



ANSI-ASC-C63[®] Interpretation Request Form

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This form shall be used for submission of Interpretation Requests related to ANSI-IEEE standards that are within the responsibility of ANSI-ASC-C63[®]. The eight parts of the form must be filled out completely, with the exception of the Subcommittee Response, to ensure expedient processing. This completed form is to be submitted to the [Secretary of ANSI-ASC-C63[®]](#) via e-mail.

Submission Date	Originator Name, Company
09/09/2020	Bill Stumpf D.L.S. Electronic Systems, Inc.

Standard	Clause/ Sub clause	Paragraph Figure/ Table	Type (General/ Technical/ Editorial)	Comment / Inquiry	Subcommittee Response <i>(to be filled in by Subcommittee Chair)</i>
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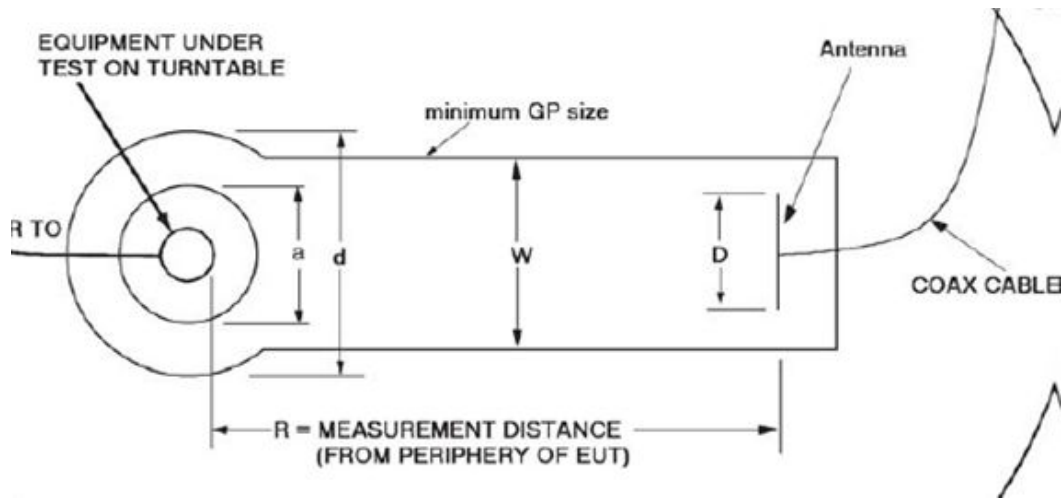
Standard	Clause/ Sub clause	Paragraph Figure/ Table	Type (General/ Technical/ Editorial)	Comment / Inquiry	Subcommittee Response <i>(to be filled in by Subcommittee Chair)</i>
C63.4	8.2.3	Figure 5	Technical	<p>In ANSI C63.4-2014 the specified distance from the EUT to the measurement antenna is described as “the distance between the horizontal projection onto the ground plane of the <u>closest periphery of the EUT</u> and the projection onto the ground plane of the center of the axis of the elements of the receiving antenna.”</p> <p>This I interpret to be quite dissimilar in some instances to the measurement distance between the EUT and receive antenna of CISPR 32:2015 (section C.2.2.4 & Figure C.1 & C.2) – also CISPR 16-2-3 ed.4, Section 7.3.1 & Figure 8.</p> <p>Here is what we see as the essential setup difference: ANSI C63.4 has us set the EUT up so the closest point of the EUT is 10M (or 3m) from the EUT periphery. The table rotation is centered on the center of the EUT setup. CISPR 32/CISPR 16 however has us set up so that the back edge of the EUT is 10m (or 3m) from the EUT. The table rotation is centered on the back edge of the table.</p> <p>ANSI C63.4 does not provide a drawing showing the location of the EUT on the turntable and only specifies the distance between the EUT and antenna be measured from the closest periphery of the EUT.</p> <p>Supporting information provided below.</p>	<p>The text in ANSI C63.4-2014 can represent the same arrangement as in CISPR.</p> <p>CISPR 32 and CISPR 16-2-3 do not require rotation of the EUT with respect to the center of the back edge of the EUT. The requirement in these CISPR standards is to arrange the EUT units and cables such as to minimize the circle encompassing the EUT arrangement, and to center the EUT on the turntable at the center of this circle. The antenna is positioned at the measurement distance from this circle.</p> <p>The text in ANSI C63.4-2014 does not require that the support table placement be such that the center of its rear edge is above the center of rotation of the turntable. The EUT arrangement must be centered on the turntable.</p> <p>The text in 8.2.3 of ANSI C63.4-2014 is relatively vague, with no mention of azimuth, which allows various interpretations on how to place the antenna relative to the EUT during measurements. Therefore, the text currently in ANSI C63.4-2014 could permit positioning the antenna as in CISPR 32 and CISPR 16-2-3.</p> <p>The next edition of ANSI C63.4 will further clarify these requirements.</p>

