



TIA Engineering Committee TR-41

Performance and Accessibility for Communications Products

TIA’s Performance and Accessibility for Communications Products committee, also known as TR-41, has developed and maintains standards for the performance of telephony products. These standards establish performance criteria and testing methods for analog, digital (VoIP), and mobile interfaces for handset telephones, speakerphones, headsets, mobile handsets, and voice gateways. TR-41’s standards also address the accessibility of telephone products used by people with hearing loss. FCC rules reference TR-41 standards regarding accessibility and network harms protection. Below is an update on the hearing aid compatibility project.

TR-41 Hearing Aid Compatibility – Volume Control Task Group (VCTG) Update

The VCTG was initiated to address mobile handset industry identified technical issues with the distortion requirements of ANSI/TIA-5050. This standard is referenced in FCC rules for the requirements of the volume control performance of mobile handsets. The VCTG is evaluating two methodologies for assessing distortion: **delta-POLQA** and **ETSI TS 104 063**.

- **Delta-POLQA** is a method proposed by VCTG members that compares POLQA Mean Opinion Scores (MOS) of the nominal and maximum volume control settings.
- **ETSI TS 104 063** was published in July 2025. The standard includes public access to Python source code to implement the standardized measurement method. Commercial test systems (e.g., Head Acoustics Acqua) now include the **ETSI TS 104 063** method as an option.

On-going activities include:

- Planning for the start of Round Robin testing of task group member handsets for **delta-POLQA**, **ETSI TS 104 063** and the other tests that will be required in ANSI/TIA-5050A.
- Engagement with the test and measurement industry (e.g., Opticom, Head Acoustics, Listen Inc.) for technical validation and support.
- Liaison with ETSI STQ regarding the **ETSI TS 104 063** standard.

Projected Milestones:

Expected Task/Milestone Completion	Delta-POLQA	NLM
Audio file preparation	Complete	Complete
Test Plan Development	Q1 2026	Q1 2026
Initial lab testing/analysis/define normalization	Q1 2026	Q1 2026
Round robin testing	Q2-Q3 2026	Q2-Q3 2026
Acceptance criteria	Q4 2026	Q4 2026
ANSI balloting & approval	Q1 2027	