

In the Matter of)	
)	WT Docket No. 06-203
Section 68.4(a) of the Commission’s Rules)	WT Docket No. 01-309
Governing Hearing Aid)	RM-8658
Compatible Telephones)	FCC R&O 03-168
)	

COMMENTS
FROM
AMERICAN NATIONAL STANDARDS INSTITUTE
ACCREDITED STANDARDS COMMITTEE C63™ (EMC)
ANSI ASC C63™

American National Standards Institute Accredited Standards Committee C63™ (ANSI ASC C63™) for ElectroMagnetic Compatibility (EMC) is pleased to provide these comments and update¹ to the FCC (Commission) regarding activities affecting ANSI C63.19, “American National Standard for Methods of Measurement and Compatibility between Wireless Communication Devices and Hearing Aids”. ANSI C63.19-2006 was recently successfully balloted and approved by ASC C63™ and ANSI for publication, in place of the 2001 version of this document. ANSI ASC C63™ then recommended to the Commission the adoption of the 2006 version in place of the 2001 version and the Commission subsequently took action in that regard.

¹ This petition is in response to the current inquiry and is a continuation of periodic updates from ANSI ASC C63™, responding to FCC 03-168, paragraph 63:

63. Accordingly, we are adopting certain performance standards contained in the 2001 version of ANSI C63.19 as the applicable technical standard for wireless hearing aid compatibility. We encourage ANSI to work with the relevant stakeholders to review the standard periodically to determine whether improvements to the standard are warranted. ANSI should submit any revisions to the standard to the FCC for consideration of whether to incorporate the modified standard into FCC rules. To help ensure that our rules continue to reflect the current standard, we delegate to the Chief, Wireless Telecommunications Bureau, in coordination with Chief, Office of Engineering and Technology, the authority to approve future versions of ANSI C63.19 to the extent that the changes to the standard do not raise major compliance issues. At the same time, we recognize the necessity to provide opportunity for notice and comment on any changes or modifications that could affect compliance with our regulations. In cases, therefore, where major changes have been made that could affect compliance, the Commission will initiate an appropriate rulemaking proceeding to consider adoption of updated versions.

During the balloting of the 2006 version of ANSI C63.19-2006 several issues were deferred for later consideration and possible inclusion in an amendment to the 2006 version. The Working Group reached consensus on these matters and submitted an amendment for ballot. That ballot has now been successfully concluded. The initial ballot received 100% affirmative vote but with comments from multiple parties. The proposed responses to those comments were submitted to a recirculation ballot. The recirculation ballot closed on November 10, 2006 and again received 100% affirmative vote. There were editorial comments from several parties in the recirculation that were considered to be editorial only and these have been addressed and accepted. Accordingly the amendment to ANSI C63.19-2006 has been approved by ANSI ASC C63TM and is available from the IEEE store. The project amendment authorization is in public review which is due to close in mid-January. Assuming a positive review, the amendment will go to ANSI public review shortly thereafter. We do not expect any comments during the public review as the development of the amendment had wide participation by the affected industries as well as the standards developers. . It is the recommendation of ANSI ASC C63TM that the Commission adopt the amendment after it receives ANSI approval.

During the revision of ANSI C63.19-2006 and amendment 1 to that version several topics were identified for further study and possible inclusion in the next revision of this standard. In response a study project has been authorized in ASC C63TM to explore these topics and make recommendation for further action. The topics listed in the committee project initiation request are:

1. To extend the frequency range to 700 MHz to 8 GHz.
 - a. Study the applicability of the standard to devices operating in the extended frequency band.
 - b. Study the extension of hearing aid immunity testing to the extended frequency range.
2. To receive and evaluate new research on the impact of various types of interference on intelligibility and user annoyance.
3. To review test method improvements such as:
 - a. Probe scan increment set based on a formula that is calculated on the probe's width.
 - b. Review T-Coil measurement of intended and unintended signal.

- c. Provide guidance for technologies not listed like VoIP.
 - d. Review test equipment specifications, specifically Annex D.3, D.4 and D.7.
 - e. In 6.1.1.1.2 and 3 the term “bandpass filter” is used. The application and characteristics of the filter needs further study.
 - f. Articulation Weighting Factors are needed for the newer technologies – e.g., VoIP on CDMA2000 1xEV-DO, UMTS (HSPA), 802.11 (WiFi), and 802.16 (WiMAX) and 802.20.
 - g. Study the positional need for 3 T-Coil positions relative to user needs would be a subject of further study.
 - h. The addition of new frequency bands to the C63.19 standard needs to be included and calibration values need to be assigned. For example, Design/Testing/Simulation of 700, 1700 (AWS) MHz dipole and 2500 (BRS) MHz dipole (thick vs. planar).
 - i. Determine the power measurement that is most closely linked to user experience, peak, RMS or other parameter of power.
 - j. The continuing need for the manual test method.
 - k. The RF probe separation distance is 1.5 cm and the calibration values in table 4.2 were made at 1.0 cm. These calculations need to be redone to the 1.5 cm distance.
 - l. Investigation of the potential for the creation of a square law detector or fast probe test procedure would eliminate the need to determine articulation weighting factors for the current procedures. However this creates two issues:
 - i. Universality of the square law assumption.
 - ii. What changes would be needed in test equipment to support fast probes and detectors.
 - m. Study application to devices with multiple simultaneous transmissions and multi-frequency transmissions, e.g. MIMO.
4. To review any editorial improvements necessary for ease of use.

ANSI ASC C63TM believes that ANSI C63.19-2006, and once fully approved, its amendment, represents the best technical consensus available for the parameters and necessary measurements to achieve hearing aid and mobile phone compatibility. As further experience and new research brings additional insight and refinement of our understanding revisions to the standard will be considered. The current study project of the ANSI C63.19 working group is actively reviewing the topics listed and will make recommendations as it concludes its work.

In conclusion ANSI ASC C63TM would like to thank the Commission for the trust and confidence it has expressed in adopting ANSI C63.19. We appreciate this opportunity to provide further comments and an update on our ongoing efforts. We look forward to a continued

close cooperation with the Commission on this important topic. ANSI ASC C63™ will continue to periodically inform the Commission of developments regarding ANSI C63.19.

Respectfully submitted,

ANSI ASC C63

A handwritten signature in black ink, reading "Donald N. Heirman", followed by a horizontal line extending to the right.

Mr. Donald N. Heirman
Chair, ANSI ASC C63

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