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				<p>Our interpretation of the C63.4 setup appears to suggest a significant difference from the CISPR 16 setup regarding the EUT rotation and distance measured from the antenna.</p> <p>Our question: are we interpreting the ANSI C63.4 procedure of EUT to measurement antenna distance correctly or can it represent a EUT to antenna measurement the same as that in CISPR 16-2-3/CISPR 32 where the back edge of the EUT is 10m (or 3m) from the EUT and the table rotation is centered on the back edge of the table?</p>	

C63.4 offers the following:

Section 8.2.3: “The specified distance is the distance between the horizontal projection onto the ground plane of the closest periphery of the EUT and the projection onto the ground plane of the center of the axis of the elements of the receiving antenna.

And Figure 5:



In comparison, CISPR 16-2-3 (& CISPR 32) offers the following:

C.2.2.4 Boundary of the EUT, local AE and associated cabling and measurement distance for radiated emissions measurements.

The EUT and local AE shall be arranged in the most compact practical arrangement within the test volume, while respecting typical spacing and the requirements defined in Annex D. The central point of the arrangement shall be positioned at the centre of the turntable. The measurement distance is the shortest horizontal distance between an imaginary circular periphery just encompassing this arrangement and the calibration point of the antenna. See Figure C.1 and Figure C.2.

