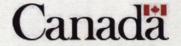Spectrum Management and Telecommunications

Radio Standards Procedure

# Certification of Radio Apparatus

Canada

# Preface

Radio Standards Procedure RSP-100, *Certification of Radio Apparatus*, sets out the requirements for certification of radio apparatus and broadcasting equipment. This document must be used in conjunction with Radio Standards Specifications (RSSs) and Broadcasting Equipment Technical Standards (BETSs) related to the type of equipment for which certification is being sought.

This document will come into force upon its publication on the the Department's website (www.ic.gc.ca/spectrum).

Issue 11 of RSP-100 has been significantly changed from the previous issue due primarily to the implementation of the Department's new online Spectrum Applications Modernization - Commercial Software Implementation (SAM-CSI) tool.

**Enquiries concerning the procedure for equipment certification should be directed to:**

Innovation, Science and Economic Development Canada
Certification and Engineering Bureau
P.O. Box 11490, Station H
3701 Carling Avenue (Building 94)
Ottawa, Ontario K2H 8S2
Attention: Manager, Equipment Certification
Email: IC.CertificationBureau-Bureauhomologation.IC@ic.gc.ca

**Enquiries concerning the procedure for licensing of certified equipment should be directed to:**

Innovation, Science and Economic Development Canada
Spectrum Management Operations Branch
235 Queen Street
Ottawa, Ontario K1A 0H5
Attention: Spectrum Management Operations
Email: IC.SpectrumPublications-PublicationsduSpectre.IC@ic.gc.ca

**Enquiries concerning RSSs and broadcasting equipment standards (BETS) should be directed to:**

Innovation, Science and Economic Development Canada
Engineering, Planning and Standards Branch
Attention: Regulatory Standards
235 Queen Street
Ottawa, Ontario  K1A 0H5
Email: ic.consultationradiostandards-consultationnormesradio.ic@canada.ca

All Spectrum Management and Telecommunications publications are available on Innovation, Science and Economic Development's website at www.ic.gc.ca/spectrum, under *Official Publications*.

Issued under the authority of
the Minister of Innovation, Science and Economic Development

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Daniel Duguay
Director General
Engineering, Planning and Standards Branch

# Contents

# 1.    Scope

Radio Standards Procedure RSP-100, *Certification of Radio Apparatus*, sets out the requirements for certification of radio equipment, which includes radio apparatus and broadcasting equipment. RSP-100 does not apply to interference-causing equipment covered under Innovation, Science and Economic Development Canada's ICES series of standards.

## 1.1    Application

The application for equipment certification shall be prepared and submitted in accordance with this procedure document (RSP-100), which describes the equipment certification process.

The application must contain all of the necessary information, including a cover letter that describes the certification service being requested, as well as the intent and use of the radio product. Based on the type of certification service being sought, a test report shall be included, which meets the requirements of RSS-Gen, *General Requirements for Compliance of Radio Apparatus*.

## 1.2    Related Documents

The following documents are available on Innovation, Science and Economic Development Canada's Spectrum Management and Telecommunications website at www.ic.gc.ca/eic/site/smt-gst.nsf/eng/h_sf01841.html.

RSS-102, *Radio Frequency (RF) Exposure Compliance of Radiocommunication Apparatus (All Frequency Bands)*

CS-03, *Compliance Specification for Terminal Equipment, Terminal Systems, Network Protection Devices, Connection Arrangements and Hearing Aid Compatibility*

DC-01, *Procedure for Declaration of Conformity and Registration of Terminal Equipment*

RIC-66, *Addresses and Telephone Numbers of Regional and District Offices*

# 2.    Equipment Certification Requirements

Radio equipment subject to Radio Standards Specifications (RSSs) or Broadcasting Equipment Standards (BETSs), included in the *Category I Equipment Standards List*, requires certification.

Any radio equipment imported for demonstration or trial purposes only does not require certification. However, this equipment may require a developmental radio licence. Further information may be obtained from Innovation, Science and Economic Development Canada's (ISED) regional office nearest to the demonstration or trial site.

## 2.1    Required Canadian Representative

A Canadian representative is required when the applicant's company address is not within Canada. The applicant must provide a signed Applicant-Canadian Representative Agreement and the details of the

company representative in Canada shall be clearly identified (see Annex A). The Canadian representative shall be responsible for responding to all enquiries from Innovation, Science and Economic Development Canada regarding the certified equipment, including providing audit samples at no charge to Innovation, Science and Economic Development Canada. The applicant must have a valid Applicant-Canadian Representative Agreement for as long as the certified equipment is offered on the Canadian market.

## 2.2    Categories of Equipment

Radio apparatus are classified into two categories, Category I equipment and Category II equipment.

### Category I Equipment

This procedure applies to Category I equipment, which comprises radio apparatus equipment for which a technical acceptance certificate (TAC) is required pursuant to subsections 4(2) of the *Radiocommunication Act* and 21(1) of the *Radiocommunication Regulations*. A TAC may be issued by the Certification and Engineering Bureau of Innovation, Science and Economic Development Canada (the Bureau) or a certificate may be issued by a recognized certification body (CB).

