strength, 3M brand;
Net Weight	8.0g	With battery but without package
Size	Ø50 x 15 mm	Null

TECHNICAL SUPPORT

Item	Version	File Name	Updated Date
Datasheet	V2.03	i7_MiniBeacon Datasheet_1.0.pdf	25 th November, 2015
Instruction	V2.03	Instructions_MiniBeacon_V2.03.pdf	25 th May, 2015
SDK	V1.0	Android Reference Source Code; iOS Reference Source Code;	28 th February, 2015
APP Tools	V2.0	iBeaconCFG; iBeaconDFU;	3 rd March, 2015

* Minew sales team will send you these documents after the sample arrived.

PACKING INFORMATION

Standard Package:



Image 2

Details	Package Box	Carton
Quantity (D40)	20pcs per package box	200pcs per carton
Net Weight	0.16kg	3.2Kg
Gross Weight	0.24Kg	3.8Kg
Size	30.5 x 11 x 7.5 cm	32 x 23 x 40 cm

APPDENDIX

1. J-LINK Programmer Kit;
2. Over-the-Air Function;

Please contact Minew sales team to ask more related information if needed.

DECLARATION

The contents of this datasheet are subject to change without prior notice for further improvement. Minew team reserves the right to explain all the terms of this datasheet.

<END>

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 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.

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

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.