

APPROVED MINUTES - ANSI ASC C63® SC1: Techniques and Development
WebEx Meeting
Friday, December 11, 2020

Members Present:

Nicholas Abbondante
Mike Antola
Mark Arthurs
David Chamberlain
Zhong Chen (Chair)
Bob DeLisi
Mac Elliott
Andy Griffin
Tim Harrington
Dan Hoolihan
Steve Jones
Greg Kiemel
Jeff Klinger
Victor Kuczynski
Rick Lombardi
Randy Long
Nima Molaei
Jason Nixon (Vice Chair)
Michael O'Dwyer
Janet O'Neil (Secretary)
Nate Potts
David Schaefer
Dan Sigouin
Jeff Silberberg
Dennis Ward
Khairul A. Zainal

Members Absent:

Doug Kramer
Mits Samoto
David Zimmerman

Guests:

Jens Medler
Horia Popovici
Jennifer Santulli

Employer:

Intertek
UL
Sony
ISED Canada
ETS-Lindgren
Underwriters Laboratories Inc. (UL)
TUV Sud America
Cisco
FCC
Hoolihan EMC Consulting
FCC
Apple
Compatible Electronics
Vican Electronics
Visteon
ANAB
PCTEST
ISED Canada
Apple
ETS-Lindgren
Keysight
Element Materials Technology
Timco
FDA Center for Devices & Radiological Health
PCTEST
Laird Connectivity

Employer:

ETS-Lindgren
Liberty Labs Asia
Spectrum EMC, LLC

Employer:

Rohde & Schwarz
ISED Canada
IEEE

1.0 Call to Order: Chair

Chair Zhong Chen called the meeting to order at 8:00 am PST. A moment of silence was observed in memory of Don Heirman who had passed away on October 30, 2020.

2.0 Approval of the Consent Agenda: Secretary

Secretary O'Neil presented the consent agenda. This includes the draft meeting agenda for December 11 2020, the acceptance of the terms contained in the [patent slides](#), by all attendees, and approval of the minutes from the last meeting held on October 2, 2020. The consent agenda was approved as presented. (See Attachment A for the approved agenda. See Attachment B for the Approved Minutes of the October 2, 2020 meeting.)

3.0 Review of [Subcommittee Membership](#) and Scope: Secretary

3.1 Review of Membership – Members at Risk. Secretary Janet O'Neil reviewed the Member Attendance Log included in the agenda. (See Attachment A). There are no members at risk. The updated SC1 Membership Roster is included in Attachment C.

3.2 Consideration of New Members – Working Group Rosters

The secretary advised that there have not been any new membership applications requested for SC 1. The updated Working Group Roster is included in Attachment D.

ACTION ITEM: All Working Group Chairs need to complete their rosters and indicate their officers (Vice-Chair and Secretary) and submit to SC1 Chair prior to the next meeting.

3.3 The SC1 Scope was reaffirmed as follows:

Subcommittee 1 provides the technical expertise and resources necessary for maintaining existing and newly proposed C63[®] approved standards documents. Subcommittee 1 addresses new or existing measurement methods, site qualification methods, calibration methods, associated instrumentation, and limits development as assigned by the Main Committee ASC C63[®].

4.0 Working Group Reports

C63.2: Field Strength Measuring Instrumentation – Working Group Chair Jens Medler presented his report. (See Attachment E.) His Working Group is preparing a revision of ANSI C63.2:2016. He outlined the proposed changes, namely to:

- Update reference to CISPR 16-1-1 from Edition 3.2 (2014) to Edition 5 (2019)
- Identify the changes in CISPR 16-1-1:2019 (Ed.5)
- Align ANSI C63.2 with CISPR 16-1-1:2019 where applicable, e.g. frequency tuning tolerance of $\pm 2\%$ is in CISPR 16-1-1 now and can be omitted as additional requirement in C63.2

This work is summarized in the new PINS dated October 30, 2020 that Jens shared with the members of SC1. (See Attachment F.) Bob DeLisi and Victor Kuczynski mentioned that we should be looking at measurements above 40 GHz and reflecting them in our standards. Dan Hoolihan suggested we concentrate on the work stated in this PINS for now and address the 40-200 GHz instrumentation in future work.

