

# **BLUETOOTH SIG QUALIFICATION**

Application Note v1.0

#### **OVERVIEW**

The BL600 module is listed on the Bluetooth SIG website as a qualified End Product.

Design Name	Owner	Declaration ID	QD ID	Link to listing on the SIG website
BL600	Laird Technologies	B020700	45362	https://www.bluetooth.org/tpg/QLI_viewQDL.cfm?qid=20700
BL600*	Laird Technologies es with firmware v	D023023 v1.5.x.x)	57149	https://www.bluetooth.org/tpg/QLI_viewQDL.cfm?qid=23023

It is a mandatory requirement of the Bluetooth Special Interest Group (SIG) that every product implementing Bluetooth technology has a Declaration ID. Every Bluetooth design is required to go through the qualification process, even when referencing a Bluetooth Design that already has its own Declaration ID. The Qualification Process requires each company to register as a member of the Bluetooth SIG – <a href="https://www.bluetooth.org">www.bluetooth.org</a>

The following is a link to the Bluetooth Registration page: <a href="https://www.bluetooth.org/login/register/">https://www.bluetooth.org/login/register/</a>

For each Bluetooth Design it is necessary to purchase a Declaration ID. This can be done before starting the new qualification, either through invoicing or credit card payment. The fees for the Declaration ID will depend on your membership status, please refer to the following webpage:

https://www.bluetooth.org/en-us/test-qualification/qualification-overview/fees

For a detailed procedure of how to obtain a new Declaration ID for your design, please refer to the following SIG document:

https://www.bluetooth.org/DocMan/handlers/DownloadDoc.ashx?doc\_id=283698&vld=317486

## QUALIFICATION STEPS WHEN REFERENCING A LAIRD END PRODUCT DESIGN

To qualify your product when referencing a Laird end-product design, follow these steps:

1. To start a listing, go to: https://www.bluetooth.org/tpg/QLI\_SDoc.cfm

**Note:** A user name and password are required to access this site.

- 2. In step 1, select the option, New Listing and Reference a Qualified Design.
- 3. Enter 45362 or 57149 in the End Product table entry.
- 4. Select your pre-paid Declaration ID from the drop down menu or go to the Purchase Declaration ID page.

**Note:** Unless the Declaration ID is pre-paid or purchased with a credit card, you cannot proceed until the SIG invoice is paid.

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5. Once all the relevant sections of step 1 are finished, complete steps 2, 3, and 4 as described in the help document accessible from the site.

Your new design will be listed on the SIG website and you can print your Certificate and DoC.

For further information please refer to the following training material:

https://www.bluetooth.org/en-us/test-qualification/qualification-overview/listing-process-updates

**Note:** If using the BL600 with Laird Firmware and *smart*BASIC script, you can skip Controller Subsystem, Host Subsystem, and Profile Subsystem.

### QUALIFICATION STEPS WHEN DEVIATING FROM A LAIRD END PRODUCT DESIGN

If you wish to deviate from the standard End Product designs listed under B020700 or D023023, the qualification process follows the New Listing route (without referencing a Qualified Design). When creating a new design it is necessary to complete the full qualification listing process and also maintain a compliance folder for the design.

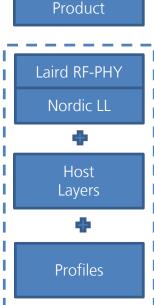
If your design is based on un-modified BL600 hardware, follow these steps:

1. Reference the existing RF-PHY test report from the BL600 listing.

**Note:** This report is available from Laird: ews-support@lairdtech.com

- 2. Combine the relevant Nordic Link Layer (LL).
- 3. Combine in a Host Component (covering L2CAP, GAP, ATT, GATT, SM).
- 4. Test any standard SIG profiles that are supported in the design, (customs profiles are exempt).

The first step is to generate a <u>project</u> on the TPG (Test Plan Generator) system, select 'Traditional Project'. This determines which test cases apply to demonstrate compliance with the Bluetooth Test Specifications, from the TPG you generate a Test Declaration, (Excel format). If you are combining pre-tested and qualified components in your design, and they are within their 3 year listing period, you are not required to re-test those layers covered by those components.



End

Figure 1: Scope of the qualification for an End Product Design.

Examples of LL components that can be combined into a new design are:

Listing reference	Design Name	Core Spec Version
<u>20269</u>	nRF51xxx stack: S110 link layer	4.0
<u>22379</u>	Sx20_nRF51xxx link layer	4.1
<u>26392</u>	S130_nRF51xxx link layer	4.2

<sup>\*</sup>Note: Please check with Laird/Nordic for applicable LL components.

Examples of Host Stack components that can be integrated into the new design are;

Listing reference	Design Name	Core Spec Version
<u>20552</u>	nRF51xxx stack: S110 host layer	4.0
<u>25416</u>	Sx20_nRF51xxx host layer	4.1
<u>26393</u>	S130_nRF51xxx host layer	4.2

<sup>\*</sup>Note: You may choose any Host Stack and optional profiles in you design.

If the design incorporates any standard SIG LE profiles (such as <u>Heart Rate Profile</u>, refer to section, External to the Core - Current and Qualifiable GATT-based Profile and Service Test Requirements), it is necessary to test these profiles using PTS or other tools where permitted; the results are added to the compliance folder.

You are required to <u>upload</u> your test declaration and test reports (where applicable) and complete the final listing steps on the SIG website. Remember to purchase your Declaration ID before you start the qualification process; you cannot complete the listing without it.

To start a listing, go to: <a href="https://www.bluetooth.org/tpg/QLI\_SDoc.cfm">https://www.bluetooth.org/tpg/QLI\_SDoc.cfm</a>. In step 1, select the option, New Listing, (without referencing a Qualified Design).

#### **REVISION HISTORY**

Revision	Date	Description	Approved By
1.0	18 May 2015	Initial Release	Jonathan Kaye