

C63[®] American National Standards Committee C63[®]

Electromagnetic Compatibility

Subcommittee 2: E3 Terminology Definitions and Best Practices

Chair: Marcus Shellman

Vice Chair: Vacant

Secretary: Vacant

October 02, 2024; 5:15 PM- 6:15 PM EDT

Rohde & Schwarz USA Inc.
Coppell, TX 75019

Approved Minutes

1. **Call to Order: Chair** - The meeting was called to order at 5:16PM-EDT
 - 1.1 **Announcements: Chair's remarks** - Welcome to the meeting!
 - 1.2 **Meeting logistics announcements: Host** - Jerry will take the Minutes today.
 - 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** (insert [SC2 membership roster](#) from the website as shown below) **Errors corrected 10/13/24**

Subcommittee 2 Membership Roster

Name	Role in SC	Affiliation
Marcus Shellman	Chair Subcommittee 2	DISA/PEO Spectrum
Michael Duncanson	Secretary Subcommittee 2	DISA/PEO Spectrum
Bob DeLisi	C63 [®] Chair	Underwriters Laboratories
Andy Griffin	Chair Subcommittee 1	CISCO Systems
Ernesto Mendoza	Chair Subcommittee 3	Signify
Nicholas Abbondante	Chair Subcommittee 4	Intertek
Tom Braxton	Chair Subcommittee 5	ARRL
Doug Kramer	Chair Subcommittee 6	Apple, Inc.
Jason Coder	Chair Subcommittee 7	NIST
Stephen Berger	Chair Subcommittee 8	TEM Consulting
Janet O'Neil	Member	ETS - Lindgren
Harry Hodes	Member	Individual Member

Guests and Observers: (non-voting) Randy Long, Vignesh Rajamani, Victor Kuczynski, Ken Gjerde, Dan Hoolihan, John Norgard, Aurelian Bria,

- 1.4 **Quorum: (50% of roster) rounding up constitutes a quorum.** (12 roster members / 2 = 6 = 6 (therefore 6 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 approved by acclamation.
 - 2.1 **Approval of the [previous Minutes](#)** - by acclamation. [Approved Minutes](#)
 - 2.2 **Review of the [patent slides](#)** - The patent slides were shown and all agreed to the policies presented.

3. Review of [Subcommittee Membership](#) - Report any errors to the ASC-C63® Secretary (see 1.3 above)

3.1 Review of Membership Guidelines: Secretary

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:

Name	Role	09/14/2021	05/17/2022	11/08/2022	05/10/2023	10/03/2023	05/15/2024
Marcus Shellman	SC2 Chair		X	X	X		X
Michael Duncanson	SC2 Secretary	X	X	X	X	X	X
Bob DeLisi	C63 Chair		X	X	X	X	X
Andy Griffin	SC1 Chair			X	X	X	X
Ernesto Mendoza	SC3 Vice-Chair			X	X		X
Nicholas Abbondante	SC4 Chair	X	X	X	X	X	X
Tom Braxton	SC5 Chair		X	X		X	X
Doug Kramer	SC6 Chair			X	X	X	X
Jason Coder	SC7 Chair	X	X	X	X	X	X
Stephen Berger	SC8 Chair						X
Janet O'Neil	Member				X	X	X
Harry Hodes	Member		X				X

Any members at risk? No members are at risk: (send letter to each member at risk)

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

4. Display of the [Scope and Duties](#) (Spring meeting only)

Scope: ~~E3 Terminology, Definitions, and Best Practices~~

~~Subcommittee 2 (SC2) is responsible for developing and maintaining electromagnetic environmental effects (E3) definitions and terminology for C63® publications and harmonizing their usages with DoD and other federal government agencies, national, and international standardization bodies. SC2 is also responsible for developing best practices for stakeholder's application of C63® standards during product design, development, test, and installation to optimize electromagnetic compatibility (EMC).~~

Duties:

- (1) ANSI C63.14, "American National Standard Dictionary of Electromagnetic Compatibility (EMC) including Electromagnetic Environmental Effects (E3)."
- (2) ANSI C63.28, "American National Standard Guide to Best Practice Methodologies, Processes, and Procedures for Electromagnetic Compatibility (EMC)."

4.1 Election of Officers – The SC2 vote conducted by email on the motion that Marcus Shellman remain as Chair of SC2 for an additional 3-year period was completed on 28 December 2023. SC2 Officers:

- **Marcus Shellman, SC2 Chairman (until 12/31/2026)** Marcus will **retire** 11/30/24
- **Michael Duncanson, SC2 Secretary** (now retired)
- **SC2 Vice Chair** (vacant)

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

5.1 WG1, C63.14 – Definitions - Duncanson ([WG report](#)) Verify accuracy of document [status matrix](#) content and report any errors to the ANSC-C63® Secretary.

