

ADMINISTRATIVE COUNCIL FOR TERMINAL ATTACHMENTS (ACTA)

TITLE: TR-41 Standards Activities Related to FCC Part 68
MEETING DATE: April 18, 2013
SUBMISSION DATE: April 16, 2013
SOURCE*: TR-41 Chair (Steve Whitesell)
PURPOSE: Informative
DISTRIBUTION TO: ACTA General Meeting

ABSTRACT

The attached presentation is being made at the request of ACTA to summarize TR-41 standards activities related to FCC Part 68.

NOTICE

This correspondence represents "working papers". Therefore, contents cannot be viewed as reflecting the corporate policies or the views of the Telecommunications Industry Association or of any company. The Association, the companies and individuals involved, take no responsibility in the applications of this document.

* CONTACT: Steve Whitesell, Whitesell Consulting LLC, swhitesell@ieee.org



TR-41 CORRESPONDENCE

Stephen R Whitesell
Chair, TIA TR-41
Whitesell Consulting LLC
Email: swhitesell@ieee.org

Date: April 16, 2013

To: ACTA

Subject: TR-41 Standards Activities
Related to FCC Part 68

In an email to Herb Congdon and Marianna Kramarikova dated April 12, 2013, Kerriane Conn extended an invitation to give an overview presentation on TIA Standards activities related to FCC Part 68. This request was in addition to the liaison report on TR-41 activities normally provided at ACTA meetings.

Since virtually all Part 68 related standards activities in TIA originate in TR-41, Marianna contacted me about the request, and I volunteered to provide such a presentation in addition to the TR-41 liaison report. This contribution includes a PDF copy of the slides used for the presentation.

Sincerely,

Stephen R Whitesell
Chair, TIA TR-41

(This correspondence represents "working papers". Therefore, contents cannot be viewed as reflecting the corporate policies or the views of the Telecommunications Industry Association or of any company. The Association, the companies and individuals involved, take no responsibility in the applications of this document.)



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