

American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services

C63[®]

Accredited Standards Committee C63[®]—Electromagnetic Compatibility

Accredited by the
American National Standards Institute

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Secretariat
Institute of Electrical and Electronics Engineers, Inc.

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C63[®]

Abstract: This standard is intended to cover procedures for compliance testing of a wide variety of transmitters designed to operate in licensed radio services, including but not limited to: Commercial Mobile Radio Services, Public Mobile Services, Cellular Radiotelephone Service, Personal Communication Services, Miscellaneous Wireless Communication Services, Private Land Mobile Radio Services, and Personal Radio Services. Tests methods are provided for measurement of radiated and conducted emissions, RF power, out-of-band emissions, frequency stability, and other regulatory requirements for a variety of devices. This standard does not consider test methods for requirements specific to maritime and aviation transmitters, ground-based radars, satellite equipment, fixed microwave equipment, or broadcast transmitters. The latter equipment may be covered in future revisions of this standard.

Keywords: ANSI C63.26, compliance testing, frequency stability, licensed radio services, licensed transmitters, out-of-band emissions, radiated and conducted emissions, RF power, test procedures

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Introduction

This introduction is not part of ANSI C63.26-2015, American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services.

ANSI C63.26 is a standard for compliance testing of transmitters operated in certain licensed radio services. This consensus standard specifies methods, instrumentation, and facilities requirements for the compliance testing of a wide variety of radio transmitters designed to operate in licensed radio services. It does not include limits or station licensing requirements. Tests methods are provided for measurement of radiated and conducted emissions, RF output power, out-of-band emissions, frequency stability, and other regulatory requirements for a variety of devices. This standard does not consider test methods for requirements specific to maritime and aviation transmitters, ground based radars, satellite communication equipment, fixed microwave equipment, or broadcast transmitters. This equipment may be covered in future revisions of this standard. In addition, this standard does not include evaluation methods for transmitters subject to regulatory requirements concerning human exposure to RF energy; RF exposure conformity assessment methods are given in other standards. This standard serves as a companion standard to ANSI C63.10 for compliance testing of unlicensed wireless devices, and ANSI C63.4 for compliance testing of low-voltage electrical and electronic equipment.

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1. Overview

1.1 Scope

This consensus standard specifies methods, instrumentation, and facilities requirements for the compliance testing radio transmitters designed to operate in a licensed radio service. It does not include limits or licensing requirements. Tests methods are provided for measurement of radiated and conducted emissions, RF output power, out-of-band emissions, frequency stability, and other regulatory requirements for a variety of devices, as described in this standard. This standard does not consider test methods for requirements specific to maritime and aviation transmitters, ground based radars, satellite communication equipment, fixed microwave equipment, and broadcast transmitters.¹ The latter equipment types may be covered in future revisions of this standard. In addition, this standard does not include evaluation methods for transmitters subject to regulatory requirements concerning human exposure to RF energy; RF exposure conformity assessment methods are given in other standards, e.g., IEEE Std 1528TM-2013 [B41].² Other documents covering a limited number of the test procedures included in this standard are available and may be used at the discretion of the regulatory authority, e.g., IEEE Std 377TM-1980 [B36], TIA-102.CAAA-D [B62], TIA 603-D-2010 [B63].

¹ Test methods for additional requirements applicable to some transmitters are given in other ASC C63[®] documents, e.g., ANSI C63.19-2011 [B3] for hearing aid compatibility of wireless communications devices.

² Numbers in brackets correspond to the numbers in the bibliography in Annex K.