



Spectrum Management and Telecommunications

Interference-Causing Equipment Standard

General Requirements for Compliance of Interference-Causing Equipment

Preface

Interference-Causing Equipment Standard ICES-Gen, issue 2, *General Requirements for Compliance of Interference-Causing Equipment*, replaces ICES-Gen, issue 1, published in July 2018 and amended in February 2021.

Listed below are the main changes:

1. clarified the definition for “residential environment”; added definitions for “composite equipment”, “host equipment”, “multifunction equipment”, and “supplier”; and corrected the definition for “standard test voltage” (section 2)
2. specified a transition period for this standard (section 3.1)
3. updated the requirements for host equipment (sections 3.6, 4.1 and 6.3.4)
4. clarified requirements for accessories (section 4.3)
5. added calibration requirements for measurement equipment (section 4.5)
6. clarified the requirements for DC- and AC-operated equipment, as well as external power supplies (sections 4.7 and 4.8)
7. clarified requirements for the user manual (section 6.2)
8. added QR code labelling (section 6.3.1)
9. clarified the procedure for obtaining approval to place the label in the user manual (section 6.3.2)
10. simplified the required ISED label (section 6.3.3)
11. clarified the label requirements for host equipment (section 6.3.4)
12. clarified the requirements for electronic labelling (annex B)
13. made editorial changes and clarifications, as appropriate

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Issued under the authority of the Minister of Innovation, Science and Industry

Martin Proulx
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1. Scope

This Interference-Causing Equipment Standard (ICES) sets out the general requirements applicable to interference-causing equipment.

ICES-Gen shall be used in conjunction with the ICES standard applicable to the specific type of interference-causing equipment for assessing the equipment's compliance with Innovation, Science and Economic Development Canada (ISED) requirements.

Where requirements in ICES-Gen are different from those in the applicable ICES standard, the applicable ICES standard shall take precedence.

2. Definitions

The following is a list of terms commonly used in ICES standards and their associated definitions.

Category I equipment: Equipment that requires a technical acceptance certificate (TAC) issued by ISED's Certification and Engineering Bureau, or a certificate issued by a recognized certification body, pursuant to subsections 4(2) of the [Radiocommunication Act](#) and 21(1) of the [Radiocommunication Regulations](#).

Category II equipment: Radio apparatus, broadcasting equipment, or interference-causing equipment that is exempt from certification (does not require a TAC or a certificate issued by a certification body), pursuant to subsection 21(5) of the [Radiocommunication Regulations](#).

Class A: Equipment that is, by virtue of its characteristics, highly unlikely to be used in a residential environment, including a home business. Characteristics considered in this assessment include price, marketing and advertising methodology, the degree to which the functional design inhibits applications suitable to residential environments, or any combination of features that would effectively preclude the use of such equipment in a residential environment. Also used for denoting the corresponding emission limits applicable to such equipment.

Class B: Equipment that cannot be classified as Class A; also used for denoting the corresponding emission limits applicable to such equipment.

Composite equipment: Equipment that incorporates two or more units of other equipment, either in the same enclosure or in separate interconnected enclosures, some or all of which are already on the Canadian market and in compliance with the applicable ISED standard(s). Components (i.e. unfinished products) are not "units of equipment" in the sense used in this definition.

Emission: Electromagnetic transmission through radiated means by an electric or electronic device, or conducted by such a device through its attached wired interfaces. These emissions can be either intentional or unintentional.

Host (or host equipment): Final product that, based on its main function or functions, is classified as an interference-causing equipment, but incorporates one or more radio apparatus modules and/or radio apparatus subassemblies/subcircuits.

Intentional radiator: A device that intentionally generates and emits radio frequency energy by radiation or induction. This can be interference-causing equipment (e.g. industrial, scientific or medical equipment) or radio apparatus (of Category I or Category II).

Interference-causing equipment: Device, machinery or equipment, other than radio apparatus or terminal equipment, that causes or is capable of causing interference to radiocommunication.

Main function (main operation mode): Function (operation mode) of a device, as declared by the manufacturer in the product documentation or marketing material.

Multifunction equipment: Equipment, whether composite or not, that is capable of multiple functions or modes of operation.

Radiation: The outward flow of electromagnetic energy from a source in the form of radio (electromagnetic) waves.

