



Accredited Standards Committee C63[®]
Electromagnetic Compatibility
[Subcommittee 3](#) - International Standardization

Chair: [Heirman, Don](#)
 Vice Chair: [Schaefer, Werner](#)
 Secretary: [Ramie, Jerry](#) (non-voting)
 Sept 7, 2016 - 3:00 to 5:00 pm EDT
 Draft Minutes

1. **Call to Order: Chair** - The meeting was called to order at 1:00PM-EDT.
 - 1.1 **Opening remarks and Announcements: Chair** - Thank you for attending!
 - 1.2 **Meeting logistics announcements: Host**
 - 1.3 **Introductions: (roll call) Secretary** - Don Heirman, Jerry Ramie, Craig Fanning, Vladimir Bhazanov, Dave Arnett, **AI-29**: Dave now works for HP (not **Hewlett Packard**). Jerry to so edit roster.

2. **Approval of the Agenda: Chair** - The agenda was shown and approved by acclamation.

3. **Presentation of [patent slides](#): Secretary** - The call for essential patents was shown and no patent issues were raised.

4. **Approval of [previous minutes from 5/10/16](#): Secretary** - The previous Minutes from 2/18/16 were shown and approved by acclamation. Credentials required for access to the [SC3 private area](#):
subcomite3
43sta43

5. **Review of [Subcommittee Membership](#): Chair** - current SC3 roster from website:

Subcommittee 3 Membership Roster (updated 9 Sept. 2016)

Name	Role within Subcommittee 3	Affiliation
Andersen, Poul	Member SC3	Poul Andersen Consulting
Berger, Stephen	Chair Subcommittee 8	TEM Consulting
Chen, Zhong	Chair Subcommittee 1	ETS-Lindgren
Vladimir Bazhanov	Chair Subcommittee 7	Ericsson AB
Griffin, Andy	Member SC3 CISPR/H Technical Advisor	CISCO Systems
Hare, Ed	Member SC3	ARRL
Heirman, Don	Chair SC3; Chair CISPR; CISPR/A Deputy Technical Advisor	Don HEIRMAN Consultants
Hoolihan, Dan	Chair C63 [®]	Hoolihan EMC Consulting
Kuczynski, Victor	Member SC3	Vican Electronics
Long, Randy	Chair Subcommittee 6	Laboratory Accreditation Bureau
Potts, Nate	Member SC3	Liberty Labs
Schaefer, Werner	Vice Chair SC3 CISPR/A Technical Advisor	Schaefer Associates
Dilay, Chris	Chair Subcommittee 2	DOD – SPAWAR
Whitesell, Steve	Chair Subcommittee 5	Whitesell Consulting
Wall, Art	Chair Subcommittee 4	Radio Regulatory Consultants

Non-Voting Members		
Arnett, Dave	Liaison Member CISPR/I Technical Advisor	HP
Fanning, Craig	Liaison Member CISPR/D Technical Advisor	Elite Electronic Engineering
Hofmann, H.R. (Bob)	Emeritus Member SC3	Hofmann EMC Engineering
Mahn, Terry	Liaison Member CISPR/B Technical Advisor	Fish and Richardson
Michael Cibulka	Liaison Member TC77 & SC77B Technical Advisor	Rockwell Automation
Yandek, Ed	Liaison Member CISPR/F Technical Advisor	Edward Yandek LLC

5.1. Review of subcommittee membership

Membership Guidelines for Subcommittees:

*For an individual to remain a voting member of a Subcommittee, active participation in Subcommittee meetings and regular responses to Subcommittee email votes is required. Should a member fail to attend at least one of three consecutive scheduled meetings (in person or remotely via web conference (when used)) or respond to at least one of every two consecutive Subcommittee email votes, their membership in that Subcommittee may be at risk. **Non-voting members are urged to be present or on webinars but do not have to strictly adhere to the above guidelines that voting members have to follow.***

Note: Abstentions shall be treated the same as a “yes” or “no” vote regarding the requirement to respond to email votes.