### Category II Equipment

Category II equipment comprises radio apparatus for which standards have been prescribed. Category II equipment is certification-exempt. Therefore, no TAC from Innovation, Science and Economic Development Canada or certificate from a CB is required, pursuant to subsection 4(3) of the *Radiocommunication Act*. The manufacturer and/or importer shall ensure compliance with all applicable procedures and standards for Category II equipment. Note that certification application for Category II equipment is not necessary and will not be accepted.

## 2.3    Equipment Certification and Terminal Equipment Registration

Radio apparatus that is designed to connect to the public switched network must comply with the applicable RSSs and CS-03 standards. In addition to the requirements in RSP-100, terminal equipment registration is also required in accordance with DC-01, *Procedure for Declaration of Conformity and Registration of Terminal Equipment*.

## 2.4    Listing Requirements in the Radio Equipment List (REL)

Category I radio apparatus, including broadcasting equipment, shall be listed in Innovation, Science and Economic Development Canada's *Radio Equipment List* (REL).

The following requirements shall be met:

(i)   the Category I equipment must be certified; and

(ii)  Innovation, Science and Economic Development Canada's Certification and Engineering Bureau must have received all the required information demonstrating compliance with this procedure (RSP-100).

No person shall manufacture, import, distribute, lease, offer for sale, sell, install or use Category I radio apparatus, including broadcasting equipment, in Canada unless it is listed on Innovation, Science and Economic Development Canada's REL. Subsequent to equipment being certified, the Category I radio apparatus, including and broadcasting equipment, shall be listed in Innovation, Science and Economic Development Canada's REL database; otherwise, the equipment is deemed uncertified.

## 2.5 RSS-Gen Compliance

Except where otherwise specified in the applicable RSS, radio apparatus shall comply with the specifications and methods prescribed in RSS-Gen, *General Requirements for Compliance of Radio Apparatus*, in addition to the requirements in RSP-100.

Category I and Category II radio apparatus shall comply with the applicable requirements of RSS-102, *Radio Frequency (RF) Exposure Compliance of Radiocommunication Apparatus (All Frequency Bands)*.

## 2.6 Radiocommunication Antenna Systems

Some equipment will require the use of an external antenna system and supporting structure. The Minister has established as a standard that all antennas, masts, towers or other antenna supporting structures are required to comply with the terms of CPC-2-0-03, *Radiocommunication and Broadcasting Antenna Systems*. This section is for information only and is not a requirement for equipment certification.

## 2.7 Licence-Exempt Radio Apparatus

Certain types of radio apparatus are permitted to operate without licensing from Innovation, Science and Economic Development Canada. These are typically low-output power devices that are intended primarily for consumer or commercial applications.

Licence-exempt (unlicensed) radio apparatus share spectrum with licensed radio services and must operate on a no-interference, no-protection basis in relation to all other radio systems. Licence-exempt radio apparatus shall not cause radio interference to licensed radio services, and cannot claim protection from interference caused by those services.

## 2.8 Licensing of Radio Apparatus

Many types of radio apparatus require a radio licence issued by Innovation, Science and Economic Development Canada, which sets the terms and conditions under which the radio apparatus may be operated.

Ordinarily, radio apparatus subject to licensing is classified as Category I equipment (requiring equipment certification under an RSS), and certification must be obtained before the equipment is eligible to be licensed. Whether a type of radio apparatus is subject to licensing is stated in the applicable RSS.

Enquiries concerning licensing requirements should be directed to the Department's Spectrum Management Operations Branch via email at IC.SpectrumPublications-PublicationsduSpectre.IC@ic.gc.ca.

## 3.        Labelling Requirements

The manufacturer, importer or distributor shall meet the labelling requirements set out in this section for every unit:

    (i)    prior to marketing in Canada, for products manufactured in Canada
    (ii)   prior to importation into Canada, for imported products

For information regarding the e-labelling option, see Notice 2014–DRS1003. The label for the certified product represents the manufacturer's or importer's compliance with Innovation, Science and Economic Development Canada's (ISED) regulatory requirements.

### 3.1       Labelling of Certified Products

It should be noted that the Product Marketing Name (PMN), Hardware Version Identification Number (HVIN), Firmware Version Identification Number (FVIN) and Host Marketing Name (HMN) are commonly used terms, and are defined in Section 10 of this document.

Every unit of certified product for marketing and use in Canada shall be identified as per these requirements:

- The HVIN and ISED certification number shall be permanently indicated on the exterior of the product or displayed electronically according to e-labelling requirements:

    o    the HVIN and ISED certification number are permitted to be placed on a label, which shall be permanently affixed to the product

    o    the ISED certification number shall be preceded by "IC:"

    o    the HVIN is permitted to be listed or placed with or without any prefix (HVIN:, Model#, M/N:, P/N:, etc.)

    o    the HVIN and ISED certification number are not required to be adjacent to each other

- The PMN must be displayed electronically (e-labelling), or indicated on the exterior of the product or product packaging or product literature, which shall be available with the product or online.

- The PMN, HVIN and ISED certification number are permitted to be etched, engraved, stamped, printed on the product, or permanently affixed to a permanently attached part of the product.

- The PMN, HVIN and ISED certification number indicated/displayed (e-labelling) on any product on the Canadian market must be listed in the REL.