Radio apparatus: A device or combination of devices intended for, or capable of being used for, radiocommunication.

Radio apparatus module: A radio apparatus that cannot function by itself and must be incorporated in another (host) device to be able to operate. Such a module can be manufactured, marketed and certified (if it is Category I) by a third party.

Radio apparatus subassembly/subcircuit: A circuit or assembly that provides a radio apparatus function to a more complex device (i.e. which also includes functions other than radiocommunication) and is an integral and inseparable part of that device (e.g. on the same printed circuit board as the rest of the device circuitry).

Radiocommunication (or radio): Any transmission, emission or reception of signs, signals, writing, images, sounds or intelligence of any nature by means of electromagnetic waves of frequencies lower than 3000 GHz propagated in space without artificial guide.

Residential environment: Environment for people to live in, such as a house, an apartment (including a hotel room), or a recreational vehicle. In the case of a house, the residential environment also includes:

- associated structures (such as a porch, garage or shed) that are attached to the main building
- the area around the house that is part of the same property, up to 10 m in all directions around the house
- associated structures (such as a garage or shed) that are detached from the main building, but part of the same property and within 10 m of the house

Standard test voltage: The primary voltage applied to the input end of the power cable normally connected to the equipment. It shall be within $\pm 5\%$ of the value stated by the manufacturer to be the rated (nominal) voltage.

Supplier: Person or entity located in Canada that is involved in one of the activities listed in subsections 4(2) and/or 4(3) of the [Radiocommunication Act](#), i.e. manufacture, importation, distribution, lease, offering for sale, and sale.

Terminal equipment: Equipment that connects to the public switched telephone network (PSTN) via physical wire connection to provide telecommunication services.

Terminal equipment subassembly/subcircuit: A circuit or assembly that provides a terminal equipment function to a more complex device (i.e. which also includes functions other than terminal equipment) and is an integral and inseparable part of that device (e.g. on the same printed circuit board as the rest of the device circuitry).

Unintentional radiator: A device that generates radio frequency (electromagnetic) energy intended either for use inside the device or for transmission through interconnecting cables to another device or a cabled network, where that energy is not intended to be radiated outside the device.

3. General requirements

This section specifies the general requirements related to this standard.

3.1 Transition period

This section specifies the conditions related to the transition period, both in general (for any ICES standard) and particular to this edition of ICES-Gen.

3.1.1 General

When an ICES standard (including ICES-Gen) is reissued, the transition period stated within the new issue of that standard shall apply. In general, within the transition period, compliance with both the existing issue and the new issue is acceptable. After the transition period expires, the equipment, if still manufactured, imported, distributed, leased, offered for sale, or sold in Canada, shall comply with the new issue of the applicable ICES standard.

3.1.2 Transition period for this document

A transition period is provided, ending one year after the publication of this standard on ISSED's website, within which compliance with either issue 1 or issue 2 of ICES-Gen is accepted. A copy of issue 1 of ICES-Gen may be requested by emailing consultationradiostandards-consultationnormesradio@ised-isde.gc.ca.

3.2 Normative references

This standard refers to the following publications:

- CISPR 16-1-1:2014-06, *Specification for radio disturbance and immunity measuring apparatus and methods — Part 1-1: Radio disturbance and immunity measuring apparatus — Measuring apparatus* (Edition 3.2)
- CISPR 16-1-1:2019-05, *Specification for radio disturbance and immunity measuring apparatus and methods — Part 1-1: Radio disturbance and immunity measuring apparatus — Measuring apparatus* (Edition 5.0)
- ANSI C63.25.1, *American National Standard Validation Methods for Radiated Emission Test Sites, 1 GHz to 18 GHz*

The CISPR 16-1-1 standards are available, for example, from the [IEC \(International Electrotechnical Commission\) webstore](#).

For the ANSI C63.25.1, the edition adopted by ISED shall be used, as posted on the [Normative Test Standards and Acceptable Alternate Procedures](#) web page. This standard is available, for example, from the [ANSI \(American National Standards Institute\) webstore](#).

3.3 Supplier's Declaration of Conformity

The Supplier's Declaration of Conformity (SDoC) is the conformity assessment scheme used for Category II radio apparatus, some broadcasting equipment, and interference-causing equipment (see the Note below). The supplier (see section 2) tests the Category II equipment and ensures that it meets the appropriate technical standards. The supplier also labels the equipment and fulfils any other administrative requirements as specified in the applicable standards (e.g. user manual notices, test report retention). Equipment testing does not have to be performed by a recognized ISED testing laboratory.

