

Flow related to radio authentication at the customer

This section describes the flow and precautions regarding radio authentication for your final product.

STEP.1

Determining the shipping country / region
of the final product



STEP.2

Confirmation of test necessity



STEP.3

Test implementation &
certification acquisition (if necessary)

Please refer to the following document for notes on radio authentication of final products and wireless test methods for radio authentication.

[\[Bluetooth low energy Module \(MK71511/MK71521\) Application Notes](#)

[– Radio authentication and testing –\]](#)

Step.1 Determining the shipping country / region of the final product

Depending on the shipping country / region of the final product, it may be necessary to take measures related to radio wave certification even for the final product.

First, determine the shipping country / region of the final product.

Step.2 Confirmation of test necessity

The MK71511 / MK71521 modules have been certified by Japan (construction type certification), USA (FCC), and Canada (ISED). Regarding the European RE Directive, we are conducting a radio test (Radiated / Conducted) according to EN 300 328 V 2.2.2.

	MK71511	MK71521
Japan / Construction Type Certification	Certification number:006-000797	Certification number:006-000798
USA / FCC	FCC ID:2ACIJ71511	FCC ID:2ACIJ71521
Canada / ISED	IC:20971-71511	IC:20971-71521
Europe	EN300 328 V2.2.2	EN300 328 V2.2.2

Depending on the country / region where the final product is shipped, additional tests such as emission tests on the final product may be required.

Please refer to the following and consult with the certification body to confirm the necessity of the test.

■ For Japan

MK71511/MK71521 has obtained “construction type certification” of “radio equipment classifications: article 2-1-19 2.4GHz band low-power data communication system”.

Therefore, when using the final product equipped with this module in Japan, it is not necessary to carry out a test on the final product, and it can be used as radio equipment without applying for a radio station license.

■ For USA

MK71511 / MK71521 has been module approved for the FCC Part15 Subpart C (intentional radiator). Therefore, conformity testing and approval application as a wireless device can be omitted for the final device.

However, it may be necessary to support Subpart B (unintentional radiator) in the final equipment, so please contact the certification body for details.

■ For Canada

MK71511 / MK71521 modules are module certified based on wireless testing based on RSS-247.

Therefore, conformity testing and approval application as a wireless device can be omitted for the final device.

However, it is necessary for the customer to confirm whether ICES-003 (EMC request for information processing equipment) is required for the final device, so please contact the certification body for details.

■ **For Europe**

The MK71511 / MK71521 module complies with the radio test (test standard: EN300 328 V2.2.2) based on the RE directive.

The following tests are required for the final product to display the CE marking, but the test content will differ depending on the specifications of the final device, so please contact the certification body for details.

- (1) Radio / Conducted test^{※1}
- (2) Radio / Radiated test
- (3) EMC test
- (4) Safety test

※1: For the Radio / Conducted test, you can quote the test results of the MK715x1 module.

We will provide the test report according to the customer's request.

Please contact the following inquiries.

Inquiries : support-ble@lapis-tech.com

■ **For other shipping countries / regions**

Please contact the certification body as the correspondence will differ depending on the shipping country / region.

[Reference] Development partner companies: authentication test

Lapis Technology is collaborating with the following partner companies regarding authentication testing.

- SGS Japan Inc.
- TÜV Rheinland Japan Ltd.

If you have any problems with the authentication test inquiries regarding the final product, please contact the following inquiries.

Inquiries : support-ble@lapis-tech.com

Step.3 Test implementation & authentication acquisition

If it is necessary to carry out a wireless test on the final product, please check with the authentication body, including the procedures for obtaining authentication, and take appropriate action.

The wireless test method for the MK71511 / MK71521 module is described in the following document, so please refer to it.

[\[Bluetooth low energy Module \(MK71511/MK71521\) Application Notes](#)

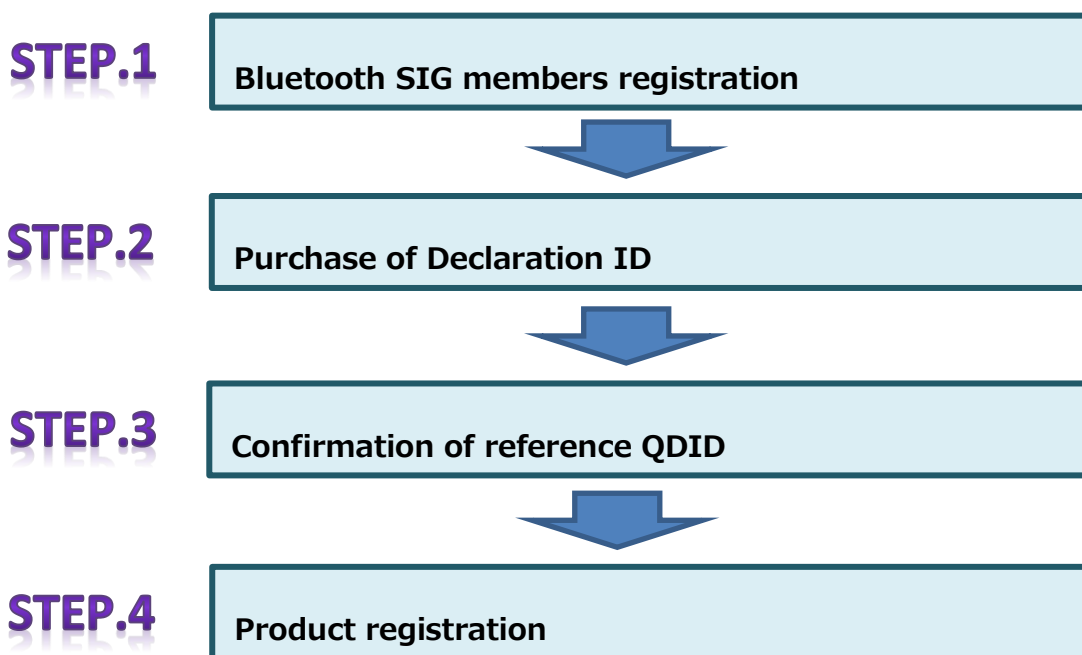
[–Radio authentication and testing–\]](#)

