



## ***AST TECHNOLOGY LABS, INC.***

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Via Electronic Filing

**October 13, 2016**

**To: Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 Twelfth Street, S.W.  
Washington, D.C. 20554**

**From: James Bress  
AST Technology Labs Inc.  
1430 Sarno Rd.  
Melbourne FL, 32935 USA  
+1-321-254-8118  
jrbress@asttechlabs.com**

**RE: Notice of ex parte (FCC)  
*Petition for Rulemaking Filed by the Telecommunications Industry Association  
Regarding Hearing Aid Compatibility Volume Control Requirements*  
CG Docket No. 13-46**

***Amendment of the Commission's Rules Governing Hearing Aid-Compatible Mobile  
Handsets*  
WT Docket No. 07-250**

***Comment Sought on 2010 Review of Hearing Aid Compatibility Regulations,  
WT Docket No. 10-254* Dear Ms. Dortch:**

On September 21, 2016, James Bress from AST Technology Labs sent an email communication to Susan Bahr of the Federal Communications Commission's (Commission) Consumer and Government Affairs Bureau (CGB). The email was in reference to a question about hearing aid compatibility in the above-referenced proceedings.

The subject matter was FCC CFR 68.316 and testing methods which were established in the TIA-504 standard.

The text of the email transmission is copied below.

Pursuant to the Commission's rules this letter is being electronically filed via ECFS and a copy of this submission is being provided electronically to Ms. Bahr at the FCC.

I now realize this filing should have been made within two days of my sending the email message on September 21, 2016. I would like to request a waiver of the filing deadline and acceptance of this submittal.

Respectfully submitted,

James Bress  
President  
AST Technology Labs Inc.

CC:  
Susan Bahr (FCC)

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**From:** jrbress@asttechlabs.com [mailto:jrbress@asttechlabs.com]  
**Sent:** Wednesday, September 21, 2016 7:29 PM  
**To:** 'Susan.Bahr@fcc.gov' <Susan.Bahr@fcc.gov>  
**Cc:** 'Jasionowski, Anthony' <tony.jasionowski@us.panasonic.com>; 'Don McKinnon-AST' <dmckinnon@asttechlabs.com>  
**Subject:** RE: Inductive Coupling & VoIP

Hi Sue,

I was asked by Tony Jasionowski from Panasonic to respond to the questions in your email to Tony (below) regarding FCC CFR 68.316.

- I am the chairman of TIA's TR-41 committee and I have been involved in TR-41's standards leadership and development for over 20 years.
- TR-41 developed and published TIA-504 and TIA-1083.
- I was not directly involved in the development of TIA-504 however I was directly involved in the development of TIA-1083.
- My company, AST Technology Labs, provides testing services for telecommunications devices, including testing to both TIA-504 and TIA-1083.

OK, my qualifications to answer your questions are completed!

**ANSWER:**

**FCC CFR 68.316 (which recites TIA-504 verbatim) does not include a testing method for digital interface telephones (which includes VoIP telephones).**

**FURTHER DISCUSSION:**

TIA-1083 includes tests to cover the parameters intended to be covered by TIA-504 and adds the evaluation of noise generated from the telephone into a hearing aid or cochlear implant T-coil. Adding the noise requirement became essential when it was determined that some telephones (especially, but not limited to, cordless telephones) could create a buzzing sound heard by the hearing aid or cochlear implant T-coil user.

TIA-1083 includes testing methods for both analog interface telephones and digital interface telephones (including VoIP telephones).

In a related matter, FCC CFR 68.317 (often called hearing aid compatibility: volume control) requires that analog and digital interface telephones provide a volume control capability. The methods for evaluating the acoustic properties are provided in TIA standards (TIA-470A: analog and TIA-579: digital).

This may be relevant for you because the FCC 68.316 and 68.317 rules address a common issue (hearing aid users) and 68.317 provides an analogy for testing analog or digital interface telephones. This is relevant because the only reason TIA-504 could not be directly used for testing VoIP telephones is because TIA-504 does not specify the signal levels to use in terms of a digital signal level. Everything else in TIA-504 regarding how to measure the output from the handset would be the same for a VoIP telephone as it is for an analog interface telephone.

In my opinion, it would be very reasonable and straight to apply the analogy of analog and digital signal levels provided in 68.317 to the testing required for 68.316.

Sue, I apologize if this is more than you wanted to know, but I wanted to make sure to let you know the possibilities.

Please contact me for any other additional or related questions.

Sincerely,

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