

Configuring Blue Puck/Coin/Slim ID beacons



Contents

- [1 Configuring Blue Puck/Coin/Slim BLE advertising Beacon](#)
- [2 Configuring device](#)
- [3 Configured iBeacon packet data structure](#)

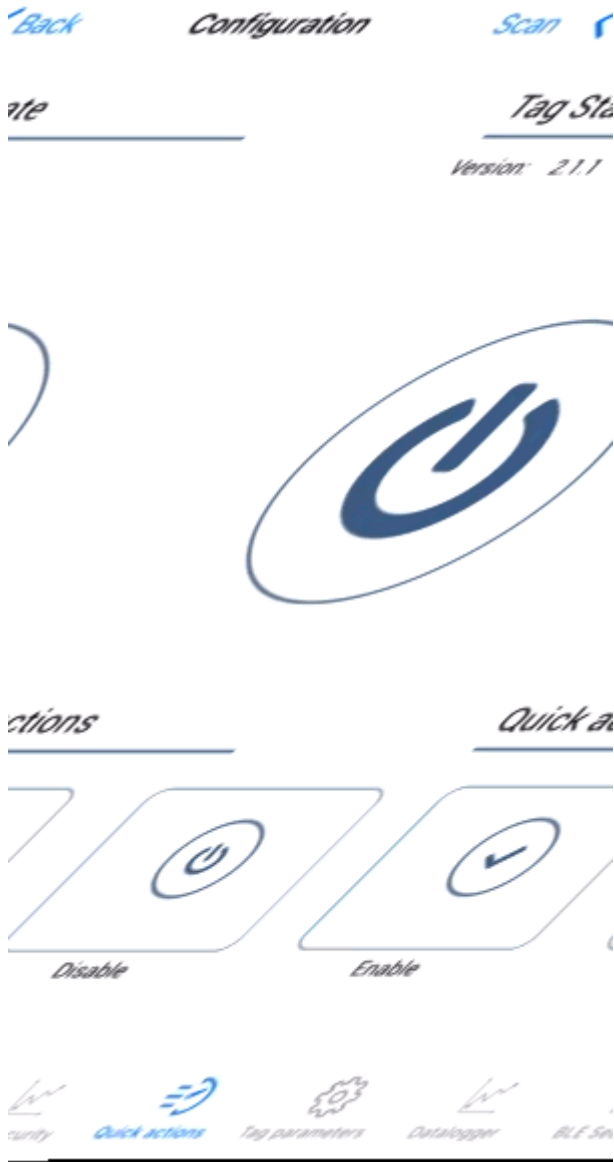
Configuring Blue Puck/Coin/Slim BLE advertising Beacon

1. Bluetooth® LE Blue Puck, Blue Coin and Blue Slim beacons are disabled by default. Configurations to these beacons are written through NFC. To do this download Device Manager Mobile by Ela from Google Play Store to your device, can be also downloaded to your Apple phone, tested with iPhone X model.

Note: Device that is used for configuring Blue Puck/Coin BLE advertising sensors must support NFC read/write functionality.

2. Follow these instructions to easily configure Blue Puck/Coin/Slim Bluetooth® LE advertising Beacon:

- Enable Bluetooth® and NFC on your Android-powered device.
- Launch Device Manager Mobile on your device.
- Select Configuration.
- Place your device on top of Blue Puck/Coin/Slim BLE advertising Beacon to scan it.
- Click Enable to allow Blue Puck/Coin/Slim Beacon transmit advertising data.
- Place your device on top of Blue Puck/Coin/Slim BLE advertising Beacon again to scan the changes.



- We recommend to set Power to 4 to get the best possible distance.
- Set TAG Format to iBeacon.
- Set BLE Emit Period to 1 seconds to get best possible sensor detection.
- Click Write button.
- Place your device on top of Blue Puck/Coin/Slim BLE advertising sensor to write configuration to it.

Tag State

Version: 2.1.1



Quick actions



Enable



Disable



Quick actions



Tag parameters



Datalogger



BLE Security

- Any Beacon ID can be typed in, as long as it is in hex format.

Note: Beacon UUID must have 32 values set.

In the example below, Beacon UUID is AAAAAAAAAAAAAAAAAABBCC526F6F6D31. When converted from **HEX** to **DEC**, 526F6F6D31 means **Room1**, to make beacon identifying easier.

Major: 5231 when converted from **HEX** to **DEC**, it means **R1**

Minor: 010A

Tools



Configuration

Bluetooth

Advertising Name ?
Beacon 1

TAG Enable State ?
☒

TAG Power ?
4

TAG Format ?
iBeacon

BLE Emit Period ?
1

Manufacturer Data Mode ?

Quick actions

Tag parameters

Datalogger

BLE Security

Configuring device

Before Beacon configuration, visit [how to set up your device for the very first data sending to the server](#): [Setting up your configuration for the very first data sending to the server](#)

These are instructions on how to easily configure ELA Blue Puck/Coin/Slim Beacon ID with Teltonika Configurator on GH5200 device.

