

# How to capture BLE broadcasting service ID

[Main Page](#) > [Frequently Asked Questions - FAQ](#) > [BLE broadcast service ID configuration](#) > **How to capture BLE broadcasting service ID**



## Contents

- [1 Introduction](#)
- [2 Parsing](#)
- [3 Device Configuration](#)
- [4 Beacon Capturing Configuration](#)
- [5 Verifying BLE data](#)

## Introduction

In order to capture the BLE broadcast service ID we need to use the [Advanced Beacon Mode](#), this feature is available in the base firmware of Teltonika Telematics device. For these instructions, we have 4 steps to follow [Parsing](#), [Device Configuration](#), [Beacon Capturing Configuration](#), and [Verifying BLE data](#).

## Parsing

1. You need to capture the raw data of your FMB device. To capture the BLE RAW data, you can look for any mobile or desktop application that is capable of capturing BLE RAW data.

### FMB BLE RAW DATA

0x0201021209464D433133305F373338393939325F4C4503031010020A00

2. Next is to parse the FMB BLE RAW DATA according to the Teltonika data protocol.

### Unparsed FMB BLE RAW DATA received in hexadecimal stream

0x0201021209464D433133305F373338393939325F4C4503031010020A00

#### BLE Data Packet Part

Manufacturer ID

#### HEX Code Part

02 01 02

1209

Additional Information

46 4D 43 31 33 30 5F 37 33 38 39 39 39 32 5F

4C 45

03 03

BLE ID

10 10

020A00

## Device Configuration

To enable the advanced beacon mode, please follow the steps below.

1. Go to System from the **Data Protocol** select **Codec 8 extended**.

2. Go to Bluetooth® from the **General** go to **BT Radio** select **Enable (hidden)/Enable (visible)**.
3. Go to Bluetooth® 4.0 from the **Common settings** go to **Non Stop Scan** select **Enable**.
4. Go to Beacon list from the **Beacon detection** select **All** , and from the **Beacon mode** select **Advanced**.
5. You may now create your own Beacon Capturing Configuration.

The screenshot shows the Teltonika Configurator interface. The top bar includes the Teltonika logo and a navigation menu with options like Load from device, Save to device, Update firmware, Reset configuration, Load from file, Save to file, Read records, and Reboot device. The main content area displays 'Device Info' for an FMC130 device, including details like Last Start Time, Power Voltage, Ext Storage, Battery Voltage, Firmware Version, RTC Time, Device IMEI, Device Uptime, and Internal Battery Status. Below this, the 'GNSS Info' tab is active, showing 'GNSS Status' (Module Status ON, GNSS Packets 94617, Fix Status No fix, Fix Time 00:00:00), 'Location' (Latitude/Longitude 0,0, Altitude 0, HDOP 0, Speed 0 km/h, Angle 0°, PDOP 0), and 'Satellites' (Visible: GPS 0, GLONASS 0, BeiDou 0, Galileo 0, IRNSS 0; In use: GPS 0, GLONASS 0, BeiDou 0, Galileo 0, IRNSS 0). The bottom of the interface features social media icons and a settings gear.

## Beacon Capturing Configuration

Creating a beacon capturing configuration is based on the parsing details of the FMB device RAW data. To learn more about advanced beacon mode configuration please click [here](#). Now let's start creating the configuration, to begin please follow the steps below

1. Look on the parsing details.
2. Fill all the necessary information that is needed for Beacon Capturing Configuration.



- **Name** - This is the name of your Beacon Capturing Configuration.
- **Manufacturer ID** - **02 01 02** - It consists of 4 Bytes (8 bits) and it is required to fill in the table the full ID of 4 Bytes so the value will become **02 01 02 00**
- **Manufacturer ID Offset**- 0 byte.
- **Manufacturer ID Size** - 3 bytes
- **Beacon ID Offset** - 24 bytes
- **Beacon ID Size** - 2 bytes
- **Additional Information Offset** - 5 bytes

- **Additional Information Data Size** - 18 bytes

After that, your configuration should look like the image below.



3. To verify if your configuration is correct go to **Device Status** check the **Beacon info** and verify the data in the **Visible Beacons**.



#### Captured BLE ID using Teltonika Configurator

Parameter Value	Description
FMB	Name of your configuration
1010	BLE broadcasting service ID
464D433133305F373338393939325F4C45	Additional Information or the Bluetooth® Local Name

**Note:** 464D433133305F373338393939325F4C45 - once converted to ASCII it will be equal to Local Bluetooth® Name - FMC130\_7389992\_LE

#### Verifying BLE data

Advance Beacon mode RAW data is available in [AVL ID 548](#).

- For parsing example please click [here](#).
- We can also use the Teltonika Data Parser to check manually the raw data coming from the server.

[illegible]☒ TCP ☐ UDP 

Name	Size	Value	Hex Value
└─ TCP AVL Data Packet	var		
Preamble	4	0	00-00-00-00
AVL Data Length	4	126	00-00-00-7E
└─ Data	var		
Codec ID	1	142	8E
AVL Data Count	1	1	01
└─ AVL Data	var		
Timestamp	8	5/16/2023 8:13:59 AM	00-00-01-88-23-9F-8D-63
Priority	1	0	00
└─ GPS Element	15		
Longitude	4	0	00-00-00-00
Latitude	4	0	00-00-00-00
Altitude	2	0	00-00
Angle	2	0	00-00
Satellites	1	0	00
Speed	2	0	00-00
└─ I/O Element	var		
Event ID	2	548	02-24
Element count	2	1	00-01
1b Element count	2	0	00-00
2b Element count	2	0	00-00
4b Element count	2	0	00-00
8b Element count	2	0	00-00
Xb Element count	2	1	00-01
ID	2	548	02-24
Value	81		01-18-00-01-D9-01-02-10-10-02-12-46
AVL Data Count	1	1	01
Crc	4	61777	00-00-F1-51

### Showing AVL ID 548 using Teltonika Data Parser