TR-41 Standards Activities Related to FCC Part 68

April 18, 2013

Documents Directly Related to Part 68

Standards Adopted by ACTA

ANSI/TIA-968-B, *Technical Requirements for Connection of Terminal Equipment to the Telephone Network*

- Current version of Part 68 requirements.

ANSI/TIA-968-B-1, *Technical Requirements for Connection of Terminal Equipment to the Telephone Network, Addendum 1*

- Updated references from TSB-31-C to TSB-31-D.
- Corrected tables and figures related to VDSL2 requirements.

TIA-1096-A, *Connector Requirements for Connection of Terminal Equipment to the Telephone Network*

- Former Part 68, Subpart F connector drawings.
- Gold plating and “gold plating equivalent” contact requirements.

TIA-168-B, *Labeling Requirements*

- Includes Equipment Classification Codes list.

Standards Adopted by FCC

EIA-RS-504 (1983), *Magnetic Field Intensity Criteria for Telephone Compatibility with Hearing Aids*

- Adopted verbatim as §68.316 magnetic HAC requirements.

ANSI/EIA-470-A (1987), *Telephone Instruments with Loop Signaling*

- Referenced in §68.317 for analog telephone volume control.
- Replaced by ANSI/TIA/EIA-470-B (1997), ANSI/TIA-470.110-C (2004), and ANSI/TIA-470.110-C-1 (2007).

ANSI/EIA/TIA-579 (1991), *Acoustic-to-Digital and Digital-to-Acoustic Transmission Requirements for ISDN Terminals*

- Referenced in §68.317 for digital telephone volume control.
- Replaced by ANSI/TIA/EIA-579-A (1998), TIA/EIA/IS-810 (1999), ANSI/TIA/EIA-810-A (2000), and ANSI/TIA-810-B (2006).
- Wideband added in TIA-920 (2002) and TIA-920.110-A (2011).

Standard Proposed for Adoption by FCC

ANSI/TIA-4965, *Receive Volume Control Requirements for Digital and Analog Wireline Handset Terminals*

- Uses Conversational Gain as the measure (how loud is the sound compared to a face-to-face conversation at a distance of 1 meter).
- Unamplified “500-type” telephone having a “G-type” handset with screw-on transmitter and receiver caps provides about 6 dB of Conversational Gain.
- The 12 dB minimum gain based on difference in ROLR level becomes 18 dB minimum.
- The requirement to reset on hang up if the gain exceeds 18 dB based on ROLR change becomes 24 dB for Conversational Gain.
- Loop hole allowing “normal unamplified level” to be biased toward the low end of the allowed range is eliminated.

Other TIA Documents Directly Related to Part 68

TSB-31-D, *Rationale and Measurement Guidelines for U.S. Network Protection*

- Current version of measurements guidelines document.

TSB-31-D-1, *Rationale and Measurement Guidelines for U.S. Network Protection, Addendum 1*

- Corrects and clarifies current receive volume control test procedures.

PN-31-D-2, *Rationale and Measurement Guidelines for U.S. Network Protection, Addendum 2*

- Will add Conversational Gain test procedures (under development).

TSB-129-B, *U.S. Regulatory Approval Guide*

- Provides guidance for both Telecommunication Certification Body (TCB) and Supplier's Declaration of Conformity (SDoC) equipment certification methods.

Documents Indirectly Related to Part 68

Magnetic HAC Standard

ANSI/TIA-1083-A, *Handset Magnetic Measurement Procedures and Performance Requirements*

- Essentially same requirements for the desired magnetic field related to the speech signal as in §68.316 (i.e., EIA-RS-504).
- Addresses undesired magnetic fields due to noise signals by adding A-weighted noise level and signal-to-noise ratio requirements.
- Current revision covers digital phones, including VoIP phones, in addition to the analog phones covered by the original document.
- Acknowledged by the Hearing Loss Association of America (HLAA) as an excellent example of the voluntary standards process at work.
- ANSI/TIA-1083-A requirements are equivalent to those for having a T4 (highest) rating in the C63.19 HAC standard for cell phones.

Amplified Telephone Standard

ANSI/TIA-4953, *Amplified Telephone Measurement Procedures and Performance Requirements*

- Applies to high gain amplified telephones intended specifically for use by people with three different levels of hearing loss: mild, moderate, and severe.
- Provides a Conversational Gain requirement coupled with three different High Frequency Emphasis requirements for each level of hearing loss.
- Also addresses ringer acoustic output requirements for each level of hearing loss.

Citing HAC and VC Requirements in Performance Standards

References to the ANSI/TIA-1083-A magnetic HAC and ANSI/TIA-4965 volume control standards are being included in new and revised performance standards

- ANSI/TIA-PN-470.110-D, *Transmission Requirements for Narrowband Analog Telephones with Handsets*
- ANSI/TIA-PN-470.112, *Transmission Requirements for Wideband Analog Telephones with Handsets*
- ANSI/TIA/PN-920.110-B, *Transmission Requirements for Digital Telephones with Handsets*

Contact Info

Stephen R (Steve) Whitesell
Chair, TIA TR-41
Whitesell Consulting LLC
swhitesell@ieee.org