

C63.25.3 - Subcommittee 1

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ANSI C63.25.3 – Managed through SC1

- Draft American National Standard for Validation Methods for Radiated Emissions Test Sites, 18 GHz to 40 GHz
- Current site validation methods only extend up to 18 GHz, however testing is being performed at frequencies as high as 231 GHz. This standard will develop a list of acceptable types of test sites and their corresponding site validation methods and recommended criteria for frequencies from 18-40 GHz. Existing site validation methods will be leveraged where possible. **Update: The frequency range for Reverb and CATR will not be limited**

C63.25.3 WG Duties

- This standard will specify the test site types and validation methods for use from 18 to 40 GHz for reference in product specific test method standards.
- SAC/OATS/FAR/FSOATS – exploring use of sVSWR, Time Domain sVSWR, and Mode Filtered sVSWR techniques
- Compact Antenna Test Range (CATR)
- Reverberation Chamber

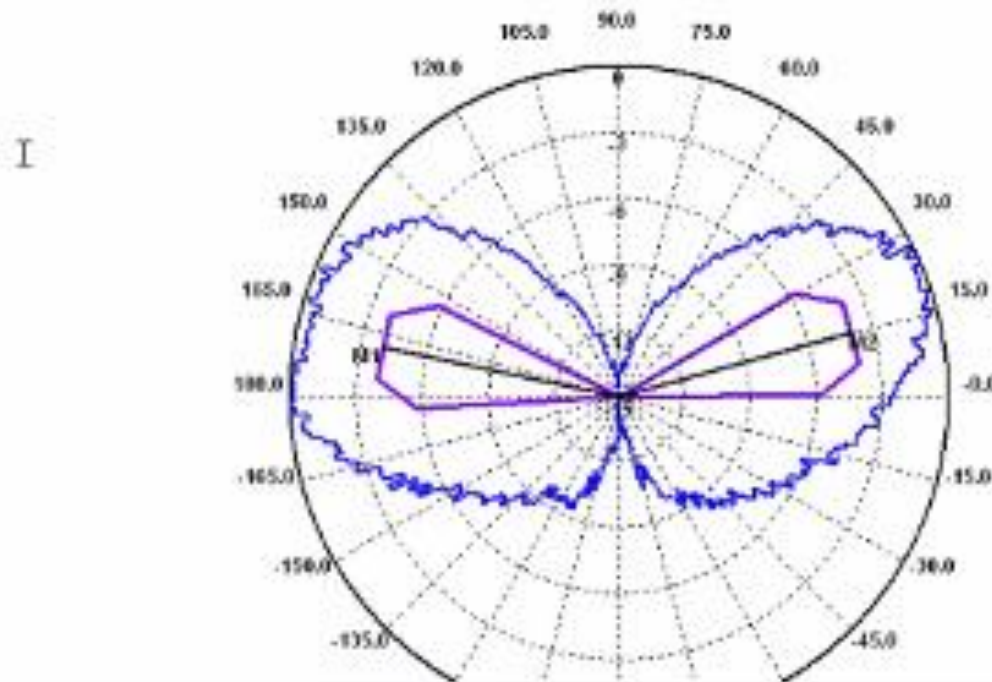
Recent Meeting highlights – SAC

- Martin Wiles is task group chair
- A number of antenna manufacturers are now participating – ETS Lindgren, Schwarzbeck Mess, and Seibersdorf
- Initial design of Alfords Loop antenna is now available and has been demonstrated
- Vector sVSWR method has been proposed by Alex Kriz
- Round robin testing of multiple antennas in one chamber is being discussed

Work currently focusing on adapting the antenna specifications from CISPR 16-1-4 below 18 GHz to the above 18 GHz frequency range

c) The E-plane pattern shall not enter the forbidden area.

Figure xx shows an example radiation pattern that meets the preceding E-plane requirements.



Recent Meeting highlights – CATR

- Robert Paxman is chairing this task group
- Several meetings have occurred since the last SC meeting
- Active discussions occurring and text is being edited – group is aiming for a complete first draft in the next few months
- Robert is stepping back from this work and the goal is to get the draft to the working group and move it forward there

Recent Meeting highlights – Reverb

- Reverberation Chamber task group chaired by Phil Miller
- Group is finalizing text methodically – directivity is one of the major topics
- Goal is to have a first draft of text in the next few months

Future Tasks

- Main working group is not meeting very often – last meeting was December 5th, 2023, 12-1:30PM Eastern – work is taking place in the task groups. Once text is available from the TGs, the main WG will resume meetings.
- Task groups are meeting roughly monthly, some are every two weeks
- Obtain first drafts of validation text for the standard
- Determine basic antenna requirements for SAC
- Develop round robins to validate the methods and cross correlate results across chamber types

Summary

- SAC TG is focusing on transmit antennas
- Reverb and CATR groups making good progress on text
- Completion of initial text should hopefully be this year, CATR and Reverb look to be back on track to be included in first edition
- Timeline will be dependent on the time it takes to perform a round robin, as appropriate