

APPROVED MINUTES
ASC C63 SC1: Techniques and Development
April 22, 2009
IEEE Headquarters, Piscataway, New Jersey

Presiding Officer: Mike Windler

Date Prepared: April 22, 2009

Members Present:

Masud Attayi
Colin Brench
Dennis Camell (Vice Chair)
Don Heirman
H. R. Hofmann
Dan Hoolihan
Bill Hurst
Victor Kuczynski
Janet O'Neil (Secretary)
Doug Parker
Ghery Pettit
Nate Potts
Ralph Showers
Jeff Silberberg
Bill Stumpf
Mike Windler (Chair)

Employer:

RIM
Southwest Research Institute
NIST
Don HEIRMAN Consultants
Hofmann EMC Engineering
Hoolihan EMC Consulting
FCC
Vican Electronics
ETS-Lindgren
Liberty Labs
Intel (participated via speaker phone)
Liberty Labs
University of Pennsylvania
FDA Center for Devices & Radiological Health
DLS Electronic Systems
Underwriters Laboratories Inc. (UL)

Members Absent:

Stephen Berger
Tim Harrington
John Lichtig
Werner Schaefer

Employer:

TEM Consulting
FCC
Lichtig EMC Consulting
Cisco Systems, Inc.

Guests:

Poul Andersen
Mark Arthurs
Chris Delay
Ed Hare
Dheena Moongilan
Jerry Ramie
Dave Southworth
Mike Violette
Art Wall
Steve Whitesell
David Zimmerman

Employer:

SAE Representative
Sony Electronics
SSC-Pacific
ARRL
Alcatel-Lucent
ARC
SSC-Pacific
ACIL Representative
RCC Inc.
Vtech/TIA
TUV SUD America

1.0 Call to Order—Chair

Chair Mike Windler called the meeting to order at 1:00 pm. A round of introductions was made.

2.0 IP Review and Meeting Fees

Mr. Windler showed a slide that reviewed the status of the meeting fees, ANSI policy related to Intellectual Property (IP), and the working group meeting slide template. (See Attachment A.)

3.0 Approval of October 8, 2008 Meeting Minutes and April 22, 2009 Consent Agenda

The Chair presented the consent agenda, which included the agenda for today's meeting (see Attachment B) and the minutes from the last meeting (October 8, 2008) for approval. Secretary O'Neil noted she had received editorial comments on the minutes from Werner Schaefer. Mr. Windler reviewed the amended minutes with the committee. Ms. O'Neil showed the amended minutes on the screen. **Don Heirman moved to approve the October 8, 2008 minutes as amended. The motion was seconded and approved.** See Attachment C for the approved minutes of the October 8, 2008 meeting. **The agenda for April 22, 2009 was presented. Dennis Camell moved to approve the agenda. The motion was seconded and approved.**

4.0 Membership Review

Secretary Janet O'Neil reviewed the attendance records to determine members at risk. (See Attachment D.) No members are at risk; all members have met the membership criteria of not having missed three consecutive meetings. The roster of S/C 1 members and S/C 1 working group members were distributed to the committee for review. The updated rosters are included in Attachment E. Bob Hofmann moved to approve the membership roster as presented at the meeting. The motion was seconded and approved. Art Wall and Mark Arthurs indicated an interest in joining S/C1.

ACTION ITEM: Secretary O'Neil to send Art Wall and Mark Arthurs membership applications for joining S/C 1.

5.0 Working Group Reports

5.1 Project 1-13.2 C63.4 Site Requirements Above 1 GHz – Now C63.23

Chair Windler noted a new PINS has been issued to move all site requirements from C63.4 into a separate standard C63.25. (See Attachment F.) He noted the PINS was approved in October 2008 by the consensus body. The new standard C63.25 provides requirements for radiated emissions test sites including open area tests, semi-anechoic rooms below 1 GHz and partially absorber lined open area tests 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. The working group is developing a comparison annex between TDR and VSWR. Next steps due May 1 include new text on using mode-stirred chambers for measurements above 40 GHz (clause 9), reviewing the TDR method (clause 6) and annex B NSA from C63.4, editing clause 5 and annex, reviewing the correlation of SVSWR and TDR compliance (annex E), and developing an MUC for SVSWR and TDR. Mr. Windler feels the new standard will be published by May 2010. He noted that the working group has active members conducting time domain measurements to 18 GHz.

5.2 Project 1-15.5 C63.23 Measurement Uncertainty

In the absence of working group chair Bob DeLisi, Mike Windler presented his report. (See Attachment G.) The working group is addressing the introduction to the standard; the target date for completion of this task is May 4, 2009. Regarding text on Type A, this effort has begun, but needs updating and completion. On Type B, he will contact the IEC to coordinate the use of copyright material. The working group is targeting May 1, 2009 to finish the instruction test on the use of spreadsheets. Lastly, the text on Reporting Requirements needs to be finalized. Mr. DeLisi anticipates a completion date for edition 1.0 of July 2009.

ACTION ITEMS:

Parker and Chen to provide data related to uncertainty values used for antenna calibration by June 31.

5.3 Project 1-15.6 C63.5 Antenna Calibration

Working group Chair Dennis Camell provided his report. (See Attachment H.) The working group met for an extended period on April 20. Mr. Hofmann asked that the standard site method include a reference to 1 GHz. He reviewed the items that have been completed to date. Work underway or needing to be completed includes:

- Add time domain section for free space approximation
- Resolution of WG members feedback from second draft
- Check equations for accuracy and consistency
- Check and cleanup IEEE formatting, as necessary

Regarding the schedule for this work, the draft will be sent to the working group for vote shortly, then it will be sent to S/C 1 for view by June 2009; he expects the document to then be ready to bring to the parent committee by July 2009.

