

# BL600 Firmware Upgrade over JTAG

Application Note

v2.6

This document is a step-by-step guide on how to download and upgrade firmware within Laird’s BL600 BLE module using **DVK-BL600-Sx-05** with integrated **J-Link Debugger**.

**Note:** The same procedures can be used to upgrade the firmware to the BL620 Series- Central Mode.

## Hardware Requirements

To perform a firmware upgrade, you need the following hardware:

- BL600 Dev Kit **DVK-BL600-Sx-05** and an appropriate USB cable



Figure 1: BL600 development board

- Windows PC

**Note:** This procedure was tested on Windows 7 SP1.

## Initial Setup

Before initiating a firmware upgrade, you must connect the BLE development kit (dev kit) to your PC through CON4 (see Figure 1) and install the FTDI USB to Serial driver. The driver for the FTDI USB to Serial chipset on the dev kit can be found at <http://www.ftdichip.com/FTDrivers.htm>.

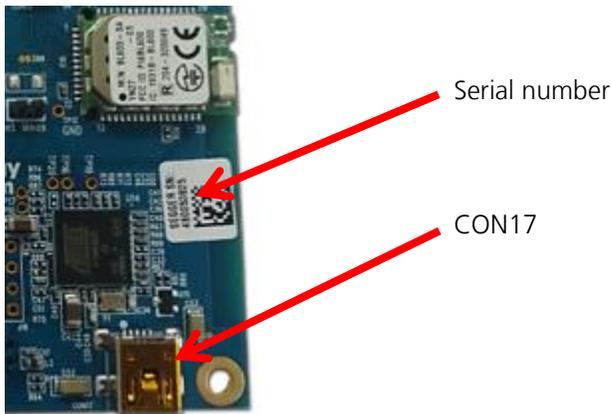
To verify that your hardware and software are properly configured, ensure that the Windows Device Manager displays a virtual COM port and that the BL600 is able to send AT commands and receive responses. If you send an AT command at 9600,N,8,1 communications setting and it responds with “00”, then it is working properly.

### Downloading and Installing the J-Link Driver

This procedure has been successfully tested on Win 7 SP1. If the J-Link driver is already installed on your PC, you may proceed to the [Firmware Upgrade Procedure](#) section.

To download and install the J-Link driver, follow these steps:

1. Download the Windows drivers for the J-Link from [http://www.segger.com/jlink-software.html?step=1&file=JLink\\_476a](http://www.segger.com/jlink-software.html?step=1&file=JLink_476a)
2. Run the executable to install the J-Link software; the serial port driver option is not required. You may need to enter the J-Link serial number to download the driver package from the Segger website. The serial number can be found on the dev kit as shown in [Figure 2](#).



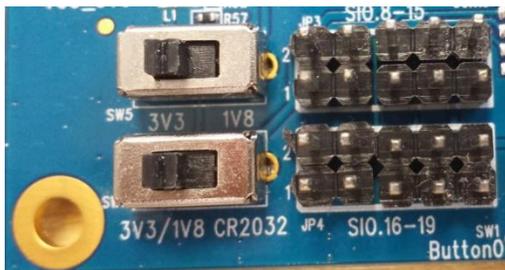
*Figure 2: J-Link Serial Number*

3. Plug the dev kit into a USB port of your PC through CON17. Installation proceeds automatically. Wait for confirmation that the device is successfully installed.

### Firmware Upgrade Procedure

To complete the firmware upgrade procedure, follow these steps:

1. Position the two slide switches at the bottom left of the dev kit motherboard as shown in [Figure 3](#).



*Figure 3: Correct position of Dev Kit slide switches*

2. Apply power to the board by sliding switch SW4 to the position labeled as USB.
3. The upgrade package is provided as a zip file so decompress into a new folder of your choice. The filename will be of the form: BL600\_R2\_Firmware\_&\_Samples\_smartBASIC\_Apps\_vW\_X\_Y\_Z-rN where W,X,Y,Z is the version number of the firmware and -rN is an optional suffix that will be present if the zip file has new content apart from the firmware image (such as corrections in the user guide or other documentation).



### RELATED DOCUMENTATION

For related BL600 documentation, refer to the BL600 Documentation section of the Embedded Wireless Solutions Support Center: [https://laird-ews-support.desk.com/?b\\_id=1945#docs](https://laird-ews-support.desk.com/?b_id=1945#docs)

### REVISION HISTORY

Revision	Date	Description	Approver
1.0	25 Jan 2013	Initial Release	Jonathan Kaye
2.0	06 Mar 2013	Added BL620 references	Jonathan Kaye
2.1	-	-	Jonathan Kaye
2.2	05 Aug 2013	Incorporated Shewan's edits	Jonathan Kaye
2.3	24 Feb 2014	Incorporated Mahendra's edits	Jonathan Kaye
2.4	08 Jan 2015	Updated links to new website	Jonathan Kaye
2.5	04 Mar 2015	Added revision history	Jonathan Kaye
2.6	7 May 2015	Clarified title	Jonathan Kaye