Note: Category II equipment includes interference-causing equipment and certain categories of radio and broadcasting apparatus that do not require certification. See subsection 21(5) of the [Radiocommunication Regulations](#) and the ISED [Category II Equipment Standards List](#).

Category II equipment is exempt from certification and registration. The label placed on each unit of the interference-causing equipment model, according to the applicable ICES standard, represents the SDoC with ISED requirements.

3.4 Determination of interference

As per paragraphs 5(1)(l) and 6(1)(i) of the [Radiocommunication Act](#) and subsections 50(2) and 50(3) of the [Radiocommunication Regulations](#), the following applies to any unit of interference-causing equipment.

Where ISED determines that a model or several models of equipment cause or are likely to cause interference to radiocommunication or suffer from or are likely to suffer from adverse effects of electromagnetic energy, ISED shall give notice of this determination to persons who are likely to be affected by it. No person shall manufacture, import, distribute, lease, offer for sale, sell, install or use equipment for which such a notice has been given.

If ISED determines that a unit of equipment causes or suffers from interference or adverse effects of electromagnetic energy, ISED may order the person(s) in possession or control of the equipment to cease or modify operation of the equipment until such time as it can operate without causing or being affected by such interference or such adverse effects.

3.5 Classification of equipment

Where the applicable ICES standard differentiates between Class A and Class B equipment, the definitions in section 2 shall apply. Equipment classified as Class A shall comply with the Class A limits specified in the applicable ICES standard. Equipment that cannot be classified as Class A shall comply with the Class B limits specified in the applicable ICES standard.

3.6 Host equipment certification requirements

This section only applies to host equipment.

The certification procedures are set out in Radio Standards Procedure RSP-100, [Certification of Radio Apparatus and Broadcasting Equipment](#). The following requirements apply:

- a. If the interference-causing equipment incorporates certified Category I radio apparatus, then the equipment (host) usually does not require certification. Consult RSP-100 to determine if certification of the host is necessary.
- b. If the interference-causing equipment incorporates Category I radio apparatus modules or subassemblies/subcircuits that have not been certified, the combination of interference-causing equipment (host) and radio apparatus modules/subassemblies/subcircuits, i.e. the complete product model, shall be certified.

See also sections 4.1 and 6.3.4 for the additional technical and labelling requirements applicable to host equipment.

3.7 Special authorization

An application for special authorization may be submitted using the process specified in RSP-102, [Special Authorization Procedure for Terminal, Radio, Broadcasting and Interference-Causing Equipment to be Certified, Registered or Deemed in Compliance With Technical Equipment Standards](#).

The special authorization is valid only if both of the following conditions are fulfilled:

- a. if so prescribed in the special authorization letter, the equipment bears a label, either affixed on each unit or displayed electronically by each unit (see [annex B](#) for e-labelling requirements), stating that it is operating under special authorization and setting out the conditions of that special authorization
- b. the equipment complies with all conditions set out in the special authorization

The labelling requirement at [3.7\(a\)](#) above is not to be confused with that in section [6.3](#). The former is only necessary when so prescribed in the special authorization letter, while the latter is necessary at all times, even for equipment that is not subject to a special authorization.

The Minister may revoke or amend the special authorization granted under this section at any time without prior notice.

3.8 Equipment used for demonstration or research purposes

Interference-causing equipment used solely for purposes of research and development, experimentation, demonstration, or assessment of marketability is exempt from the requirement to demonstrate compliance with the applicable ICES standard. Such equipment shall not be leased, sold, or offered for sale in Canada, nor shall it be distributed or imported with the intention to be leased, sold, or offered for sale in Canada.

This section shall not apply to interference-causing equipment that is offered free of charge, for example, universal serial bus (USB) sticks at a conference. While such equipment is not leased, offered for sale, or sold, it is still subject to at least one of the other activities listed in subsection 4(3) of the [Radiocommunication Act](#) and thus subject to the applicable ICES standard.