- When the FVIN is the only differentiation between different product versions (PMN and HVIN remain identical) listed in the REL within a family certification, the FVIN shall be displayed electronically or stored electronically and be easily retrievable.

- In all cases, the PMN, FVIN, HVIN and ISED certification number text shall be clearly legible.

**Note:** The ISED certification number, HVIN, applicable PMN and FVIN are not required to be adjacent to each other.

The certification number is made up of a Company Number (CN), assigned by Innovation, Science and Economic Development Canada's Certification and Engineering Bureau, followed by the Unique Product Number (UPN) assigned by the applicant. The certification number format is:

IC: XXXXXX-YYYYYYYYYYY

where:

- The letters "IC:" indicate that this is an Innovation, Science and Economic Development Canada's certification number, but they are not part of the certification number. XXXXXX-YYYYYYYYYYY is the ISED certification number.

- XXXXXX is the CN assigned by Innovation, Science and Economic Development Canada. Newly assigned CNs will be made up of five numeric characters (e.g. "20001") whereas existing CNs may consist of up to five numeric characters followed by an alphabetic character (e.g. "21A" or "15589J").

- YYYYYYYYYYY is the Unique Product Number (UPN) assigned by the applicant, made up of a maximum of 11 alphanumeric characters.

- The CN and UPN are limited to capital alphabetic characters (A-Z) and numerals (0-9) only. The use of punctuation marks or other symbols, including "wildcard" characters, is not permitted.

- The HVIN may contain punctuation marks or symbols but they shall not represent any indeterminate ("wildcard") characters.

**Example 1:**   A company has been assigned a CN of "21A" and wishes to use a UPN of "WILAN3" for one of its products. The full Innovation, Science and Economic Development Canada's certification number of this product would thus be: IC: 21A-WILAN3.

**Example 2:**   A company has been assigned a CN of "20001" and wishes to use a UPN of "WILAN3" for one of its products. The full Innovation, Science and Economic Development Canada certification number of this product would thus be: IC: 20001-WILAN3.

**Example 3:**   In a scenario where the HVIN is 47XP-820K/A21XX or ISED certification number is IC: 21A-WILANXX, a manufacturer wishes to use the characters "XX" as wildcards to indicate that these two characters are not fixed, but represent a range of characters decided

by the manufacturer. This practice is not permitted. However, this same sequence of symbols can be used as a valid HVIN if it identifies a single product version.

If the dimensions of the product are extremely small or if it is not practical to place the label or marking on the product and electronic labelling has not been implemented, the label shall be, upon agreement with Innovation, Science and Economic Development Canada prior to certification application, placed in a prominent location in the user manual supplied with the product. The user manual may be in an electronic format and must be readily available.

## 3.2        Module and Host Product Labelling Requirements

Any product for which Modular Approval (MA) or Limited Modular Approval (LMA) is being sought shall meet the above labelling requirements (Section 3.1).

The Host Marketing Name (HMN) must be displayed (according to e-labelling requirements) or indicated at any location on the exterior of the host product or product packaging or product literature, which shall be available with the host product or online.

The host product shall be properly labelled to identify the modules within the host product.

The Innovation, Science and Economic Development Canada certification label of a module shall be clearly visible at all times when installed in the host product; otherwise, the host product must be labelled to display the Innovation, Science and Economic Development Canada certification number for the module, preceded by the word "Contains" or similar wording expressing the same meaning, as follows:

Contains IC: XXXXXX-YYYYYYYYYYY

where:    XXXXXX-YYYYYYYYYYY is the module's certification number.

The applicant for a certified module shall provide with each certified module to the user, either a host label, such as described above, or an explanation and instructions to the user as to the host product labelling requirements.

## 4.        Required Notices to the User

Radio/broadcast products shall comply with the requirements to include required notices and/or statements to the user of the product for each unit of the product offered for sale. The required notices shall comply with the following requirements:

- The notices shall be as specified in the applicable RSS regulation(s) to the product.

- These notices shall be shown in a conspicuous location in the user manual for the product, or to be displayed on the product — variable formats are acceptable for providing the notices (i.e. in paper form, CD, DVD, or insert with download link on the company's website).

- If more than one notice is required for multiple product versions, the product version to which each notice pertains should be identified.

- The suppliers of radio equipment shall provide the notices and/or statements in both English and French.

- In cases where the user notifications are only available in one language (English or French) at the time of the certification process, the applicant shall provide a declaration in writing that the user notices and/or statements to the user of the product will be in both English and French when the product is for sale and/or lease in Canada.

## 5.        Host/Modular Product Requirements

### 5.1        General

Modular approval permits the installation of a certified module in a host product or multiple host products without the need to certify the host product provided that the combination of the host/module(s) meets the requirements of the applicable Innovation, Science and Economic Development Canada regulations.

Radio equipment designed as modules for installation in a host product may obtain product certification as modular products provided that they meet the applicable RSS(s) requirements and comply with the modular requirements detailed below.

### 5.2        Host Product Requirements

The module(s) shall be integrated into host products per the requirements/instructions for intended use/configuration as detailed by the module certificate holder.

The host product and all the separately certified modules therein shall jointly meet the radio frequency (RF) exposure compliance requirements of RSS-102.

