IEEE Standard for
Local and metropolitan area networks

Part 16: Air Interface for Broadband Wireless Access Systems

Amendment 2: Improved Coexistence Mechanisms for License-Exempt Operation

IEEE Computer Society
and the
IEEE Microwave Theory and Techniques Society

Sponsored by the
LAN/MAN Standards Committee

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3 Park Avenue
New York, NY 10016-5997, USA

30 July 2010

IEEE Std 802.16h™-2010
(Amendment to
IEEE Std 802.16™-2009)

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Approved 17 June 2010
IEEE-SA Standards Board

Abstract: This amendment specifies improved mechanisms, as policies and medium access control enhancements, to enable coexistence among license-exempt systems based on IEEE Std 802.16 and to facilitate the coexistence of such systems with primary users.
Keywords: broadband wireless access, BWA, coexistence, Coexistence Control Channel, coexistence mechanism, Coexistence Protocol, Coexistence Signaling, contention-based protocol, license-exempt, OFDMA, radio, standard, WAS, wireless access systems, WirelessMAN®, WirelessMAN-CX, WirelessMAN-UCP, wireless metropolitan area network

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PDF: ISBN 978-0-7381-6351-2 STD96081
Print: ISBN 978-0-7381-6352-9 STDPD96082

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Introduction

This introduction is not part of IEEE Std 802.16h-2010, IEEE Standard for Local and metropolitan area networks—Part 16: Air Interface for Broadband Wireless Access Systems—Amendment 2: Improved Coexistence Mechanisms for License-Exempt Operation.

This amendment updates and expands IEEE Std 802.16, specifying improved mechanisms, as policies and medium access control enhancements, to enable coexistence among license-exempt systems and to facilitate the coexistence of such systems with primary users. As of the publication date, the current applicable version of IEEE Std 802.16 is IEEE Std 802.16-2009, as amended by IEEE Std 802.16j™-2009 and IEEE Std 802.16h-2010.

Conformance test methodology

The multipart conformance test documents for IEEE Std 802.16 are designated by "IEEE Standard 802.16/ ConformanceXX."

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NOTE—The editing instructions contained in this amendment define how to merge the material contained herein into the existing base standard and its amendments to form a comprehensive standard.

The editing instructions are shown ***bold italic*.** Four editing instructions are used: ***change***, ***delete***, ***insert***, and ***replace***. ***Change*** is used to make small corrections in existing text or tables. The editing instruction specifies the location of the change and describes what is being changed by either using ~~strikethrough~~ (to remove old material) or underscore (to add new material). ***Delete*** removes existing material. ***Insert*** adds new material without disturbing the existing material. Insertions may require renumbering. If so, renumbering instructions are given in the editing instruction. ***Replace*** is used to make large changes in existing text, subclauses, tables, or figures by removing existing material and replacing it with new material. Editorial notes will not be carried over into future editions because the changes will be incorporated into the base standard.

1. Overview

1.3 Frequency bands

Change title of 1.3.3 as follows:

1.3.3 License-exempt bands ~~frequencies below 11 GHz (primarily 5-6 GHz)~~

Delete the last two paragraphs in 1.3.3 as follows:

~~It is recognized that some administrations require notification of terminal location for certain services in some license-exempt bands, which is a form of licensing. Conversely, it is possible to have uncoordinated usage within a licensed allocation. In these and other similar cases, the pertinent issues for license-exempt usage remain as described in the preceding paragraph.~~

~~In the context of this standard, the use of the term "license-exempt frequencies" or "license-exempt bands" should be taken to mean the situation where licensing authorities do not coordinate individual assignments of frequency bands to operators, regardless of whether the spectrum in question has a particular regulatory status as license-exempt or licensed.~~

1.3.4 Air interface nomenclature and PHY compliance

Change the seventh row of Table 1 in 1.3.4 as indicated:

Designation	Applicability	PHY specification	System features	Duplexing alternative
WirelessHUMAN™	~~Below 11 GHz license-exempt bands~~ License-exempt bands below 11GHz	~~[8.4] and 8.5~~ 8.3, 8.4, and 8.5	~~AAS (6.3.7.6)~~ ~~ARQ (6.3.4)~~ ~~STC (8.3.8/8.4.8)~~ 12.3, 12.4	TDD

Insert the following rows at the end of Table 1:

Designation	Applicability	PHY specification	System features	Duplexing alternative
WirelessMAN-CX	License-exempt bands below 11GHz	8.3, 8.4	12.8.2	TDD
WirelessMAN-UCP	License-exempt bands below 11GHz	8.4	12.8.1	TDD

Change the last paragraph in 1.3.4 as indicated:

Implementations of this standard for license-exempt frequencies below 11 GHz (such as those listed in B.1) use the designations WirelessHUMAN, WirelessMAN-CX and WirelessMAN-UCP, and shall comply with the WirelessMAN-OFDM PHY as described in 8.3, or the WirelessMAN-OFDMA PHY as described in 8.4. WirelessMAN-UCP provides uncoordinated coexistence mechanisms (6.4) and WirelessMAN-CX provides