

# Accredited Standards Committee C63®

# **Electromagnetic Compatibility**

**Subcommittee 3: International Standardization** 

Chair: Ross Carlton Vice Chair: Ernesto Mendoza Secretary: Jerry Ramie

Webinar August 25, 2021; 2:00 PM – 4:00 PM - EDT

### **Approved Minutes**

- 1. Call to Order: Chair The meeting was called to order at 2:01PM-EDT
  - **1.1 Announcements: Chair's remarks –** We will continue to review the comparison reports and the status of the comparison action items. We may have a short meeting today.
  - **1.2 Meeting logistics announcements: Host** (N/A)
  - **Introductions: Secretary roll call** (attending members with their affiliations and guests are recorded separately below) (Absences highlighted in gray)
  - 1.4 Present membership: Report any roster errors to the ASC-C63<sup>®</sup> Secretary

## Subcommittee 3 Membership Roster. Errors shown in yellow highlight

Name	Role within Subcommittee 3	Affiliation
Carlton, Ross	Chair Subcommittee 3	ETS - Lindgren
Coder, Jason	Chair Subcommittee 7	NIST
DeLisi, Bob	Chair Subcommittee 4	UL LLC
Dilay, Chris	Member	Naval Info. Warfare Center Pacific
Griffin, Andy	Member	CISCO Systems
Here Ed	US CISPR/H Technical Advisor	ARRL
Hare, Ed	Chair Subcommittee 5	7 11 11 1
Hoolihan, Dan	Chair ASC-C63®	Hoolihan EMC Consulting
Klinger, Jeff	Member	Compatible Electronics
Kramer, Doug	Member	ETS-Lindgren
Long, Randy	Chair Subcommittee 6	ANAB (ANSI National Accreditation Board)
Mendoza, Ernesto	Vice Chair Subcommittee 3	Signify
	US CISPR Technical Advisor	
	US CISPR/F Technical Advisor	
Popovici, Horia	Member	Innovation, Science and Economic
		Development Canada
Potts, Nate	Member	Keysight Technologies
Samoto. Mits	Member	Liberty Labs Asia
Shellman, Marcus	Chair Subcommittee 2	DOD – Joint Spectrum Center (JSC)
Thul, Travis	Member	2T2J, Inc.
	Non-Voting Mem	bers
Abbondante, Nick	Liaison Member	Intertek
	US CISPR/A Technical Advisor	
Arnett, Dave	Liaison Member	Garmin
	US CISPR/I Technical Advisor	
Cibulka, Michael	Liaison Member	Rockwell Automation
	TC77 & SC77B Technical Advisor	
Fanning, Craig	Liaison Member	Elite Electronic Engineering
	US CISPR/D Technical Advisor	

Hofmann, H.R. (Bob)	Emeritus Member	Hofmann EMC Engineering
Jones, Steve	Liaison Member	FCC Laboratory
Mahn, Terry	Liaison Member US CISPR/B Technical Advisor	Fish and Richardson
Pettit, Ghery	Liaison Member CISPR/I Chair	Pettit EMC Consulting, LLC

Guests and Observers: (non-voting) Jerry Ramie, Dan Sigouin, Jeff Silberberg,

- 1.5 Quorum: (50% of roster) constitutes a quorum. (rounding up) (16 roster members / 2 = 8 >> 8 (therefore <u>8 people</u> are required for a quorum) **Was quorum achieved? (Yes)** If not, any actions taken are subject to confirmation by electronic ballot or at a future meeting. (Quorum is not required for Working Group meetings)
- 2. Approval of the Agenda: Secretary The Agenda was modified and approved by acclamation.
- **2.1** Approval of the previous Minutes 20210526 The previous minutes were shown in a line-by-manner and approved by acclamation.
- **2.2** Review of the <u>patent slides</u> The patent slides were shown and all in attendance agreed to abide by the patent policies.
- 3. Review of Subcommittee Membership, Report any errors to the Secretary

# 3.1 Review of Membership Guidelines

#### **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 <u>one of three</u> 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.

