



Accredited Standards Committee C63[®]

Electromagnetic Compatibility

Subcommittee 7: Spectrum Etiquette

Chair: Jason Coder

Vice Chair: Stephen Berger
February 10th, 2021; 1:00PM-3:00PM MT

Secretary: Allen Crumm

WebEx Meeting

Dial in: +1 415-655-0002

Access Code: 177 863 7912

Meeting Agenda

1. **Call to Order: Chair** The meeting was called to order at 1:05pm EST.
 - 1.1 **Announcements: Chair's remarks.** Jason welcomed everyone and thanked them for attending.
 - 1.2 **Meeting logistics announcements:** [Review logistics of Subcommittee meetings and main committee meetings amid travel restrictions](#)
 - 1.3 **Introductions: Secretary – roll call** (record attending members with their affiliations and guests separately below) **Report any roster errors to the ASC-C63[®] Secretary – Jason Coder, Allen Crumm, Dave Case, Dan Hoolihan, Jeffrey Silberberg, Omar Al-Kalaa, Qiong Wu**

Subcommittee 7 Membership Roster

Name	Role within SC 7	Affiliation
Al-Kalaa, Mohamad	Member	FDA
Berger, Stephen	Vice-Chair	TEM Consulting
Case, Dave	Member	Retired
Coder, Jason	Chair	NIST
Dilay, Chris	Member	SPAWAR Systems Center, Pacific
Hare, Ed	Member	ARRL
Hoolihan, Dan	Member	Hoolihan EMC Consulting
Jones, Steve	Member	FCC
Refai, Hazem	Observer	University of Oklahoma
Silberberg, Jeff	Member	FDA
Wu, Qiong	Member	Apple, Inc.

Guests and Observers: (non-voting):

- 1.4 **Quorum: (50% of roster + 1) constitutes a quorum.** (rounding down) (Example: 9 roster members / 2 = 4.5 + 1 = 5.5 (therefore 5 people are required for a quorum) 6 members present. **Yes**
Was quorum achieved? 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 – No issues, but not a quorum. Approved.**
 - 2.1 **Approval of the previous Minutes -** [Minutes of the previous meeting](#) **Review of the** [patent slides](#) – No issues with patents. No comments on minutes, Approved.
3. **Review of** [Subcommittee Membership](#): Chair - Report any errors to the ASC-C63[®] Secretary

3.1 Review of Membership Guidelines – members at risk?

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.

Working Groups:

For an individual to remain a member of a Working Group, active participation is required. Should a member fail to attend at least one of three consecutive scheduled meetings (in person or via web conference (when used)) their membership in that Working Group may be at risk. Individual Working Groups may establish additional participation criteria and/or modify this requirement.

Member Attendance Log: (insert member attendance log as shown) **Any errors in the log? No.**

Name	11/9/17	5/3/18	11/29/18	5/2/19	11/19	4/29/20	8/24/20	11/4/20	2/10/21
Mohamad Al-Kalaa	X	X		A	X	X	X	X	X
Berger, Stephen	X	X		A		A	A	A	
Case, Dave		X		X	X	X	X	X	X
Coder, Jason	X	X		X	X	X	X	X	X
Dilay, Chris		X		A	X		X	X	
Hare, Ed				X	X				
Hoolihan, Dan	X	X		X	X		X	X	X
Jones, Steve			X	X		X	X	X	
Refai, Hazem								X	
Silberberg, Jeff	X	X		X	X	X	X	X	X
Qiong Wu	X			A		X	X	X	X

Any members at risk? [These members are at risk: \(send letter to each member at risk\)](#)

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

A/I Jason to bring up SC7 membership at tomorrow’s C63.27 WG meeting.

4. Approval of [Scope](#): Chair - (Spring Meeting Only) (Report approval or any changes to the Main Committee)

- New scope discussed with steering committee in December 2020. Steering committee voted to grant preliminary approval to new scope. Final approved will come from Main Committee when all subcommittee scopes are reviewed in Spring 2021.