5.2 Members at risk? - Michael Cibulka is newly appointed as liaison member; Art Wall is the newly elected SC4 chair and hence their attendance records start from the 5/10 meeting. The Members who have missed three consecutive meetings (as shown in the Attendance Spreadsheet below) are: **Steve Berger, Zhong Chen, Victor Kuczynski as shown below.**

Full Name	4/29/14	11/11/14	5/5/15	11/10/15	2/18/16	5/10/16
Andersen, Poul	x	x	x	x	a	
Berger, Stephen						
Chen, Zhong		x				
Bazhanov, Vladimir					x	x
Griffin, Andy	x	x		x	x	x
Hare, Ed	x	x		x		
Heirman, Don	x	x	x	x	x	x
Hoolihan, Dan	x	x	x	x		x
Kuczynski, Victor		x				
Long, Randy			x	x		x
Potts, Nate		x				x
Schaefer, Werner						x
Dilay, Chris	x	x	x	x		x
Whitesell, Steve		x	x	x		x
Wall, Art						
Non-voting:						

Arnett, Dave				X			X
Fanning, Craig				X		X	X
Hofmann, H.R.						X	
Mahn, Terry						X	
Cibulka, Michael							X
Yandek, Ed							
Ramie, Jerry	X	X	X	X	X	X	X
Non-members:							
DeLisi, Bob	X						
Silberberg, Jeff	X	X			X		X
O'Neil, Janet	X						
Shellman, Marcus	X	X					
Moongilan, Dheena	X	X					
Hackett, Beth	X	X	X				
Zimmerman, Dave	X						X
Duncanson, Mike	X	X	X				
O'Dwyer, Mike	X						X
Kaute, Richard	X						
Southworth, Dave	X						
Carrigan, Ken		X					
Wojtaszek, Tom		X	X	X			X
Schaefer, David		X					
Mills, Jim		X					
Moore, Brad			X	X			
Attayi, Masud				X			
Crumm, Allen							X
McConnell, Megan							X
Lichtig, John							X
Arthurs, Mark							X

6.0 Review of Scope, Duties and Links - The Scope, Duties and Links were not discussed.

7.0 Current Status of C63 Standards – Don reviewed the publication status of the following C63 documents elaborating what was in the right column below. The subjects of each of the standards are shown in agenda item 8 below.

Status of C63 standards with possible input to CISPR/TC77 via US National Committee TAG

C63 Standard	Publication status
C63.4 (Heirman)	Published in 2014. Experiments to identify changes being conducted
C63.4a (Heirman)	Publish by end of 2016
C63.5 (DeLisi)	2006 edition under revision
C63.9 (Griffin)	2008 edition; PINS to be approved
C63.15 (Heirman)	Revision of 2010 edition nearing completion.

C63.23 (DeLisi)	2012 edition not under revision
C63.24 (Heirman)	New standard (joint task with IEEE 473)
C63.25 (Sigouin)	New standard under preparation
C63.26 (Wall)	2013 edition not under revision
C63.27 (Berger)	Discuss after publication
C63.28 (Dilay)	Discuss after publication
C63.29 (Mendoza)	Discuss after publication
C63.30 (Thul)	Discuss after publication
C63.31 (Walton)	Discuss after publication

8. Analysis of equivalencies between C63[®] and IEC/IEEE standards

Don emphasized that the study of these equivalencies and what can be harmonized or referenced is the task of SC3. He is shown in many of the rows as a review leader. This was done to get the task started. After that, the second (or more) person shown will be the carryon review leader.

