



Accredited Standards Committee C63[®]

Electromagnetic Compatibility

Subcommittee 3: International Standardization Webinar

Chair: Don Heirman

Vice Chair: Harry Hodes
Webinar

Secretary: Jerry Ramie

February 13, 2020; 2:00 PM – 4:00 PM - EST

Approved Minutes

1. **Call to Order: Chair** - The meeting was called to order at 2:00PM-EST
 - 1.1 **Announcements: Chair's remarks** – Our major activity will be to continue to review submitted comparison reports and to discuss the status of **Reviewer Actions**
 - 1.2 **Meeting logistics announcements: Host**
 - 1.3 **Introductions: Secretary** – roll call (attending members with their affiliations and guests are recorded separately below) **Report any roster errors to the ASC-C63[®] Secretary**
 - 1.4 **Present membership:**

Subcommittee 3 Membership Roster.

Name	Role within Subcommittee 3	Affiliation
Coder, Jason	Chair Subcommittee 7	NIST
DeLisi, Bob	Chair Subcommittee 4	UL LLC
Dilay, Chris	Member	Naval Info. Warfare Center Pacific
Griffin, Andy	Member US CISPR/H Technical Advisor	CISCO Systems
Hare, Ed	Chair Subcommittee 5	ARRL
Heirman, Don	Chair Subcommittee 3 Past Chair CISPR US CISPR/A Deputy Technical Advisor US CISPR Technical Advisor	Don HEIRMAN Consultants
Hodes, Harry	Vice Chair Subcommittee 3	Bay Area Compliance Laboratories Corp.
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	Member US CISPR/F Technical Advisor	Signify
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 (a)	Member	Minnesota State College Southeast
Non-Voting Members		
Arnett, Dave	Liaison Member US CISPR/I Technical Advisor	Garmin
Fanning, Craig	Liaison Member US CISPR/D Technical Advisor	Elite Electronic Engineering

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
Cibulka, Michael (a)	Liaison Member TC77 & SC77B Technical Advisor	Rockwell Automation

Guests and Observers: (non-voting) Jeff Evans

1.5 Quorum: (50% of roster) constitutes a quorum. (rounding up) (17 roster members / 2 = 8.5 >> 9 (therefore 9 people 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 shown and approved by acclamation.

2.1 Approval of the previous Minutes - [20191120](#) The previous Minutes were [approved](#) by acclamation.

2.2 Review of the [patent slides](#) – The patent slides were shown and all in attendance agreed to abide by the patent policy.

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 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.

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? [Mr. Berger resigned 1/22/20.](#)

11/7/16	5/10/17	8/21/2017	11/9/17	2/7/18	5/3/18	9/19/18	11/29/18	2/14/19	5/2/19	8/28/19	11/20/19	Full Name
											x	Coder, Jason
					x	x	x		x		x	DeLisi, Bob
	x		x		x	x			x		x	Dilay, Chris
x		x	x		x		x		x			Griffin, Andy
x	x		x		x		x		x		x	Hare, Ed
x	x	x	x	x	x	x	x	x	x	x	x	Heirman, Don
x	x				x		x	x		x	x	Hodes, Harry
	x		x		x		x		x		x	Hoolihan, Dan
x	x	x	x		x	x	x		x	x	x	Klinger, Jeff
				x	x	x	x	x	x			Kramer, Doug
x			x		x		x		x		x	Long, Randy
	x	x		x	x	x	x	x		x		Mendoza, Ernesto
		x	x	x	x	x	x					Popovici, Horia
	x	x	x	x	x			x	x	x	x	Potts, Nate
x	x					x	x	x	x	x		Samoto, Mits
									x	x	x	Shellman, M.
										a	x	Thul, Travis
				a	x	x		x				Arnett, Dave
x	x	x	x	x	x			x	x			Fanning, Craig
	x		x	x	x	x		x		x	x	Hofmann, H.R.
							x		x		x	Jones, Steve
					x							Mahn, Terry
x	x	x	x	x	x	x	x	x	x			Cibulka, Michael
x	x	x	x	x	x	x	x	x	x	x	x	Ramie, Jerry

Any members at risk? These members are at risk: **Horia Popovici** attended and is no longer at risk.
(Travis Thul is deployed overseas)

3.2 Consideration of new members? [Application for C63[®] Subcommittee Membership](#)

Jason Coder was asked if he could compare [C63.27](#) to IEC 62657-2 and agreed to do so.

