

APPROVED MINUTES
ASC C63® SC1: Techniques and Development
October 27, 2010
SAE Headquarters
Troy, MI

Presiding Officer: Dennis Camell

Date Prepared: October 27, 2010

Members Present:

Mark Arthurs
Masud Attayi
Colin Brench (Vice-Chair)
Dennis Camell (Chair)
Bob DeLisi
Don Heirman
Tim Harrington
H. R. Hofmann
Dan Hoolihan
Victor Kuczynski
Randy Long
Janet O'Neil (Secretary)
Nate Potts
Ralph Showers
Jeff Silberberg
Bill Stumpf
Art Wall

Employer:

Sony
RIM
Southwest Research Institute (via telecom)
NIST
Underwriters Laboratories Inc. (UL)
Don HEIRMAN Consultants
FCC (present via telecom)
Hofmann EMC Engineering
Hoolihan EMC Consulting
Vican Electronics
L-A-B
ETS-Lindgren
Liberty Labs (via telecom)
University of Pennsylvania
FDA Center for Devices & Radiological Health
DLS Electronic Systems
RCC Inc.

Members Absent:

Harry Hodes
Doug Parker
Ghery Pettit
Werner Schaefer
Larry Stillings
Mike Windler

Employer:

Acme Testing Co./ACIL
Liberty Labs
Intel
Cisco Systems, Inc.
Compliance Worldwide
Underwriters Laboratories Inc. (UL)

Guests:

Zhong Chen
Adam Gouker
Mac Elliott
Dean Ghizzone
Ed Hare
Nick Hooper
Bill Hurst
Greg Kiemel
Dheena Moongilan
Jerry Ramie
Steve Whitesell
Richard Worley

Employer:

ETS-Lindgren
A2LA
Motorola
Northwest EMC
ARRL
RFI Global Services
FCC
Northwest EMC
Alcatel-Lucent
ARC Technical Resources
VTech Communications
Dell

1.0 Call to Order—Chair

1.1 Opening Remarks and Announcements: Chair

1.2 Meeting Logistics Announcements: Host ([Poul Andersen](#))

1.3 Introductions: Secretary

Chair Dennis Camell called the meeting to order at 8:30 am. A round of introductions was made. The Chair thanked the meeting host, Poul Andersen and the SAE, for the meeting arrangements.

2.0 Approval of the Consent Agenda: Secretary

No consent agenda was presented.

3.0 Approval of the Meeting Agenda: Secretary

Secretary O'Neil presented the draft agenda for the October 27 meeting for review. (See Attachment A.) A few items were added. **Bob Hofmann moved to approve the agenda as amended. The motion was seconded and approved.** See Attachment B for the approved agenda.

4.0 Presentation of [patent slides](#): Secretary

The Secretary gave a presentation that reviewed the status of the meeting fees, ANSI policy related to Intellectual Property (IP), inappropriate topics for IEEE working group meetings and the working group meeting slide template. (See Attachment C.)

5.0 Presentation of [meeting attendance](#) fee slides: Secretary

The Secretary reviewed the meeting attendance fees and noted Dan Hoolihan, Vice-Chair of C63®, would contact individuals present who are required to pay a meeting attendance fee.

6.0 Approval of Minutes of Previous Meeting: Secretary

The Secretary presented the minutes of the April 21, 2010 meeting. She reviewed the comments on the minutes made by Werner Schaefer. A few changes were made to address Mr. Schaefer's comments. **Don Heirman moved to approve the April 21, 2010 meeting minutes as amended. The motion was seconded and approved.** See Attachment D for the approved minutes of the April 2010 meeting.

7.0 Review of [Subcommittee Membership](#): Chair

7.1 Review of membership – Members at risk. The Chair advised there are no members currently at risk. (See Attachment E for the updated membership tracking record.)

7.2 Consideration of Members – The Chair advised there are no new membership applications to review.

Mr. Camell showed the confirmed list of members in S/C 1. (See Attachment F.) **Don Heirman moved to approve the S/C 1 membership list as presented. The motion was seconded and approved.**

The Chair reviewed the roster of working group members as shown on the C63 website. Some revisions were made. The updated roster of working group members is included in Attachment G.

ACTION ITEM: All working group Chairs need to complete their rosters and indicate their officers (Vice-Chair and Secretary) and submit to Chair Camell by the end of November.

8.0 Working Group Reports

C63.2: EM Noise & Field Strength Instrumentation

Working Group Chair: [Open](#)

Status: Current. No plans for further maintenance at this time.

C63.4: Emissions Measurements

Working Group Chair: [Don Heirman](#)

Status: Current. Maintenance underway.

Don Heirman provided a verbal update. He noted this is the leading product of ANSI ASC C63[®]. He proposed adopting a new PINS for the committee's work. (See Attachment H for PINS). The PINS is a revision of the current document C63.4-2009. Mr. Heirman explained the formal review process for submitting a new PINS. The revisions are addressed in Item 8 of the PINS. **Don Heirman moved to approve the new PINS as presented. The motion was seconded. Jeff Silberberg suggested a few modifications to the PINS which Mr. Heirman accepted. The PINS as amended was approved.**

Members of the working group include Don Heirman, Bill Hurst, Steve Berger, Tim Harrington and Ghery Pettit. Mr. Heirman welcomed anyone interested in this standard to join the working group.