If the equipment incorporates a radio apparatus module or subassembly/subcircuit, it may be subject to a [developmental licence](#). Inquiries related to licensing may be made through the nearest ISED district office. Contact information is listed in Radio Information Circular RIC-66, [Addresses and Telephone Numbers of District Offices](#).

Each unit of interference-causing equipment that is used solely for purposes of research and development, experimentation, demonstration, or assessment of marketability shall be labelled and its shipping documentation shall be accompanied by the following declaration, in both English and French (e-labelling is not allowed in this case):

- a. Marking on the unit itself:

Demo unit. Not to be leased, sold or offered for sale in Canada.

Matériel de démonstration. Ne doit pas être loué, vendu ou mis en vente au Canada.

- b. Declaration accompanying the unit:

This equipment is a demo unit which is intended for purposes of research and development, experimentation, demonstration, or assessment of marketability. It cannot be leased, sold, or offered for sale in Canada.

Ce matériel est un appareil de démonstration destiné à la recherche et au développement, à l'expérimentation, à la démonstration ou à l'évaluation de son potentiel commercial. Il ne peut être loué, vendu ou mis en vente au Canada.

4. Technical requirements

This section specifies the technical requirements.

4.1 Host equipment

If host equipment contains certified radio apparatus module(s), these shall be integrated into the host equipment as per the requirements and instructions for intended use/configuration provided by the radio apparatus module certificate holder.

The host equipment including its incorporated radio apparatus modules (i.e. the final product) shall meet all applicable requirements set out in Radio Standards Specification RSS-Gen, [General Requirements for Compliance of Radio Apparatus](#), including the radio-frequency exposure compliance requirements in RSS-102, [Radio Frequency \(RF\) Exposure Compliance of Radiocommunication Apparatus \(All Frequency Bands\)](#).

See also sections 3.6 and 6.3.4 for the additional certification and labelling requirements applicable to host equipment.

4.2 Composite and multifunction equipment

This section specifies the technical requirements applicable to composite and multifunction equipment other than host equipment. The following are examples of such equipment:

- a large advertising panel made of multiple units of a specific large-screen monitor is composite equipment, but not necessarily multifunction equipment
- a vending machine equipped with a point of sale device that is produced by a company other than the vending machine's manufacturer is both composite and multifunction equipment

- a light-emitting diode (LED) lamp capable of colour shifting is multifunction equipment (as it has both an illumination function and a digital apparatus function), but not composite equipment

Composite equipment is subject to and shall comply with the applicable ICES standard or standards. This requirement applies for all composite equipment, even if made of units of equipment all of which are already compliant with the applicable ICES standard or standards.

Note: While each individual unit would have been verified to comply with the applicable emissions limits, the combination of multiple such units may result in higher emissions. As such, the composite equipment needs to be verified for compliance with the applicable requirements.

Multifunction equipment may be subject to more than one ICES standard. The equipment shall comply with the ICES standard or standards applicable to each mode of operation or function when that mode or function is active. The compliance evaluation shall consider simultaneous modes of operation or functions, where such simultaneous operation can be employed by the end-user per the intended use of the equipment, as specified by the manufacturer. In this case, instead of testing each combination of simultaneous functions, emissions maximization investigations may be performed to determine the mode of operation (with one or multiple functions operated at the same time) that corresponds to the highest emission relative to the applicable limit(s); the final compliance measurement shall then be performed with the equipment in that mode of operation.

4.3 Accessories

This section only applies to accessories that include active electronic circuitry or components capable of generating electromagnetic emissions, either conducted along its attached cables or wires, or radiated from its enclosure. Examples include chargers for camcorder or camera batteries, mains power adapters, USB fingerprint readers, laptop docking stations and USB barcode scanners.

In principle, an accessory device is subject to the standard applicable to the main product, regardless of whether it is supplied with the equipment or marketed separately but intended for use with that equipment. Unless otherwise stated in the ICES standard applicable to the main product, the accessory shall comply with that same ICES standard. In cases where the accessory has additional functions that are not directly related to the operation of the main product, the requirements of section 4.2 also apply.

4.4 CISPR quasi-peak and CISPR average detectors

The CISPR (International Special Committee on Radio Interference) quasi-peak detector and CISPR average detector shall comply with the characteristics specified in CISPR 16-1-1:2019-05. However, for the response to pulses of the receiver with average detector, a tolerance of +2.5 dB/-0.5 dB on the sine-wave voltage for the amplitude response and a tolerance of +3 dB/-1 dB for the variation with repetition frequency (as per CISPR 16-1-1:2014-06) may be applied instead of the corresponding tolerance limits specified in CISPR 16-1-1:2019-05.