AI-118: Jerry to send Jeff Evans the report template and [C63.9 link](#)

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

C63 documents listed below in column 1 are to be compared with the standards indicated in the far-right column. The 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 [®] Document	SC #	Subject	International Document
C63.2	SC1	Test Instrumentation	CISPR 16-1-1 (Reviewer Action 1 (RA-1)) - Doug
C63.4	SC1	Measurements	CISPR 16-2-X; RA-2 ; CISPR 16-1-4 RA-3 ; CISPR 32 RA-4 Petit Doug needs a reviewer for this
C63.5	SC1	Antenna Calibration	CISPR 16-1-6 RA-5 ; SAE ARP 958 RA-6 ; CISPR 16-1-4 (RA-7)
C63.9	SC5	Office Equipment Immunity	IEC 61000-4-39 (RA-8) Griffin
C63.10	SC4	Unlicensed Transmitters	ETSI Wireless requirements? (need SC4 member's help) Bob Delisi indicated that there are so many ETSI standards that might apply that this review will not be done.
C63.15	SC5	Immunity	IEC 61000-4-x; RA-9 ; Heirman; CISPR 35 RA-10 Pettit
C63.16	SC5	ESD	IEC 61000-4-2; RA-11 ; Worley; ISO 10605; RA-12 ; Worley, SAE J1113-xx RA-13 Fanning
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 ; (Heirman-Kiger)
C63.25.1	SC1	Test Site Validation 1 GHz to 18 GHz)	CISPR 16-1-4 RA-17
C63.25.2	SC1	Test Site Validation 30 MHz to 1 GHz	CISPR 16-1-4 RA-17
C63.26	SC4	Licensed Transmitters	ETSI wireless requirements mmWave possible comparison. RA-18
C63.27	SC7	Co-existence	IEC 62657-2 RA-19 Berger
C63.28 draft	SC2	Best Practices	No equivalent; RA-20 Shellman
C63.29 draft	SC4	Lighting products	CISPR 15; Runway lighting under IEC 61827 RA-21 Ernesto Mendoza (waiting for maturity of C63.29 before comparison)
C63.30 draft	SC4	Wireless Power Transfer Products	Bob assigned Travis: Draft amendments to CISPR 11 (RA-22), CISPR 14-1 (RA-23), CISPR 32; (RA-24) update to CISPR 12 (RA-25)

C63.31 draft	SC4	ISM equipment (FCC MP-5)	CISPR 11; (RA-26) CISPR 14-1 induction cooking; (RA-27) DeLisi CISPR/B/672/DC (4/14/17) RA-28 CISPR/B/700/DC (2/2/18) RA-29
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4.1 Review Actions:

These are the assignments for the 29 **Reviewer Actions**. The assignments have been given to the Subcommittee chairs (or WG chairs or their designee) noted below to find subcommittee reviewers to do the comparisons in the above table and to fill out the comparison reports using the template provided to the SC chairs.

Vice Chair Harry Hodes is assigned follow up on these Reviewer Actions (RA) when he is available

The "comparison report" form that reviewers should use is available [here](#).

These are the initial assignments. It has to be updated as to who ended up with the RA action if different than what is shown here.

