

American National Standard

guide for construction of
open area test sites for performing
radiated emission measurements

ANSI C63.7-1988



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**American National Standard
Guide for Construction of
Open Area Test Sites for Performing
Radiated Emission Measurements**

Accredited Standards Committee On Electromagnetic Compatibility, C63

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Secretariat

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Foreword

(This Foreword is not part of ANSI C63.7-1988.)

ANSI C63.4, *Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 10 kHz to 1 GHz*, has undergone several revisions since the original document covering methods of measurement was produced in 1940. While many improvements were made in the standard from time to time, the reproducibility of measurements of radiated interference from one test site to another has not been completely satisfactory.

In 1982 a concerted effort was organized in Subcommittee One of the Accredited Standards Committee C63, to determine how the technique could be improved. Evidence showed that the variability was due, in part, to inadequate a) control of site ground plane conductivity, flatness, site enclosures, effects of surrounding objects, and certain other site construction features, b) accounting for antenna factors, associated cabling, and balun and device under test characteristics, and c) consideration of mutual coupling effects between the device under test and the receiving antenna and their images in the ground plane. Accordingly ANSI C63.4 is being revised, and ANSI C63.5, *Standard Calibration of Antennas Used for Radiated Emission Measurements in Electromagnetic Interference (EMI) Control*, and C63.6, *Guide for the Computation of Errors in Open Area Test Site Measurement*, are in preparation to provide additional information. This document provides guidance information on the construction of a suitable test site.

At the time this document was approved, members of Task Group on Open Area Test Sites were as follows:

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