

FCC and ISED Certification Guideline for Radio and Wireless Applications

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Kiwa Nederland
Wilmsdorf 50
7327 AC Apeldoorn
Postbus 137
7300 AC Apeldoorn NL
Partner for Progress
www.kiwa.com/nl

Chamber of Commerce, 08090048



Certification Guideline for Radio and Wireless Applications

This document is a guideline on how to apply for FCC and ISED Certification for the marketing of your wireless product in the United States of America and Canada.

Form 731 filing and certification review can be obtained through a TCB (Telecommunication Certification Body), which will process and review the application to determine whether the product meets the Commission's requirements. If this is the case then a written grant of equipment authorization will be issued. This is a permanent part of the U.S. Federal Government's Code of Federal Regulations (CFR), Title 47 Telecommunications. To review all parts of the CFR Title 47, please use the following internet address:

<https://www.fcc.gov/wireless/bureau-divisions/technologies-systems-and-innovation-division/rules-regulations-title-47>

We are looking forward to working with you on the testing and certification of your radio product.



The screenshot shows the FCC website's navigation bar with the FCC logo and links for 'Browse by CATEGORY' and 'Browse by BUREAUS & OFFICES'. Below the navigation bar is a search bar and a row of links: 'About the FCC', 'Proceedings & Actions', 'Licensing & Databases', 'Reports & Research', 'News & Events', and 'For Consumers'. The main content area has a breadcrumb trail: 'Home / Wireless / Bureau Divisions / Technologies, Systems and Innovation Division /'. The title 'Rules & Regulations for Title 47' is prominently displayed. On the left, a sidebar lists 'Technologies, Systems and Innovation Division' with sub-links: 'Narrowbanding Overview', 'Rules and Regulations' (highlighted), 'Spectrum Dashboard', and 'Spectrum Leasing'. The main text area explains that the FCC's rules are in Title 47 of the Code of Federal Regulations (CFR), published by the GPO in the Federal Register, and available online at the GPO e-CFR website. It also provides a search function for FCC Rules by category: 'All of Title 47', 'Parts 0-19', 'Parts 20-39', and 'Parts 40-69'.

About Kiwa Nederland B.V.:

Kiwa Nederland B.V. is a one-stop-shop solution for your wireless products. Kiwa Nederland B.V. is housing an accredited testing laboratory and a certification department. We understand how important it is to have a short time-to-market certification. We will work together with you in achieving this and getting your product as soon as possible to the market of choice. We provide product certification services, system certification services, laboratory testing and market approvals.

Please visit our website for more information: <https://www.kiwa.com/nl>

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1. Required Exhibits

FCC required exhibits



Depending on the goal of your application, you will need to supply different kinds of documentation.

Subject	Submission by applicant for original grant	Docs for Permissive Change	Docs for Change of FCC ID
731 Form	X	X	X
Letter of authorization	X ¹⁾	X	X
Declaration of Conformity	X ²⁾		
Request for non-disclosure / confidential treatment	X	X ³⁾	
ID Label/Location Info	X	X ³⁾	X
Internal Photos	X	X ³⁾	
External Photos	X	X ³⁾	X
Test setup photos	X ²⁾	X	
Test Report(s)	X ²⁾	X	
Operational Description	X		
Schematics	X	X ³⁾	
Antenna info	X	X ³⁾	
Block Diagrams	X		
User's manual	X	X ³⁾	
RF Exposure Info/SAR	X ⁵⁾	X ³⁾	
Modular approval (part 15.212)	X ³⁾		
Tune Up procedures	X ³⁾	X ³⁾	
Request letter for change of ID			X
Covered list attestation	X	X	X
US Agent letter for service of process	X	X	X

Notes:

- 1) In case applicant is different from approval holder
- 2) A SDoC is required if the digital portion of the equipment is authorized under Declaration of Conformity
- 3) If applicable
- 4) In case Kiwa does not perform the tests
- 5) In case no RF exposure evaluation or SAR testing was applicable, this form must be submitted

Applications for FCC can only be handled when submitted in PDF or JPG. The size of each file shall be **less than 6 Mbyte!** Similar exhibit types should be combined into one file, e.g. please do not send separate internal photos, but provide them combined into 1 file. The same applies to external photos, etc. All application information according to 47 CFR 2.1033 requirements can be found on the FCC website.

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ISED required exhibits



Government
of Canada

Gouvernement
du Canada

For Canada you would need the following exhibits. Application information shall be submitted in PDF-format and the size of each file shall be less than 25 MB.