- RA-1 thru RA-7: Kramer--
- RA-8: Griffin
- RA-9: Heirman
- RA-10: Pettit
- RA-11 thru 13: Worley
- RA-14 & 15: Kramer
- RA-16: Heirman
- RA-17 Kramer
- RA-18: DeLisi
- RA-19: Berger
- RA-20: Shellman
- RA-21: Mendoza
- RA-22-25: Thul
- RA-26-29: DeLisi

4.2 Status of naming 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 and going into 2020. For those named, there will be time to review what is in their report using the [comparison report template](#)

Access to ASC-C63[®] documents available here: <https://app.box.com/s/tv8akgqrjncb3qwbbkdyobk6mgpiuwci> (read-only) **Table 2** will be used to measure progress on receiving the comparison reports

Table 2: Reviewer Actions from 5/2/19 Meeting of SC3

RA #	Task	Responsible party	Due Date	Status
RA-1	Compare C63.2 to CISPR 16-1-1 AI-119: Jerry to provide read-only link to C63.2 & comparison report template to Harry	Harry Hodes	2/13/20	Open no file was provided...
RA-2	Compare C63.4 to CISPR 16-2-X	Horia Popovici	2/13/20	Closed
RA-3	Compare C63.4 to CISPR 16-1-4	Horia Popovici	2/13/20	Closed
RA-4	Compare C63.4 to CISPR 32	Nate Potts	2/13/20	Closed
RA-5	Compare C63.5 to CISPR 16-1-6	Nate Potts	2/13/20	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	2/13/20	Closed
RA-7	Compare C63.5 to CISPR 16-1-4	Doug Kramer	2/13/20	Closed

RA-8	Compare C63.9 to IEC 61000-4-39 & IEC 61000-4-3 AI-128: Jeff to place this content into the template format and keep the PowerPoint for an annex.	Jeff Evans	2/13/20	Open
RA-9	Compare C63.15 to IEC 61000-4-x	Don Heirman	2/13/20	Closed Subject to multiple people involved based on C63.15
RA-10	Compare C63.15 to CISPR 35 AI-120: Jerry to provide read-only link to C63.15 & comparison report template to Ghery	Ghery Pettit	2/13/20	Open
RA-11	Compare C63.16 to IEC 61000-4-2 AI-121: Jerry to provide read-only link to C63.16 & comparison report template to Mike C.	Mike Cibulka	2/13/20	Open
RA-12	Compare C63.16 to ISO 10605 (Automotive ESD)	Rich Worley R. Lombardi	2/13/20	Closed
RA-13	Compare C63.16 to SAE J1113-xx	R. Lombardi	2/13/20	Closed
RA-14	Compare C63.23 to CISPR 16-4-2 <i>(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)</i>	Bob DeLisi	2/13/20	Closed Sent 2/2018
RA-15	Compare C63.5 to CISPR 16-1-6	Nate Potts	2/13/20	Duplicate of RA-5
RA-16	Compare C63.24 draft to IEEE 473	Don Heirman Chad Kiger	2/13/20	Closed C63.24 draft
RA-17	Compare C63.25 to CISPR 16-1-4 (two freq. ranges under C63.25.1 and C63.25.2) AI-122: Jerry to provide read-only link to C63.25 & comparison report template to Doug K.	Doug Kramer	2/13/20	Open
RA-18	Compare C63.26 to ETSI wireless requirements mmWave possible	Bob DeLisi	2/13/20	Closed
RA-19	Compare C63.27 to IEC 62657-2 AI-123: Jerry to send Jason Coder the comparison report template and C63.27 link.	Steve Berger Jason Coder	2/13/20	Open
RA-20	Compare C63.28 draft to "no equivalent"	Marcus Shellman	2/13/20	Closed No equivalents found
RA-21	Compare C63.29 draft to CISPR 15; Runway lighting under IEC 61827	Ernesto Mendoza	2/13/20	Closed
RA-22 through RA-29 awaiting publication of the cited C63 standards before comparisons can be made				
RA-22	Compare C63.30 draft to Draft amendments to CISPR 11	Travis Thul Horia & Bob	2/13/20	Open
RA-23	Compare C63.30 draft to CISPR 14-1	Travis Thul Horia & Bob	2/13/20	Open
RA-24	Compare C63.30 draft to CISPR 32	Travis Thul Horia & Bob	2/13/20	Open
RA-25	Compare C63.30 draft to CISPR 12	Travis Thul Horia & Bob	2/13/20	Open
RA-26	Compare C63.31 draft to CISPR 11	Bob DeLisi Abbondante	2/13/20	Open
RA-27	Compare C63.31 draft to CISPR 14-1 induction cooking	Bob DeLisi Abbondante	2/13/20	Open
RA-28	Compare C63.31 draft to CISPR/B/672/DC (4/14/17)	Bob DeLisi Abbondante	2/13/20	Open
RA-29	Compare C63.31 draft to CISPR/B/700/DC (2/2/18)	Bob DeLisi Abbondante	2/13/20	Open