Flow related to Bluetooth authentication at the customer

As shown in the table below, MK71511 / MK71521 has acquired RF-PHY Component authentication for Bluetooth v5.2, but in order to sell the final product, it is necessary to register the final product with the Bluetooth SIG.

	MK71511	MK71521
Authentication version	V5.2	V5.2
Authentication type	RF-PHY component	RF-PHY component
QDID	146733	146740

We will explain the general flow when registering a product to the Bluetooth SIG, so please refer to it when registering a product.



The following documents also describe detailed procedures and precautions when registering products, so please refer to it.

[\[Bluetooth low energy Module \(MK71511/MK71521\) Application Notes](#)

[– Bluetooth Certification – \]](#)

Step.1 Bluetooth SIG members registration

First, register as a member of the Bluetooth SIG. Product registration becomes possible after member registration.

There are two types of members: Adopter members with no admission fee and no annual fee, and Associate members which require an annual fee. Product registration can also be done by a free Adopter member, but the registration fee at the time of obtaining a Declaration ID differs depending on the member type. If you have a large number of product registrations per year, or if you enjoy the benefits of an Associate member, consider upgrading to an Associate member.

	Adpoter	Associtate
Declaration Fee	\$8,000USD	\$4,000USD
annual fee	\$0	\$7,500
for sales less than \$100USD		
for sales of \$100USD or more	\$0	\$35,000

You can go to the "Become a Bluetooth SIG Member" page at the address below to register as an Adopter member or upgrade to an Associate member.

<https://www.bluetooth.com/develop-with-bluetooth/join>

Step.2 Purchase of Declaration ID

For product registration, you will obtain a Declaration ID and pay a Declaration Fee. The registration fee depends on the Bluetooth SIG member type and is \$ 8,000 USD for Adopter members and \$ 4,000 USD for Associate members.

After logging in to the Bluetooth SIG homepage, start Launch Studio with the following address and click the "Manage Declaration IDs" tab.

<https://launchstudio.bluetooth.com/>

Click on the blue "Purchase a Declaration ID" and fill in the required information. You can select "credit card" or "INVOICE" as the payment method. Please pay the registration fee by either method and obtain a Declaration ID.

Step.3 Confirmation of reference QDID

Check the QDID for RF-PHY Component authentication of the module used in the final product and the QDID for End Product authentication of Nordic's SoftDevice.

Click "Find a Product" on the Bluetooth SIG homepage to search for any registered QDID. You can also search for any registered QDID from the following address.

<https://launchstudio.bluetooth.com/Listings/Search>

If you search by entering the product name of the module to be used or the Nordic's SoftDevice name, you can refer to the registered QDID information as shown below.

■ QDID of the MK71511/MK71521 module

	MK71511	MK71521
Product Name	MK71511	MK71521
Specification Name	V5.2	V5.2
Product Type	Component(tested) :RF-PHY	Component(tested) :RF-PHY
QDID	146733	146740

■ QDID of Nordic SoftDevice

	S112	S132	S140
Product Name	nRF52 Series with S112 v8.0.0	nRF52 Series with S132 v8.0.0	nRF52 Series with S140 v8.0.0
Specification Name	V5.2	V5.2	V5.2
Product Type	End Product	End Product	End Product
QDID	145831	145823	145787

Step.4 Product registration

Register the product on the Bluetooth SIG website.

After logging in to the Bluetooth SIG homepage, start Launch Studio with the following URL and click the "Getting Started" tab.

<https://launchstudio.bluetooth.com/>

Click the blue "Start Bluetooth Qualification Process with No Required Testing" near the center of the page. After that, you can register the product by entering the necessary information according to the displayed contents.

The detailed procedure is described in the following document, so please refer to it if necessary.

[\[Bluetooth low energy Module \(MK71511/MK71521\) Application Notes
– Bluetooth Certification – \]](#)

The above document describes the process of registering your final product by incorporating the End Product certification of Nordic's SoftDevice. Lapis Technology's MK71511/MK71521(QDID: 146733/146740) guarantees radio characteristics.

[Note]

This document is being made based on information on April 2020. There will be a possibility that the contents change with a renewal in Bluetooth SIG website and change in the Bluetooth Certification Procedure from now on.