Host products shall be labelled according to requirements of Section 3.2 and associated modules shall be labelled according to the requirements of Section 3.1.

### 5.3        Modular Approval (MA) and Limited Modular Approval (LMA) Requirements

The applicant can obtain MA or LMA certification for a module intended to be installed in a host product.

#### 5.3.1        Modular Approval (MA)

For MA certification, the module shall meet all of the requirements as detailed in Annex D.
Annex D shall be submitted with the modular certification application.

#### 5.3.2        Limited Modular Approval (LMA)

LMA may be granted when a module does not meet with one or more modular approval requirements as detailed in Annex D.

LMA will also be issued in those instances where applicants can demonstrate that they will retain control over the final installation of the product, such that compliance of the end product is assured. In such cases, an operating condition on the LMA for the module must state that the module is only approved for use in a specific host.

When LMA is sought, Annex D must 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.

The applicant is permitted to obtain LMA for any module even though the module meets all the requirements of MA. The applicant shall state the reason in Annex D. Annex D shall be submitted with the modular certification application.

## 6.       Product Family Certification Requirements

The multiple versions of a product design are permitted to be certified under a single family certification with one ISED certification number provided that all the product variants within a product family application are compliant with the following requirements:

- The enclosure and general appearance of all product versions in a family shall be identical except for enclosure colour and/or minor external cosmetic differences.

- 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.

- A new version of a certified product may have minor PCB modifications to improve existing bands/technologies and/or add non-RF features.

- All the product versions within the product family application shall be identical or have differences permitted under Class I and III permissive changes.

- An agreement/approval has been obtained from Innovation, Science and Economic Development Canada prior to submitting certification application for an exceptional circumstance where the difference between the products under family certification falls under Class II permissive changes.

### 6.1       Exemptions

Some telephone systems consisting of a base station and wireless handset(s) require radio certification and terminal registration. Innovation, Science and Economic Development Canada will accept one ISED certification/ registration number under family certification/registration for a base telephone unit and one or more wireless handsets sold with the base unit. The base unit and the handset cannot have identical HVIN. Only identical handsets are permitted to share the same HVIN. Dissimilar products being sold together as a system (e.g. baby monitor systems or speaker systems) will no longer be accepted by

Innovation, Science and Economic Development Canada under a family certification; a unique certification number is required for each transmitter.

# 7. Modification of Certified Products

## 7.1 General

Any modifications to a certified product may require recertification with Innovation, Science and Economic Development Canada. The certificate holder shall inform the certification body or Innovation, Science and Economic Development Canada of any changes that may affect compliance with the technical requirements of the regulations under which the product was originally certified. For modifications as per the various permissive changes listed below in this section, the Product Certification Services (Section 8) shall be used as appropriate to ensure that the modified product remains compliant to the applicable Innovation, Science and Economic Development Canada regulations.

## 7.2 Class I Permissive Changes (C1PC)

In the context of Section 7.1, the following changes under C1PC are permitted:

- hardware modifications and/or firmware/software modifications that do not change the fundamental RF characteristics and that do not degrade the unwanted emissions of the product

- modifications that do not change external or internal mechanical characteristics significantly enough to require new photographs to identify the modified product

Note: Class I modifications do not require notification to Innovation, Science and Economic Development Canada unless the HVIN or PMN is modified as well; however, for the Class I modifications, the certificate holder must ensure that the product continues to remain compliant as per the original attestation of RSS-102 on file with the Department.

## 7.3 Class II Permissive Changes (C2PC)

In the context of Section 7.1, the following changes under C2PC are permitted:

- hardware modifications to the certified product that do affect fundamental RF characteristics and/or do degrade the unwanted emissions of the product

- modifications to a certified product that do change the RF characteristics, but not beyond the requirements established in the applicable RSS regulations in the original certification

- modifications that do change external or internal mechanical characteristics significantly enough to require new photographs to identify the modified product

- any change to the PMN or HVIN of the certified product

● The addition of new bands with hardware modification is not permitted; refer to C3PC for adding new bands with firmware change.

Note: All Class II modifications require notification to Innovation, Science and Economic Development Canada.

## 7.4    Class III Permissive Changes (C3PC)

In the context of Section 7.1, the following changes under C3PC are permitted:

- firmware modifications to a certified product that affect the RF characteristics of a certified product (a new and unique FVIN must be provided for such modifications)

- firmware modifications to enable new frequency bands but without hardware modification (A new and unique FVIN must be provided for such modifications.)

**Note:**   Class III modifications require notification to Innovation, Science and Economic Development Canada.

## 7.5    Class IV Permissive Changes (C4PC)

● In the context of Section 7.1, the following changes under C4PC are permitted:

- a certified module(s) (LMA or MA) that is integrated into a new host product, which results in changes to the original reported RF emissions characteristics and/or RF exposure evaluation

- a certified module(s) (LMA or MA) that is integrated into a new host product where a new RF exposure information/evaluation (as per RSS-102) and/or RF emissions information needs to be updated with Innovation, Science and Economic Development Canada.

Note: Class IV modifications (permitted with or without firmware modification) require notification to Innovation, Science and Economic Development Canada and the HMN must be provided.

## 8.    Product Certification Services

### 8.1    General

The following sections have been prepared to assist the applicant when applying for product certification services.

