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(Conformance to IEEE Std 802.16-2001
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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



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

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IEEE Microwave Theory and Techniques Society



Approved 12 May 2004

IEEE-SA Standards Board

Abstract: This standard represents the Radio Conformance Tests (RCT) specification for base stations and subscriber stations based on 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

The Institute of Electrical and Electronics Engineers, Inc.
3 Park Avenue, New York, NY 10016-5997, USA

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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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Participants

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:

IEEE 802.16 Working Group Officers

Roger B. Marks, *Chair*
Kenneth Stanwood, *Vice Chair*
Dean Chang, *Secretary*

Primary development was carried out by the Working Group's Task Group C:

Task Group C Officers

Kenneth Stanwood, *Chair*
Lars Lindh, *Technical Editor*

The following members of the IEEE 802.16 Working Group on Broadband Wireless Access participated in the Working Group Letter Ballot in which the draft of this standard was approved:

Aditya Agrawal	David Johnston	Ronald Murias
Gordon Antonello	Panyuh Joo	Robert Nelson
Reza Arefi	Tal Kaitz	Kamlesh Rath
Eli Avivi	Phil Kelly	Gene Robinson
Dean Chang	Ofer Kelman	Yossi Segal
Naftali Chayat	Brian Kiernan	James Simkins
Rémi Chayer	Itzik Kitroser	Kenneth Stanwood
Stephen Dick	Changhoi Foo	Carl Stevenson
Brian Edmonston	Jonathan Lam	Yoshihiro Suzuki
Brian Eidson	Yigal Leiba	Shawn Taylor
Henry Eilts	Brian Lewis	David Trinkwon
Carl Eklund	Liwei Li	Rainer Ullmann
Marc Engels	John Liebetreu	Nico van Waes
Avraham Freedman	Lars Lindh	Eyal Verbin
G. Jack Garrison	Hui-Ling Lou	Lei Wang
Marianna Goldhammer	Roger B. Marks	Philip Whitehead
Zion Hadad	Russell McKown	Vladimir Yanover
	Andrew Middleton	

The following individuals are members of the balloting committee voted on this standard. Balloters may have voted for approval or disapproval, or abstaining.

John Barrett	Kevin Karcz	Charles Ngethe
Henry Sims	Stuart Kerry	Roger Pandanda
Naftali Chayat	Brian Kiernan	Subbu Ponnuswamy
Aik Chandapol	Christina Lim	Vikram Punj
Dodor Cooklev	Randolph Little	Eugene Robinson
Guru Dutt Dhingra	Gregory Luri	Yoram Solomon
Thomas Dineen	Roger Marks	Kenneth Stanwood
Dr. Sourav Dutta	Kevin Marquess	Carl Stevenson
Avraham Freedman	Russell McKown	Scott Valcourt
Theodore Georgantas	Ingolf Meier	Stanley Wang
Andrew Germano	George Miao	Hung-yu Wei
Zion Hadad	Yinghua Min	Menzo Wentink
Raj Jain	Michael Newman	Oren Yuen
Efthymios Karabetos		Surong Zeng

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IEEE Standard for Conformance to IEEE 802.16™

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

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.

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