

Radio Law

Frequently Asked Questions

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Introduction

The Radio Law is a regulation imposed on devices that emit radio waves. In Japan, the Ministry of Internal Affairs and Communications is under the jurisdiction and authorize the use of radio waves. The certification conditions are different by country or region.

Bluetooth® Qualification is a license of the standard established by Bluetooth Special Interested Group; SIG and is applied to products used all over the world regardless of the country or region.

When you manufacture and market your products using Bluetooth technology, it is necessary to comply with the applicable Radio Law and obtain Bluetooth Qualification for the product.

1. General

Q1-1: What is certification of Radio Law?

A1-1: "Radio waves" is often refer to electromagnetic waves with a frequency of 3,000 GHz or less, and the criteria differs depending on the country. The "Radio Law" aims to properly operate radio equipment that emits radio waves and utilize correctly and effectively the radio waves which is a public resource. Radio equipment is verified whether it complies with Radio Law and an authorization is granted as a proof of compliance, this whole process is so called "certification of Radio Law."

Q1-2: What happens if we use a radio equipment without obtaining a certification of Radio Law?

A1-2: Penalties may be imposed when you place non-conforming products on the market. The penalties vary by country. In many cases, you are requested to resolve the nonconformance, and if you do not resolve the nonconformity, you will be banned or be required to recall the product, and in some cases fined or imprisoned.

Q1-3: Does regime for type approval differ in each country?

A1-3: The certification system may vary per country. Some countries accept the valid certification of other countries. In order to use a radio equipment in the target country, it is necessary to obtain the certification to conform the regulation in respective country.

Q1-4: What country has TAIYO YUDEN obtained type approval certificate for modules with antenna?

A1-4: Our radio modules are type approved in Japan, the U.S. and Canada. As the final product shall be certified in Europe, we provide RF conducted test report for the certification except the one for WYSEGVDXG which has an external antenna. You can download the test report from the module details page linked to the product name at the URL below.

<https://www.yuden.co.jp/ut/product/category/module/lineup/>

(Please move to Line UP -> for Detail -> ETSI Test Report)

Q1-5: Are there any other certifications necessary except radio type approval?

A1-5: Bluetooth devices are required to obtain Bluetooth Qualification. Please contact certification bodies for details as there might be any other requirements depending on the equipment to be used.

Q1-6: Are there any specific conditions of the type approved module?

A1-6: There may be special conditions such as the channel used and the distance to the human body. Please refer to the General Items of Data Report of each module. You can download the Data Report from the module details page linked to the product name at the URL below.
<https://www.yuden.co.jp/ut/product/category/module/lineup/>
(Please move to Line UP -> for Detail -> Data Report)

Q1-7: Is it possible to use an external antenna which is out of the scope of the current type approval conditions?

A1-7: The combination of module and antenna is determined for each type approved module to remain the certification valid. If you would like to use any external antenna to the module, you must type approve the module or your final product by yourself. WYSEGVDXG has a built-in RF connector and is type approved for the combination with several types of external antennas. Please refer to the "Antenna List" at the following URL for the list of certified antennas for this module, since the available antennas vary depending on the country / region.
<https://www.yuden.co.jp/ut/product/category/module/lineup/wysegvdxg/>
(Please move to Line UP -> for Detail -> Antenna List)

Q1-8: Does it become any problems if we install other radio functions (including GNSS) into a final product which employs radio modules manufactured by TAIYO YUDEN?

A1-8: If you integrate several radios or GNSS function into a single equipment, additional evaluation or certification might be required. Please contact your certification body for more details.

Q1-9: What is SAR?

A1-9: SAR is an abbreviation of Specific Absorption Rate and it represents the amount of energy that a human body receives from electromagnetic waves. Additional evaluation might be required depending on the output power of radio equipment and the distance from the human body. Please refer to the General Items of Data Report for the conditions of use of TAIYO YUDEN's modules. You can download the Data Report from the module details page linked to the product name at the URL below.
<https://www.yuden.co.jp/ut/product/category/module/lineup/>
(Please move to Line UP -> for Detail -> Data Report)

Q1-10: Should we re-apply for the certification if we modify type approved equipment?

A1-10: When you modify any part of the type approved equipment, you need to apply for type approval again. Depending on how you modify the device, the certification procedure may be partially simplified. Please contact your certification body for more details.

Q1-11: Does the type approved module have any expiration dates?

A1-11: There is no expiration date for Japan, the U.S. and Canada.