Horia showed his contributions to the group:

Compare [C63.4 to CISPR 16-2-X](#)

Compare [C63.4 to CISPR 16-1-4](#)

AI-124: Horia to insert a one-word "descriptor" with clause numbers and send the new reports to Jerry for posting.

AI-125: Members of SC3 to evaluate Horia's reports and pick the top two or three items to move to the IEC. The next step would be to ask in the reverse direction, moving from IEC to C63 documents.

AI-126: Don to establish a priority of significant items shown in RA-2 & RA-3.

AI-127: Jerry, Harry & Don to pull first two columns into a stand-alone document (finished items only) by 3/15

Jeff Evans showed his slides on [C63.9 comparisons](#), to be converted into a report in the template:

Comparison of Relevant Standards

- **ANSI C63.9** American National Standard for RF Immunity of Audio Office Equipment to General Use Transmitting Devices with Transmitter Power Levels up to 8 Watts
- **IEC 61000-4-3** Electromagnetic compatibility (EMC) - Part 4-3: Testing and measurement techniques – Radiated, radio-frequency, electromagnetic field immunity test
- **IEC 61000-4-39** Electromagnetic compatibility (EMC) – Part 4-39: Testing and measurement techniques – Radiated fields in close proximity – Immunity test

2

Scope

- **ANSI C63.9** – This standard provides test methods and limits for assuring the radio frequency (RF) immunity of audio office equipment to general use transmitting portable electronic devices with transmitter power up to 8 watts.
- **IEC 61000-4-3** - This part of IEC 61000 is applicable to the immunity requirements of electrical and electronic equipment to radiated electromagnetic energy. It establishes test levels and the required test procedures.
- **IEC 61000-4-39** - This part of IEC 61000 specifies immunity requirements for electrical and electronic equipment when it is exposed to radiated electromagnetic energy from RF transmitters used in close proximity.

3

Test Methods

- **ANSI C63.9** – Follows 61000-4-3 for primary test method in anechoic or semi-anechoic chamber with alternative methods for both a near field dipole at 25 mm test distance (chamber or in-situ) and GTEM testing. Recommendation and procedures for recording various modulation threats for playback.
- **IEC 61000-4-3** – Far field (3 meters) radiated uniform electric field immunity testing in a anechoic or semi-anechoic chamber utilizing a biconical, log periodic and horn antenna with uniform field and 80% sine wave modulation at 1kHz. Testing from 80 MHz to 1 GHz with additional testing to protect against transmitters (800 MHz to 960 MHz and 1.4 GHz to 6 GHz) with optional square or pulsed wave modulation.
- **IEC 61000-4-39** – Near field radiated uniform magnetic and electric field immunity testing in a semi-anechoic chamber utilizing radiating loops (9 kHz to 26 MHz at 50 mm distance) and TEM horn antenna (380 MHz to 6 GHz at 10 cm distance). 26 MHz to 380 MHz is under consideration. Pulse modulation 50% duty cycle 2 Hz or 1 kHz.

4

Test Levels

- **ANSI C63.9** 10 V/m per IEC 61000-4-3 and 30-90 V/m per C63.9 method.

Frequency range (MHz)	Test method	Field strength (V/m)	Test distance	Equipment category	Field strength (V/m)
824-880	Radiated Modulation pattern in R.F.	10	ANECIO-P	Cellular PCS - 540 MHz TX	10
824-880	Radiated Modulation pattern in R.F.	10	ANECIO-P	PCS 1850-1920 MHz TX	10

- **IEC 61000-4-3** 80 MHz to 6 GHz:

Level	Test field strength V/m
1	1
2	3
3	10
4	30
X	Special

NOTE: X is an open test level and the associated field strength may be any value. This level may be given in the product standard.