Subject	Submission by applicant
Cover Letter	X
Application form RSP-100 appendix I	X ¹⁾
Application form RSP-100 appendix II	X
RF exposure declaration	X
Letter of authorization	X ²⁾
Canadian Representative letter	X
IC Company Number Request Letter	X ³⁾
External photographs	X
Internal photographs	X
Label sample with IC identifier	X
Block Diagrams	X
Circuit diagrams	X
Antenna info	X
User manual	X
Test report(s)	X
SAR test report or MPE calculation report	X
Modular approval	X ⁴⁾
Confidentiality Request	X ⁴⁾

Notes:

- 1) Canadian local representative details including their own company number are mandatory.
- 2) In case applicant holder is different from approval holder
- 3) Only if the applicant does not have a Company number issued by Industry Canada.
- 4) If applicable

1. Federal Communication Commission (FCC)

Filing Requirements

Registration Number (FRN)

Any company wishing to conduct business with the FCC, must register through the FCC's Commission Registration System (CORES). Once registered, an FCC Registration Number (FRN) will be assigned to the application. This number will be unique to the applicant and it will identify the applicant in all transactions with the FCC. There is no fee to register with the FCC for an FRN.

Register for an FRN at: <https://fjallfoss.fcc.gov/coresWeb/publicHome.do>

Please Note: The FRN is not your FCC ID Number. When registering online, note the FRN account number and password, as it is required for future modifications to the account information. For further assistance, contact the Commission Registration Systems (CORES) helpdesk at CORES@fcc.gov, or call the toll-free help line: 1-877-480-3201.

FCC Grantee Code

After registering with the FCC for the Federal Registration Number (FRN), the next step is to apply for an FCC Grantee Code. A Grantee Code is assigned to a specific applicant at a specific address, and it is the first part of each FCC Identifier (ID) for devices authorized under the certification procedure (Title 47 CFR, Section 2.926). This three or five character code is owned by your company and stays with your company as long as you are in business selling wireless devices. Once you own a code, you are not required to purchase another one, unless you have multiple addresses. This code is transferable from product to product. This 5-digit alphanumeric code (for example XYZ12) uniquely identifies each applicant and is part of the FCC ID.

If you already have a Grantee Code

If you already have a Grantee Code and the information on file with the FCC is correct, you only need to provide us with this information. If the information on file with the FCC is incorrect, Grantee Code changes may be performed at: <https://apps.fcc.gov/eas/ModifyGrantee.do>

If you do not have a Grantee Code

If your company does not have a Grantee Code, you must apply for one with the FCC. To apply for a Grantee Code go to: <https://apps.fcc.gov/oetcf/eas/index.cfm>. On the left side of the screen under filing options, click on the Grantee Registration link. You will receive a pop-up message notifying you that there is a 30 day period to pay for the Grantee Code once you complete this registration process. During the registration process you will be given a Grantee Code Registration Number. Be certain to write this number down, as you will need it in the future to make any changes to the Grantee Code information on file with the FCC.

Please Note: It is very important to pay for the Grantee Code during this process. If you do not pay for the Grantee Code within 30 days, the code will be removed from the FCC database

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and/or reassigned to another company. This will cause delays in the filing process, and result in your company having to reapply for a new Grantee Code.

Important Notice Regarding the FRN and Grantee Code: The company address on your FRN and Grantee Code documents must match. If they do not match, delays may occur with your filing. If the addresses are NOT the same, you have two options:

1. Apply for an address change with your existing Grantee Code
2. Apply for a new Grantee Code under the new FRN Address.

Whether your company already has a Grantee Code or has just applied for one, the authorized signatory on file with the FCC for your Grantee Code **MUST** be **the individual signing all of the FCC filing documentation**.

Please note that any application for certification requires testing in an accredited and FCC recognized test laboratory. **Kiwa Nederland B.V. has an accredited high standard lab that can perform these tests for you.**

Application for certification

For unlicensed devices (such as Bluetooth, WLAN, RFID...), the following documents must be submitted (in English):

- A completed FCC 731 form application
- Authorization letter
- Confidentiality letter
- Product label and label placement location
- External photos
- Internal photos
- Test setup photos
- User manual
- Block diagram
- Schematics
- Operational description
- Antenna info
- FCC test report
- RF Exposure document/MPE Calculation
- Covered list attestation
- US Agent Letter for service of process

For licensed devices, such as mobile phones, the following additional documents are needed:

- Tune up document (info on setting the HF performance parameters)
- SAR test report (safety of persons in electromagnetic fields)

These documents will be uploaded by the TCB to the FCC electronically, max file size is 6 MB.

Types of certification

There are different types of certification:

- **New certification application**
- **Change in identification:** Existing or new applicant may request for a new FCC ID of a previously certified product. Generally the product should be identical to the original.
- **Class I Permissive Change:** includes those modifications in the equipment which do not degrade the characteristics of the originally granted certificate. No filing is required for a Class I permissive change.
- **Class II Permissive Change** - Changes affect RF characteristics and require a TCB to be involved for filing.
- **Class III Permissive Change**– Changes in software for Software Defined Radio Equipment.

FCC ID

The Grantee Code must be obtained from the FCC before you can begin creating the FCC ID number. The FCC ID number consists of the Grantee Code and a product identifier. The equipment product code must not exceed 14 characters. The product identifier is determined by the applicant and the characters are limited to capital letters (A-Z), digits (0-9) and dashes (-) but no other symbols are allowed.

- Example of FCC ID format:
- FCC ID: XXXXX-YYYYYY or FCC ID: XXXXXYYYYYY

In the above example the XXX = the three or five character Grantee Code assigned by the FCC; - YYYYYY or YYYYYY = the product identifier created by the applicant.