5.4 Project 1-10.1 C63.10 Standard for Testing Unlicensed Wireless Devices

Working group chair Art Wall, presented his report. (See Attachment I.) His wireless WG met on February 26, 2009 in Las Vegas, NV and on April 20, 2009 in Piscataway, NJ. Edition 1 of C63.10 is complete and successfully balloted. According to the IEEE Secretariat, publication of the standard is expected in late summer, after the necessary ANSI approvals are completed by June, 2009. Work on Edition 2 of C63.10 was started in 2008, with the following technical issues to be addressed:

- Measurements above 1 GHz, including instrumentation requirements and procedures (Vitek)
(Note: There is a need to coordinate the activities of this Task Group with the activities of the SCI/WGs for Site Acceptability, Antenna Calibration and Measurement Uncertainty. It would be helpful to obtain a detail report of the activity and status of the work in each of these WGs. A meeting or conference call with these WG chairman may be useful.)
- Broadband system measurements (Case)
- Bandedge measurements (Case)
- MIMO (Heckrotte)
- Dynamic Frequency Selection testing (Case)
- EIRP and ERP measurements (Case)
- Polar Plots and antenna characteristics (Kramer)
- FM modulator testing (Fraser)
- Multiple transmitters (Luksich)

- Antenna array testing (Arthurs)
- Measurements below 30 MHz (Hare)
- Maintenance of Edition 1 issues (Stumpf)

A copy of the revised PINS for Edition 2 was shown. (See Attachment J.) The initial project request was approved as a PINS-C, since Edition 1 of C63.10 had not been approved. The document is now approved and awaiting publication. The WG agreed to modify the PINS by changing it from PINS-C to a PINS and by adding in Section 8 a new (k) multiple antennas and (l) antenna arrays. It was also agreed that the revised PINS could be submitted to S/C 1 with a request that it forwarded to the parent committee, C63[®] for approval. **Don Heirman moved to approve the new PINS (Attachment J.) shown for the next edition of C63.10 and forward to consensus body. The motion was seconded and approved.** Discussion following Mr. Wall's report included measurement procedures above 1 GHz being a significant topic to address in next edition, along with instrumentation considerations including sensitivity. Dan Hoolihan noted that coordination is needed between C63.10 and C63.25 on this topic.

Mr. Wall's committee would like to initiate a new PINS for licensed wireless devices. The scope of work to cover both licensed and unlicensed devices is too great to include in one standard. Therefore, the committee decided to separate the document into two – one for licensed wireless devices and one for unlicensed wireless devices. Don Heirman suggested adding TIA as a stakeholder to the PINS. Mr. Wall agreed. A copy of the draft new PINS for compliance testing of licensed transmitters was shown for discussion and approval to submit to the parent committee, C63[®] for approval. (See Attachment K.) **Dan Hoolihan moved that S/C 1 approve the PINS (Attachment K) for sending to the parent committee for formal approval. The motion was seconded and approved.** Mr. Pettit abstained from voting.

Deena Moongilan noted that special attention must be paid to Part 27 of the FCC rules. Mr. Windler noted that all parts of the FCC rules as shown in the PINS will need to be rewritten in light of the new edition.

6.0 Web Site Management

Vice-Chair Dennis Camell advised that all action items related to the C63 website from S/C 1 discussed at the last meeting have been addressed. Some S/C 1 members noted they were having trouble accessing the members only password protected areas of the C63 website. Secretary O'Neil relayed the password to the committee.

7.0 Old Business

Mr. Windler advised that he was elected for a three year term to chair S/C 1. He wishes to vacate the office and recommends Dennis Camell as the new S/C 1 chair. **Bob Hofmann moved to recommend to the consensus body the appointment of Dennis Camell as the new S/C 1 chair. The motion was seconded and approved.** This will be taken to the parent committee as a recommendation for formal approval. Mr. Windler noted that a new vice-chair is needed; he recommended Colin Brench. **Dennis Camell moved to recommend to the consensus body that Colin Brench be the new vice-chair of S/C 1. The motion was seconded and approved.**

8.0 Standards Development: Next Steps

No new items discussed. See website for the current status of documents.

9.0 Action Item Review

Chair Mike Windler 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 L for the Action Items list.)

ACTION ITEM:

O'Neil to distribute the updated consolidated action items and draft minutes from the April 22, 2009 meeting to the committee.

O'Neil to send password to 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 only page. Working groups under other S/Cs will have different user codes and passwords.

10.0 Time and Place of Next Meeting

The next series of C63 meetings will take place for four days over October 19-22, 2009 at NIST in Boulder, CO. The S/C 1 meeting date will be on Wednesday, October 21, 2009 at 2:15 pm.

11.0 Adjourn

With no further business, Chair Windler adjourned the meeting at 4:30 pm. The committee thanked Mr. Windler for a job well done as chair of S/C 1 over the past three years.

Minutes submitted by:

Janet O'Neil
Secretary, S/C 1

ATTACHMENTS

Attachment A: Required Meeting Template Slides for ASC C63®, Meeting Fees, IP Info

Attachment B: Agenda for April 22, 2009 S/C 1 Meeting

Attachment C: Approved Minutes from October 2008 Meeting

Attachment D: Meeting Attendance List

Attachment E: S/C 1 Membership Roster and Working Group Roster

Attachment F: Windler Report on C63.25

Attachment G: DeLisi Report on C63.23

Attachment H: Camell Report on Project 1-15.6, C63.5

Attachment I: Wall Report on C63.10

Attachment J: PINS for Edition 2, C63.10 (Unlicensed Wireless Devices)

Attachment K: PINS for Licensed Wireless Devices

Attachment L: Consolidated Action Items list