As an alternative to CISPR quasi-peak or average measurement, compliance with emission limits may be demonstrated using a measuring instrument employing a peak detector function properly adjusted for factors such as pulse desensitization, as required, with a measurement bandwidth equal to or greater than the applicable CISPR bandwidth (i.e. the measurement bandwidth specified for the applicable limit).

4.5 Calibration of measurement equipment

Measurement equipment used for compliance emission measurements shall be calibrated at regular intervals, the maximum length of which shall not exceed any of the following:

- a. three years
- b. the required time period specified in the applicable ICES standard or the normative references listed therein
- c. the required time period between calibrations, as specified by the manufacturer of the measurement equipment

4.6 Radiated emissions test site

Test sites used for compliance radiated emission measurements shall meet all requirements for construction and site validation specified in the normative test methods listed in the applicable ICES standard. However, tests sites used for measurements above 1 GHz may comply either with the requirements specified in the applicable ICES standard or in ANSI C63.25.1.

The test site validation shall be confirmed at regular intervals, according to the normative standard listed in the applicable ICES standard, but at least once in any three-year period. The date of each radiated emissions test documented in the test report shall be at most three years (or the required shorter time period, if so specified in the applicable ICES standard or the normative references listed therein) after the date of the most recent successful test site validation.

These requirements apply for each frequency range where radiated emissions limits are specified, if site validation requirements exist.

4.7 Battery, direct current (DC) or alternating current (AC) mains operation

This section specifies the technical requirements applicable to interference-causing equipment based on the type of power supply, which can be external or internal to the equipment.

4.7.1 Battery powered without wired recharge capability

The AC mains (power lines) conducted emissions requirements do not apply to interference-causing equipment that is exclusively powered from a battery and that has no capability to charge or recharge its battery by means of a wired connection to the AC mains (e.g. through an external AC mains power adapter).

In this case, a fully charged battery (or a new non-rechargeable battery) shall be used in the equipment before starting the tests and, for longer tests or between tests, the battery shall be replaced or recharged such that the equipment is operating as intended and is generating worst-case emissions for the entire duration of each test.

4.7.2 Battery powered with wired recharge capability or AC mains powered

If the equipment is AC mains powered and has no backup battery or it is not capable of charging its battery, there is no need to insert a battery into the equipment during the tests. In this case, the equipment shall be tested while powered from AC mains for all test cases.

If the equipment is capable of charging its battery while connected to AC mains, the provisions for multifunction equipment specified in section 4.2 shall apply, since the battery charging is an additional mode of operation. The following requirements apply:

- a. Emission measurements where the battery charging mode is active shall be performed with a discharged or partially discharged battery such that the equipment is in charging mode for the entire duration of each test.
- b. For emission measurements in configurations where the battery charging mode is inactive, a fully charged battery (or a new non-rechargeable battery) shall be used in the equipment before starting the tests and, for longer tests or between tests, the battery shall be replaced or recharged such that the equipment is operating as intended and is generating worst-case emissions for the entire duration of each test.

For equipment that does not directly connect to AC mains, the AC mains conducted emissions shall be measured at the AC mains terminals of the external device (see section 4.7.3).

4.7.3 AC mains powered through another device

If the equipment connects to AC mains through another device (e.g. an external AC mains power adapter) and that external device is not usually supplied with the equipment under test (EUT), then the EUT shall be tested with a typical external device, as per the recommendation provided to end users by the manufacturer (e.g. in the user manual of the equipment), or with a device representative of typical applications (where there are no specific manufacturer's instructions). In this case, the AC mains conducted emissions test case shall be performed on the AC mains power cord of the external device, while this external device is powering the EUT.

4.7.4 DC powered from a DC network

The AC mains (power lines) conducted emissions requirements do not apply to interference-causing equipment that is exclusively powered from a DC network or both from a battery and DC network, such as a 48 V_{DC} network in a telecommunication central office building. However, if the interference-causing equipment is designed to be powered from an external device (e.g. the EUT is a USB flash drive), then AC mains (power lines) conducted emissions requirements apply (see section 4.7.3).