A sample label, photograph or drawing will need to be submitted with the other filing exhibits showing the labels location on the product. This will be covered further in the labeling requirements section.

FCC Agent authorization letter

This letter must be prepared on the applicant company letterhead and signed by the authorized signatory listed with the FCC for the company. This letter grants permission to appointed individuals to act as agents in submitting the filing paperwork for a designated period of time.

FCC Confidentiality request letter

This letter must be prepared on the applicant company letterhead and signed by the authorized signatory listed with the FCC for the company. The exhibits provided to the FCC are accessible by the public on their site. A special request letter must be submitted to FCC for confidentiality to be granted to certain exhibits. Both permanent confidentiality (only specific documents allowed – schematics, block diagrams, parts lists, tune-up procedure, operational/technical description) and short-term confidentiality (certain documents are allowed to be held confidential for a maximum of 180 days as long as device is not being marketed) The documents allowed to be held confidentially in the short-term are as follows: external and internal photos, test photos, block diagrams, schematics, user's manual, parts list, tune-up procedure and operational description. Under short-term confidentiality you must request an extension before the end of the initially requested time frame for a total of 180 days, if you still require this service. If you market before the requested time frame is over, you must notify the FCC to lift the short-term confidentiality. Please note there is an additional charge for short-term confidentiality.

Declaration of conformity

Composite device

When a product is a composite device consisting of an unintentional 15B and an intentional radiator device, the responsible party (located in the US) makes the choice to certify or to follow the **sDoC** route.

SDoC is a self-declaration process, where the responsible party must be located in the US. If a manufacturer chooses SDoC for a composite device, the TCB's responsibility is to confirm that user manual contains the 2.1077 requirements for SDoC. The FCC Logo is optional and therefore not mandatory. The responsible party must be able to provide a test report that shows compliance with the applicable technical rules. The test lab performing these test does not have to be accredited by the FCC.

The responsible party may, if it desires i.e. for marketing purposes, apply for Certification of a device subject to the Supplier's Declaration of Conformity. In such cases, all rules governing certification will apply to that device.

The FCC is not requiring a signed statement from the US responsible party that they are in the US and have gone through SDoC (as may have been done for DoC).

For SDoC 2.1077 Compliance information is needed to be in the user manual:

1. Identification of the product, e.g., name and model number;
2. A compliance statement as applicable, e.g., for devices subject to part 15 of this chapter as specified in §15.19(a)(3) of this chapter, that the product complies with the rules; and applicable compliance statements for part 15B that is 15.105,etc
3. The identification, by name, address and telephone number or Internet contact information, of the responsible party, as defined in §2.909. The responsible party for Supplier's Declaration of Conformity must be located within the United States.

Description of the requirements of the documents (exhibits)

Operational description. A brief description of the circuit functions of the device along with a statement describing how the device operates. This statement should contain a description of the ground system and antenna, if any, used with the device.

In general we want to see the following:

- Frequencies
- Settings
- Channels
- Power levels
- Technical description
- Presentation of all technologies used
- Representation of the differences in different variants of the device (if applicable)
- Temperature and voltage ranges
- Supported bandwidths and data rate
- Antenna information

Block diagram

A **block diagram** showing the frequency of all oscillators in the device. The signal path and frequency shall be indicated at each block. The tuning range(s) and intermediate frequency(ies) shall be indicated at each block. All the connections must be shown.

Schematics

Schematics and description for ALL circuitry and devices provided for determining and stabilizing frequency, for suppression of spurious radiation, for limiting modulation, and for limiting power. Please ensure that the components and component values are legible on the schematics. If the radio/product has more than one PC board, be sure to title each page.

Antenna info

A recent added requirement for Part 15 devices is to also submit Antenna info on all antennas used with the device. Antenna gain and radiation pattern must be known. The requirements for such document are:

- (a) A grantee performing own antenna characterization must submit an antenna test report (AUT Report).
- (b) Antenna manufacturer data sheets/measurements are acceptable; Support information may be requested
- (c) Off-the-shelf antenna manufacturer datasheet is acceptable if antenna configuration does not alter parameters.
- (d) The internal photos should clearly show and annotate the antenna(s) and ports if applicable.

- (e) Proprietary antennas (or if datasheet is not available) must have a test report (AUT Report) to include detailed antenna gain description, performance specifications, table of calibrated equipment, test dates, names of test personnel, names of commercial test software being used, test setup photos and description of how measurements are made.
- (f) When using an antenna built from a reference design, such as those provided in engineering application notes (Inverted F, meander, patch, spiral, etc.), the application for certification should include that section of the original engineering application notes along with close up detailed pictures of the circuit board.
- (g) Proprietary information and photos not required to show conformance with FCC limits can be held in the confidential exhibit(s) with appropriate justification.

Product photos

External Photos – A sufficient number of photographs to clearly show the exterior appearance, the construction, and show top and bottom of each circuit board. The exterior views shall show the overall appearance, the antenna used with the device (if any) and the controls available to the user.