C63.14-2023 Learn more	Definitions	SC 2	Duncanson, M.	C63.14 PINS	Published 6/7/2024
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C63.14: C63.14-2023 American National Standard Dictionary of Electromagnetic Compatibility (EMC) including Electromagnetic Environmental Effects (E3)

Contact: [Duncanson, M.](#) (Working Group Chair)

Scope: This standard provides definitions of terms associated with electromagnetic environmental effects including electromagnetic compatibility (EMC), electromagnetic pulse (EMP), and electrostatic discharge (ESD). In addition to definitions, several symbols and abbreviations are included.

Status: ~~Revision is on-going.~~ Published 6/7/2024.

Purchase: [Search IEEE Standards](#) - Enter C63 Standard number then Search (Enter) - Click on the version you want - Click on Purchase

Is this information correct? (No) (repeat this verification for all Standards covered by this Subcommittee)

Jason Coder moved, seconded by Harry Hodes, to accept the draft [PINS for C63.14-20XX](#). Discussion ensued. No opposition. No abstentions. The motion passed.

5.2 WG2, C63.28 – Best Practices for Electromagnetic Compatibility - Shellman

(no WG report) Verify accuracy of document [status matrix](#) content and report any errors to the ANSC-C63® Secretary.

C63.28-draft Learn more	Best Practices for Electromagnetic Compatibility	SC 2	Dilay, Chris	C63.28 PINS	Work has been suspended.
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C63.28-draft: American National Standard Guide for Best Practices for Electromagnetic Compatibility

Contact: [Dilay, Chris](#) (Working Group Chair)

Scope: This guide provides comparisons of best practices that, based on past successes in a wide variety of settings and performed consistently, result in better performance, lower costs, and higher quality products with respect to EMC compliance.

Status: Work has been suspended.

Purchase: Not yet available for sale.

Is this information correct? (No) (repeat this verification for all Standards covered by this Subcommittee)

5.3 ANSC-C63® Subcommittees & EMC Standards Projects

SC1: C63.2, C63.4, C63.4A, C63.5, C63.5 Corrigendum 1, C63.7, C63.23, C63.25.1, C63.25.2, C63.25.3

SC2: C63.14, C63.28

SC3: C63.12

SC4: C63.10, C63.10 Corrigendum, C63.10 Amendment 1, C63.26, C63.29, C63.30, C63.31, Millimeter-Wave Massive MIMO Distance Study

SC5: C63.9, C63.15, C63.16, C63.24

SC6: C63.34 (new definition requested for "characterization" from SC6)

SC7: C63.17, C63.27, C63.27 Corrigendum

SC8: C63.18, C63.19, C63.33

6. Other Old Business: Chair

6.1 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 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](#).

6.2 Coordination with SC2 for definitions - Before any Working Group draft can be submitted to Subcommittee for approval, the document must be provided to the SC2 Chair for evaluation and coordination of the definitions used.

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.

7. New Business: Chair

7.1 Consolidation of SC2 and SC3? (delayed for steering committee discussion)

8. [C63.org website](#) use and updates: Secretary - We normally post documents to the [SC2 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: Secretary - (read Action Items to Members, who must agree that they understand their meaning)

AI-7: Marcus to identify DoD replacement for Chair of SC2

AI-8: Marcus to get a list of new and updated definitions from the tri-service working group of MIL-STD 461

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

Consolidated Action Items from previous Meetings of SC2

AI:	<u>ACTION ITEM</u>	<u>Disposition</u>
20200624-4	Mr. Duncanson to explore the placement of all IEEE / C63® definitions preparation criteria on the C63® website with the standards development support materials.	05/15/2024 (Closed)
20231003-1	Mr. Duncanson provide Mr. Ramie with the approved SC2 agenda from today's meeting and the approved minutes from the 05/10/2023 meeting.	05/15/2024 Closed
20231003-2	Mr. Duncanson to provide Mr. Ramie with corrections to the SC2 membership to show Mr. Abbondante as the Chair of SC4.	05/15/2024 Closed
20231003-6	Mr. Duncanson to update paragraph 5.3 of the SC2 Agenda to include all SC standards related projects.	05/15/2024 Closed

9.3 Review Newsletter input: The SC Presentation and any written report shall also be sent by the Subcommittee Chair to the ASC-C63® [Newsletter editor](#).

10. Time and place of next meeting: Chair - Week of May 5, 2025 @ TUV in Boxborough, MA

11. Closing remarks and Adjournment: Chair Dan Hoolihan thanked Marcus for his 16 years of service in SC2. Marcus thanked the group for their contributions and adjourned the meeting at 5:37PM-CDT.

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

Consolidated Action Items from 20241002 Meeting of SC2

Action Item #	Subject	Responsible Person(s)	Status	Delivery Date	Comments
AI-7:	Marcus to identify DoD replacement for Chair of SC2	M. Shellman	Open	Next meeting	
AI-8:	Marcus to get a list of new and updated definitions from the tri-service working group of MIL-STD 461	M. Shellman	Open	Next meeting	