



### **Call to Order and Attendance**

Chair Steve Whitesell called the meeting to order at 8:11 am. An attendance sheet was circulated for sign in. A quorum was present with 11 of 15 members in attendance. There were also 3 observers.

The following SC5 members were present:

Steve Whitesell (Chair)  
Ed Hare (Vice Chair)  
Jerry Ramie (Secretary)  
Stephen Berger  
Andy Griffin  
Don Heirman

Dan Hoolihan  
Rick Lombardi (via WebEx)  
Randy Long  
Jeff Silberberg  
Dave Zimmerman

The following SC5 members were not present:

Poul Andersen  
Masud Attayi

Victor Kuczynski  
David Schaefer

The following observers were also in attendance:

Chris Dilay  
Craig Fanning (via WebEx)

Tom Wojtaszek

### **Opening Business**

Steve Whitesell indicated the Telecommunications Industry Association (TIA) had decided not to renew its organizational membership in C63 for 2016. Thus, he is no longer representing TIA in the Main Committee. However, he is working out the details that will allow him to continue as Chair of SC5 until his term ends in November.

The Chair reviewed the draft agenda and asked if there were any additions or changes. There were none. The agenda was approved by consensus.

The Chair displayed and reviewed the new C63® Patent related slides. He asked if there was anyone aware of essential patents that should be made known. No one spoke up.

The Chair reviewed the draft minutes from the November 10, 2015 meeting and asked if there were any additions or corrections. There were none, and the minutes were then approved by consensus.

### **Review of Membership, Scope, and Duties**

The Chair noted that new guidelines for continuation of membership have been implemented. Failure to attend at least one of three consecutive subcommittee meetings or to respond to at least one of every two consecutive subcommittee email votes may place your membership at risk. Participation via web conference is considered attending a meeting. Abstentions are counted as responding to a vote.

In considering the proposed list of individuals to be forwarded to the Main Committee for approval as the SC5 membership, the Chair noted that Victor Kuczynski had now missed three consecutive meetings and, in fact, had missed several other meetings prior to the last one he did attend, and had failed to respond to either of two emails he was sent prior to the meeting. Thus, the Chair recommended that Mr. Kuczynski not be included on the list to be forwarded to the Main Committee, and the subcommittee members agreed by consensus.

Near the end of the meeting, note was taken that Craig Fanning had attend two consecutive meetings (via WebEx), and he was asked if would like to become a member of SC5. He replied that he would, so he was instructed to fill out the necessary membership application paperwork. He did so and forwarded it

to the Chair immediately following the meeting. Although we still need to go through a formal vote, his name will be included on the list submitted to the Main Committee for approval.

The current Subcommittee Scope was shown as follows:

Subcommittee 5 is responsible for developing and maintaining new and existing standards for immunity testing techniques and associated instrumentation as requested by the Main Committee ANSI ASC C63®.

The Chair indicated he did not believe there was any need to modify the scope, and the subcommittee agreed by consensus.

The Duties of the subcommittee are the development, maintenance, and revision, as appropriate, of the following documents:

- C63.9 Immunity of Audio Office Equipment
- C63.15 Immunity Measurement of Electrical and Electronic Equipment
- C63.16 ESD Test Methodologies
- C63.24 Generic In-Situ Immunity Testing

See Annex A for the membership, scope, and duties of SC5 to be presented to the Main Committee for its approval.

#### **Review of Subcommittee Responsibilities – Working Group Reports**

C63.9 (Immunity of Audio Office Equipment) – Andy Griffin is the WG Chair. A PINS-C was approved at the May 2015 meeting. Ed Hare and Don Heirman have agreed to be members of the WG. Additional volunteers are welcome. A draft PINS was presented by Mr. Griffin and reviewed by the subcommittee. The statement “Consider latest test instrumentation and techniques” was added to the description of the need for the project in Section 5 of the PINS. The list of stakeholders in Section 6 was also changed by deleting “EMC laboratory accreditation bodies” and adding “Users of audio office equipment.” Andy Griffin then moved to accept the modified PINS and recommend it to the Main Committee for approval. Don Heirman seconded the motion. The motion carried by unanimous consent.