Internal Photos – photos shall show the component placement on the chassis and the chassis assembly. If components are covered by a shield(s), the cover will need to be removed for photo purposes.

We need to see the following:

- Approximate size
- Visible features (buttons, displays, antennas, ..)
- Battery or AC powered
- Hand-held (portable or mobile)
- Internal construction
- should clearly show and annotate the antenna(s) and ports if applicable

Covered list

The FCC adopted per November 25, 2022, the [FCC 22-84](#) [1] report and Order, on Protecting Against National Security Threats to the Communications Supply Chain through the Equipment Authorization Program to protect the nation's networks and supply chains from certain equipment ("covered" equipment) that poses an unacceptable risk to national security or the safety of U.S. persons. Specifically, the Commission adopted rules that prohibit equipment authorization for "covered" telecommunications equipment and video surveillance equipment produced by entities identified on the Commission's Covered List, which is periodically updated.

The FCC added a new provision to section 2.911 that would require applicants for certification to provide a written and signed attestation that, as of the date of the filing of the application, the equipment is not “covered” equipment produced by entities identified on the Covered List and the subject equipment is not prohibited from receiving an equipment authorization pursuant to section 2.903. Such attestation can be provided to you by means of a template document (the RF_755).

US Agent for service of process letter

As required by section 2.911(d)(7), the applicant must designate a contact located in the United States for purposes of acting as the applicant’s agent for service of process, regardless of whether the applicant is a domestic or foreign entity. An applicant located in the United States may designate itself as the agent for service of process.

The applicant must provide a written certification, which must:

- i. Be signed by both the applicant and designated agent for service of process, if the agent is different from the applicant.
- ii. Acknowledge the applicant’s consent and the designated agent for service of process’s obligation to accept service of process.

Provide a physical U.S. address and email for the designated agent for service of process.

- iv. Acknowledge the applicant’s acceptance to maintain an agent for service of process for no less than one year after the grantee has terminated all marketing and importation or the conclusion of any Commission-related proceeding involving the equipment.

Such attestation can be provided to you by means of a template document (the RF_753 or RF_754).

User manual

The **user or installation manual** provides proof that the product filing is ready for the market and the purchaser of the product has written notification of the current rules. A draft copy of the instructions may be submitted if the actual documentation is not available. The actual documentation shall be furnished when it becomes available.

A complete manual will include the following:

- Includes information on how to install or use the product
- Includes frequency bands
- Warnings e.g. part 15.21, 15.19, 20.21 for amplifiers etc.
- DC voltages
- HW interfaces
- Installation manual for end users (especially for modular approval)

Some user manuals may be very long and others may be a single sheet of instructions. There are differences in user manual requirements for product and module certifications. Product manuals will provide instructions on the operation of the device and its capabilities. Module manuals need to include information on the characteristics and functionality of the radio. **The key component to the user manual is the compliance statements regarding modifications, labelling and RF exposure.** These statements also vary depending upon if the device is Mobile or Portable.

How to determine if your product is mobile or portable

Mobile - A mobile device is defined as a transmitting device designed to be used in other than fixed locations and to generally be used in such a way that a separation distance of at least 20 centimeters is normally maintained between the transmitter's radiating structure(s) and the body of the user or nearby persons. In this context, the term "fixed location" means that the device is physically secured at one location and is not able to be easily moved to another location. Transmitting devices designed to be used by consumers or workers that can be easily re-located, such as wireless devices associated with a personal computer, are considered to be mobile devices if they meet the 20 centimeter separation requirement.

Portable – A portable device is defined as a transmitting device designed to be used so that the radiating structures of the device is/are within 20cm of the body of the user.

In some cases, the potential conditions of use of a device may not allow for easy classification of that device as either Mobile or Portable. In these instances, applicants are responsible for determining minimum distances for compliance for the intended use and installation for the device based on evaluation of field strength, power density, or specific absorption rate (SAR).

FCC required user manual statements

Compliance Statement (Part 15.19)

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- 1. This device may not cause harmful interference, and*
- 2. This device must accept any interference received, including interference that may cause undesired operation.*

Warning (Part 15.21)

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC Interference Statement (Part 15.105 (b))

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.*
- Increase the separation between the equipment and receiver.*
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.*
- Consult the dealer or an experienced radio/TV technician for help.*

In addition to the above FCC statements depending upon if your device is Mobile or Portable, you will need to include the applicable statement from below.

If your product is an **INDOOR Mobile Radio**, add the following statement:

To comply with FCC/IC RF exposure limits for general population / uncontrolled exposure, the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

If your product is an **OUTDOOR Mobile Radio**, add the following statement:

To comply with FCC/IC RF exposure limits for general population / uncontrolled exposure, the antenna(s) used for this transmitter must be installed on outdoor permanent structures to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

If your product is a [Portable Radio \(NOT REQUIRING SAR TESTING\)](#), add the following statement:

This portable transmitter with its antenna complies with FCC/IC RF exposure limits for general population / uncontrolled exposure.