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

#### Member Attendance Log: Any errors in the log?

9/19/18	11/29/18	2/14/19	5/2/19	8/28/19	11/20/19	2/13/20	5/28/20	9/9/20	12/3/20	3/3/21	5/26/21	Full Name
								Х	Х	Х	Х	Carlton, Ross
					Х	Х	Х	Х	Χ	Х	Х	Coder, Jason
Х	Χ		Х		Х	Χ	Х	Х		Х	Х	DeLisi, Bob
Х			Х		Х			Х			Х	Dilay, Chris
	Х		Χ			Χ	Х		Χ		Х	Griffin, Andy
	Χ		Χ		Х				Χ	Х	Х	Hare, Ed
	Х		Х		Х		Х	Х	Х	Х	Х	Hoolihan, Dan
Х	Х		Х	Х	Х		Х	Х	Х	Х	Х	Klinger, Jeff
Х	Х	Х	Х				Х			Х	Х	Kramer, Doug
	Х		Χ		Х		Х	Χ	Χ	Х		Long, Randy
Х	Х	Х		Х		Х	Х	Х	Х	Х	Х	Mendoza, Ernesto
Х	Х					Х	Х	Х	Х		Х	Popovici, Horia
		Х	Х	Х	Х	Х			Х	Х	Х	Potts, Nate
Х	Х	Χ	Χ	Х		Х				а	а	Samoto, Mits
			Χ	Х	Х		Х		а	Х		Shellman, M.
				а	а	а	а				а	Thul, Travis
									Х	Х	Х	Abbondante, Nick
Х		Х										Arnett, Dave
Х	Х	Х	Х			а	Х	Х	Х	Х	Х	Cibulka, Michael
		Х	Х			Х	Х				Х	Fanning, Craig
Х		Х		Х	Х				Х		Х	Hofmann, H.R.
	Х		Х		Х	Х					Х	Jones, Steve
												Mahn, Terry
								Х	Х	Х	Х	Pettit, Ghery
Х	Х	Х	Χ	Х	Х	Х	Х	Χ	Х	Х	Х	Ramie, Jerry

Any members at risk? None are at risk.

# 3.2 Consideration of new members? Application for C63<sup>®</sup> Subcommittee Membership

# 4. Status of harmonization of all C63 Standards with international equivalents - Chair

C63 documents listed in the first column are to be compared with the standards indicated in the far-right column. The assigned comparisons are to show where harmonization may or may not be possible and what action should be taken All this will be in the reporting form for each standard shown .

Table 1: Comparisons of ASC-C63® Documents and International Documents

C63 <sup>®</sup> Document	SC#	Subject	International Document (Reviewer Actions)	
C63.2	SC1	Test Instrumentation	CISPR 16-1-1 RA-1	
C63.4	SC1	Measurements	CISPR 16-2-X; RA-2 CISPR 16-1-4; RA-3 CISPR 32; RA-4	
C63.5	SC1	Antenna Calibration	CISPR 16-1-6; RA-5 SAE ARP 958; RA-6A RA-6B CISPR 16-1-4; RA-7	
C63.9	SC5	Office Equipment Immunity	IEC 61000-4-39; RA-8	
C63.10	SC4	Unlicensed Transmitters	Too many ETSI standards for comparison.	
C63.15	SC5	Immunity	IEC 61000-4-x; RA-9 CISPR 35; RA-10	
C63.16	SC5	ESD	IEC 61000-4-2; RA-11 ISO 10605; RA-12 SAE J1113-xx; RA-13	
C63.23	SC1	Uncertainty	CISPR 16-4-2; RA-14 CISPR 16-1-4; RA-15	
C63.24 draft	SC5	Generic In Situ Meas.	IEEE 473 ; RA-16	
C63.25.1	SC1	Test Site Validation, 1 GHz to 18 GHz	CISPR 16-1-4; RA-17B	
C63.25.2	SC1	Test Site Validation, 30 MHz to 1 GHz	CISPR 16-1-4; RA-17A	
C63.25.3	SC1	Test Site Validation, 18 GHz to 40 GHz	RA-17C	
C63.26	SC4	Licensed Transmitters	ETSI wireless requirements mmWave possible comparison. RA-18	
C63.27	SC7	Co-existence	IEC 62657-2; RA-19	
C63.28 draft	SC2	Best Practices	No equivalent; RA-20	
C63.29 draft	SC4	Lighting products	CISPR 15; RA-21 IEC 61827;	
C63.30 draft	SC4	Wireless Power Transfer Products	CISPR 11; RA-22 CISPR 14-1; RA-23 CISPR 32; RA-24 CISPR 12; RA-25	
C63.31 draft	SC4	ISM equipment (FCC MP-5)	CISPR 11; RA-26 CISPR 14-1; RA-27 CISPR/B/672/DC (4/14/17); RA-28 CISPR/B/700/DC (2/2/18); RA-29	