C63.15 (Immunity of Electrical and Electronic Equipment) – Don Heirman is the WG Chair. An active Working Group has been holding regular WebEx meetings and is incorporating several of the items identified in the PINS-C. These include updating of references and adding test methods for automotive immunity, quasi-static fields, proximity testing, and fields from overhead power lines. Tim Harrington is serving as editor. A draft PINS was presented by Mr. Heirman and reviewed by the subcommittee. The word “Assessment” was added to the title so that it reads “American National Standard Recommended Practice for the Immunity Assessment of Electrical and Electronic Equipment.” The third sentence in the description of the need for the project in Section 5 was modified as follows: “Manufacturers need the updates and additional test methods to ~~improve the immunity of their products for~~ better make their products immune in the electromagnetic environments where they are intended to be used.” The list of stakeholders in Section 6 was also changed by deleting “EMC laboratory accreditation bodies.” The current expectation is that the document will be ready for ballot in the September time-frame.

C63.16 (ESD Testing Guide) – Steve Whitesell is the WG Chair. He announced that work on the document, including final review by the IEEE editors, is complete and that publication of the document is imminent. Steve thanked all WG members who had contributed to its development. Don Heirman pointed out the contribution by Richard Worley of significant new test methods based on field experiences. Jerry Ramey also took note of Al Crumm’s contribution, particularly at an editing session in Mesa, AZ. Dan Hoolihan announced shortly before the end of the meeting that he had just received a very timely email indicating the document had been published!

C63.24 (In Situ Immunity Evaluation) – Don Heirman has agreed to take over as Chair of this WG. The original intent of this project was to extend the concepts of C63.18 concerning on-site evaluation of

medical equipment immunity to other product areas. Don has been in contact with Chad Kiger, Chair of the EMC Society Working Group looking into the revision of their IEEE 473 document that addresses site survey measurements. They are considering working on the two documents as a joint project, with IEEE 473 addressing the measurement of ambient RF signals and C63.24 dealing with testing of equipment for immunity to those signals. Steve Berger indicated he was concerned that the techniques used by IEEE 473 were out of date and would not give useful results. We await further input on the feasibility of this joint project approach.

### **Other Old Business**

None

### **New Business**

Members of SC2 reviewed the definitions in C63.16 and provided feedback that was taken into account as part of the editorial process in getting the document reading for publication. In particular, several suggestions for giving attribution to the source of definitions were adopted, but a proposal to spell out the acronyms ESD and EUT each time they were encountered was rejected. Instead, it was agreed that C63.16 would follow the usual custom of spelling out the acronym only on first usage. However, when the definitions are included in the SC3 C63.14 definitions document, they will be spelled out for each instance.

More recently, an email was received from SC2 questioning whether the meanings of the following terms were so generic that they did not need to be included in the list of definitions: arrangement, associated equipment, configuration, failure, peripheral, and verification. This email arrived too late for it to be given consideration since the C63.16 document had already been submitted for publication. However, SC2 will consider whether it wants to make an exception to including every term defined in another C63 document in C63.14, or if it wants to be more selective on terms it feels are too generic.

### **C63 Web Site Update**

Web content manager Jerry Ramie requested that SC and WG chairs police their sections of the C63<sup>®</sup> website for errors or omissions and report them for correction. Please provide "copy and paste" corrected content.

### **Action Item Review**

All Action Items except for AI-24 were deemed closed. Two new Action Items resulted from this meeting. The combined list is shown below:

AI #	Task	Responsible Party	Due Date
AI-24	Don H to recruit volunteers for working on the C63.24 In-Situ Immunity Evaluation document.	Don Heirman	11/08/2016
AI-28	Jerry R to correct spelling of Mark Terrien's name in C63.15 roster.	Jerry Ramie	06/01/2016
AI-29	Craig Fanning to submit membership application.	Craig Fanning	05/12/2016

### **Next Meeting and Adjournment**

The next C63 meeting will be November 7-10, 2016 at the Hilton Orange County Hotel in Costa Mesa, CA. The SC5 meeting is expected to be on Tuesday, November 8. The meeting was adjourned at 9:46 am.

## **Annex A**

### SC5 Membership

Chair	Steve Whitesell
Vice-Chair	Ed Hare
Secretary	Jerry Ramie
Members	Poul Andersen Masud Attayi Stephen Berger Craig Fanning Andy Griffin Don Heirman Dan Hoolihan Rick Lombardi Randy Long David Schaefer Jeff Silberberg Dave Zimmerman

### SC5 Scope

Subcommittee 5 is responsible for developing and maintaining new and existing standards for immunity testing techniques and associated instrumentation as requested by the Main Committee ANSI ASC C63®.

### SC5 Duties

C63.9	Immunity of Audio Office Equipment
C63.15	Immunity Measurement of Electrical and Electronic Equipment
C63.16	ESD Test Methodologies
C63.24	Generic In-Situ Immunity Testing