4.8 External power supplies

External power supplies that are marketed independently are usually subject to ICES-001, [Industrial, Scientific and Medical \(ISM\) Equipment](#). However, it is acceptable to apply another ICES standard to the power supply provided that both conditions below are satisfied (see also section 4.3):

- a. the power supply is exclusively intended for use with an interference-causing equipment that is subject to that ICES standard
- b. the power supply has been verified to comply with that ICES standard while being arranged and operated as the EUT; for example, the power supply was tested together with the corresponding tabletop interference-causing equipment (e.g. the power supply of a laptop tested together with the laptop) where it was placed on the tabletop next to the corresponding interference-causing equipment during all emissions tests, and not on the floor

External power supplies that are exclusively marketed together with the corresponding interference-causing equipment shall be subject to the ICES standard applicable to that equipment (not ICES-001, unless the corresponding interference-causing equipment is also subject to ICES-001). The external power supply and the corresponding interference-causing equipment shall be tested together, as a multi-unit EUT. In this case, the labelling requirements specified in section 6 are only required for the interference-causing equipment and optional for the external power supply.

5. Test report

The test report shall comply with all requirements set out in this document, including those stated in both:

- [annex A](#)
- the applicable ICES standard

If a new issue of the applicable ICES standard is published and the equipment continues to be manufactured, imported, distributed, leased, offered for sale, or sold in Canada after the stated transition period expires (see section 3.1), the manufacturer or importer shall update the test report with additional test results and/or engineering analysis, as necessary, such that the test report demonstrates compliance with the new issue of the applicable ICES standard.

The manufacturer or importer shall retain a copy of the test report for as long as the interference-causing equipment is manufactured, imported, distributed, leased, offered for sale, or sold in Canada and shall make the test report available to ISED upon request.

6. Labelling and user manual requirements

This section specifies the labelling and user manual requirements.

6.1 General

The supplier shall meet the labelling and user manual requirements set out in this section for every unit of interference-causing equipment.

6.2 User manual

The user manual shall include all notices and information to the user, where such requirements are specified in the applicable ICES standard. For example, the CISPR 11 standard referenced in ICES-001 specifies normative user manual statements for some types of industrial, scientific and medical equipment.

In the case of host equipment, additional user manual requirements may apply; see the RSS standard applicable to the specific incorporated radio technology (for example, the requirements specified in RSS-Gen that are applicable for radio apparatus using detachable antennas).

If normative user manual requirements apply to the specific interference-causing equipment (i.e. normative user manual notices and/or ISED label placed in the user manual) and this manual is not supplied with the equipment, the user manual shall be readily available (e.g. on the manufacturer's website), free of charge, for the entire period in which the equipment is manufactured, imported, distributed, leased, offered for sale, or sold in Canada. Additionally, instructions on how to access the user manual shall be included with each unit of that equipment model (e.g. on packaging).

6.3 Labelling

This section specifies the labelling requirements.

6.3.1 General

Each unit of an interference-causing equipment model shall bear a label, which represents the SDoC with the ICES standard applicable to the equipment. This label shall be permanently affixed to each unit of the equipment or displayed electronically as per [annex B](#), and its text must be indelible and clearly legible.

In cases where the label consists of a QR code, all of the following conditions shall apply:

- it shall contain the required product label, in accordance with this section (6.3); this shall not be provided by means of a link to a website or refer to another location
- it shall be on the product (electronic labelling shall not be used in this case)
- it shall be easily readable by generic QR code apps
- the accompanying literature (user manual) must refer to the QR code for directing the user to the product labelling information

6.3.2 Placing the label in the user manual or on the packaging

This section specifies the conditions under which it is acceptable to place the label in the user manual or on the packaging (instead of on each unit).

6.3.2.1 Equipment with dimensions greater than 2.5 cm

This section applies when the longest dimension of the interference-causing equipment is greater than 2.5 cm.