It was moved to approve the PINS on C63.2 as presented. Victor Kuczynski seconded the motion. The motion was approved.

ACTION: Zhong Chen will take the PINS on C63.2 to the steering committee for review.

Zhong said he appreciated Jens' work on this PINS since he is very involved in the CISPR 16-1-1 working group and can harmonize this activity. Jens closed his report by summarizing what's new in Edition 5.0 of CISPR 16-1-1:2019 - Radio Disturbance and Immunity Measuring Apparatus.

C63.4: Emissions Measurements

Working Group Chair: Andy Griffin

Status: C63.4: Current-2014. New PINS approved by WG, SC1 and C63 in Nov. 2017

The Chair noted that he appointed Andy Griffin to be the Chair of this Working Group and Horia Popovici to be the Vice-Chair. Andy presented a report on current activity. (See Attachment G.) Since the last SC1 meeting, they have had monthly meetings to try and sort out the remaining issues. The biggest of these is the 2 dB rule. Since there was no effective progress despite extensive work, the working group took a vote in an attempt to end the deadlock. Following the vote, it was obvious that the 2 dB rule needs to be informative. Andy, Nick Abbondante, and Horia worked on updating the annex to address this. Significant improvements have been achieved. They are working cautiously on the document to ensure it is adopted by the US and Canada.

On the timeline, the working group will complete the 2 dB annex and hopefully achieve consensus. They have completed the comment matrix and updated the document from the previous vote. They will make one final review of the comments to see if there are any which could cause problems moving forward and then send it to SC1 for review. This is appropriate since the document has changed considerably since the last circulation within SC1.

C63.5: Antenna Calibration

Working Group Chair: Doug Kramer

Status: Current-2017

Working Group Vice-Chair Nate Potts presented in the absence of Doug Kramer. (See Attachment H.) He noted there has been no major activity since the last SC1 meeting in October; however, the next meeting is on December 17. They are working on the clauses to put them in better order/flow, adding a section on RSM, harmonizing with the CISPR document, and adding Zhong's text on time domain measurements (clause or annex for this).

C63.7: Construction of Test Sites

Status: Published update on March 9, 2015; working group disbanded

Zhong Chen commented that this document is a guide and very helpful. Dan Hoolihan recommended SC1 reaffirm this document since it was published in 2015. *Note: Subsequent to the SC1 meeting, the steering committee requested a working group be formed to draft a new PINS to reaffirm C63.7.*

ACTION: Zhong Chen to create working group to draft new PINS to reaffirm C63.7.

C63.22-2004: Guide for Automated EMI Measurements

Status: Published in 2004

Zhong advised that this standard is active, but it has not been revised or reaffirmed since 2004. The listing is shown here from the IEEE SA website: https://standards.ieee.org/standard/C63_22-2004.html. The standard should be reviewed or withdrawn as it is now over 15 years since original publication.

Jennifer Santulli with IEEE confirmed the document was set to expire in 2020. Dan Hoolihan advised that was fine and to let the document expire as scheduled.

C63.23-2012: Guide for Computations and Treatment of Measurement Uncertainty

Working Group Chair: N/A

Jennifer Santulli advised that IEEE reaffirmed C63.23 on August 10, 2020; it was posted to IEEE Xplore in October 2020.

C63.25: Time Domain Applications for Test Site Validation

Working Group Chair: Dan Sigouin

Status: New Standard. Draft being written. PINS approved by SC1 on October 27, 2014

This work addresses the family of C63.25 standards:

- o C63.25.1 (1 GHz to 18 GHz) TDR – Published Dec 2018.
- o C63.25.2 (30 MHz to 1000 MHz) NSA – Work began in January 2019.
- o C63.25.3 (Above 18 GHz) – Future plan to address NSA above 18 GHz.

Zhong Chen presented Dan Sigouin's report since Dan had to step away from the meeting. (See Attachment I.) Regarding C63.25.2 (30 MHz to 1000 MHz), the PINS is current. The C63 Steering committee approved the following motion on October 23, 2020:

C63.25.2 WG will take sole responsibility to complete the work on site validation between 30 MHz to 1 GHz. Once this work is complete, the C63.25.2 WG will notify the C63.4 WG to remove all site validation references between 30 MHz to 1 GHz in C63.4 after the publication of C63.25.2.

