



Hearing Aid Compatibility

Jim Szeliga



Third Report and Order **(DA 12-550) Released April 9, 2012 (*)**

- **Acceptable for certification ANSI C63.19-2011 (published May 27, 2011) beginning 30 days after Third Report and Order is published in the *Federal Register***
- **Does not replace the ANSI C63.19-2007; either version can be used going forward**
 - **Must test any given handset model exclusively either ANSI C63.19-2007 or 2011**
- **No retesting or recertification needed; existing grants issued under ANSI C63.19-2007 (as well as earlier versions of ANSI C63.19) remain valid**

(*) The rules will become effective after publication in the Federal Register



Two Separate Transitions Discussed

1. **12-month transition period for HAC Certification of multi-band and multi-mode handsets that are not fully covered under the 2007 ANSI Standard.**
2. 24/27-month transition period to apply the FCC's numerical/percentage deployment benchmarks to air interfaces not covered under ANSI C63.19-2007 (but covered under ANSI C63.19-2011).



12-Month Transition Period for Multi-Band and/or Multi-Mode Handsets

- Until 12 months after Federal Register publication, *multi-band and multi-mode handsets* may be certified as hearing aid-compatible if they meet the criteria under ANSI C63.19-2007 for all operations covered under that standard
 - Fact that handsets were not tested for all operations must be disclosed using the language in Section 20.19(f)(2) (i)¹ of the rules.
 - Exception: if operations not covered under the ANSI C63.19-2007 are tested by the manufacturer and do not meet the criteria under ANSI C63.19-2011, this must be disclosed by clear and effective means. Section 20.19(f)(2)(iii)³.
- Handsets certified during the 12-month transition period may continue to be counted and marketed as hearing aid-compatible after the transition period
- After the 12-month transition period, any new handset containing operations that are not covered under the ANSI C63.19-2007 will have to be tested entirely under the ANSI C63.19-2011 in order to be certified as hearing aid-compatible

¹ reference to disclosure requirements on slide 9

³ reference to disclosure requirements on slide 9



Handset Categories and Applicable Standards

Single Mode Multi Band

- A. Single mode handset operation defined within the C63.19-2007 standard
 - Can use 2007 or 2011
- B. Single mode handset operation defined within the C63.19-2011 standard
 - Can use 2011, or
 - ***Can use 2007 only during one Year Transition Period with disclosure 20.19(f) (2) (i)¹ & (iii)³***

Multi-Mode Multi Band

- C. Multi mode handset operation defined within the C63.19-2007 standard
 - Can use 2007 or 2011
- D. Multi mode handset operation defined within the C63.19-2011 standard
 - Can use 2011, or
 - ***Can use 2007 only during one Year Transition Period with disclosure 20.19(f) (2) (i)¹ & (iii)³***
- D. Multi mode handset operation defined within the C63.19-2007 standard with modes outside 2011
 - Can use 2007 or 2011 and disclosure 20.19(f) (2) (i)¹
- E. Multi mode handsets operation defined within the C63.19-2011 standard with modes outside 2011
 - ***Can use 2007 only during one Year Transition Period with disclosure 20.19(f) (2) (i)¹ & (iii)³***
 - Can use 2011 2011 with disclosure 20.19(f) (2) (i)¹

¹ reference to Note 1 disclosure requirements on slide 9

³ reference to Note 3 disclosure requirements on slide 9



Technical Guidance

- During an interim period HAC guidance will be revised to address the changes associated with ANSI C63.19-2011
- The greatest challenge is likely to be in developing guidance for T-rating testing for VoLTE transmissions
 - Until guidance is issued, OET will certify handsets under ANSI C63.19-2011 without VoLTE T-rating test
Must disclose that these handsets have not been tested for all their operations using language in Section 20.19(f)(2) (i) & (ii)² alternatively, manufacturers or service providers may develop their own disclosure language, but they should consult with WTB staff
 - TCBs may also develop and use their own VoLTE T-rating testing techniques if they demonstrate sufficiency to OET

²reference to Note 2 disclosure requirements on slide 9



Technical Guidance

During the interim period the FCC will work with C63.19, Test Labs, TCBs, Handset Manufactures, Test and Probe Equipment Manufactures to develop further guidance:

- Availability and calibration of near field measurement system for measuring M rating and MIF
 - Indirect method
 - Direct method
- Worst Case modes for emerging technologies
 - VoLTE M Rating
- VoLTE T-coil testing
 - Average talker loading dBm0
 - Test environments
- Additional guidance
 - As issues come up
 - Case by Case issues

During this interim period until further guidance is issued, applications for HAC certification using C63.19-2011 shall provide, through an KDB inquiry, detail test plans and methods used for calibration and verification of the near field measurement system.



Other Voice Transported modes.

- **Over-the Top Application (OTT)**
 - WI-Fi, 3G or 4G packet transports
 - like Skype mobile or oOVOo mobile
 - Currently outside of the current definition of a managed carrier CMRS services & expected to be the subject of pending rule making.
 - The policy will continue to require to note this capability in test reports and in the grant by using the Grant Note code HX
 - Disclosure Required for WiFi ***20.19(f) (2) (ii)

- **CMRS voice services over WiFi**
 - which also include (or in the future) VoLTE or similar service
 - Will be treated on a case by case bases. Consult directly with the Office of Engineering and Technology:
 - Handsets that meet the WiFi low power exemption of Clause 4 under C63.19-2011 providing CMRS voice standard is considered M4 rated.
 - For T coil you need to consult directly with the Office of Engineering and Technology



Disclosure

Disclosure	§ 20.19 (f)		Slide Notes
An explanation of the ANSI C63.19 rating system	1		All
Multi Mode/Multi Band & not tested over all their operation	2	i	Specific Language
		ii	WIFI
		iii	Exception: when tested & operations do not meet the criteria under ANSI C63.19-2011
GSM air interface in the 1900 MHz Band with a user-selectable mode	3		2.5 dB Power Reduction