If the equipment is too small or if it is not otherwise practical to place the label on the equipment and if e-labelling has not been implemented, then the following process shall be used:

- a. An inquiry shall be sent to ISED's Certification and Engineering Bureau (CEB) at certificationbureau-bureauhomologation@ised-isde.gc.ca including all pertinent information, such as make, model, external photographs, and the justification for why placing the label on the unit itself would be impractical.
- b. If approval is obtained for the specific product model, all conditions specified in the approval letter (e.g. email) shall be applied. The label shall not be placed in the user manual and/or on the packaging, instead of on each unit, unless approval from ISED has been obtained.
- c. If the label is placed in the user manual, see section 6.2. In this case, the label shall also be placed on the product packaging.

6.3.2.2 Equipment with dimensions equal to or smaller than 2.5 cm

If the largest dimension of the interference-causing equipment is equal to or smaller than 2.5 cm, the following alternative label placement may be used:

- in the case of multiunit equipment where one of the units is both larger than 2.5 cm and required in at least one mode of operation, the label shall be affixed to the larger unit or displayed electronically, unless permission is obtained from CEB to place the label in the user manual and on the packaging per section 6.3.2.1 (e.g. a pair of wireless earbuds with charging case)

- if the equipment is not multiunit or if all units in the multiunit equipment are equal to or smaller than 2.5 cm, the label may be placed in the user manual instead of on the unit itself without prior approval from CEB. In this case, the label shall also be placed on the product packaging (see also section 6.2)

6.3.3 Information to be included in the label

The labelling requirements specified in this section are optional in the case of host equipment, provided the entire device (host with radio apparatus modules/circuitry) is certified and labelled with the ISED certification number. See section 3.6 for more information on the certification process.

The ISED compliance label shall include the word “Canada” (or “CAN”) and a generic reference to interference-causing equipment standards, in both English and French. If at least one of the applicable ICES standards differentiates between Class A and Class B equipment, the label shall also include the Class of the equipment. An example is given below:

CAN ICES (*) / NMB (*)

Where * is either “A” or “B”, but not both, to identify the applicable Class of the equipment; and “NMB” stands for “Norme sur le matériel brouilleur”.

The Class must only be included on the ISED label if the applicable ICES standard (or at least one of them in cases where multiple ICES standards apply) has different limits for Class A and Class B equipment. Below is an example of a label for cases where none of the applicable ICES standards makes such a differentiation:

CAN ICES / NMB

Previously, the ISED label required a reference to the specific ICES standard or standards (in cases where the equipment model was subject to multiple ICES standards). The new generic label specified above may now be used regardless of which ICES standard or standards apply to the specific equipment. Note that a product already on the market need not be relabelled because the previous label already includes all necessary components per the above requirements.

Note: The following are some examples of possible existing labels, compliant with the provisions in issue 1 of ICES-Gen, which also comply with the requirements specified above. As such, these labels need not be changed when the transition period prescribed in section 3.1.2 expires.

- CAN ICES-3(B)/NMB-3(B)
- Canada ICES-005 (A) / NMB-005 (A)
- CAN ICES-002 / NMB-002

6.3.4 Equipment incorporating radio apparatus or terminal equipment

The requirements in this section are only applicable to equipment incorporating radio apparatus or terminal equipment modules or subassemblies/subcircuits and shall apply in addition to the labelling requirements specified in section [6.3.3](#).

Host equipment shall comply with the labelling requirements set out in [RSS-Gen](#) and [RSP-100](#).

Interference-causing equipment incorporating terminal equipment modules or subassemblies/subcircuits shall comply with the labelling and other administrative requirements (e.g. user manual notice, if applicable) set out in DC-01, [Procedure for Declaration of Conformity and Registration of Terminal Equipment](#).

Annex A (normative): Test report contents

The test report shall include the following:

- a. Identification of the applicable ICES standard(s), including the issue number and publication date.
- b. The date when the test report was issued.
- c. Identification (e.g. name, address) of the manufacturer of the equipment under test (EUT) and of the test laboratory.
- d. Identification of the EUT, including the model number, marketing name, brand name, and unit serial number as used for each applicable test case. If no serial number is available (e.g. the EUT is a prototype, before mass production started), a test sample reference number shall be provided in the test report.
- e. Description of the EUT and its configuration, operation, and arrangement for each specific test case, as applicable.
- f. A record of the tests and results, including engineering analyses (if applicable), demonstrating compliance with the requirements in the applicable ICES standard. The test report shall indicate the date each test was performed.
- g. Where applicable, the test report shall clearly identify which Class of limits (Class A or Class B) was used to demonstrate compliance of the equipment.
- h. Where the applicable ICES standard allows the use of alternative options (e.g. test methods), the test report shall clearly indicate which option was used for measurements for each test case.
- i. A list of the test equipment used for each test case, including manufacturer or brand name, model number, serial or asset number, and calibration due date.
- j. Identification (e.g. address) and short description of the test site used for radiated emissions, including information on site validation, as follows:
 - i. what standard was used for test site validation assessment, including version/edition and publication date (e.g. ANSI C63.4-2014), for each applicable frequency range
 - ii. the date of the last successful site validation measurements, for each applicable frequency range
 - iii. if the testing laboratory is recognized by Innovation, Science and Economic Development Canada (ISED), instead of the information specified in (i) and (ii) above, the test report may include the ISED Conformity Assessment Body Identification Number (CAB ID) or, for test reports produced before March 15, 2019, the ISED site registration number

- iv. if multiple test sites were used for the reported measurements, the test report shall indicate which test site was used for each measurement
- k. The value of the measurement instrumentation uncertainty for each test case, as applicable. This value shall be calculated based on the specific test setup used for obtaining the measurement results documented in the test report.

Annex B (normative): Electronic labelling (e-labelling)

B.1. General

Instead of a physical label on the device itself, Innovation, Science and Economic Development Canada (ISED) allows devices with an integrated display screen to present the required label information electronically (e-label). Devices without an integrated display screen are allowed to present the e-labelling information through an audio message or on the display screen of another equipment, where the second equipment is connected via physical connection, Bluetooth, Wi-Fi, etc., if this connection to the second equipment that incorporates a display is mandatory for use.

If mandatory user manual statements are specified for the interference-causing equipment, these may also be implemented electronically, with the same restrictions and conditions as prescribed above for the ISED compliance label.

If both the ISED compliance label and mandatory user manual statements are implemented electronically, then the two should clearly be differentiated, so that the user of the equipment is able to distinguish between the label and the user manual statements.

Where this annex requires information to be provided on the packaging, this must be on the exterior of the product packaging and shall not be provided electronically.

B.2. Information to be displayed

The e-label shall display the required information as detailed in section 6.3, unless such information is permitted to be included in the user manual.

The electronic user manual statements shall display the required information as detailed in section 6.2.

B.3. Accessibility

This section specifies the accessibility requirements.

B.3.1. Instructions to access the label and user manual statements

Users shall be provided clear instructions on how to access the regulatory information stored electronically (e-label and electronic user manual statements). These instructions shall meet the following requirements:

- a. be provided in the user manual, operating instructions or packaging material (e.g. on the bags used to pack the device or on accompanying leaflets), or on a website related to the product; in the latter case, instructions on how to access the specific web page shall be provided on the packaging or in accompanying leaflets
- b. the test report shall include the instructions for accessing information as part of the label exhibit and user manual statements exhibit (i.e. in the section of the test report demonstrating compliance with the labelling and user manual statements requirements)

B.3.2. Accessibility to the label and user manual statements

The e-label and electronic user manual statements shall meet the following requirements:

- a. accessing the e-label and electronic user manual statements shall not require the use of special access codes (other than the user login credentials to access the product's controls, where applicable) or accessories
- b. accessing the e-label and electronic user manual statements shall not require more than three steps from the device's main menu
- c. the e-label and electronic user manual statements shall not be modifiable by the user (e.g. if stored in the firmware or software menus)

B.4. Labelling for importation and purchasing

This section only applies to e-labelling (not for electronic user manual statements).

Products utilizing e-labels shall have a physical label on the product packaging at the time of importation, offering for sale and sale. The following conditions shall apply:

- a. For devices imported in bulk (not packaged individually), a removable adhesive label or, for devices in protective bags, a label on the bags is acceptable to meet the physical label requirement.
- b. Any removable label shall survive normal shipping and handling and may only be removed by the end user, after purchase. For devices already imported in individual packages ready for sale, the information may alternatively be provided on the package.

B.5. Security

The information to be displayed on the e-label or in the electronic user manual statements, as specified in section [B.2](#), shall meet the following security requirements:

- a. be programmed by the supplier (e.g. manufacturer)
- b. not be modifiable or removable during the course of normal authorized activities by a third-party (i.e. the typical user), such as installation of applications or accessing the menus