



Spectrum Management and Telecommunications

Radio Standards Specification

Hearing Aid Compatibility and Volume Control

Amendment (April 2023)

Manufacturers shall ensure that all radio apparatus that falls under this standard is compliant with the requirements of this standard no later than January 1, 2026.

Preface

Radio Standards Specification RSS-HAC, issue 2, *Hearing Aid Compatibility and Volume Control*, replaces RSS-HAC, issue 1, dated March 2019.

The main changes are listed below:

- a. Updated the reference to ANSI C63.19-2019
- b. Updated requirements to reflect ANSI C63.19-2019
- c. Removed reference to TIA-5050 because compliance with TIA 5050 has been added to ANSI C63.19-2019
- d. Made editorial changes and clarifications, as appropriate

Inquiries may be submitted by one of the following methods:

1. Online, using the [General Inquiry](#) form (select the Regulatory Standards Branch radio button and specify “RSS-HAC” in the General Inquiry field).
2. By mail to the following address:
Innovation, Science and Economic Development Canada
Engineering, Planning and Standards Branch
Attention: Regulatory Standards Directorate
235 Queen Street
Ottawa ON K1A 0H5
Canada
3. By email to: consultationradiostandards-consultationnormesradio@ised-isde.gc.ca

Comments and suggestions for improving this standard may be submitted online using the [Standard Change Request](#) form, or by mail or email to the above addresses.

All Innovation, Science and Economic Development Canada publications related to spectrum management and telecommunications are available on the [Spectrum Management and Telecommunications](#) website.

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

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Director General
Engineering, Planning and Standards Branch

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1. Scope

This Radio Standards Specification (RSS) sets out the compliance requirements for hearing aid compatibility and volume control features for specific radio apparatus.

RSS-HAC shall be used in conjunction with other RSSs, as prescribed in the [RSS-HAC applicability list](#).

2. Purpose and application

The volume control gain feature gives individuals with a hearing impairment the ability to increase the volume of a device. Hearing aid compatibility features accommodate individuals with hearing aids and cochlear implants. These requirements minimize potential compatibility issues between hearing aids and wireless handsets, enhancing the hearing experience of users.

Compliance with volume control and hearing aid compatibility requirements has been required on telephone handsets under part V of Compliance Specification CS-03, [Compliance Specification for Terminal Equipment, Terminal Systems, Network Protection Devices, Connection Arrangements and Hearing Aids Compatibility](#), for many years. With the increased penetration of wireless handsets in the Canadian market, cell phones are becoming the predominant communication devices used today. Thus, it is reasonable to expect that wireless handsets offer the same accessibility features as those that have always been required for wireline telephones.

3. General requirements and references

This section sets out the general requirements and references related to this RSS.

3.1 Coming into force and transition period

This document will be in force as of its publication on Innovation, Science and Economic Development Canada's (ISED) website.

Manufacturers shall ensure that all radio apparatus that falls under this standard is compliant with the requirements of this standard no later than **January 1, 2026**.

A copy of RSS-HAC, issue 1, may be requested by [email](#).

3.2 Certification requirement

Compliance with RSS-HAC shall be evaluated in the context of an equipment certification application submitted under the applicable RSSs, i.e. the RSS(s) that cover(s) each frequency band in which the equipment operates and/or each technology that includes that type of equipment.

RSS-HAC shall be used in conjunction with other RSSs, as prescribed in the [RSS-HAC applicability list](#).

3.3 Normative references

The following American National Standards Institute document shall be consulted in conjunction with RSS-HAC: ANSI C63.19-2019, *American National Standard Methods of Measurement of Compatibility Between Wireless Communications Devices and Hearing Aids*.

When the requirements of the present standard contradict those of the normative ANSI standard, the present standard shall take precedence.

The ANSI C63.19-2019 standard can be purchased online at the [ANSI webstore](#) or on the [IEEE SA – Access Standards](#) page.

3.4 Related documents

All ISED publications related to spectrum management and telecommunications are available on the [Spectrum Management and Telecommunications](#) website.

4. Definitions

Definitions and terminology used in RSS-HAC are described in ANSI C63.19-2019.

5. Measurement method

Measurements shall be performed in accordance with the requirements in ANSI C63.19-2019.

6. Volume control

The radio apparatus shall meet the volume control requirements specified in clause 7 of ANSI C63.19-2019.

In addition, the conversational gain when tested at the maximum volume setting shall be limited to a maximum of 30 dB and a maximum acoustic level of 100 dB SPL or less.

The maximum acoustic level of 100 dB SPL shall be measured by increasing the -20 dBm₀ at the receive electrical test point (RETP) by steps of 10 dB and by measuring the acoustic output at the drum reference point (DRP) until the measured acoustic output is constant or has reached saturation.

7. Hearing aid compatibility

The radio apparatus shall meet the hearing aid compatibility requirements specified in this section.

7.1 Evaluation of wireless devices RF interference potential

The radio apparatus shall meet the RF emissions requirements specified in clause 4 of ANSI C63.19-2019.

7.2 Testing of wireless device T-Coil signal

The radio apparatus shall meet the T-Coil signal requirements specified in clause 6 of ANSI C63.19-2019.

8. RSS-HAC test report requirements

In addition to the reporting requirements in Radio Standards Specification RSS-Gen, [General Requirements for Compliance of Radio Apparatus](#), and any other applicable RSSs, the RSS-HAC test report shall include:

- a. A summary of all tests listed in sections 6 and 7 of the present standard, with a PASS or FAIL note confirming whether or not the equipment under test is in compliance with the specific requirements.
- b. The transmission mode (i.e. narrowband or wideband) in which the device was tested.
- c. The detailed results of the measurements conducted on the product as described in sections 6 and 7 of the present standard. **Note:** A list of acceptable alternate measurement procedures can be found on this page: [Normative Test Standards and Acceptable Alternate Procedures](#). Other procedures may also be deemed acceptable; however, they shall be approved by ISED's [Certification and Engineering Bureau](#) and shall be fully described in the test report.