Mark Arthurs next gave a presentation on the ANSI C63.4 Requirements for Monitor Settings (H Pattern). (See Attachment I.) He explained the problem with the current requirements and proposed a solution. He would like to see the requirement broken up based on the size of the TV/PC monitor. The challenge is where to create the break. He agreed to update the proposal to include information on the size of the h related to projection and send this to the S/C 1 committee members. Mr. Heirman noted that to move this proposal along, multiple manufacturers need to support it. The IEEE Secretariat will be looking for industry support, i.e. from several TV/monitor manufacturers on the C63 committee, to justify a revision to the standard. Mr. Heirman noted that he will publish information on the "scrolling h" in the next C63[®] newsletter and ask for those interested to contact him.

ACTION ITEM: Mark Arthurs to update his report on the font size of the h and send this to the S/C 1 members by the end of the year.

ACTION ITEM: Don Heirman to publish information on the "scrolling h" in the next C63 newsletter and ask for those interested to contact him.

C63.5: Antenna Calibration

Working Group Chair: [Dennis Camell](#)

Status: Next edition in progress.

Working group Chair Dennis Camell provided his report. (See Attachment J.) The working group met yesterday to review the current status of the latest draft of C63.5.

Items that still needed work included:

- Review of current status of latest draft
- Discussion of missing items and requested changes
- Expansion of scope to include time domain and other changes
- Same site cannot be used for both calibration and product testing
- Assignment of AIs to complete draft

The new draft is expected to circulate in the spring of 2011.

Mr. Camell noted that measurement uncertainty will remain in C63.5 until the new standard C63.23 is published. At that time, then measurement uncertainty will be removed from C63.5.

C63.10: Unlicensed Wireless Devices Testing

Working Group Chair: [Art Wall](#)

Status: Next edition in progress

Chair Art Wall presented his report. (See Attachment K.) He noted the working group met on the afternoon of October 25 and morning of October 26. The meetings were attended by 24 of the 55 working group members plus four observers and five call-in attendees. They have decided the work addressing subclause 6.4 on extrapolation measurements below 30 MHz is significant enough to warrant having its own individual working group. After discussion on this topic, the Chair suggested Mr. Wall create a PINS-C on addressing the below 30 MHz measurements in a small task group. Mr. Wall agreed to do this following the May 2011 series of C63® meetings. Ed Hare volunteered to start work on the PINS-C to address the below 30 MHz expansion work and send out the first draft of the PINS-C by November 15, 2010.

The following new topics are included in the 2nd Edition of C63.10:

- Edition 1 maintenance items
- Subclause 5.2 – clarification of test sites above 1 GHz
- Rewrite of subclauses 6.3-6.6 to reduce redundancy and clarify maximization of emissions, alternative procedures for small above 1 GHz
- Subclause 6.4 – clarification of extrapolation factor for emissions below 30 MHz
- New subclause 7.11 – antenna array testing
- New subclause 7.12 – MIMO (Procedure for combining multiple outputs)
- New subclause 7.13 – FM transmitter testing
- New informative Annex G – measurement guidelines above 1 GHz
- New informative Annex H – measurement guidelines for broadband emissions
- New informative Annex I – ERP/EIRP guidelines
- Bandedge measurements
- Test method for determining compliance of inductive loop device

The first draft of C63.10 (20xx) has been circulated and discussed in these working group meetings. The working group agreed to circulate a second draft of C63.10 (20xx) by the end of the year. The balance of the timeline activity is included in the report. Mr. Wall recommends a separate working for measurements and instrumentation above 1 GHz, since this work may be beyond the scope of C63.10. He requests the same meeting space and time for the next wireless working group meeting in May 2011; i.e., two half-day sessions.

C63.22: Guide for Automated EMI Measurement

Working Group Chair: [Werner Schaefer](#)

Status: Current. No plans for maintenance at this time.

Chair Dennis Camell reported no work is being done on this standard so it will be removed from future S/C 1 agendas.

C63.23: Measurement Uncertainty

Working Group Chair: [Bob DiLisi](#)

Status: New Standard. Draft being written.

Working group Chair Bob DeLisi presented his report. (See Attachment L.) The goal is to circulate this standard to the S/C 1 committee for review and comment by February 1, 2011

C63.25: Time Domain Applications for Test Site Validation

Working Group Chair: [Open](#)

Status: New Standard. Draft being written.

Chair Camell noted that Mike Windler is no longer available to Chair this working group. The position is now open. He asked if anyone on the committee is interested in being the Chair of this working group. He would like to see the updated draft of this standard completed by the end of 2011 at the latest. Mr. Heirman noted that the document is intended to address measurements up to 18 GHz. For reference, the new standard C63.25 provides requirements for radiated emissions test sites including open area sites, semi-anechoic rooms below 1 GHz, partially absorber lined open area sites, and semi-anechoic rooms above 1 GHz. C63.25 will copy the below 1 GHz requirements (performance and construction) from C63.4. The new standard will include by reference sVSWR and a new Time Domain method.