Cisco Webex Meetings | Meeting Info | Hide Menu Bar ^

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Allen Crumm Host, me Jeffrey Silberberg Jason Coder Dan2 Omar Al-Kalaa Qiong Wu

Layout

Participants (6)

Search

AC Allen Crumm Host, me JC Jason Coder D Dan2 JS Jeffrey Silberberg OA Omar Al-Kalaa QW Qiong Wu

Mute all Unmute all

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10:21 AM 2/10/2021

C63® C63 Committee on Electromagnetic Compatibility

Subcommittee 7 Scope

- Subcommittee 7 develops standards addressing spectrum etiquettes, wireless coexistence and related standards to provide new or amended measurement techniques, protocols or methods and associated instrumentation and operational constraints supporting more efficient spectrum utilization, including dynamic spectrum access.
- Change requested

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10:22 AM 2/10/2021

C63® C63 Committee on Electromagnetic Compatibility

Subcommittee 7 Proposed Scope

- Subcommittee 7 develops standards addressing spectrum etiquettes, wireless coexistence, and related technical fields to provide new or amended measurement techniques to support efficient spectrum utilization. This scope includes areas related to coordinated or uncoordinated spectrum sharing schemes and dynamic spectrum access.
- Goal: make the scope easier to read and understand, especially by outside stakeholders
- Not intending to change technical scope.

Original Scope: Subcommittee 7 develops standards addressing spectrum etiquettes, wireless coexistence and related standards to provide new or amended measurement techniques, protocols or methods and associated instrumentation and operational constraints supporting more efficient spectrum utilization, including dynamic spectrum access.

New Scope: Subcommittee 7 develops standards addressing spectrum etiquette, wireless coexistence, and related technical fields to provide new or amended measurement techniques to support efficient

spectrum utilization. This scope includes areas related to coordinated or uncoordinated spectrum sharing schemes and dynamic spectrum access.

4.1 Election of Officers (as required)

- Chair's current term expires December 31st, 2022

5. **Working Group reports** [More information about each standard](#) is available on the Standards Status Matrix page of the [C63® web page](#). This information will be reviewed for accuracy at each Subcommittee meeting.

5.1 C63.17 - Unlicensed Personal Communications Service (PCS) Devices - Berger (insert link to WG report) Verify accuracy of document [status matrix](#) content and report any errors to the ASC-C63® Secretary.

C63.17-2020 Learn more	Unlicensed Personal Communications Service (PCS) Devices	SC 7	Berger, Stephen	C63.17 PINS	Reaffirmed
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C63.17: C63.17-2013 Methods of Measurement of the Electromagnetic and Operational Compatibility of Unlicensed Personal Communications Services (UPCS) Devices

Contact: [Berger, Stephen](#) (Former Working Group Chair)

Scope: Revision of IEEE Std C63.17-1998. Specific test procedures are established for verifying the compliance of unlicensed personal communications services (UPCS) devices with applicable regulatory requirements regarding radio-frequency (RF) emission levels and spectrum access procedures.

Status: Current. No plans for further maintenance at this time.

Purchase: [IEEE Store](#). To purchase individual standards, go to the IEEE store and search on the standard number.

Is this information correct? (repeat this verification for all Standards covered by this Subcommittee)

The screenshot shows a Cisco Webex meeting interface. At the top, there's a menu bar with options like File, Edit, Share, View, Audio & Video, Participant, Meeting, Breakout Sessions, and Help. Below this is a toolbar with icons for mute, start video, share, record, and other functions. The main content area displays a presentation slide titled 'C63.17' with the following text:

- Scope: *Specific test procedures are established for verifying the compliance of unlicensed personal communications services (UPCS) devices with applicable regulatory requirements regarding radio-frequency (RF) emission levels and spectrum access procedures*
- Reaffirmation complete!
- Considering PINS to revise standard to update with 5G

On the right side of the screen, there's a 'Participants (7)' list showing names like Allen Crumm, Jason Coder, Dan2, Dave Case, Jeffrey Silberberg, Omar Al-Kalaa, and Qiong Wu. At the bottom, a Windows taskbar is visible with various application icons and the system clock showing 10:23 AM on 2/10/2021.

Stephen Berger is drafting a PINZ.

5.2 C63.27 – Evaluation of Wireless Coexistence - Coder (insert link to [WG report](#)) Verify accuracy of document [status matrix](#) content and report any errors to the ASC-C63[®] Secretary.