If your product is a [Portable Radio \(REQUIRING SAR TESTING\)](#), add the following statement and provide proper values:

*This portable transmitter with its antenna has shown compliance with FCC's SAR limits for general population / uncontrolled exposure. The maximum listed SAR level is **XX** W/kg (head) and **XX** W/kg (body) at **XX** mm. The antenna used for this device must not be co-located or operating in conjunction with any other antenna or transmitter.*

Test reports

The following contents must be clearly stated in the test report:

- What kind of device is this?
- According to which rule parts was it tested?
- Which measurement methods were used?

It is important that the documentation of the product and the data in the test report are consistent (e.g. bandwidths, test modes).

Some points that the TCB reviews in the context of his work:

- Comparison of the number of devices to the number of test reports
- Which rules apply?
- Which measurement methods are relevant?
- Modifications made to the device (e.g. use of ferrites)
- Information about the antenna
- List of used test equipment and associated calibration information
- Review of the test ratios
- Uncertainties
- Review of the test laboratory for recognition or accreditation?

FCC website links

- Main page: www.fcc.gov
- EAS site: <https://apps.fcc.gov/oetcf/eas/>
- Knowledge Database (KDB): <https://apps.fcc.gov/oetcf/kdb/index.cfm>
- TCB site: <https://apps.fcc.gov/tcb/index.html>
- Measurement Procedures: <http://transition.fcc.gov/oet/ea/eameasurements.html>
- Apply for FRN: <https://apps.fcc.gov/coresWeb/publicHome.do>

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TCB

GRANT OF EQUIPMENT
AUTHORIZATION
Certification
Issued Under the Authority of the
Federal Communications Commission
By:

TCB

Kiwa Nederland B.V.
Wilmersdorf 50
Apeldoorn, NL-7300 AC
Netherlands

Date of Grant: 02/03/2023

Application
Dated: 01/13/2023

Attention:

NOT TRANSFERABLE

EQUIPMENT AUTHORIZATION is hereby issued to the named
GRANTEE, and is VALID ONLY for the equipment identified hereon for
use under the Commission's Rules and Regulations listed below.

FCC IDENTIFIER:

Name of Grantee:

Equipment Class:

Digital Transmission System

Example of a FCC Grant of Certification

2. Innovation, Science and Economic Development (ISED) (Canada Filing Requirements)

The responsible authority for wireless device approval in Canada is Innovation, Science and Economic Development Canada (ISED). The roles and responsibilities of the FCB are similar to the TCB in the USA and the technical requirements are similar although there are a few areas with significant differences.

All certified products are published in the Radio Equipment List (REL):

<https://sms->

[sgs.ic.gc.ca/equipmentSearch/searchRadioEquipments?execution=e1s1&lang=en_CA](https://sms-)

A few important differences between USA and Canada are:

- Documents are submitted to ISED but they are not publicly available on the REL unless specifically requested by a user. It is therefore important to always request for confidentiality during the certification process.
- Contrary to the USA the Hardware Version Identification Number (HVIN) is a mandatory requirement on the label in Canada. Furthermore, no approval is included in the REL without a Product Marketing Name (PMN).
- An approval is not possible without a local representative (LR). The local representative must have a valid registration at ISED Canada.

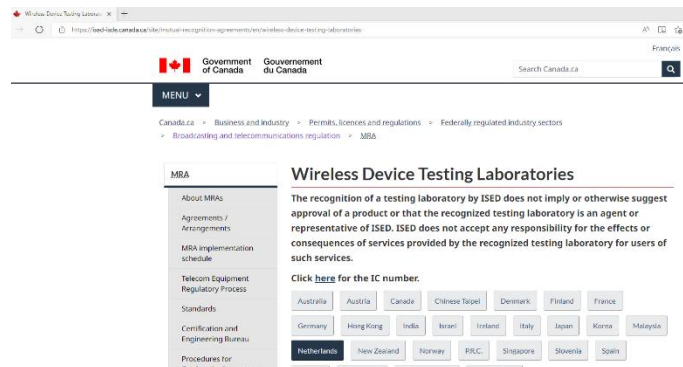
Further information provided by ISED:

- RSP 100 specifies the procedural requirements to be followed for every certification process in Canada.
 - All testing standards required for radio specification are covered in Canada's documents known as Radio Standards Specification RSS.
 - http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/h_sf06129.html
 - The RSS standards refer to standards radio system plans (SRSPs) which define some technical parameters and the assigned frequency blocks
 - http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/h_sf06130.html
 - All devices subject to certification in Canada are found in the Category 1 Equipment Standards List
 - https://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/h_sf01342.html.
- These include all RSSs and some BETS (Broadcast Equipment Technical Standards)

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For testing of Category I devices the testing facility must be registered at ISED and accredited according to ISO/IEC 17025. Search for wireless test sites via:

<https://ised-isde.canada.ca/site/mutual-recognition-agreements/en/wireless-device-testing-laboratories>



Canadian Company Number

Canada requires a Company Number (CN) assignment, just like the FCC Grantee Code assignment. Unlike the FCC, Industry Canada does not charge a fee for this registration. This number will be the Prefix of your IC number. The Company Number (CN) is assigned to a specific applicant at a specific address. This 5 character number is specific to your company and stays with the company as long as it is in business selling wireless devices. Once you have a Company Number, you are not required to apply for another one, unless you have multiple addresses. This number is transferable from product to product.