- **IEC 61000-4-39**

9 kHz to 150 kHz

Level	Test field strength A/m
1	1
2	3
3	10
4	30
X	Special

NOTE: X is an open test level and the associated field strength can be any value. This level can be given in the product standard.

150 kHz to 26 MHz

Level	Test field strength A/m
1	0.1
2	0.3
3	1
4	3
X	Special

NOTE: X is an open test level and the associated field strength can be any value. This level can be given in the product standard.

380 MHz to 6 GHz

Level	Test field strength V/m
1	10
2	30
3	100
4	300
X	Special

NOTE: X is an open test level and the associated field strength can be any value. This level can be given in the product standard.

5

Modulation Guidance

- ANSI C63.9

Frequency range (MHz)	Modulation characteristics	Common services		
		Service	Modulation	Typical power (W)
698-915	Pulse Modulation with 217 Hz repetition rate and 1/8 duty cycle	GSM	TDMA with GMSK, 8PSK	2
		GPRS		
		EDGE		
		iDEN	TDMA with	2
915-1710	Various	Various other services		
1710-1980	Pulse Modulation with 217 Hz repetition rate and 1/8 duty cycle	GSM	TDMA with GMSK, 8PSK	1
		GPRS		
		EDGE		
		CDMA 2000	DSSS, QPSK	1
		1xRTT		
EV-DO	WCDMA, BPSK	1		
UMTS 3GPP w/ HSDPA				



6

Modulation Guidance

- IEC 61000-4-3

Modulation method	Advantages	Disadvantages
Sine wave AM	<ol style="list-style-type: none"> 1 Experimentation has shown that good correlation may be established between the interfering effects of different types of non-constant envelope modulation provided the maximum RMS levels remains the same. 2 It is not necessary to specify (and measure) the rise time of the TDMA pulse. 3 Used in this standard and in IEC 61000-4-6. 4 Field generation and monitoring equipment is readily available. 5 For analogue audio equipment, demodulation in the equipment under test produces an audio response which can be measured with a narrow band level meter, thereby reducing background noise. 6 Has already been shown to be effective at simulating the effects of other modulation types (e.g. FM, phase modulation, pulse modulation) at lower frequencies. 	<ol style="list-style-type: none"> 1 Does not simulate TDMA. 2 Slight over-test for second law receivers. 3 May miss some failure mechanisms.
Square wave AM	<ol style="list-style-type: none"> 1 Similar to TDMA. 2 Can be applied universally. 3 May reveal "unknown" failure mechanisms (sensitive to the large rate of change of the RF envelope). 	<ol style="list-style-type: none"> 1 Does not exactly simulate TDMA. 2 Requires non-standard equipment to generate the signal. 3 Demodulation in EUT produces a broadband audio response which shall be measured with a broadband level meter, thereby raising background noise. 4 Necessary to specify the rise time.
Pulsed RF	<ol style="list-style-type: none"> 1 Good simulation of TDMA. 2 May reveal "unknown" failure mechanisms (sensitive to the large rate of change of the RF envelope). 	<ol style="list-style-type: none"> 1 Requires non-standard equipment to generate the signal. 2 The details of the modulation need to be varied to match each of the different systems (e.g. GSM, DECT, etc.). 3 Demodulation in EUT produces a broadband audio response which shall be measured with a broadband level meter, thereby raising background noise.