ASC-C63 Standards numbering: We discontinued C63.8 for calibration, which became C63.34. C63.32 was

moved to C63.33, C63.32 & C63.35 are now reserved. Al-141: Jerry & Ross to meet to edit the two tables to reflect the new workflow. (invite authors & Bob) Consolidate the two tables into one spreadsheet. (Travis, Ernesto, Doug, Horia) Set for 9/23 @ 2:00PM - EDT.

**4.1 Status of reviewers and reports completed -** This part of the agenda will be to identify the persons named for each RA and to update Table 2 for the minutes. For those named, we will review what is in their report using the <u>comparison report template</u>

Access to ASC-C63<sup>®</sup> documents available here: <a href="https://app.box.com/s/tv8akgqrjncb3qwbbkdyobk6mgpiuwci">https://app.box.com/s/tv8akgqrjncb3qwbbkdyobk6mgpiuwci</a> (read-only) <a href="Table 2">Table 2</a> will be used to measure progress on receiving the comparison reports. The completed consolidated <a href="RA table">RA table</a> will be sent to SC2 for use on the <a href="C63.28">C63.28</a> (draft). New Actions in <a href="yellow highlight">yellow highlight</a>.

Table 2: Reviewer Actions from 3/3/21 Meeting of SC3

RA#	<mark>Task</mark>	Responsible party	Due Date	<u>Status</u>
RA-1	Compare C63.2 to CISPR 16-1-1	Ross Carlton Jens Medler	5/26/21	Closed Medler PPT
RA-2	Compare C63.4 to CISPR 16-2-X	Horia Popovici	5/26/21	Closed new submittal
RA-3	Compare C63.4 to CISPR 16-1-4	Horia Popovici	5/26/21	Closed new submittal
RA-4	Compare C63.4 to CISPR 32	Nate Potts	5/26/21	Closed
RA-5	Compare C63.5 to CISPR 16-1-6	Nate Potts	5/26/21	Closed
RA-6	Compare C63.5 to SAE ARP 958 Rev D (RDL) Compare C63.5 to SAE ARP 958 Rev D (DK)	R. Lombardi Doug Kramer	5/26/21	Closed
RA-7	Compare C63.5 to CISPR 16-1-4	Doug Kramer	5/26/21	Closed
RA-8	Compare <u>C63.9</u> to IEC 61000-4-39 & IEC 61000-4-3	Jeff Evans	5/26/21	Closed Review the next draft of C63.9
RA-9	Compare C63.15 to IEC 61000-4-x	<del>Don Heirman</del>	5/26/21	Closed Subject to multiple people involved based on C63.15
RA-10	Compare C63.15 to CISPR 35	Ghery Pettit	5/26/21	Closed received submission
RA-11	Compare C63.16 to IEC 61000-4-2	Mike Cibulka	5/26/21	Closed
RA-12	Compare C63.16 to ISO 10605 (Automotive ESD)	Rich Worley R. Lombardi	5/26/21	Closed
RA-13	Compare C63.16 to SAE J1113-xx	R. Lombardi	5/26/21	Closed
RA-14	Compare C63.23 to CISPR 16-4-2 (Record that if all the measurement uncertainty terms in the test procedure are not in CISPR 16-4-2, no MU can be calculated and hence MU does not apply, i.e. Ucispr cannot be fully computed to come up with the MU)	Bob DeLisi	5/26/21	Closed Sent 2/2018
RA-15	Compare C63.5 to CISPR 16-1-6 Compare C63.23 to CISPR 16-1-4	Nate Potts Doug Kramer	5/26/21	New comparison
RA-16	Compare C63.24 draft to IEEE 473	<del>Don Heirman</del> Chad Kiger	5/26/21	Closed C63.24 2019 draft C63.24 2020 w/comment resolution
RA-17A	Compare C63.25 (C63.25.2) to CISPR 16-1-4	Doug Kramer	5/26/21	Open New comparison
RA-17B	Compare C63.25.1 to CISPR 16-1-	Doug Kramer	5/26/21	Open New comparison
RA-17C	Compare C63.25.3 to CISPR 16-1-	Doug Kramer	5/26/21	Open New comparison

