

## USB dongle for the Bluetooth® class 2 SPBT3.0DP2 module

Data brief



### Description

The STEVAL-BTDP2 dongle demonstration tool is exclusively designed for quick and easy SPBT3.0DP2 module evaluation.

The dongle includes an RF antenna and a USB connector to allow PC communication with the Bluetooth® module and power the dongle.

The STEVAL-BTDP2 includes downloaded firmware so you can create a Bluetooth® link using simple AT commands (see user manual UM2077 on [www.st.com](http://www.st.com) for the complete list of AT commands).

### Features

- Based on the V3.0 Bluetooth® class 2 module SPBT3.0DP2
- USB interface and power supply
- Reprogramming support via USB interface
- Reset button
- On-board Antenna
- RoHS compliant

# 1 Recommended operating conditions

Table 1: Operating conditions

| Symbol          | Parameter                        | Conditions         | Min. | Typ. | Max. | Unit |
|-----------------|----------------------------------|--------------------|------|------|------|------|
| V <sub>DD</sub> | Board supply voltage             | -40 °C < T < 85 °C | 4.5  | 5    | 5.5  | V    |
| T <sub>OP</sub> | Operating case temperature range |                    | -40  |      | +85  | °C   |

## 2 I/O connections

### 2.1 PAD description

PAD1 to PAD15 also allow user access to the SPBT3.0DP2 module.

Figure 1: STEVAL-BTDP2 component layout

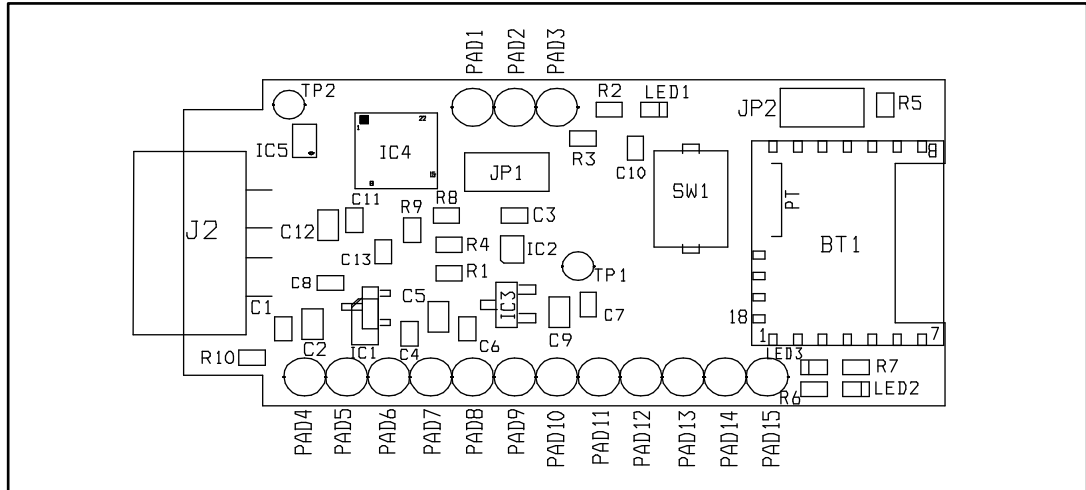


Table 2: Pad connections

| PAD n° | Name   | Description   |
|--------|--------|---|
| 1      | BOOT0  | Boot pin used for firmware downloading  |
| 2      | 3.3 V  | LED1 is connected to this PAD   |
| 3      | RESETN | Reset - connected in parallel to onboard reset switch   |
| 4      | GND    |   |
| 5      | +5 V   | USB   |
| 6      | LPO    | Factory configuration: 32.768 KHz frequency output. Pad can be reconfigured via SW as input for external 32.768 KHz to allow lower power consumption in deep sleep mode and sniff mode. |
| 7      | GPIO08 | General purpose I/O   |
| 8      | GPIO07 | General purpose I/O   |
| 9      | LDOUT  | 1.8 V LDO output, max 10 mA   |
| 10     | GPIO01 | General purpose I/O LED2 is connected to this GPIO, LED2 is ON when Bluetooth link is up  |
| 11     | GPIO02 | General purpose I/O   |
| 12     | GPIO03 | General purpose I/O   |
| 13     | GPIO04 | General purpose I/O LED3 is connected to this GPIO, LED3 is ON when SPBT3.0DP2 is in Active State   |
| 14     | GPIO06 | General purpose I/O   |
| 15     | GPIO05 | General purpose I/O   |



Factory configuration - different configurations can be chosen (see the SPBT3.0DP2 datasheet).

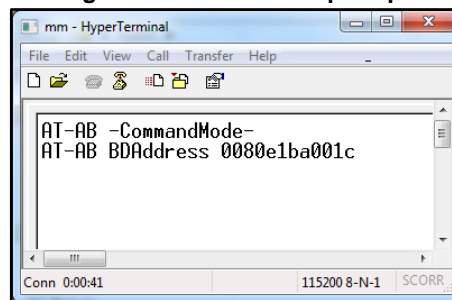
## 2.2 Reset switch

Reset switch SW1 on the dongle forces the SPBT3.0DP2 module to reset and the information figured below is shown on the PC.



The actual BDAAddress number may be different on your machine.

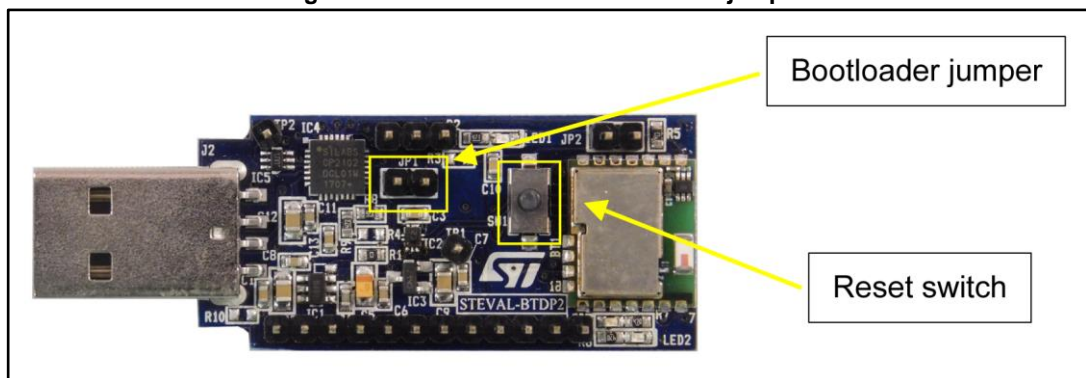
Figure 2: AT command prompt



## 2.3 Bootloader jumper

When Bootloader jumper (JP1) is closed, the SPBT3.0DP2 enters Bootloader mode after reset.

Figure 3: Reset switch and Bootloader jumper





## 4 Revision history

Table 3: Document revision history

| Date        | Version | Changes          |
|-------------|---------|------------------|
| 30-May-2017 | 1       | Initial release. |

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