



ANSI-ASC-C63[®] 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[®]. 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.

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| Submission Date 09/25/2015 | Originator Name, Company Takashi Maruyama / LAB. Support Ltd. |
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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> |
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| C63.4-2014 | Annex D D.3 NSA for alternative test site | Figure D.3 to D.6 Table D.1 & D.2 | Technical | <p>In ANSI Explanation “C63_4_2014_20150528_Annex_D3”, the response was made that “Figures D.3 and D.4 are correct. The transmit antenna and the receive antenna are turned to face each other (antenna elements of both antennas are parallel). The receive antenna is moved along the main measurement axis as shown such that the distance between the reference point on the transmit antenna and receive antenna are separated by the distance R”.</p> <p>The theoretical NSA for an ideal site in tables D.1 & D.2 is calculated from the distance between the phase center of the Tx and Rx antennas. At our site with the test volume 5 m, for instance, when the distance R for right/left position as shown in the figures D.4 is 10 m, the distance between the phase center of the Tx and Rx antennas is 10.31 m - the different theoretical NSA value from that indicated in tables D.1 & D.2 is obtained from the calculation formula.</p> <p>For example, a difference occurs by 0.439 dB at 30 MHz, 10 m distance and Tx height 2 m in horizontal polarization. This cannot be ignored. Therefore, the theoretical NSA value at right/left position should be calculated individually, on the basis of each test volume size and the distance between the phase center of the Tx/Rx antennas, I think. Is it correct?</p> <p>As an alternative method, is it permitted to apply the geometry indicated in the figures D.4, ANSI C63.4-2009 specifying every distance R between the phase center of the Tx/Rx antennas that does not require a complicated calculation like this?</p> | <p>C63 is aware of the issue with the figure D.4 in ANSI C63.4-2014. Therefore, it is permitted to apply the geometry indicated in Figure D.4 of ANSI C63.4-2009. This matter will be corrected in the next revision of the standard. However, please note, that when a disagreement between the text and a figure occurs, the text takes precedence.</p> <p>Excerpt from ANSI C63.4-2014, paragraph 2 of section D.3 NSA for alternative test sites is copied below for your convenience.</p> <p>“... The separation distance R shall be maintained for all measurements. This requires that the receive antenna be moved along the line in the directions shown in Figure D.3 through Figure D.6 to maintain the separation distance R constant for all transmit antenna positions.”</p> |
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