6

Modulation Guidance

- IEC 61000-4-39

Band * (MHz)	Service *	Modulation	Maximum power (W)	Calculation distance (m)	Calculated field strength (µV/m)
26.45 to 27.45	GSM	AM FSK pulse	no limit		
380 to 390	TETRA 400	Pulse modulation * 16 Hz	1.0	0.1	81
430 to 470	GPRS 485, FRS 460	Fsk * ± 5 kHz deviation 1.8 kHz BW	2	0.1	84
704 to 767	LTE Band 13, 17	Pulse modulation * 217 Hz	0.2	0.1	27 27 27
800 to 900	GSM 900/900, TETRA 800, CDMA 800, CDMA 850, LTE Band 5	Pulse modulation * 16 Hz	2	0.1	84
1 447.8 to 1 462.5	LTE Band 21	Pulse modulation * 16 Hz	2	0.1	81
1 700 to 1 990	GSM 1800, CDMA 1800, GSM 1900, DECT, LTE Band 1, 3, 4, 5, UMFi5	Pulse modulation * 217 Hz	2	0.1	84 84 84
2 400 to 2 570	Bluetooth, WLAN, 802.11 b/g/n, RFID 2450, LTE Band 7	Pulse modulation * 217 Hz	2	0.1	84
5 100 to 5 900	WLAN 802.11 a/n	Pulse modulation * 217 Hz	0.2	0.1	27 27 27

* For some services, only the uplink frequencies are included.



7

AI-128: Jeff to place this content into the template format and keep the PowerPoint for an annex.

AI-129: Jerry to provide the [read-only link to C63.12](#) to all SC3 Members

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 the [PowerPoint template](#). Prior to the Main Committee meeting, the [SC report](#) and [approved previous 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 no activity on C63.12, there are no definitions to forward to SC2 as no other standard is being developed in this Subcommittee.

6. New Business: Chair - AI-130: Jerry & Don will assemble the **RA matrix** into a single document by 3/15

7. C63.org website use and updates: Secretary - We normally post documents to the [SC3 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 11/20/19 Meeting of SC3

AI #	Task	Responsible party	Due Date	Status
AI-20:	Look at modulation in C63.9 with potential for introduction into SC77B through the US National Committee.	Andy Griffin Jeff Evans	Next meeting	OPEN Unique test, possible in 61000-4-3? Modulation is not AM but more varied.
AI-27:	Review CISPR 11, 14-1 for consideration for use in C63.31.	Bob DeLisi	Next meeting	OPEN C63.31 Draft

	CISPR 11 totally addresses Industrial, Scientific, and Medical device emission tests, both radiated and conducted. Maybe Derek can use the comparison template to show what is covered and not covered in CISPR 11 or 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)			needs to mature
	Horia was advocating for C63.4 test methods.			
AI-36:	Supply note on progress of IEC 61000-4-3. What is happening between 1 & 6GHz? (immunity)	Andy Griffin	Next meeting	OPEN New CDV 77B-798 has replaced old one, voting in mid-May
AI-57:	Generate comparison table to summarize requirements from 1-6 GHz. (emissions)	Andy Griffin	Next meeting	OPEN
AI-96A	Identify what is similar, different, or not considered per the categories in the report form and place that information into the form	All members	Next meeting	OPEN are changes needed?
AI-100B	Review reports to see if they are sufficient and importantly show the need for action to harmonize.	Subcommittee members	Next meeting	OPEN priorities?
AI-102:	Jerry & Don to look at reports already received and list in a table the conflicts, similarities and identical ones	Jerry Ramie Don Heirman Harry Hodes	Next meeting	OPEN
AI-113:	Jerry to make corrections indicated below on the SC3 roster page	Jerry Ramie	Next meeting	Closed done 1/23
AI-114:	Jerry to write the "at risk" form letter to Mr. Berger & Mr. Popovici.. Mr. Berger resigned 1/22/20	Jerry Ramie	Next meeting	Closed sent 1/22
AI-115:	Harry to check the accuracy of the names on this assignment list (Table 1)	Harry Hodes	Next meeting	Closed
AI-116:	Don to communicate with SC5 on this report Compare C63.15 to IEC 61000-4-x and provide it to Ed Hare	Don Heirman	Next meeting	Closed
AI-117:	Dan Hoolihan to provide CISPR/SCB documents shown in RA-28 and RA-29	Dan Hoolihan	Next meeting	OPEN

8.2 Review of Action Items from this meeting—Secretary - The Action Items from this meeting were shown and agreed upon.

9. Next meeting: Chair – ETS-Lindgren, Cedar Park, TX – 7 May 2020 @ 1:00PM

10. Closing remarks and Adjournment: Chair - The consolidated table will be sent to SC2. The Chair thanked the group for their efforts and adjourned the meeting at 3:52PM-EST.