If your company has filed with Industry Canada prior to 2003/2004, your company number will need to be updated. You should send an email to the Certification Bureau at Industry Canada explaining you have an older number which needs updating, and request a new number certification.bureau@ic.gc.ca

If your company does not have a Canadian Company Number, you must register your company with Industry Canada and then apply for a Canadian Company Number. To register go to: https://sms-sgs.ic.gc.ca/registration/applicationWizard?execution=e1s1&lang=en_CA.

This Company number is also required by the Canadian Representative.

The company number will be sent to you via email.

Application for certification with ISED

The documents required for certification are listed in Annex C of RDP 100 Issue 11.

Similar like USA, however the following additional documents are needed for Canada:

- Canadian RSP 100 Annex A – Application letter

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- Canadian RSP100 Annex B – Test report cover sheet
- Agreement between Approval holder and Canadian Contact - Canadian Representative letter
- Canadian RSS 102 Annex A/B or C – RF Exposure Data

The Canadian application filing shall also contain additional information such as:

- HVIN: Hardware Version Identification Number
- PMN: Product Marketing Name
- FVIN: Firmware Version Identification Number
- HMN: Host Marketing Name

Certification types in Canada include:

1. New Single product Certification
2. Product Family Certification
 - The enclosure and general appearance of all product versions in a family shall be identical except for enclosure color and/or minor external cosmetic differences.
 - The variants are identical and have differences which are subject to class 1 - III permissive changes
 - Two or more versions of a product with two or more PCB designs with different bands/technologies within identical enclosures are not permitted within a product family
 - Two or more versions of a product with one PCB design with different bands/technologies enabled by software are permitted within a product family
 - Exemptions:
 - o Base telephone unit with a wireless handset. Generally one certification number and one HVIN will be required for both radio certification and terminal registration.
 - o Exceptionally the base telephone unit can share the same ISED certification number with the handset but each of them must have a unique HVIN. Two or more identical handsets may have the same HVIN.
 - o Dissimilar products like baby monitors or speaker systems can no longer share the same certification number.
3. Modifications to Existing Certification Service:
 - C1PC – Modifications that do not affect RF Characteristics – No report to ISED unless PMN or HVIN changes
 - C2PC – Modifications that affect RF characteristics but not beyond the requirements established in the original certification
 - C3PC – Firmware modifications that affect RF characteristics or to enable new frequency bands without hardware modification

Certification Guideline for Radio and Wireless Applications

- C4PC – Integration of a certified module into a new host which results in changes to original RF emissions and/or RF exposure evaluation
- 4. Multiple Listing of Certification Service (Change in ID):
 - Existing certificate holder or another entity may request a new ISED certification number
 - Selected HVIN, PMN and or FVIN in the new application may be identical or different from existing certification, provided the applicant has never obtained certification for the selected HVIN, PMN and FVIN combination in the previous application.
- 5. Transfer of certification:
 - a) Full Transfer (Company Takeover)
 - New company takes over all of the responsibilities associated with all existing certifications from the existing certificate holder
 - New company provides signed letter from current certificate holder, authorizing ISED to transfer certificate ownership from current holder to new applicant and change the file information to reflect the new holder's information
 - HVIN and ISED remain unchanged
 - b) Partial Transfer (Product Line Takeover)
 - Company takes over one or more product lines, but not all of the product lines of the other company
 - New company assumes all of the responsibilities associated with all existing certifications from the existing certificate holder
 - Either retain all certified products associated with other company or assign new ISED certificate numbers to all transferred product lines
 - New company provides signed letter from existing holder to change the file information to reflect new certificate holder's information

IC ID and Model number

Every radio apparatus certified for marketing and use in Canada shall bear a permanent label on which is indelibly displayed the model number and Industry Canada certification number of the equipment model.

When you read an IC number, the FIRST 5 characters or prefix are always your Canadian Company Number, assigned by Industry Canada. The suffix is determined by the applicant and may include up to 11 characters. The characters are limited to capital letters (A-Z), digits (0-9). There MUST be a hyphen inserted between the Company Number and the suffix, but no other symbols are allowed.

Example of IC ID format:

IC: XXXX-YYYYYY

In the above example the XXXX = the four or six character Canadian Company Number assigned by the Industry Canada; -YYYYYY = the suffix created by the applicant.

The model number is assigned by the applicant and shall be unique to each model of radio apparatus under that applicant's responsibility. The model number shall be displayed on the label preceded by the text:

"Model:" or "M/N:" or "HVIN:".

Example of Model Number format:

Model: ABCDEF or M/N: ABCDEF

If there is more than one model number for the product, each model number will need to be filed with Industry Canada. There is an additional charge for each model number after the first model. Any changes to the product in the future will need to be done to both models.

A sample label, photograph or drawing will need to be submitted with the other filing exhibits showing the labels location on the product. This will be covered further in the labelling requirements section.