The working group discussed Zhong Chen's proposal for a simplified site validation method for 30 MHz – 1 GHz. There are conflicting opinions on whether the antenna calibration method and site validation method should reside in C63.25.2; or just the site validation method. Currently the antenna calibration per this method has been submitted to the C63.5 working group for possible inclusion in their draft standard.

On the timeline, the goal is to submit a draft to SC1 by March 2021; the next telecom meeting is planned for 1st Quarter 2021.

Zhong noted the document has been simplified to make the test methods easier and clearer to understand. He feels the document is nearly ready to send to SC1 for review following review by the working group; only minor editing is required. Zhong noted the goal is to have C63.25.2 released within the same time frame as C63.4; ideally C63.25.2 will be released first so C63.4 can reference C63.25.2. Dan Hoolihan confirmed the parent committee and steering committee will control the timing/release for these standards.

The question arose about coordination of the future C63.25.3 (above 18 GHz) activity with the mmWave task group activity. Nick Abbondante will form a working group to draft a PINS for studying the mmWave task group activity and liaising with the related activity in C63.25.

ACTION ITEM – Nick Abbondante to form a working group to draft a PINS for coordinating activity between C63.25.3 and the mmWave task group.

5.0 Old Business – Chair

There was no old business to discuss.

6.0 New Business – Chair

6.1 Coordination with SC3 for Harmonization

Zhong Chen announced Ross Carlton has agreed to be the new SC3 chair, after the passing of former chair Don Heirman. Zhong reminded SC1 that before any Working Group draft may be submitted to SC1 for approval, the document must be provided to the SC3 Chair for evaluation and coordination of any harmonization effort. See the table below for the activity status updated during the meeting.

Reviewer Actions

RA #	Task	Responsible party	Due Date	Status
RA-5	Compare C63.5 to CISPR 16-1-6	Nate Potts	2/1/20	Open
RA-17	Compare C63.25 to CISPR 16-1-4 (two freq. ranges under C63.25.1 and C63.25.2)	Dan Sigouin	5/1/19	Open

7.0 Review of Interpretation Requests: Zhong Chen reviewed the following open and/or new interpretation requests received since the last meeting on October 2, 2020.

- a) **C63.4 (2014) Clause 8.2.3 “Measurement Antenna Distance”** from Bill Stumpf, request dated Sept 9, 2020. Task Group members include H. Popovici (Chair), G. Pettit, D. Zimmerman, B. DeLisi, N. Abbondante. Status – response in process.

[Click here for more information about interpretation request procedures](#) (see pages 12-14).

Dan Hoolihan reminded the committee that responses to interpretation requests are informative, NOT normative, in nature.

8.0 [C63.org](#) Website Use and Updates

Zhong requested on behalf of Jerry Ramie that SC1 members be specific with any requests for postings to the website. Zhong asked SC1 members to be sure to update or confirm with Jerry directly that they are correctly listed on the website.

9.0 Review of the Action Items from Previous Meetings: Secretary

Secretary O’Neil advised that an updated action item list would be distributed to the SC1 members along with the draft minutes from this meeting.

ACTION ITEM: O’Neil to distribute the updated consolidated action items and draft minutes from the December 11, 2020 meeting to the committee.

10.0 Time and Place of Next Meeting: Chair

Zhong Chen advised that SC1 would meet via WebEx on Friday morning, March 5, from 8:00 am – 10:00 am PST.

11.0 Closing Remarks and Adjournment: Chair

With no further business, Zhong Chen adjourned the meeting at 10:00 am PST. He thanked everyone for attending the meeting.

Minutes submitted by:



Janet O'Neil
Secretary, SC1

ATTACHMENTS

- Attachment A: Approved Agenda for December 11, 2020 SC1 Meeting
- Attachment B: Approved Minutes from October 2, 2020 SC1 Meeting
- Attachment C: SC1 Membership Roster
- Attachment D: SC1 Working Group Roster
- Attachment E: Medler Report on C63.2
- Attachment F: PINS for C63.2
- Attachment G: Griffin Report on C63.4
- Attachment H: Kramer Report on C63.5
- Attachment I: Sigouin Report on C63.25 Family of Standards