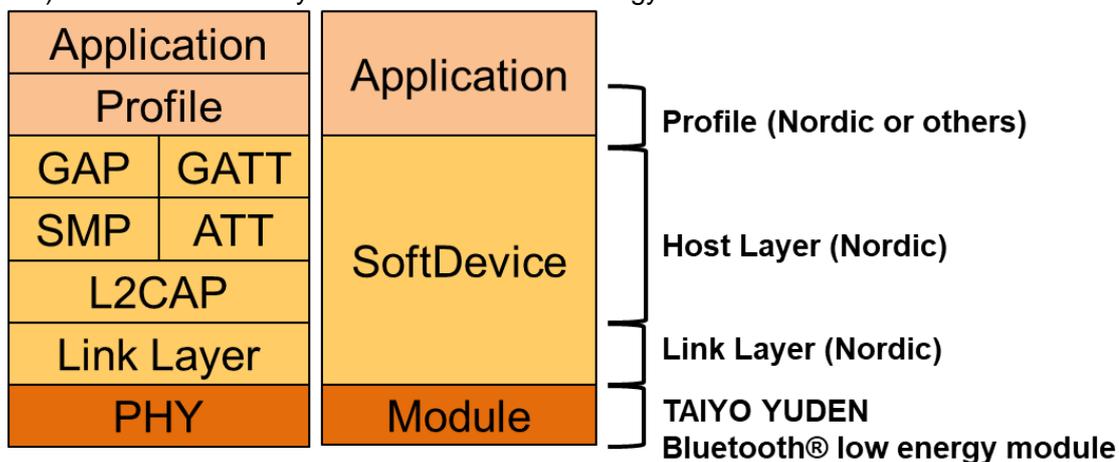
Q1-12: Can you support us to obtain certifications for Bluetooth SIG Qualification or Wi-Fi Alliance certification programs of end-products?

A1-12:

Bluetooth Qualification:

Bluetooth modules and Bluetooth low energy modules of TAIYO YUDEN have obtained the Bluetooth Qualification in some layers as a Component category. Before marketing the product, the final product must obtain Bluetooth Qualification as an “End Product” with utilizing the Qualified Design ID (QDID) acquired by the module and other layers. Since we do not support the Bluetooth Qualification of "End Product," please obtain the Qualification with your final product. Please refer to the Data Report for the QDID of each module. Please contact your certification service company or Bluetooth Qualification Consultant (BQC), a Bluetooth SIG official expert, for the cost and process to obtain the Bluetooth Qualification for the final product.

i.e.) Combinations of layers for Bluetooth low energy



Wi-Fi Alliance certification programs:

As we do not support the Wi-Fi Alliance certification programs, if you wish to obtain the certification, please contact your certification service company.

Q1-13: How should we do if we'd like to obtain type approval certifications for other countries except Japan, the U.S. and Canada?

A1-13: Please consult with your certification body directly. We can provide you technical documents or FCC Test Report of our modules that will help you to obtain the certification. Please contact our sales staff or Field Application Engineer (FAE) for the documents.

2. Japan

Q2-1: Is it necessary to certify our final products when we install the radio modules of TAIYO YUDEN?

A2-1: All our modules employing antennas have already been type certified in Japan. It is not necessary to obtain a new type certification when using our type certified modules within the scope of the certification conditions. If you use our modules beyond the certification conditions, you will need to obtain a new type certificate. When you integrate a non-certified module to your product, it is necessary to obtain a type certification as the module or final product.

Q2-2: What is the ARIB marking?

A2-2: It is a marking required by Association of Radio Industries and Businesses (ARIB). We are not a member of ARIB, so please contact ARIB for more details.

Q2-3: Is it necessary to place a certification label on the final product that incorporates type certified radio modules of TAIYO YUDEN?

A2-3: It is not necessary to place a certification label on the final product, but we recommend you to affix a certification label on your product to identify the integrated radio module.

Please refer to the General Items of Data Report of each module.

You can download the Data Report from the module details page linked to the product name at the URL below.

<https://www.yuden.co.jp/ut/product/category/module/lineup/>

(Please move to Line UP -> for Detail -> Data Report)

Q2-4: Are there any procedures or obligations for final products after incorporating radio modules of TAIYO YUDEN?

A2-4: As TAIYO YUDEN is responsible for Japanese type certification, there are no procedures or obligations that you need to take care.

Q2-5: Is it possible to demonstrate final products incorporating type certified radio modules at exhibitions?