C63.27-draft Learn more	Evaluation of Wireless Coexistence	SC 7	Coder, Jason	C63.27 PINS	Under revision
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C63.27-draft: American National Standard for Evaluation of Wireless Coexistence

Contact: [Berger, Stephen](#) (Working Group Chair)

Scope: This revision of the C63.27 standard provides improvements to the evaluation procedure and supporting test methods for wireless coexistence and evaluation of key performance indicators (KPI). The revised standard will provide evaluation procedures, test methods and other guidance necessary for performing the evaluation.

Status: Current. New revision being developed.

Purchase: Current version available for sale.

Is this information correct? Yes

[SC7 Working Group Reports](#)

The screenshot shows a Cisco Webex meeting interface. The main window displays a presentation slide titled "C63.27" with the following content:

- Status:** Motion made to the Main Committee to form a ballot group for the revision of C63.27. Motion passed; some comments returned.

Below the text is a table with 7 columns: Commenter and Number, Clause/Subclause, Paragraph/Figure/Table, Type of comment (General/Technical/Editorial), COMMENTS, Proposed change, and Proposed Resolution by the Chair on each comment submitted.

Commenter and Number	Clause/Subclause	Paragraph/Figure/Table	Type of comment (General/Technical/Editorial)	COMMENTS	Proposed change	Proposed Resolution by the Chair on each comment submitted
DZ-1	Various	Various	Ed.	The Standard and revision number vary throughout the document. The front page (without a page number) 1, and all pages up to page 14 reference ANSI C63.27 Revision 1--D1. Page 10 has a comment that references ANSI C63.27/D0, Draft. All other page headers reference ANSI C63.27/D10, April 2020.	Verify the revisions throughout the document, and consider linking them so they all update when the final revision is published.	Title page and headers were updated to Revision 1 Draft 12 January 2021. The referenced comment on page 10 was updated. Headers on pages 14+ were updated.
DZ-2	2		Tech.	The normative reference to ANSI C63.19-2011 is not the most recent, and the reference used in the document is undated.	Consider updating this to ANSI C63.19-2019 in both locations in the standard.	2019 version of C63.19 is now referenced in the normative references section
DZ-3	9		Ed.	"Additional information can be added to the test report as necessary. The report requirements in this clause 786 expand on 5.10 of ISO/IEC 17025:2017" references the wrong clause in the standard.	Consider change the text to "Additional information can be added to the test report as necessary. The report requirements in this clause 786 expand on 5.10 of ISO/IEC 17025:2017"	7.8 was verified to be "reporting of results" in ISO/IEC 17025:2017. Change implemented
DZ-4	3.2		Ed.	The acronyms CTS and RTS are only used once in the entire document. Furthermore, "clear to send" and "ready to send" are spelled out prior to the usage of the acronym there.	Consider removing CTS and RTS from the list of acronyms.	CTS and RTS removed from list of acronyms

On the right side of the Webex window, there is a "Participants (7)" list:

- AC Allen Crumm (Host, me)
- JC Jason Coder
- D Dan2
- DC Dave Case
- JS Jeffrey Silberberg
- OA Omar Al-Kalaa
- QW Qiong Wu

27 sent up for review. We received 4 comments. These will be addressed at the next WG meeting, then the document will be sent up for ballot.

The screenshot displays a Cisco Webex Meetings interface. The main window shows a presentation slide titled "C63® C63 Committee on Electromagnetic Compatibility". The slide content is as follows:

- C63.27 Working Group meets 2/12/21
 - Hoping to move back to Main Committee
- Next step will be to form a balloting group (3 weeks)
 - Document sent out for review (3 weeks)
 - Comments returned to WG
 - Recirculation if necessary
 - Editorial review
 - Publication late 2021 (hopefully)
- Revised draft submitted to SC2 and SC3 for their consideration
 - No feedback

The interface includes a top menu bar with options like File, Edit, Share, View, Audio & Video, Participant, Meeting, Breakout Sessions, and Help. A participant list on the right shows seven participants: Allen Crumm (Host), Jason Coder, Dan2, Omar Al-Kalaa, Dave Case, Jeffrey Silberberg, and Qiong Wu. The bottom toolbar contains controls for Mute, Start video, Share, Record, and Chat. The Windows taskbar is visible at the bottom of the screen.

