IEEE Std 802.16™/Conformance03-2004
(Conformance to IEEE Std 802.16-2001
as amended by IEEE Std 802.16a™-2003
and IEEE Std 802.16c™-2002)

IEEE Standards

802.16™ Conformance

IEEE Standard for Conformance to IEEE 802.16

Part 3: Radio Conformance Tests (RCT) for 10–66 GHz WirelessMAN-SC™ Air Interface

IEEE Computer Society
and the
IEEE Microwave Theory and Techniques Society

Sponsored by the
LAN/MAN Standards Committee

IEEE

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Approved 12 May 2004

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Abstract: This standard represents the Radio Conformance Tests (RCT) specification for base stations and subscriber stations based upon the WirelessMAN-SC™ (10–66 GHz) air interface specified in IEEE 802.16.

Keywords: compliance, fixed broadband wireless access network, microwaves, millimeter waves, radio conformance test, WirelessMAN™ standards, wireless metropolitan area network

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Introduction

(This introduction is not a part of IEEE Std 802.16/Conformance03-2004, IEEE Standard for Conformance to IEEE Standard 802.16— Part 3: Radio Conformance Tests (RCT) for 10–66 GHz WirelessMAN-SC™ Air Interface.)

This is the third of a set of standards specifying test methods for demonstrating conformance to IEEE Standard 802.16. It represents the Radio Conformance Tests (RCT) for conformance specification of base stations and subscriber stations based upon the WirelessMAN-SC (10–66 GHz) air interface specified in IEEE Standard 802.16. The work was developed within the IEEE 802.16 Working Group beginning in March 2003.

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Conformance test methodology

The multipart conformance test documents for IEEE Standard 802.16 are identified by "IEEE Standard 802.16/ConformanceXX". For example, the first part of the conformance specification for IEEE 802.16 is designated "IEEE Standard 802.16/Conformance01".

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Errata, if any, for this and all other standards can be accessed at the following URL: http://standards.ieee.org/reading/ieee/updates/errata/index.html. Users are encouraged to check this URL for errata periodically

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This document was developed by the IEEE 802.16 Working Group on Broadband Wireless Access, which is responsible for Wireless Metropolitan Area Network (WirelessMAN™) Standards:

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1. Overview

To evaluate conformance of a particular implementation of a radio interface, it is necessary to have a common radio testing document with common radio test procedures, as outlined in the Test Suite Structure and Test Purposes (TSS&TP) document. The Radio Conformance Tests (RCT) specification document serves this purpose.

This document specifies the radio aspects of the test procedures and the test conditions needed to ensure conformance to the WirelessMAN-SC™ air interface in IEEE Std 802.16 and to support interoperability between equipment developed by different manufacturers. It specifies tests of the baseband and radio frequency (RF) signal processing functionalities in the transmitter and the receiver. The specification covers basic RF aspects, including the radio frequency channel plans and those other parameters necessary for radio regulatory coexistence purposes. The tests primarily relate to physical layer specifications, but the test procedures require some basic functionalities from the medium access control layer.

The tests correspond to the requirements in IEEE Std 802.16™/Conformance02-2003. The requirements are given in conjunction with the tests.

In order to perform these tests, some dedicated test equipment and testing capabilities are required by test laboratories. Requirements for test laboratories are provided in Annex A.

1.1 Scope

This standard represents the RCT specification for base stations (BS) and subscriber stations (SS) based upon the WirelessMAN-SC™ (10–66 GHz) air interface specified in IEEE 802.16.[1]

1.2 Purpose

These RCT specifications form the basis of conformance and interoperability testing at the radio interface.

[1]When IEEE 802.16 is referenced this generally includes the base document and any existing amendments and corrigenda.