A2-5: If you integrate a type certified module into your product, you can demonstrate your product without any additional procedures. Please note that if you use a non-certified module and emit radio waves, it will violate type certification.

3. The U.S. and Canada

Q3-1: Is it necessary to certify our final products when we install the radio modules of TAIYO YUDEN?

A3-1: All our modules employing antennas have already obtained modular-approval in the U.S. and Canada. It is not necessary to obtain a new approval when using our type approved modules within the scope of our approval conditions. If you use our modules beyond the approval conditions, you will need to obtain a new approval. For example, when you use your product in a Master mode of Wireless LAN in a specific frequency band of WYSAGVDXG / WYSEGVDXG, you will need to test and certify your product.

Please refer to the General Items of Data Report of each module.

You can download the Data Report from the module details page linked to the product name at the URL below.

<https://www.yuden.co.jp/ut/product/category/module/lineup/>

(Please move to Line UP -> for Detail -> Data Report)

Q3-2: Are there any other certifications necessary?

A3-2: Depending on the type of product, the final product may be required EMC testing and certification.

Q3-3: Are there any procedures or obligations for final products after incorporating radio modules of TAIYO YUDEN?

A3-3: When integrating a type approved module, certain labeling requirements are imposed to a final product, such as displaying the ID of type approved module to the final product.

Please refer to the General Items of Data Report for more details.

You can download the Data Report from the module details page linked to the product name at the URL below.

<https://www.yuden.co.jp/ut/product/category/module/lineup/>

(Please move to Line UP -> for Detail -> Data Report)

Q3-4: Is it possible to demonstrate final products incorporating type approved radio modules at exhibitions?

A3-4: If you integrate a type approved module into a final product, you can demonstrate your product without any additional procedures. It is possible for you to demonstrate your product integrating non-approved modules, but there is a mandatory labeling requirement to the final product in the U.S. Please refer to FCC Rule, Part 2, §2.803 “Marketing of radio frequency devices prior to equipment authorization” for more details. Canada has no such restrictions.

4. Europe

Q4-1: How should we do to export and market products to Europe?

A4-1: When you place a product on the European market, the product must comply with all applicable Union harmonisation legislations. For radio equipment, it must comply with the RE Directive. However, depending on the product, multiple Directives including the RE Directive may be applied. It is recommended that you confirm with certification bodies about Union harmonisation legislation that should be followed before placing your product on the market.

Q4-2: What is the RE Directive in Europe?

A4-2: The RE Directive is a directive to show the compliance of radio and communication devices provided in Europe, and can be officially referred to by the number 2014/53/EU. This is a newly established directive following the abolition of the former R&TTE Directive (1999/5/EC). Please refer to the link below for more details of the RE Directive.

<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32014L0053>

Q4-3: What is a harmonised standard?

A4-3: A harmonised standard is a European standard developed by recognised European Standardization Organisations: the European Committee for Standardization (CEN), the European Committee for Electrotechnical Standardization (CENELEC) or the European Telecommunications Standards Institute (ETSI). It is a technical standard that can be used to provide a presumption of conformity with respective directives applicable to the products. A list of harmonised standards is published in the Official Journal of the European Union.

Q4-4: How can I comply with the RE Directive when using modules of TAIYO YUDEN?

A4-4: In order to comply with the RE Directive, the final product must meet the essential requirements of the RE Directive and each responsible party defined by the Directive must fulfill the obligations required by the Directive. One of the technical solutions for a product to meet the essential requirements is to comply with harmonised standards. Adoption of the harmonised standards is voluntary, but products conforming to the harmonised standards are considered to meet all the required legal requirements of the Directive. Although there are some exceptions in some modules, we provide RF Conducted test reports for radio modules with antenna. Although it is required to carry out RF Conducted testing of final products, you can utilize our RF test report to substitute RF Conducted testing of your product and reduce some test items of final products.

You can download the test report from the module details page linked to the product name at the URL below.

<https://www.yuden.co.jp/ut/product/category/module/lineup/>

(Please move to Line UP -> for Detail -> ETSI Test Report)

Q4-5: Is it possible to demonstrate final products at exhibitions without complying with the RE Directive?

A4-5: According to Article 9.2 of the RE Directive, demonstrations are possible at exhibitions, e.g.. In that case, it is necessary to indicate a visible sign like “this radio equipment may not be made available on the market or put into service until it has been brought into conformity with the RE Directive.”