



## ANSI-ASC-C63<sup>®</sup> Interpretation Request Form

This form shall be used for submission of Interpretation Requests related to ANSI-IEEE standards that are within the responsibility of ANSI-ASC-C63<sup>®</sup>. 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<sup>®</sup>](#) via e-mail.

<b>Submission Date</b> 11/18/2016	<b>Originator Name, Company</b> Larry K. Stillings, Compliance Worldwide, Inc.
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<b>Standard</b>	<b>Clause/ Sub clause</b>	<b>Paragraph Figure/ Table</b>	<b>Type</b> (General/ Technical/ Editorial)	<b>Comment / Inquiry</b>	<b>Subcommittee Response</b> <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>
C63.4:2014	5.5.1 (a) (1)	<b>Site validation by means of SVSWR measurements:</b> The test site has been shown to comply with the SVSWR requirements specified in 8.3.2 of CISPR 16-1-4:2010-04 over the frequency range of 1 GHz to 18 GHz, when tested in accordance with the site validation procedures requirements specified in 8.3.3 of CISPR 16-1-4:2010-04.	Editorial	<b>QUESTION:</b> If a test site has been shown to comply with the SVSWR requirements specified in 8.3.2 of CISPR 16-1-4:2010-04 over the frequency range of 1 GHz to 18 GHz, when tested in accordance with the site validation procedures requirements specified in 8.3.3 of CISPR 16-1-4:2010-04 and meets this requirement <b>without the use of absorber on the turntable</b> is that an acceptable application of this standard. There are two situations in which we have calibrated our facilities without the use of absorber on the turntable. First on a 3M OATS site, an ETS Lindgren 2065 Low Pro Turntable having a diameter of 1.25 Meters does not contain any absorber during the calibration. Second, on a larger 3M OATS with a 3 Meter diameter turntable, the absorber is actually cantilevered over the turntable between the EUT and the measurement antenna during calibration. In both situations the sites meet the SVSWR requirements, but doesn't have the absorber installed on the turntable. We can provide dimensional drawings or photographs of the calibration setup for further clarification if needed.  Furthermore , clause 5.5.1 (c), actually allows the removal of the absorber from the turntable during testing, which seems contradictory to mandatory requirement of having absorber on the turntable during the calibration process.	ANSI C63.4-2014 clause 5.5.1 offers two approaches to demonstrate the suitability of test facilities for radiated emission measurements in the frequency range above 1 GHz a) <i>“For a measurement distance of 3 m, test facilities (i.e., test sites) used for making final compliance radiated emissions measurements in the frequency range of 1 GHz to 40 GHz are deemed to be acceptable when either of the following conditions [i.e., item 1) or item 2)] is met.”</i>  If option 5.5.1 a)1) is applied and the chamber under test meets the SVSWR requirement of CISPR 16-1-4:2010-04 it is considered acceptable in accordance with C63.4. CISPR 16-1-4 does not specify the absorber layout between the receive antenna and the transmit antenna that is required to meet the SSWR criterion. Therefore it is a correct application of the sVSWR validation method if the turntable is not covered with absorbers but the SVSWR criterion is met.  Please note that Figure 6 (normative Absorber placement diagram) is derived from the text in clause 5.5.1 a) item 2) and does not apply to 5.5.1a)1).

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C63.4:2014	5.5.1 (a) (1) (continued)	Additionally, the RF absorbing material used on the reference ground plane (i.e., the ground plane of an OATS or the conductive metal floor of an RF anechoic chamber, as applicable) <b>and on the turntable</b> shall have a maximum height (thickness) of 30 cm (12 in) and shall have a minimum-rated attenuation of 20 dB (at normal incidence) at all frequencies from 1 GHz to 18 GHz.		<p>Additionally, CISPR 16-1-4:2010-04 Clause 8.3.1, 5<sup>th</sup> Paragraph states:</p> <p>In facilities where the test volume is above the height of the absorber, as may be typical of facilities used for testing table-top equipment, absorber <b>may be placed under the test volume for both site validation and equipment tests.</b></p> <p>This inquiry is the result of the literal interpretation of the clause 5.5.1 (a)(1) and Figure 6 from an ISO Guide 17025 audit stating that the absorber must cover the turntable during the <math>S_{VSWR}</math> validation process.</p> <p><b>Proposal:</b> Change the referenced text in 5.5.1 (a)(1) “and on the turntable <b>as needed</b>”</p> <p>and</p> <p>Figure 6 Turntable (covered with RF Absorber <b>as needed</b>)</p> <p>Or at least clarify that the RF Absorber is not required on the turntable when validating <math>S_{VSWR}</math></p>	<p>If approach 5.5.1 (b) is selected then the situation changes since a specific size for absorbers and their placement is defined which includes coverage of the turntable.</p> <p>The possibility to remove absorbers from the turntable (if applied during the SVSWR method per 5.5.1 (a) or as required by 5.5.1 (b)) is necessary to accommodate the testing of floor standing equipment. This is also called out in CISPR 16-1-4: 2010 clause 8.3.1.</p> <p>However, it is agreed that clarification is required for the current option in 5.5.1 (c)1 when using approach 5.5.1 (b): The removal of absorbers from the turntable is not permissible for the measurement of table-top equipment. This clarification will be considered for inclusion in the next revision of the standard.</p>