● Requirements of key fields:

- **PMN** — The Product Marketing Name (PMN) is optional at the time of the certification, but

must be provided (if the product has a PMN) before the product is listed in REL and made available on the Canadian market.

- **HVIN** — The Hardware Version Identification Number (HVIN) replaces the ISED Model Number in the legacy E-filing System. (An HVIN is required for all products for certification application. As the HVIN is required to be on the product label or accessible through e-labelling, any changes to the HVIN will require changes to the product label and/or e-labelling).

- **FVIN** — The Firmware Version Identification Number (FVIN) must be provided as appropriate (if the product does not require firmware for operation, "N/A" shall be entered as FVIN).

- **HMN** — The Host Marketing Name (HMN) must be provided when the module requires a host product for RF and/or SAR/RF exposure testing.

- **Equipment Description** — A brief description of the type of product is required.

- **Band Class and Technology** — The online application system requires the band class and technology information for some types of devices. This information must be provided when prompted.

## 8.2 New Single/Family Certification Service

### 8.2.1 New Single Product Certification Application

A new single product certification application for a single product version shall comply with the following requirements:

- A new single certification may be granted to products (final product or module) provided that the applicant has never been granted certification for the assigned HVIN or ISED certification number in the application.

- The PMN may be identical to the HVIN and vice versa.

- The FVIN must be provided if applicable; "N/A" can be entered as the FVIN.

- The HMN is only required for modular certifications when module compliance was assessed in a host.

- Documents must be submitted as per Annex C.

### 8.2.2 New Product Family Certification Application

A new product family certification application consisting of multiple versions of a product shall comply with the following requirements:

- A new family certification may be granted to products (final products or modules) provided that the applicant has never been granted certification for the assigned HVIN(s) or ISED certification number in the application.

- At least one field (PMN, HVIN or FVIN) must be unique to identify the different versions of the product for new family certification.

- Family certification information documents must list the PMN, HVIN and FVIN of all the product versions within the application to explain in detail the hardware and/or software similarities/differences (RF characteristics, circuitry design, function capabilities, etc.) between all the versions.

- If the FVIN is the only differentiation between product versions (i.e. the PMN and HVIN remain identical) within the family certification application, then the FVIN must be provided.

- The HMN is only required for modular certifications when module compliance was assessed in a host.

- Documents must be submitted as per Annex C.


## 8.3     Additions/Modifications to Existing Certification Service

### 8.3.1    Add New Product/Product Modifications (C1PC, C2PC) to Existing Certification Application

The Add New Product/Product Modifications (C1PC, C2PC) to Existing Certification Application shall comply with the following requirements:

- The PMN, HVIN or FVIN may be identical or different from the existing certified version(s) of the product, and if the application contains two or more product versions, the product versions must have at least one unique field (PMN, HVIN or FVIN) to identify different versions.

- The HMN is only required for modular certifications when module compliance was assessed in a host.

- Any permitted modifications (hardware or software) to the original certified product which may affect the RF must be supported by a test report with full or partial testing.

- The modifications to the existing certified product shall comply with the requirements of Class I and II permissive changes.

- The documents shall be submitted as per Annex C and shall include:

    o   a detailed description of the firmware/hardware changes/differences (RF characteristics, circuitry design and functional capabilities) between different versions of the product, which may be detailed with photographs, block diagrams,

schematics and product literature

- o   a brief statement as to how the modifications to the product meet the Class I and/or Class II modification requirements and/or family certification requirements.

### 8.3.2   Product Modification (C3PC) Application

A Product Modification (C3PC) Application shall comply with the following requirements:

- The PMN and HVIN must remain identical to the existing certified product, whereas a new and unique FVIN must be provided.

- Detailed information in the "Modification Information" documents shall include, but not be limited to:

  - o   a detailed description of the RF characteristics and/or functional changes to the certified product due the firmware change

  - o   a brief statement as to how the modifications meet the Class III modification requirements

- Documents must be submitted as per Annex C.

### 8.3.3   Product Modification (C4PC) Application

A Product Modification (C4PC) Application shall comply with the following requirements:

- The SAR/RF exposure testing/evaluation in the new host shall be provided.

- When the module integration affects the RF emissions characteristics, a test report with full or partial testing and updated RF emissions information shall be submitted.

- The HMN must be provided.

- The documents shall be submitted as per Annex C and the provided information shall include details regarding the module integration, including statements regarding changes to module's original reported RF emissions characteristics and/or SAR/RF exposure evaluation/testing.

### 8.4   Multiple Listing of Certification Service

A new Innovation, Science and Economic Development Canada certification may be obtained based on an existing Innovation, Science and Economic Development Canada certification with multiple-listing certification, provided that the following requirements are met:

- The existing certificate holder or another entity/company (new applicant) may request a new ISED certification number based on existing certification of a product.

- The new application shall include a unique ISED certification number for which certification has never been granted to the applicant.

- The selected HVIN, PMN and/or FVIN in the new application may be identical or different from the existing certification provided that the applicant has never obtained certification for the selected HVIN, PMN and FVIN combination in the application.

- The product version(s) in the new application must be identical (C1PC permitted) to the existing certification.