C63.26: Licensed Transmitter Testing

Working Group Chair: [Art Wall](#)

Status: New Standard. Draft being written.

Chair Art Wall presented his report. (See Attachment K.) He noted the working group met on the afternoon of October 25 and morning of October 26. The meetings were attended by 24 of the 55 working group members plus four observers and five call-in attendees. The working group agreed to start preparation of a first draft of C63.26.

Work is progressing on the following items:

- Instrumentation
- RF Power Output
- Modulations characteristics
- Occupied bandwidth
- Conducted spurious emissions
- Radiated spurious emissions
- Frequency stability tests

The working group agreed to circulate the first draft of C63.26 by March 2011 for discussion at next wireless working group meeting. The balance of the timeline activity is included in the report. Mr. Wall recommends a separate working group for measurements and instrumentation above 1 GHz, which may be beyond the scope of C63.26. He requests the same meeting space and time for the next wireless working group meeting in May 2011; i.e., two half-day sessions.

9.0 Old Business

No old business was addressed.

10.0 New Business

10.1 Medical Equipment: Jeff Silberberg brought up medical equipment and issues of performance and safety requirements related to work undertaken in the IEC. These issues were addressed in one document. The document was not approved by the IEC. At this point, he is not looking for a C63® standard, but his working group in S/C 6 will propose a standard on wireless co-existence related to medical equipment.

10.2 Smart Grid: Don Heirman spoke on Smart Grid and where C63® fits with this activity. Should a set of C63 standards that apply to smart grid testing be packaged and sold as a set? The IEC and IEEE have provided a list of standards that address smart grid, but not ANSI ASC C63®. This is a void that should be addressed. He is looking for volunteers to help review and group the applicable C63® standards.

Action item: Members with interest or application for SmartGrid as it involves C63® standards, contact Don Heirman before the next SC1 meeting.

11.0 Review of Interpretation Requests: Chair

Chair Camell reviewed the recent questions raised on various documents and relayed how they were addressed. These go to the parent committee secretary who passes them along to the appropriate subcommittee. The subcommittee then addresses the interpretation reply and sends this to the parent committee to review and vote upon. Three new requests were received related to C63.4 measurements. One on calibration intervals and two related to LISN measurements. Regarding the first, Don Heirman volunteered to be the liaison on C63.4. Nate Potts and Victor Kuczynski volunteered to be on that committee. On the second request, Bob Hofmann and Victor Kuczynski volunteered to be on the committee. On the third, Bob Hofmann, Nate Potts and Victor Kuczynski volunteered to be on the committee.

12.0 C63.org Website Use and Updates: Web Content Manager ([Ed Hare](#))

Ed Hare showed the significant updates made to the C63® website. Don Heirman volunteered to provide the information to link to the set of 40 EMC-related standards.

ACTION ITEM: Chair Camell to suggest to the parent committee that the titles of the working groups/standard documents be added to the C63® website.

13.0 Review of the Action Items from Previous Meetings: Secretary

Secretary O'Neil advised that the updated action item list would be distributed to the S/C 1 members along with the draft minutes from this meeting. (See Attachment M for the Action Items list.)

ACTION ITEM: O'Neil to distribute the updated consolidated action items and draft minutes from the October 27, 2010 meeting to the committee.

ACTION ITEM: O'Neil to send the password to the S/C 1 committee so they can access the S/C 1 "members only" section of the website. NOTE: This user and pass code is for access to the S/C 1 page ONLY. Working groups under other S/Cs will have different user codes and passwords.

14.0 Standards Development - Next Steps: Chair

Chair Camell reported that all standards are active and there is nothing new to report.

15.0 Time and Place of Next Meeting: Chair

The next series of C63® meetings will take place for four days over May 2-5, 2011. The S/C 1 meeting date will be on Wednesday, May 4, 2011 at 8:30 am.

16.0 Closing Remarks and Adjournment: Chair

With no further business, Chair Camell adjourned the meeting at 10:50 am. He thanked everyone for coming to the meeting.

Minutes submitted by:



Janet O'Neil
Secretary, S/C 1

ATTACHMENTS

- Attachment A: Draft Agenda for October 2010 S/C 1 Meeting
- Attachment B: Approved Agenda for October 2010 S/C 1 Meeting -
- Attachment C: Patent Slides Required Meeting Template Slides for ASC C63®, IP Info
- Attachment D: Approved Minutes from April 2010 S/C 1 Meeting
- Attachment E: Meeting Attendance/Tracking List
- Attachment F: S/C 1 Membership Roster
- Attachment G: Working Group Roster
- Attachment H: New PINS for C63.4
- Attachment I: Arthurs Report on ANSI C63.4 Requirements for Monitor Settings (H Pattern)
- Attachment J: Camell Report on C63.5
- Attachment K: Wall Report on C63.10 and C63.26
- Attachment L: DeLisi Report on C63.23
- Attachment M: Consolidated Action Items List