<b>RA-18</b>	Compare C63.26 to ETSI wireless requirements	Bob DeLisi	5/26/21	Closed
	mmWave possible			
RA-19	Compare C63.27 (2017) to IEC 62657-2	Jason Coder	5/26/21	Closed
<b>RA-20</b>	Compare C63.28 draft to "no equivalent"	Marcus	5/26/21	Closed No
		Shellman		equivalents found
RA-21	Compare C63.29 draft to CISPR 15 Ed. 8;	Ernesto	5/26/21	Open
	Compare C63.29 draft to CISPR 15 Ed. 9	Mendoza		compare to Ed. 9
	Runway lighting under IEC 61827			
RA-22 tl	nrough RA-29 awaiting publication of the cited C6	3 standards bef	ore compa	risons can be made
RA-22	Compare C63.30 draft to Draft amendments to	Travis Thul	5/26/21	Open
	CISPR 11	Horia & Bob		
RA-23	Compare C63.30 draft to CISPR 14-1	Travis Thul	5/26/21	Open
	•	Horia & Bob		
<b>RA-24</b>	Compare C63.30 draft to CISPR 32	Travis Thul	5/26/21	Open
	•	Horia & Bob		
RA-25	Compare C63.30 draft to CISPR 12	Travis Thul	5/26/21	Open
	·	Horia & Bob		
RA-26	Compare C63.31 draft to CISPR 11	Bob DeLisi	5/26/21	Open Wait until new
	·	Abbondante		version comes out
RA-27	Compare C63.31 draft to CISPR 14-1 induction	Bob DeLisi	5/26/21	Open Wait until new
	cooking	Abbondante		version comes out
RA-28	Compare C63.31 draft to CISPR/B/672/DC	Bob DeLisi	5/26/21	Open Wait until new
	(4/14/17)	Abbondante		version comes out
<b>RA-29</b>	Compare C63.31 draft to CISPR/B/700/DC	Bob DeLisi	5/26/21	Open Wait until new
	(2/2/18)	Abbondante		version comes out
RA-30	Compare draft C63.2 vs. CISPR 16-1-1	Jens Medler	5/26/21	Open

#### 5 Other Old Business: Chair

- **5.1 Written reports** Written reports of this Subcommittee meeting shall be presented by the Subcommittee Chair at the Main Committee meeting. These reports shall be made using either the C63

  PowerPoint template or the C63 PowerPoint template wide. Prior to the Main Committee meeting, the SC report and approved previous SC meeting minutes shall be provided to the projectionist for showing on the screen at the Main meeting. The Presentation and any written report shall also be sent by the Subcommittee Chair to the ASC-C63® Newsletter editor
- **5.2 Coordination with SC2 for definitions** Before any Working Group draft can be submitted to the Subcommittee for approval, the document must be provided to the SC2 Chair for evaluation and coordination of the definitions used. Since there is <u>no new activity on C63.12</u>, there are <u>no definitions to forward to SC2</u> as no other standard is being developed in this Subcommittee. <u>C63.12 will be allowed to expire in 2025.</u>
- **5.3 SC3 Process Revision DeLisi -** Bob suggested we make a <u>flow-chart</u> for how our SC3 process works. (form a Task Group) How does work come in? How is it processed? How is the output routed? Bob volunteered to run this task group. Ernesto assisted. Nick, Jason Coder, Ross attended. Bob hosted the webinar. The flow chart was not ready for presentation.
- 6. New Business: Chair -
  - 6.1 No new C63.12 PINS: C63.12 will be allowed to expire in 2025.
- **6.2 C63.16 will begin work on 8/26/21:** Log-in information and credentials are shown on the <u>C63 meeting schedule</u>.
- **6.3 Subcommittee 7 paper Coder -** There was discussion about how C63.27 WG under SC7 can try to resolve confusion about wireless coexistence testing and interference testing to EMC Standards. A