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

Consolidated Action Items from 2/13/20 Meeting of SC3

AI #	Task	Responsible party	Due Date	Status
AI-20:	Look at modulation in C63.9 with potential for introduction into SC77B through the US National Committee.	Andy Griffin Jeff Evans	5/7/20	OPEN Unique test, possible in 61000-4-3?

				Modulation is not AM but more varied.
AI-27:	Review CISPR 11, 14-1 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 use the comparison template to show what is covered and not covered in CISPR 11 or 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) Horia was advocating for C63.4 test methods.	Bob DeLisi	5/7/20	OPEN C63.31 Draft needs to mature
AI-36:	Supply note on progress of IEC 61000-4-3. What is happening between 1 & 6GHz? (immunity)	Andy Griffin	5/7/20	OPEN New CDV 77B-798 has replaced old one, voting in mid-May
AI-57:	Generate comparison table to summarize requirements from 1-6 GHz. (emissions)	Andy Griffin	5/7/20	OPEN
AI-96A	Identify what is similar, different, or not considered per the categories in the report form and place that information into the form	All members	5/7/20	OPEN are changes needed?
AI-100B	Review reports to see if they are sufficient and importantly show the need for action to harmonize.	Subcommittee members	5/7/20	OPEN priorities?
AI-102:	Jerry & Don to look at reports already received and list in a table the conflicts, similarities and identical ones	Jerry Ramie Don Heirman Harry Hodes	5/7/20	OPEN
AI-117:	Dan Hoolihan to provide CISPR/SCB documents shown in RA-28 and RA-29	Dan Hoolihan	5/7/20	OPEN
AI-118:	Jerry to send Jeff Evans the comparison report template and C63.9	Jerry Ramie	5/7/20	Closed sent 2/13
AI-119:	Jerry to provide read-only link to C63.2 & comparison report template to Harry	Jerry Ramie	5/7/20	Closed sent 2/13
AI-120:	Jerry to provide read-only link to C63.15 & comparison report template to Ghery	Jerry Ramie	5/7/20	Closed sent 2/13
AI-121:	Jerry to provide read-only link to C63.16 & comparison report template to Mike C.	Jerry Ramie	5/7/20	Closed sent 2/13
AI-122:	Jerry to provide read-only link to C63.25 & comparison report template to Doug K.	Jerry Ramie	5/7/20	Closed sent 2/13
AI-123:	Jerry to send Jason Coder the comparison report template and C63.27 link.	Jerry Ramie	5/7/20	Closed sent 2/13
AI-124:	Horia to insert a one-word "descriptor" with clause numbers and send the new reports to Jerry for posting.	Horia Popovici	5/7/20	OPEN
AI-125:	Members of SC3 to evaluate Horia's reports and pick the top two or three items to move to the IEC.	All members	5/7/20	OPEN The next step would be to ask in the reverse direction,

				moving from IEC to C63 documents.
AI-126:	Don to establish a priority of significant items shown in RA-2 & RA-3.	Don Heirman	5/7/20	OPEN
AI-127:	Jerry, Harry & Don to pull first two columns in Table 2 into a stand-alone document (finished items only) by 3/15	Jerry Ramie Don Heirman Harry Hodes	3/15/20	OPEN
AI-128:	Jeff to place this C63.9 content into the comparison report template and keep the PowerPoint for an annex.	Jeff Evans	5/7/20	OPEN
AI-129:	Jerry to provide the read-only link to C63.12 to all SC3 Members	Jerry Ramie	5/7/20	Closed Link shown
AI-130:	Jerry & Don will assemble the RA matrix into a single document by 3/15	Jerry Ramie Don Heirman	3/15/20	OPEN