C63[®] Document	SC	Subject	International Document	Review Leader (WG Chair)
C63.4	SC1	Measurements	CISPR 16-2-X CISPR 32	Heirman
C63.5-draft	SC1	Antenna Calibration	CISPR 16-1-6	DeLisi
C63.9	SC5	Office Equipment Immunity	IEC 61000-4-3	Griffin
C63.15-draft	SC5	Immunity	IEC 61000-4-X CISPR 35	Heirman
C63.16	SC5	ESD	IEC 61000-4-2	Whitesell
C63.23	SC1	Uncertainty	16-4-2	DeLisi
C63.24-draft	SC5	Generic On-Site Meas.	IEEE 473	Upcoming kick-off meeting
C63.25	SC1	Test Site Validation Antenna calibration site	CISPR 16-1-4 CISPR 16-1-5	Sigouin
C63.10, C63.26	SC1	Licensed Transmitters	ETSI wireless requirements	Wall
C63.27-draft	SC7	Co-existence	IEC 62657-2	Berger
C63.28-draft	SC2	Best Practices	No equivalent	Dilay
C63.29-draft Learn more	SC4	Lighting products	CISPR 15	Mendoza
C63.30-draft Learn more	SC4	Wireless Power Transfer Products	CISPR 11	Thul
C63.31-draft Learn more	SC4	ISM equipment (FCC MP-5)	CISPR 11	Walton

AI-30: All members to identify other equivalencies to be added to column 4 above.

9. Review of the action items from previous meetings: Secretary

Consolidated Action Items from 5/10/16 Webinar Meeting of SC3

Note that some of the actions showing Heirman as part of an action with another will be the ultimate responsibility of the others as Heirman moves to chair duties after initial help with the action items.

AI #	Task	Responsible party	Due Date	Status
AI-16:	Jerry to correct SC3 roster for Dilay affiliation to DoD-Spawar; Whitesell no longer with TIA	Jerry Ramie	9/7/16	CLOSED posted 5/28
AI-17:	Jerry to send a note to Steve Berger, Zhong Chen, Bill Hurst, Victor Kuczynski, Ed Yandek notifying them of membership risk.	Jerry Ramie	10/30/16	CLOSED AI-31: Jerry to send a note to Berger, Chen & Kuczynski
AI-18:	Heirman and Arnett to review anything that can be moved between C63.4 and CISPR32. Update Tolerance Table in CISPR 32 to take advantage of the work in the C63.4 working group. Consider the that EUTs greater than 2 meters in height must have NSA up to that height which is being discussed in CISPR SC/A	Don Heirman Dave Arnett Werner Schaefer	10/30/16	Open
AI-19:	DeLisi to notify us when C63.5 is published and how it relates to CISPR 16-1-6	Bob DeLisi	10/30/16	OPEN
AI-20:	Griffin will look at modulation in C63.9 with potential for introduction into SC77B through the US National Committee.	Andy Griffin	10/30/16	Unique test, possible in 61000-4-3? Modulation is not AM but more varied.
AI-21:	Heirman and Arnett to review anything that can be moved between C63.15 and CISPR35. Still to determine if there is any input from C63.15 that will assist in doing immunity measurements in CISPR 35. The use of information on instrumentation suggestions in C63.15 might be helpful in selecting adequate signal sources for radiated, conducted, ESD, etc.	Don Heirman Dave Arnett	10/30/16	Open
AI-22:	Whitesell / Cibulka / Worley to develop a proposal for TC77B on C63.16	Steve Whitesell Mike Cibulka Rich Worley	10/30/16	Open
AI-23:	Heirman / DeLisi to prepare for the CISPR-A TAG adding statistical way of measurement uncertainty Bob should excerpt information from C63.23 on statistical method of finding MU to enter into CISPR 16-4-2.	Don Heirman Bob DeLisi	10/30/16	Open
AI-24:	Mr. Berger to provide a report on C63.27 at our next meeting	Steve Berger	10/30/16	Open
AI-25:	Heirman / Mendoza to go over CISPR14-1 & 15-1 for consideration for use in C63.29 Ernesto to review what is in CISPR 14-1 and 15-1 on lighting. Note that the latest edition of 15-1 has a complete test for emissions from LED lighting used to replace incandescent lights in incandescent	Don Heirman Ernesto Mendoza	10/30/16	Open