white paper to explain these differences may be warranted. We would compare a C63 Std. to an IEC Std, so consultation with SC3 is appropriate. Ross supported the idea, but not "take it over," but rather "facilitate it." The paper will not suggest changes to any IEC Standard, just explain the differences. AI-142: Ross to speak with Mr. Hoolihan regarding SC3 involvement in the white paper. (Mr. Hoolihan was supportive)

- 7. <u>C63.org</u> website use and updates: Secretary We normally post documents to the <u>SC3</u> protected area. If any SC or WG needs help with this posting, a Technical Secretary is available to assist.
- 8. Review of the Action Items: Secretary

## 8.1 Review of Action Items from previous meeting:

Consolidated Action Items from 5/26/21 Meeting of SC3

Al #	Task	Responsible party	Due Date	Status
AI-102:	Jerry & Ross to look at reports already received and <u>list</u> in a table the conflicts, similarities and identical ones	Jerry Ramie Ross Carlton	8/25/21	OPEN
AI-126:	Ross to establish a priority of significant items shown in RA-2 & RA-3.	Ross Carlton	8/25/21	OPEN
AI-128:	Jeff to place this <u>C63.9</u> content into the <u>comparison</u> report template and keep the PowerPoint for an annex.	Jeff Evans	8/25/21	OPEN
Al-140:	Bob to set up Task Group for formation of a flow chart for our work that meets our General Tasks. (Ernesto, Nick, Jason C., Ross)	Bob DeLisi	8/25/21	Closed meeting set for 6/22

- **8.2 Review of Action Items from this meeting—Secretary -** The Action Items from this meeting were reviewed and understood.
- **9. Next meeting: Chair November 15 19 @ IEEE headquarters in Piscataway**. IEEE has not opened up yet, so the meeting is still <u>uncertain</u>.
- **10. Closing remarks and Adjournment:** Chair The completed consolidated RA table will be sent to SC2 when <u>all</u> the reports are received. The Secretary adjourned the meeting at 3:37PM-EDT.

Consolidated Action Items from 8/25/21 Meeting of SC3

Al #	Task	Responsible	Due	Status
		party	Date	
AI-102:	Jerry & Ross to look at reports already received and list	Jerry Ramie	Next	<u>OPEN</u>
	in a table the conflicts, similarities and identical ones	Ross Carlton	meeting	
AI-126:	Ross to establish a priority of significant items shown in	Ross Carlton	Next	OPEN
	RA-2 & RA-3.		meeting	
AI-128:	Jeff to place this <u>C63.9</u> content into the <u>comparison</u>	Jeff Evans	Next	<u>OPEN</u>
	report template and keep the PowerPoint for an annex.		meeting	
AI-141:	Jerry & Ross to meet to edit the two tables to reflect the	Jerry Ramie	9/23/21	CLOSED
	new workflow. (invite authors & Bob) Consolidate the two	Ross Carlton		Meeting set
	tables into one spreadsheet. (Travis, Ernesto, Doug,	Bob DeLisi		8/25
	Horia) Set for 9/23 @ 2:00PM - EDT.	Travis Thul		
		E. Mendoza		
		Doug Kramer		
		H. Popovici		
AI-142:	Ross to speak with Mr. Hoolihan regarding SC3	Ross Carlton	Next	OPEN
	involvement in the white paper on wireless coexistence.	Dan Hoolihan	meeting	

(Mr. Hoolihan was supportive)		