



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.

Submission Date	Originator Name, Company
02/20/2015	Takashi Maruyama / LAB. Support Ltd.

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 N N.1 General b), 2)		Technical	<p>b) Condition B: the specific hybrid antenna shall satisfy all of the following requirements:</p> <p>1)</p> <p>2) The hybrid antenna shall have measured antenna symmetry of ± 1 dB or less at all frequencies from 30 MHz to its highest frequency of operation (i.e., to 1 GHz or possibly higher). The measurement procedure shall be in accordance with the antenna symmetry subclause of ANSI C63.5, with (the center of phase) antenna height being fixed at 1.00 m (± 0.01 m) above the reference ground plane.</p> <p>The definition of a hybrid antenna is included in ANSI C63.4-2014 Clause 3.1 (definitions). Hybrid antenna is defined as “Any antenna that is constructed such that it includes a combination of both broadband dipole (e.g., biconical, bow-tie) elements and log-periodic dipole array (LPDA) elements.”</p> <p>ANSI Explanation C63.5 2006 06-17-2014 explains as follows,</p> <p>“ 4.4.1 Antenna symmetry</p> <p>In addition to the antenna calibration procedure, it is prudent to check the balance of Symmetrical antennas. Two antennas of similar type (i.e., same model) are required. Connect this pair of antennas to the test instrumentation as described in 4.3 and then</p>	Thank you for your comment and observation. C63 will address this matter in the next revision of the applicable standard.

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C63.4-2014	Annex N N.1 General b), 2)		Technical	<p>a) Start by orienting the transmitting and receiving antennas vertically with respect to the ground plane at a height of 1 m to the antenna center.”</p> <p>The three bold highlights are explained below:</p> <p>1) The document states a fixed height of 1 meter for this symmetry check. No other height can be used.</p> <p>2) Note this check is stated only for symmetrical antennas. The intended symmetrical antennas are biconicals and dipoles. No other antenna was intended to be included in the symmetry check.</p> <p>3) Use of a ground plane infers that the frequency is 1 GHz or below.</p> <p>The hybrid antenna provides a log-periodic dipole array (LPDA) elements and it should be covered above 200MHz. The requirement of N.1, b), 2) is contradiction in ANSI explanations.</p>	