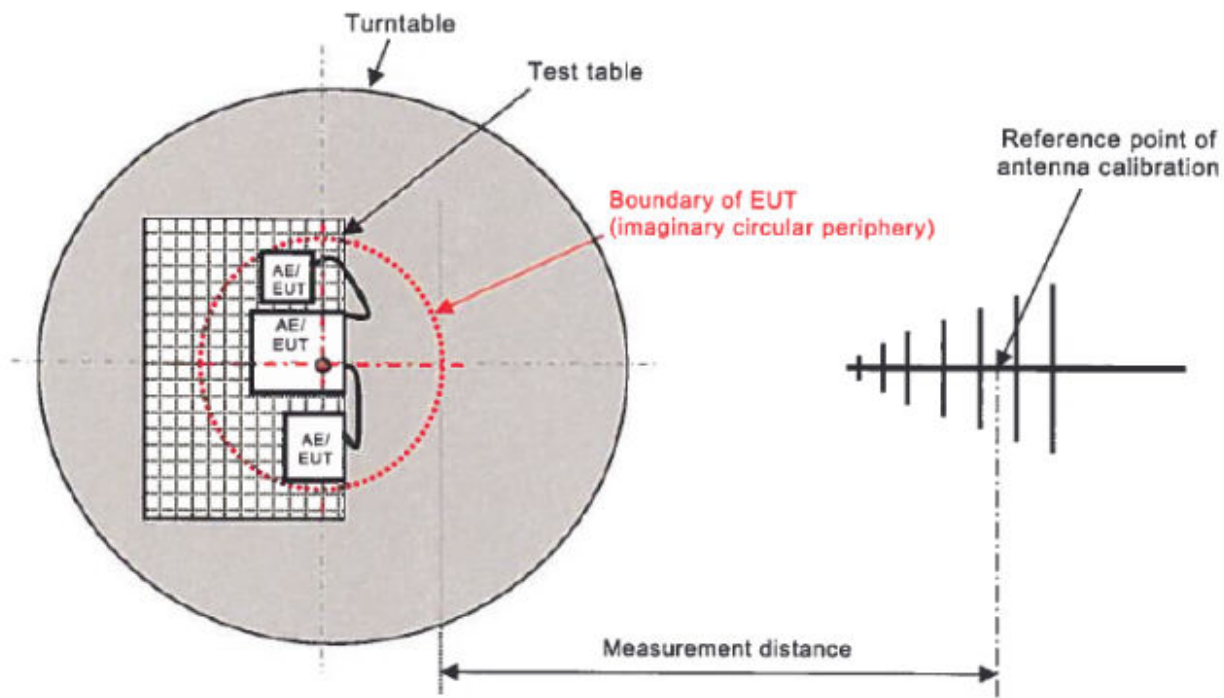


Figure C.1

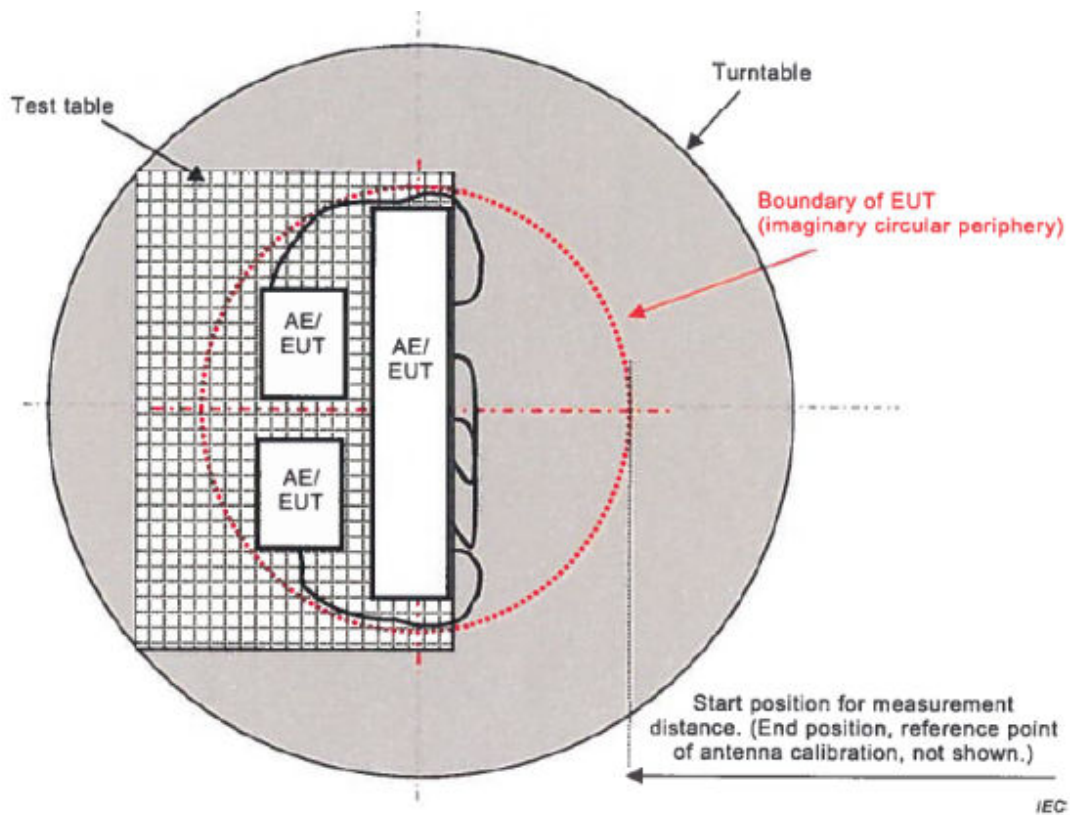


Figure C.2 – Boundary of EUT, Local AE and associated cabling