C63® Accredited Standards Committee C63® - EMC

Report to SC-1

ANSI C63.4

Methods of measurement of emissions from low-voltage electrical and electronic equipment in the range of 9 kHz to 40 GHz

Andy Griffin
Working group for ANSI C63.4 Chair
May 2026

1

C63® Accredited Standards Committee C63® - EMC

Recent Issues

C63.4 Emission measurements

Working further on the Informative annex on the reasons for selecting the above 1GHz test method. We have given members a significant amount of time to make and suggest change but at sometime this has got to come to end…..

The document has significant improvements and benefits including ..

a. Use of shall / should ..
b. Definition of measurements distance.
c. Definition of and considerations of 3 dB beamwidth
d. Improvements in azimuth control for all tests, particularly above 1GHz. Doesn't matter which final measurement process that is followed, if you don't need to measure it. Currently, measure at 25 degs ?
e. dated references.
f. 2 dB rule improvements…
g. alignment with CISPR 32 …… etc..

2

Accredited Standards Committee C63® - EMC

Recent Issues

C63.4 Emission measurements

It has to be understood by all parties, the above 1 GHz method is not closely defined in the current version, and that based upon application, significant differences will be obtained. It is really based upon the roots of the method as a 'manual' measurement.

It is the words that are included .. and not we think, or want, or even how it is general applied.

But In the end, if the changes are not liked in the above 1GHz tests method. Reference to the old version is still an option until we have moved on to the RVC (or something else….).

Accredited Standards Committee C63® - EMC

Recent Issues

C63.4 Emission measurements

Because of the number of changes we must recognize that implementing this revision may take several years once approved.

It was agreed to send the document, in its current state out for Vote in the SC to see if it mature enough to Main committee

ANSI C63.4 WG membership

Name	Role within WG	Affiliation
Griffin, Andy	Chair	CISCO Systems
Popovici, Horia	Vice Chair	Innovation, Science and Economic Development Canada
Ramie, Jerry	Secretary	Consultant (non-voting)
Abbondante, Nick	Member	Intertek
Antola, Michael	Member	UL Solutions
Beattie, Chad	Member	FCC Lab
Behm, Steve	Member	CKC Laboratories
Chen, Zhong	Member	ETS-Lindgren
Cuevas, Jose	Member	Apple Inc. (Alternate Rep)
DeLisi, Bob	Member	UL Solutions
Escamilla, Angel	Member	Element Materials Technology
Garinger, Nick	Member	Intel
Harrington, Tim	Member	FCC Lab
Heckrotte, Michael	Member	Consultant
Hofmann, Bob	Member	Hofmann EMC Engineering
Klinger, Jeff	Member	Individual
Lin, Grace	Member	HYTORC
Mellberg, Hans	Member	Consultant
McGann, Ryan	Member	Flock Safety
Mitchell, Bob	Member	TÜV Rheinland of North America
Molaei, Nima	Member	Element Materials Technology (Primary)
Pettit, Ghery	Member	Pettit EMC Consulting LLC
Potts, Nate	Member	Keysight Technologies
Royer, Tim	Member	TIMCO ENGINEERING, INC. (Primary)
Schaefer, David	Member	Element Materials Technology - Alternate
Shumakov, Denys	Member	ISED Canada (Expert)
Sigouin, Dan	Member	DEKRA North America
Terrien, Mark	Member	Consultant
Walton, Derek	Member	LF Research
Zerman, Kendall	Member	Sony
Zimmerman, Dave	Member	Spectrum EMC, LLC

C63® Accredited Standards Committee C63® - EMC

ANSI C63.4

1) SC1 vote

Vote ended Feb. 21st 2020 and passed (14 yes, 10 no, 3 abstain)
8 members submitted a total of 122 comments

2) In trim comments period…

After completing the major part of the document, we sent version PC63.4/D2.3, February 2024 to members of SC1 and the Task Force members for a six-week comment period that ended 3/20/24. This was extended further due to "popular demand," to 4/5/24

ANSI C63.4

3) Comment matrx

We received comments from

Mark Arthurs
Andy Griffin
Apple
UL
Harry Hodes
David Zimmerman
Randy Long

Around 50 comments were received.

C63® Accredited Standards Committee C63® - EMC

ANSI C63.4

3) Comment matrix, Informative annex about the above 1GHz test method

This was developed and we are still discussing it… but the summary of the annex is as follows.

We got consensus back in 2022 (everybody is equally unhappy) and we have been discussing it

1. All methods have problems (many methods and many problems).
2. Only the fixed height matches site validation method
3. We did not want multiple methods
4. We don't want to develop another validation method.
5. Existing text is very vague and allows too much variance.
6. Balance between test / cost and achieving reasonable results is important
7. Simple EUT setup and access to it during testing is also important

ANSI C63.4

8. overcomplicated , the reproducibility and repeatability suffer as it increases the chances that test laboratories do not perform the measurement the same way; standardization is important

9. alignment with other relevant international, national and regional standards is desirable.

However, the FCC now want, *how does the proposed method compare to the existing requirements?* So, we have restructure the annex.

and from the discussion in C63.26 Radiated Emissions TG - AI 24.. They kind of want to start from scratch?

9