- The "Application Cover Letter" from the new applicant shall include:

  o   product details (ISED certification number, PMN, HVIN, FVIN when applicable) from the existing certification and new application

  o   a declaration that the new product version is identical to the certified product

  o   a declaration that the documents on file with Innovation, Science and Economic Development Canada from the original certification remain unchanged and continue to be valid

- The "Original Applicant Authorization" letter from the existing certificate holder shall include:

  o   product identification details (ISED certification number and PMN, HVIN and FVIN as appropriate) from the existing certification and new application

  o   authorization for the existing certified product to be listed under the new applicant/company

  o   authorization for Innovation, Science and Economic Development Canada officials to use documents on file with the Department from the existing certification

- Documents must be submitted as per Annex C.


## 8.5       Transfer of Certification

### 8.5.1     Full Transfer of Certifications (Company Takeover)

This application service is applicable when one company takes over another company, for which the following requirements must be met:

- The new company/applicant must assume all of the responsibilities associated with all existing certifications from the existing certificate holder and shall provide a signed statement to that effect.

- The new applicant shall submit a copy of a signed letter from the current certificate holder, authorizing Innovation, Science and Economic Development Canada's Certification Bureau

to transfer the certificate ownership from the current certificate holder to the new applicant and change the certificate file information to reflect the new certificate holder's information.

- The HVIN and ISED certification number shall remain unchanged.

- Documents must be submitted as per Annex C.

## 8.5.2 Partial Transfer of Certifications (Product Line Takeover)

This application service is applicable when one company takes over one or more product line(s), but not all of the product lines from another company. In such cases, the following requirements must be met:

- For the product line(s) being transferred, the new company/applicant must assume all of the responsibilities associated with the existing certifications from the existing certificate holder and shall provide a signed statement to that effect.

- If all the certified products associated with the particular Company Number (123A-1234, 123A is CN) are subject to transfer, then the new applicant/company has the option of retaining the existing ISED certification number(s) and HVIN(s); alternatively, going forward, the new applicant/company may assign new ISED certification number(s) to all the transferred product lines.

- The new applicant shall submit a copy of a signed letter from the existing certificate holder, authorizing Innovation, Science and Economic Development Canada to transfer the certificate ownership to the new applicant and change the certificate file information to reflect the new certificate holder's information.

- Documents must be submitted as per Annex C.

## 9. Certification Retention and Audits

### 9.1 Manufacturers, Importers, Distributors and Vendors

Manufacturers, importers, distributors and vendors have a regulatory obligation to ensure that the product has been certified or declared to comply with Canadian regulatory requirements and is registered with the Department before it enters the Canadian marketplace and that the products sold in the Canadian marketplace continues to meet the applicable standards throughout its entire life cycle. Where testing shows that product does not comply with an applicable standard, these entities are responsible for taking prompt and effective remedial action.

### 9.2 Post-Certification Audits, Investigations and Quality Control

Post-certification audits will be conducted by the Bureau and the CB in order to ensure continuing compliance. The Department or the CB may request, from a certificate (TAC) holder, random radio product samples at the TAC holder's expense for post-certification audit testing, or as a result of radio interference complaints and the certificate holder must comply with such a request. In the event of an investigation of non-compliance, the TAC holder will be asked to provide to the Department with

records of the quality control process, as well as any relevant information that would help to identify issues related to compliance. It is expected that all TAC holders will be able to demonstrate a quality control process used for production inspection and testing in accordance with good engineering practices.

## 9.3      Remedial Action

Where, as a result of post-certification audit or other information obtained by the CB or by the Department, a certified radio apparatus fails to meet RSP-100 requirements or the applicable technical standard, or where there is reasonable evidence that a certified product is creating electromagnetic interference, or not operating in accordance with the parameters described on the certificate, the certificate (TAC) holder will be required to take remedial action.

## 9.4      Disclosure of Information

The applicant shall indicate which information and documents furnished in support of an application for certification are confidential. The provisions of the *Access to Information Act* apply to all applicants.

Files provided to the Bureau in the following exhibit types qualify for confidential treatment:

- block diagrams

- operational description

- parts lists and tune-up information

- SDR software and security information

- schematic diagrams

For files of other exhibit types, Innovation, Science and Economic Development Canada may consider treating them as confidential if the applicant submits a request with appropriate justification before the application for certification is submitted to the Department or a CB.

## 10.     Glossary of Commonly Used Terms and Definitions

| Term | Definition |
|---|---|
| certification | The process by which equipment is entered in the *Radio Equipment List* (REL) to signify that a product is certified. |
| certification body (CB) | A foreign certification body that is designated under an international agreement, convention or treaty to which Canada is party and that is recognized by Canada under that agreement, convention or treaty as competent to certify equipment, to the effect that the equipment complies with the applicable standards; or<br>a Canadian certification body that meets the requirements set out in requirements for certification bodies, as amended from time to time, |

