Hearing Aid Compatibility Rules - Update

TCB Workshop

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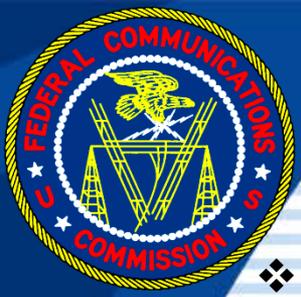Laboratory Division

Office of Engineering and Technology

Federal Communications Commission

HAC Update

- The attachments D01 HAC Guidance and D02 T-Coil Guidance in publication 285076 will be updated and published as a draft.

- This update reflects the changes that go into effect under the FOURTH REPORT AND ORDER (FCC 15-155, November 20, 2015)

- Effective January 1, 2018 manufactures must:

  – Demonstrate HAC compliance for all two-way real-time voice communications services included in the handsets seeking certification as hearing aid compatible.

  – The exclusion permitted by the Third Report and Order (DA 12-550, April 9, 2012) from testing VoLTE and WI-FI calling air interfaces will no longer be permitted.

- HAC compliance remains in accordance with ANSI C63.19-2011 and C63.10-2007*.

* ANSI C63.19-2007 is a subset of ANSI C63.19-2011 and is only applicable to handsets confined to the frequency bands and air interfaces specified in ANSI C63.19-2007.

HAC Update

❖ Voice service to be tested for handsets in pursuit of a HAC rating

  ❖ Voice Services supported with or the applications that manufacture includes in a handset.

  ❖ Real-time, two-way voice communications to and from the interconnected public switched telephone network as well as services not interconnected with the public switch telephone network that are available to the public that permit calls to/from other users on the same service network. Some examples include:

   – Services Defined in Table 7.1 of ANSI C63.19-2011.

   – VoLTE over LTE transport

   – Wi-Fi Calling (VoIP) *

   – Pre-installed applications such as: Google Hangouts, Yahoo Messenger (Internet Low Bitrate Codec), WebRTC [Opus, Skype (SILK)], IETF RFC 6716, H.263 and H.264, etc.

* Wi-Fi Calling is not a general term for VOIP over WI-FI transport; it is an explicit service, provided by the license service provider, that lets voice calls on their network to be connected through a user's or local Wi-Fi network instead of the license cell bands. It requires a handset that includes the advanced Wi-Fi calling feature.
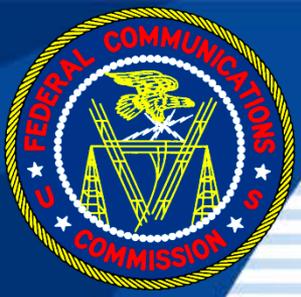
HAC Update

- For M-Rating in accordance with C63.19-2011, as in the previous versions of publication 285076, permits measurement for MIF values or using pre-calculated MIF values supplied by test manufacture - no change.

- For T- rating in accordance with C63.19-2011, all voice services require a reference input level applied at a calibrated reference point - clause 7.4.2.1.
  - For legacy protocols the design level reference is defined in the table of clause 7.4.2.1 of ANSI C63.19-2011.
  - VoLTE remains as defined in interpretation of July 2012 at -16 dBm0.
  - **For all other protocols, the average speech level applied is either**
    - **-20 dBm0*, or**
    - **a reference level higher than -20dBm0 based on an approved network audio signal level plan;** *this requires submission of a PAG and FCC approval.*

* In absence of an established reference the FCC has established -20dBm0 unless otherwise approved through a PAG procedure or until standards are established. The draft of publication 285076 will be available for comment for 30 days after being posted (mid or late May 2017).

Questions and Answers

Thanks!