1. First the device **Bluetooth® settings** need to be configured. These are the required steps:

- Press Bluetooth® settings
- Turn on BT Radio by pressing Enable (hidden) or Enable (visible)

The screenshot displays a web-based configuration interface for a device. On the left is a vertical sidebar with a blue background and white text, listing various settings categories: Status, Security (highlighted), System, GPRS, Data Acquisition, SMS \ Call Settings, GSM Operators, Features, Auto Geofence, Manual Geofence, Trip \ Odometer, Bluetooth, Bluetooth 4.0, Beacon List, User Interface, Keyboard, and I/O. The main content area on the right is white and contains several sections: 1. 'SIM 1 [Active]' section showing 'SIM Status: Ready' and 'Attempts Left: 3'. 2. 'Enable PIN' section with a 'Current PIN' input field and an 'Enable' button. 3. 'Keyword Settings' section with a 'Set keyword' sub-section containing 'New Keyword' and 'Repeat Keyword' input fields, and a 'Set' button. 4. 'Certificates' section with the text 'Certificate files in device:' and a checkbox labeled 'root.pem (Root certificate)'.

2. Press **Beacon list** tab.

- Select All or Configured (for seeing only preferred beacons) in Beacon Detection options.
- If you have selected Configured to see preferred beacons, you must add beacons to the Beacons list.
- Select Periodic option
- Set **Periodic settings** according to your needs.
- After all these steps press Save to device to save the configuration.

 **To find out how to add beacons to the Beacons list, click on one of the devices: [TST100](#) | [TFT100](#) | [GH5200](#) | [TMT250](#)**

Load from device

Save to device

Update firmware

Reset configuration

Load from file

Save to file

Read records

Reboot device

Status

Security

System

GPRS

Data Acquisition

SMS \ Call Settings

GSM Operators

Features

Auto Geofence

Manual Geofence

Trip \ Odometer

Bluetooth

Bluetooth 4.0

Beacon List

User Interface

Keyboard

I/O

System Settings

Records Saving/Sending Without TS

After Position Fix

Always

After Time Sync

GNSS Source

BeiDou

GLONASS

Galileo

GPS

Data Protocol

Codec 8

Codec 8 Extended

Power On By USB/Charger

Disable

Enable

Static Navigation Settings

Static Navigation

Disable

Enable

Sleep Mode

Sleep Settings

Disable

GPS Sleep

Deep Sleep

Online Deep Sleep

Ultra Sleep

Sleep Exit Source

Movement

Button

Timeout (min)

1

Time Synchronization

NTP Resync (h)

3

NTP Server 1

avl1.teltonika.lt

NTP Server 2

pool.ntp.org

Movement Settings

Movement Start Delay (s)

5

Movement Stop Delay (s)

60

Tracking Mode

Power Saving Mode

Performance

Low Power

3. Now you can see detected Beacons in **Status -> Beacons List**



4. Example of the server view:



In the server view picture above, displayed:

- The date when the packet arrived to the server
- Device IMEI number
- AVL ID 385 - Beacon AVL ID
- Beacon ID and RSSI

Beacon 1 ID: 0102030405060708090A0B0C0D0E0F00020B010A

Beacon 1 Major: 020B

Beacon 1 Minor: 010A

RSSI: -60

Beacon 2 ID: AAAAAAAAAAAAAAAAAABBCC526F6F6D31
Beacon 2 Major: 5231
Beacon 2 Minor: 010A
RSSI: -56

Configured iBeacon packet data structure

Example of configured data parsing which comes with AVL ID 385
Two detected Beacons:

11210102030405060708090A0B0C0D0E0F00020B010AC421AAAAAAAAAAAAAAAAABBCC526F6F6D315231010AC8

Data Part¹ 11

First Beacon:

iBeacon with RSSI flag ²	21
UUID (Beacon #1)	0102030405060708090A0B0C0D0E0F00
Major	020B
Minor	010A
RSSI (Signal Strength: Signed 2's complement)	C4 (-60)

Second Beacon:

iBeacon with RSSI flag ²	21
UUID (Beacon #2)	AAAAAAAAAAAAAAAAABBCC526F6F6D31
Major	5231
Minor	010A
RSSI (Signal Strength: Signed 2's complement)	C8 (-56)

¹ Data part **11** - 1 Record out of 1 Beacon record. First half byte specifies current record, second half specifies how many there are in total. For example: 23 - second record out of three records (that means the server can expect 1 more records with Event I/O ID 385). If the data does not fit in a single data transfer, they are separated. Data Part is used to determine if more data will be coming from the device. **Maximum value of the Data part is 33.**

² Flags:

Flags:

- 21 iBeacon with RSSI
- 23 iBeacon with RSSI, Battery Voltage
- 27 iBeacon with RSSI, Battery Voltage, Temperature
- 01 Eddystone with RSSI
- 03 Eddystone with RSSI, Battery Voltage
- 07 Eddystone with RSSI, Battery Voltage, Temperature