| | published by Innovation, Science and Economic Development Canada. |
|---|---|
| **Department** | The Department means Innovation, Science and Economic Development Canada. |
| **equipment** | The equipment refers to radio apparatus and broadcasting equipment. |
| **Equipment Description** | A key field in which a brief description of the type of equipment is required. |
| **Firmware Version Identification Number (FVIN)** | The FVIN identifies the firmware version used by the product, which controls/affects the RF characteristics of the product. |
| **Hardware Version Identification Number (HVIN)** | The HVIN identifies hardware specifications of a product version. The HVIN replaces the ISED Model Number in the legacy E-filing System. An HVIN is required for all products for certification applications. |
| **Host Marketing Name (HMN)** | The HMN is the name or model number of a final product, which contains a certified radio module. |
| **product(s)** | The product(s) refer to radio apparatus and broadcasting equipment. |
| **Product Marketing Name (PMN)** | The PMN is the name or model number under which the product will be marketed/offered for sale in Canada. If the product has PMN, it must be provided. |
| *Radio Equipment List (REL)* | A list of certified radio and broadcasting equipment maintained by Innovation, Science and Economic Development Canada, signifying that the equipment has been certified; therefore, the supplier is permitted to manufacture, import, distribute, lease, offer for sale, sell, install or use this equipment in Canada. |
| **supplier** | A generic term for an entity, such as the manufacturer, reseller, distributer, importer or other agent of equipment. |
| **testing laboratory** | A laboratory that performs tests (see the latest version of ISO/IEC Standard 17025). |
| **Unique Product Number (UPN)** | The UPN is assigned by the applicant, made up of a maximum of 11 alphanumeric characters (A-Z, 0-9). |

# Annex A — Application and Agreement for Certification Services

| Certification Applicant | | | |
|---|---|---|---|
| Company Name: | | Contact Name: | |
| ISED Company Number: | | Telephone: | |
| Company Address: | | Fax: | |
| | | Email: | |

| Canadian Representative | | | |
|---|---|---|---|
| Company Name: | | Contact Name: | |
| ISED Company Number: | | Telephone: | |
| Company Address: | | Fax: | |
| | | Email: | |

| Product Information | | | | |
|---|---|---|---|---|
| Product Description: | | ISED Company Number: | | |
| PMN: | | UPN: | | |
| HVIN: | | FVIN: | | |
| RSS(s) and Issue #: | | | | |
| Type of Certification Service: | □ New Single Certification<br><br>□ New Family Certification<br><br>□ Existing Family/Modifications (C1PC, C2PC)<br><br>□ Modifications (C3PC, C4PC)<br><br>□ Multiple Listing<br><br>□ Full Transfer of TAC<br><br>□ Partial Transfer of TAC | | HMN: | □ MA<br>□ LMA |

| Payment Information and Authorization | | | |
|---|---|---|---|
| Payment Amount ($): | | Payment Method: | □ Cheque<br>□ Credit Card |
| Cardholder / Payment By: | □ Applicant<br>□ Representative | Credit Card Type: | □ Visa □ MC<br>□ AMEX |
| Name on the Card: | | Card Number: | |
| I agree to pay the total amount stated above in accordance with the credit cardholder's agreement. | | | |
| Cardholder Signature: | | Card Expiry Date: | |

| Application Agreement Signature | | | |
|---|---|---|---|
| **The Applicant agrees to:**<br>I.  accept responsibility for all departmental charges arising from this application;<br>II.  meet all requirements in accordance with Radio Standards Procedure RSP-100 and other applicable procedures;<br>III.  warrant that the test results submitted are a true representation of the characteristics of the equipment type for which certification is requested; and<br>IV.  inform the Bureau of any changes to the information submitted. | | | |
| Contact Name:<br>  □ Applicant<br>or<br>  □ Authorized Agent | | Contact Person Title and Company Name: | |
| Signature: | | Signature Date: | |

## Annex B — Test Report Cover Sheet

| Product Information | | | |
|---|---|---|---|
| PMN: | | ISED Company Number: | |
| HMN: | | UPN: | |
| HVIN: | | Used ISED Test Site(s) Reg. #: | |
| FVIN: | | SAR Lab Company Number: | |

| Emissions Information | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Band 1 | Band 2 | Band 3 | Band 4 | Band 5 | Band 6 | Band 7 | Band 8 |
| RSS # and Issue # | | | | | | | | |
| Frequency Minimum (MHz) | | | | | | | | |
| Frequency Maximum (MHz) | | | | | | | | |
| RF Power Minimum (W) Conducted/EIRP/ERP | | | | | | | | |
| RF Power Maximum (W) Conducted/EIRP/ERP | | | | | | | | |
| Field Strength Units@distance | | | | | | | | |
| Measured BW (kHz) (99%, 26 dB, 6 dB, etc.) | | | | | | | | |
| Calculated BW (kHz) As per TRC-43 | | | | | | | | |
| Emission Classification (F1D, G1D, D1D, etc.) | | | | | | | | |
| Transmitter Spurious Units@distance | | | | | | | | |
| | Band 9 | Band 10 | Band 11 | Band 12 | Band 13 | Band 14 | Band 15 | Band 16 |
| RSS # and Issue # | | | | | | | | |
| Frequency Minimum (MHz) | | | | | | | | |
| Frequency Maximum (MHz) | | | | | | | | |
| RF Power Minimum (W) Conducted/EIRP/ERP | | | | | | | | |
| RF Power Maximum (W) Conducted/EIRP/ERP | | | | | | | | |
| Field Strength Units@distance | | | | | | | | |
| Measured BW (kHz) (99%, 26 dB, 6 dB, etc.) | | | | | | | | |
| Calculated BW (kHz) As per TRC-43 | | | | | | | | |
| Modulation Type | | | | | | | | |
| Emission Classification (F1D, G1D, D1D, etc.) | | | | | | | | |
| Transmitter Spurious Units@distance | | | | | | | | |