A/I Chris Dilay to reach out to Chris Harvey on the TCB council to make a presentation to that group about C63.27.

6. Other Old Business: Chair

- 6.1 **Written reports** - Written reports of the 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 reports and [approved previous meeting minutes](#) shall be provided to the projectionist for showing on the projector screen at the meeting. The Presentation and any written report shall also be sent by the Subcommittee Chair to the ASC-C63® [Newsletter editor](#).
 - SC7 report to steering committee available online
- 6.2 **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.
 - Revision to ANSI C63.27 submitted to SC2 for their consideration. SC2 confirmed receipt.
- 6.3 **Coordination with SC3 for harmonization** - Before any Working Group draft can be submitted to the Subcommittee for approval, the document must be provided to the SC3 Chair for evaluation and coordination of any harmonization effort.
 - Revision to ANSI C63.27 submitted to SC3 for their consideration. SC3 confirmed receipt.

7. New Business: Chair

8. [C63.org](#) website use and updates: Secretary - We normally post documents to the [SC7 protected area](#). If any SC or WG needs help with this posting, a Technical Secretary is available to assist.

9. Review of the Action Items: Secretary -

9.1 Review of Action Items from this meeting: (read Action Items to Members, who must agree that they understand their meaning)

9.2 Review of Action Items from previous meeting: (insert consolidated Action Item table from the previous meeting Minutes as shown below)

A/I Allen to check status of C63.17 online and correct as necessary.

Consolidated Action Items from previous Meeting of SC7

Action Item #	Subject	Responsible Person(s)	Status	Delivery Date	Comments
1	Contact WiFi Alliance and 3GPP community regarding their possible involvement in C63.27 WG	Dave Case	Closed	Autumn meeting 2018	More attempts to follow by Chair and Vice Chair
2	C63.27 Workshops	Jason Coder	Closed	Status report at the Autumn meeting 2018	Very important activity
3	Offer invitation to have a co-sponsored study on the use of wireless technology in health care delivery to organizations that may be interested	Stephen Berger	Closed	Status report at the Autumn meeting 2018	Approved by Main Committee
A/I 4	Jason and Allen to look into Hazem Rafai's membership.	Jason Coder Allen Crumm	Closed	Oct 31, 2020	
A/I 5	Jason and Jeffery to reword the scope.	Jason Coder Jeffery Silberberg	Closed	Oct 31, 2020	
A/I 6	Jason to invite Rhode and Schwarz to join SC7	Jason Coder	Open	February 10 th , 2021	
A/I 7	Jason and Allen to send revised scope to Jerry Ramie for steering committee review	Jason Coder and Allen Crumm	Closed	February 10 th , 2021	Complete
A/I 8	Stephen Berger has accepted the action item to formulate a PINS for this to move forward	Stephen Berger	Closed	February 10 th , 2021	Complete
A/I 9	Jason and Allen to send C63.27 for review and comment.	Jason Coder and Allen Crumm	Closed	February 10 th , 2021	Complete
A/I 10	Jason to work on formatting/readability of agenda	Jason Coder	Closed	February 10 th , 2021	Ongoing

10. Time and place of next meeting: Tuesday May 18th at 1pm EDT.

Main committee:

June, 2021, ETS-Lindgren, Cedar Park/Austin, TX (postponed)

11. Closing remarks and Adjournment: Chair Dan addressed future face to face meeting. Nov. 15 thru 19 at IEEE in New Jersey. On Line meetings 2nd and 3rd quarters. Adjourned at 1:50pm EST.

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

Consolidated Action Items from today's Meeting of SC7

Action Item #	Subject	Responsible Person(s)	Status	Delivery Date	Comments
A/I 11	Jason to bring up SC7 membership at tomorrow's C63.27 WG meeting.	Jason Coder	Closed	5/18/21	
A/I 12	Chris Dilay to reach out to Chris Harvey on the TCB council to make a presentation to that group about C63.27.	Chris Dilay	Closed	5/18/21	
A/I 13	Allen to check status of C63.17 online and correct as necessary.	Allen Crumm	Open	5/18/21	