Agency Authorization letter

This letter must be prepared on the applicant company letterhead and signed by the authorized signatory listed with the IC for the company. This letter grants permission to appointed individuals to act as agents in submitting the filing paperwork for a designated period of time.

IC confidentiality letter

Confidentiality letter

A special request letter must be submitted to IC for confidentiality to be granted to certain exhibits. Unlike the FCC, IC does not distinguish between Short Term and Permanent Confidentiality. Any request for confidentiality will be held permanently confidential.

Canadian Representative letter

Per Industry Canada document RSP-100, Section 2.1: "The applicant must provide, in writing, the identity of a representative in Canada who is capable of responding to enquiries and who can provide post-certification audit samples at no charge to Industry Canada."

A "Company Representative" must be provided as a point of contact for Industry Canada. If your company resides in Canada, you may use your own contact information. This representative may an employee, agent, sales representative, or distributor and the address provided must be a Canadian Address.

The Canadian Representative must be registered with Industry Canada and have a valid 'Company Number'. A Canadian Representative Agreement Letter must be completed on the Canadian Representative's company letterhead and signed by the authorized signatory on file with Industry Canada. This document is part of the filing documentation package that will be sent to you.

Canadian Filing – User manual Statements

In ADDITION to the FCC required statements, if you are filing for a Canadian Grant, the following Canadian statements need to be added to your User Manual.

Please note: All statements must be in BOTH English and French.

Section 8.4 of RSS-GEN

This Device complies with Industry Canada License-exempt RSS standard(s). Operation is subject to the following two conditions: 1) this device may not cause interference, and 2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

For an unintentional radiator / **Interference causing equipment** (a device not containing a radio part) the requirements specified in ICES-Gen shall apply. An example ISED compliance label, to be placed on each unit of an equipment model (or in the user manual, if allowed), is given below:

CAN ICES-003(*) / NMB-003(*)

** Insert either "A" or "B", but not both, to identify the applicable Class of the device used for compliance verification.*

The above label is only an example. The specific format is left to the manufacturer to decide, as long as the label includes the required information, in accordance with ICES-Gen.

ISED website links

- Main site: (can always navigate from here):
<https://www.canada.ca/en/innovation-science-economic-development.html>
- Equipment Certification and Registration Services:
http://sms-sgs.ic.gc.ca/eic/site/sms-sgs-prod.nsf/eng/h_00013.html
Here you will find the direct links to the REL, Telecommunications Apparatus Register, Wireless Test Site and Company Search link
- Knowledge Database (KDB): <https://apps.fcc.gov/oetcf/kdb/index.cfm>
- Conformity Assessment Bodies:
http://www.ic.gc.ca/eic/site/ceb-bhst.nsf/eng/h_tt00115.html
- RSS: http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/h_sf06129.html
- BETS: http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/h_sf10246.html
- ICES: http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/h_sf06127.html
- SRSP: http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/h_sf06130.html
- Radio Scopes for Certification: <http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf09888.html>

4. Labeling Requirements

A photo or drawing clearly showing the identification label (you must be able to see the FCC ID/IC number), and the location on the device.

Information to be included on the label:

The term “FCC ID:” must be included prior to the ID number and all must be contained on one line and legible (it is recommended that the type be 6-point or larger).

If product is larger than “palm-sized” (or 8x10cm), the statement according to Section 15.19 (a) must be included on label (15.19 (a) (1) or (2) or 3) depending on device).

If product is smaller than “palm-sized” (or 8x10cm) or if it is impractical to place the label on the device, the required statement may be included in the User manual.

If filing with Industry Canada, the term “IC:” must be included prior to the ID number and the term “Model:” or “M/N:” before the model number.

Label Location

The label cannot be located on a removable part, such as a battery cover. The nameplate or label shall be permanently affixed to the equipment and shall be readily visible to the consumer at the time of purchase. As used here, permanently affixed means that the required nameplate data is etched, engraved, stamped, indelibly printed or otherwise permanently marked on a permanently attached part of the equipment enclosure. Alternatively, the required information may be permanently marked on a nameplate of metal, plastic or other material fastened to the equipment enclosure by welding, riveting, etc., or with a permanent adhesive. Such a nameplate must be able to last the expected lifetime of the equipment in the environment in which the equipment will be operated, and must not be readily detachable.

Label Material

In addition, information regarding the label material and method of permanent attachment to the product should be supplied, i.e. the label must not be paper, and the ink and label material must be a quality and type that must last the life of the device. Please provide a Technical Data Sheet that describes your Label’s technical characteristics. Technical Data Sheets are readily available from the supplier of your label.

For an unintentional radiator / **Interference causing equipment** (a device not containing a radio part) the requirements specified in ICES-Gen shall apply. An example ISED compliance label, to be placed on each unit of an equipment model (or in the user manual, if allowed), is given below:

CAN ICES-003(*) / NMB-003(*)

** Insert either "A" or "B", but not both, to identify the applicable Class of the device used for compliance verification.*

The above label is only an example. The specific format is left to the manufacturer to decide, as long as the label includes the required information, in accordance with ICES-Gen.

5. Modular devices

In addition to the standard radio filing paperwork, modular devices require additional documentation and user manual statements in order to receive approval with FCC and/or ISED.