| Agreement Signature | | | |
|---|---|---|---|
| ATTESTATION: The test measurements were made in accordance with the above-mentioned departmental standard(s), and the equipment identified in this application has been subject to all the applicable test conditions specified in the departmental standards and all of the requirements of the standards have been met. | | | |
| Applicant / Agent Name: | | Applicant / Agent Title: | |
| Applicant / Agent Signature: | | Signature Date: | |

## Annex C — Document Checklist for Certification

The following documents shall be submitted with the certification application depending on the Type of Certification Service(s) listed at the bottom of the table. Please review the details below the table for guidance.

| Description of Required Document(s) | Type of Service |
|---|---|
| Application Cover Letter: A letter with explanation of the type of certification service requested and brief description of the radio equipment. | All |
| RSP-100, Annex A: A completed and signed copy. | All |
| RSP-100, Annex B: A completed and signed copy. | All |
| RSS-102, Annex A/B or C: A completed and signed copy of Annex A and Annex B, or Annex C of RSS-102, *Radio Frequency (RF) Exposure Compliance of Radiocommunication Apparatus (All Frequency Bands)*. | All |
| Canadian Representative Letter: The applicant-Canadian Representative agreement signed by the Canadian Representative. | All |
| Agent/Authorization Agreement: If the applicant has authorized another entity for legal representation on its behalf, this agreement shall be submitted. | All |
| Certificate: If a new or revised certification certificate has been issued by a CB for the product(s), a copy of the issued certificate shall be submitted. | All |
| RSP-100, Annex D: A completed and signed copy required for modular certifications only | All* |
| Radio Test Report: A detailed test report meeting the technical requirements of the applicable Radio Standards Specification (RSS) and/or BETS. | All* |
| RSS-102 Compliance: SAR Test Report or RF Evaluation for the product. | All* |
| Photos: Internal and External photos of the product versions in the application. | All* |
| Product manual with applicable user notifications and operational description. | All* |
| Schematics and Block Diagrams. | All* |
| Product Label: physical label and label location photo(s) or illustration of the product label. | All* |
| Confidentiality Request: A letter identifying the confidential documents. | All* |
| Family Certification Information: A letter/diagrams/photos explaining/showing the similarities and differences between the versions of the product. May include schematics/diagrams/photos if necessary. | 2,3 |
| Modification Information: A signed letter explaining/showing the changes to the existing version of the product. May include schematics/diagrams/photos if necessary. | 3,4 |
| Original Applicant Authorization: A letter signed by original applicant authorizing new applicant to certify the product for multiple listing or transfer of TAC. | 5,6 |

All – The requirement applies to all 1, 2, 3, 4, 5, 6 types of certification services listed below.

\* For all types of applications, if this document is identical to the document with the original filing, the document can be omitted.
1 – New Single Product Certification; 2 – New Product Family Certification; 3 – Add New Product to Existing Family/(C1PC, C2PC); 4 – Modifications/(C3PC, C4PC); 5 – Multiple Listing of Certification; 6 – Full/Partial Transfer of Certification

## Annex D — Modular Approval Attestation

| Product Information | | | |
|---|---|---|---|
| PMN: | | FVIN: | |
| HMN: | | ISED Company Number: | |
| HVIN: | | UPN: | |

### Modular Checklist/Information

For **Modular Approval**, the module shall meet all the requirements listed below. Please check (☑) if the module complies with the stated requirement.

- ☐ The radio elements shall have the radio frequency circuitry shielded. Physical/discrete and tuning capacitors may be located external to the shield, but must be on the module assembly.
- ☐ If the module has modulation/data input(s), they shall be buffered in order to ensure that the module will comply with the requirements set out in the applicable Radio Standards Specification (RSS) under conditions of excessive data rates or over-modulation.
- ☐ The module shall have its own power supply regulation on the module itself. This is to ensure that the module will comply with the requirements set out in the applicable standard regardless of the design of the power supplying circuitry in the host product which houses the module.
- ☐ The module shall comply with the provisions for external power amplifiers and antennas detailed in the applicable RSS. The equipment certification submission shall contain a detailed description of the configuration of highest antenna gain for each type of antenna.
- ☐ The module shall be tested for compliance with the applicable standard in a stand-alone configuration, i.e. the module must not be inside another product during testing.
- ☐ The module complies or will comply with applicable RSS-102 exposure requirements in its intended configuration/integration in a host.

If a module(s) does NOT meet one or more of the above requirements, the applicant may request Limited Modular Approval (LMA). For LMA, provide details regarding why the above requirement(s) could not be met; and state how control of the end product, into which the module will be installed, will be maintained by the applicant/manufacturer, such that full compliance of the end product is always ensured:

| Applicant/Agent Name: | | Applicant/Agent Title: | |
|---|---|---|---|
| Applicant/Agent Signature: | | Signature Date: | |