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
02/12/2016	Dietmar Leugner, Rohde & Schwarz

Standard	Clause/ Sub clause	Paragraph Figure/ Table	Type (General/ Technical/ Editorial)	Comment / Inquiry	Subcommittee Response (to be filled in by Subcommittee Chair)
ANSI C63.4 2014	Item 11 and footnote g	Table I	T	Footnote 8 strictly relates double-ridged guide horn aperture D to the measurement distance R with $R \geq 2\,D^2/\lambda$ whereas C63.5 states/allows in 5.2: "NOTE—An antenna calibrated at a distance **less** than $R = 2\,D^2/\lambda$ shall be used only at the calibrated distance." Will C63.5 be adapted to C63.4 in the next revision or is the strict condition in footnote unintentionally contradicting C63.5?	The two referenced statements are not in conflict and apply to different situations. The normative text in ANSI C63.5:2006, Clause 5.2, states: "Horn antennas shall be calibrated at a distance equal to or greater than $R = 2D^2/\lambda$;" which is identical to the text in Footnote g of Table 1 in C63.4:2014. This (normative) footnote states the requirement for the product measurement distance rather than antenna calibration distance. The note at the end of clause 5.2 of ANSI C63.5:2006 which is informative provides guidance to the user in case the antenna is calibrated at a distance less than the Rayleigh (far-field) distance. ANSI C63.5:2006 is referenced in standards other than ANSI C63.4. Hence the measurement distance was included in the calibration standard. However, if an antennas is calibrated in accordance with C63.5-2006 and is used for product measurements in accordance with C63.4:2014 the requirement in ANSI C63.4 will take precedence and the antenna is required to be calibrated at a distance greater than $2D^2/\lambda$. Therefore, the note in clause 5.2 of C63.5:2006 and the footnote g of Table 1 (and

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					footnote f of Table 2) in C63.4:2014 are not contradicting each other. The subsequent information is provided for informational purposes only and is included in the next revision of ANSI C63.5 which is currently in its balloting period. As such, the information may be subject to **change** and it is not part of the interpretation but is provided for informational purposes only. The current balloting version of C63.5 disallows calibration distances less than $R < 0.62\sqrt{D^3/\lambda}$, Antenna factors measured at distances $0.62\sqrt{D^3/\lambda} \le R < 2D^2/\lambda$ shall be deemed acceptable at the calibrated distance and antenna factors measured at distances $R \ge 2D^2/\lambda$ shall be deemed acceptable at the calibrated distance and greater. This is and will remain in agreement with product measurement distance as described in footnote g of Table 1 in C63.4:2014