FCC 8-Point Modular Approval Letter

In order to obtain a full modular transmitter approval, a cover letter requesting modular approval must be submitted and the numbered requirements identified below must be addressed in the application for equipment authorization.

The eight criteria for Modular Approval (15.212) are:

1. Transmitter must have its own shield
2. Must have buffered modulation/data inputs
3. Must have power supply regulation
4. Must meet Part 15 antenna requirements
5. Must be tested in a stand-alone configuration
6. Must be labeled with the FCC ID
7. Must meet its own FCC rule part
8. Must meet RF Exposure requirements

ISED Modular Approval Checklist:

The eight technical criteria are very similar to the FCC 15.212. A cover letter will need to be provided to Industry Canada showing the radio meetings the requirements of RSS-GEN Section 7.3. LSR will provide a checklist letter template if applicable.

Limited Modular Approval

If compliance with one or more of the requirements stated cannot be demonstrated, applicants may be granted a “Limited Modular Approval” (LMA). This will be issued in those instances where applicants can demonstrate that they will retain control over the final installation of the device, such that compliance of the end product is assured. In such a case, an operating condition on the LMA for the module would state that the module is only approved for use when installed in devices produced by a specific manufacturer, typically the applicant. If LMA is sought, the application for equipment approval must make this fact clear. It must also specifically state how control of the end product into which the module will be installed, will be maintained, such that full compliance of the end product is always ensured. Limited modules must be tested in a typical host device, especially if no shield is installed. An LMA is literally limited to a specific host or a group of similar hosts. If other dissimilar hosts are used, then it must be tested in those as well.

If you are seeking a Grant of Authorization for a Radio Module, the eight requirements identified in the Public Notice below must be addressed and defined in a “Letter to the FCC”. Original

FCC published document may be found by clicking on the following link:

http://www.fcc.gov/Bureaus/Engineering_Technology/Public_Notices/2000/da001407.doc

FCC/IC Labeling Requirement for a module Host

If your radio is filed as a Module, and the Module is used inside of a case that prevents the end user from viewing the ID Numbers, then an additional/separate ID Label must be applied to the outside of the case for viewing. The outside label should then contain the following information:

“Contains FCC ID: (insert your FCC ID #)”

Also include ISED ID number if the module is certified in Canada.

“Contains IC: (insert your IC #)”

Modular Devices – required user manual statements

In addition to the statements for Mobile/Portable applications and Industry Canada, the following information also needs to be mentioned in the User Manual for modules.

OEM Responsibilities to comply with FCC and Industry Canada Regulations

The (your product name) Module has been certified for integration into products only by OEM integrators under the following conditions:

- 1. The antenna(s) must be installed such that a minimum separation distance of 20 cm is maintained between the radiator (antenna) and all persons at all times.*
- 2. The transmitter module must not be co-located or operating in conjunction with any other antenna or transmitter.*

As long as the two conditions above are met, further transmitter testing will not be required.

However, the OEM integrator is still responsible for testing their end-product for any additional compliance requirements required with this module installed (for example, digital device emissions, PC peripheral requirements, etc.).

IMPORTANT NOTE: In the event that these conditions cannot be met (for certain configurations or co-location with another transmitter), then the FCC and Industry Canada authorizations are no longer considered valid and the FCC ID and IC Certification Number cannot be used on the final product. In these circumstances, the OEM integrator will be responsible for re-evaluating the end product (including the transmitter) and obtaining a separate FCC and Industry Canada authorization.

End product labelling

The (your product name) Module is labeled with its own FCC ID and IC Certification Number. If the FCC ID and IC Certification Number are not visible when the module is installed inside another device, then the outside of the device into which the module is installed must also

display a label referring to the enclosed module. In that case, the final end product must be labeled in a visible area with the following:

“Contains FCC ID: (insert your FCC ID #)”

“Contains IC: (insert your IC #)”

The OEM of the (your product name) Module must only use the approved antenna(s) listed above, which have been certified with this module. The OEM integrator has to be aware not to provide information to the end user regarding how to install or remove this RF module or change RF related parameters in the user manual of the end product.

The user manual for the end product must also include the following information in a prominent location:

“To comply with FCC and Industry Canada RF radiation exposure limits for general population, the antenna(s) used for this transmitter must be installed such that a minimum separation distance of 20 cm is maintained between the radiator (antenna) and all persons at all times and must not be co-located or operating in conjunction with any other antenna or transmitter.”

FCC/IC post-market surveillance

YOU WILL NEED TO KEEP AT LEAST ONE SAMPLE OF YOUR CERTIFIED PRODUCT FOR POST-GRANT SURVEILLANCE BY THE FCC, ISSED OR TCB.

Failure to provide a sample, if requested by the TCB or FCC, may result in your Grantee Code being blocked, and the FCC ID number for your product may be deleted from the FCC Database.

Similar results may be imposed by Industry Canada.



Wilmersdorf 50

PO Box 137

7300 AC Apeldoorn NL

Partner for Progress

www.kiwa.com/nl

Chamber of Commerce, 08090048

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