

# SP37 LF Initiator Kit

## Tire Pressure Monitoring Sensor

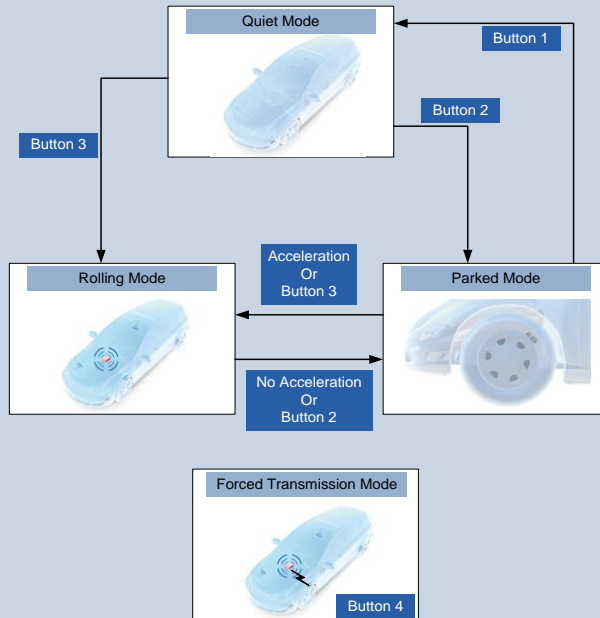
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Dear Customer,

Thank you for working with Infineon Sense & Control products!

This LF initiator Kit is preconfigured and ready to use out-of-box. The demonstrator application will support you in testing the main features of SP37 Tire Pressure Monitoring Sensor.

The SP37 Kit also contains a practical small box, which is designed to send out 4 special LF commands. Each button from the top side of box will generate a different command which will trigger the sensor in one of the following modes:



During the RF-Data sending out by SP37 the **TX-LED will be ON**. In order to distinguish these 4 different modes, the SP37 software will turn **ON** and **OFF** the **Mode LED**. An overview is presented below:

- **Quiet Mode:** Disables the sensor after two data frames are transmitted, **the Mode LED will be OFF**.
- **Parked Mode:** Decrease the power consumption by increasing the interval time between data transmission frames, the **Mode LED will blink twice per second**. After 4 min. stand still (without acceleration), the data transmission will completely end; **in this case the Mode LED will blink once per second**. If a certain pressure loss is detected, the data transmission will resume.
- **Rolling Mode:** Transmit measurement information related to temperature, pressure, acceleration voltage values; **the Mode LED will blink 3 times per second**. This mode will be left after 15 seconds without acceleration and return in **Parked Mode**.
- **Forced Transmission:** Suspend execution, transmit measurement data and resume current **Mode**.

### Kit Content

- SP37 Demo-Board
- LF Initiator Box Transmitter
- UWLink+TDA5230 Receiver

Software and documentation are available on the Internet address:

[www.infineon.com/sp37tooling](http://www.infineon.com/sp37tooling)

### TX and Mode Codes LED's

Green LED - turned ON:  
 ■ Tx data sending via RF

- Red LED - Blinking:
- Two times per second → Early Parked Mode
  - One time per second → Late Parked Mode
  - Three times per second → Rolling Mode
  - Completely OFF → Quiet Mode

# SP37 LF Initiator Kit

## Step-by-Step Quick Start Guide

Please follow this step-by-step approach when you start up your SP37 Demo Kit for the first time:

- Verify if the battery is connected proper to the SP37 demo board.
- Plug-in the UWLink with the TDA5230 extension-Board to a PC and wait for the drivers to be installed.  
Download from [www.infineon.com/sp37tooling](http://www.infineon.com/sp37tooling) the *TPMS\_Demonstrator.exe* software
- Now start *TPMS\_Demonstrator.exe* program downloaded from Internet.
  - Verify if the “UW-Link: connected” message on the bottom part of the window.
  - Choose the “Konfiguration” button in order to assign sensors.
  - Chose “Find Sensors” option from “Konfiguration” field.
  - Press ok on the next window which will appear.
- In order to connect sensors and transmit data to the TPMS Demonstrator, each sensor must be triggered once by pressing **Button 4** from LF Initiator. After the same Sensor will be triggered twice, the Program will stop searching for new Sensors and display all incoming Data. If all steps are done correctly, incoming data will be shown as follows:



Figure 1- Example of demonstrator connected to one sensor

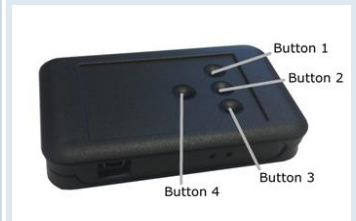
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■ UWLink+TDA5230 Receiver



■ SP37 Demo-Board



■ LF Initiator Box Transmitter

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