	fixtures.			
AI-26:	Heirman / Thul to go over CISPR 11, 14-1 & 15-1 for consideration for use in C63.30. Travis to see what is in CISPR 11, 14-1 and 15-1 on WPT for use as reference or in the opposite direction what is in these CISPR documents that can be used in C63.30.	Don Heirman Travis Thul	10/30/16	Open
AI-27:	Heirman / Walton to go over CISPR 11, 14-1 & 15-1 for consideration for use in C63.31. CISPR 11 totally addresses Industrial, Scientific, and Medical device emission tests, both radiated and conducted. Maybe Derek can list what is covered and not covered in CISPR 11 and in C63.31 so it is clear where we are and where the FCC MP-5 can be bolstered with the info from at least CISPR 11 and possibly 14-1 and 14-2 (if anything)	Don Heirman Derek Walton	10/30/16	Open
AI-28:	Fanning / Thul / Heirman to schedule 3-way CISPR/SAE task group telecon/webinar to discuss getting more inputs from CISPR and SAE Suggest a webinar on <u>19 September at 3 pm EDT</u> for 90 minutes to discuss all that is happening and what can be in C63.30	Craig Fanning Travis Thul Don Heirman AI-32: Jerry to set CISPR/SAE webinar for 9/19 @ 3PM. (add Rick Lombardi)	10/30/16	Open

10. Further Standards Analysis - This was not discussed.

- 10.1 ASC-C63[®] member standards that need possible SC3 analysis - All**
- 10.2 Issues from IEC (incl. CISPR & TC77), ISO and other international standards activity potentially affecting US standards development: Chair**

11. Old Business and discussions - Nothing was brought forward

12. New Business: This was not discussed

- 12.1 Status of [website](#)**
- 12.2 Others?**

13. Time and place of next meetings: Chair - Face to Face meeting on **8 November** in Costa Mesa, California. Action items are due by **10/30/16** so that they can be sent out to the SC members to be ready to study in advance of the face to face meeting.

14. Closing remarks and Adjournment: Chair - The meeting was adjourned at 4:32PM-EDT.

*****End of Meeting*****

Consolidated Action Items from 9/7/16 Webinar Meeting of SC3

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AI-19:	DeLisi to notify us when C63.5 is published and how it relates to CISPR 16-1-6	Bob DeLisi	10/30/16	OPEN
AI-20:	Griffin will look at modulation in C63.9 with potential for introduction into SC77B through the US National Committee.	Andy Griffin	10/30/16	OPEN Unique test, possible in 61000-4-3? Modulation is not AM but more varied.
AI-21:	Heirman and Arnett to review anything that can be moved between C63.15 and CISPR35. Still to determine if there is any input from C63.15 that will assist in doing immunity measurements in CISPR 35. The use of information on instrumentation suggestions in C63.15 might be helpful in selecting adequate signal sources for radiated, conducted, ESD, etc.	Don Heirman Dave Arnett	10/30/16	OPEN
AI-22:	Whitesell / Cibulka / Worley to develop a proposal for TC77B on C63.16	Steve Whitesell Mike Cibulka Rich Worley	10/30/16	OPEN
AI-23:	Heirman / DeLisi to prepare for the CISPR-A TAG adding statistical way of measurement uncertainty Bob should excerpt information from C63.23 on statistical method of finding MU to enter into CISPR 16-4-2.	Don Heirman Bob DeLisi	10/30/16	OPEN
AI-24:	Mr. Berger to provide a report on C63.27 at our next meeting	Steve Berger	10/30/16	OPEN
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AI-29:	Dave now works for HP (not Hewlett Packard), Jerry to edit roster	Jerry Ramie	11/8/16	CLOSED Edited 9/7
AI-30:	All members to identify other equivalencies to be added to Section 8 column 4 above	All members	10/30/16	OPEN
AI-31:	Jerry to send a note to Berger, Chen & Kuczynski	Jerry Ramie	10/30/16	CLOSED sent 9/12
AI-32:	Jerry to set CISPR/SAE webinar for 9/19 @ 3PM.	Jerry Ramie	11/8/16	CLOSED set 9/7