
**Information technology —
Telecommunications and information
exchange between systems — Local and
metropolitan area networks — Specific
requirements —**

**Part 11:
Wireless LAN Medium Access Control
(MAC) and Physical Layer (PHY)
specifications**

<https://standards.iteh.ai/catalog/standards/sist/510def47-03f8-4f7a-a83c-041ff1a27419/iso-iec-8802-11-1999-amd-1-2000>

**AMENDMENT 1: High-speed Physical Layer in
the 5 GHz band**

*Technologies de l'information — Télécommunications et échange
d'information entre systèmes — Réseaux locaux et métropolitains —
Exigences spécifiques —*

*Partie 11: Spécifications pour le contrôle d'accès au support et la couche
physique*

*AMENDEMENT 1: Couche physique à vitesse élevée dans la bande de
5 GHz*



PDF disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

ISO/IEC 8802-11:1999/Amd 1:2000

<https://standards.iteh.ai/catalog/standards/sist/510def47-03f8-4f7a-a83c-041ff12da315/iso-iec-8802-11-1999-amd-1-2000>

International Standard ISO/IEC 8802-11:1999/Amd 1:2000(E)
IEEE Std 802.11a-1999

**Information technology—
Telecommunications and information
exchange between systems—
Local and metropolitan area networks—
Specific requirements**

**Part 11: Wireless LAN Medium Access
Control (MAC) and Physical Layer (PHY)
specifications**

**Amendment 1: High-speed Physical
Layer in the 5 GHz band**

[ISO/IEC 8802-11:1999/Amd 1:2000](https://standards.iteh.ai/catalog/standards/sist/510def47-03f8-4f7a-a83c-041ff12da315/iso-iec-8802-11-1999-amd-1-2000)

Sponsor

<https://standards.iteh.ai/catalog/standards/sist/510def47-03f8-4f7a-a83c-041ff12da315/iso-iec-8802-11-1999-amd-1-2000>

**LAN MAN Standards Committee
of the
IEEE Computer Society**



Adopted as an International Standard by the
International Organization for Standardization
and by the
International Electrotechnical Commission



American National Standard

Abstract: Changes and additions to ISO/IEC 8802-11:1999(E) are provided to support the new high-rate physical layer (PHY) for operation in the 5 GHz band.

Keywords: 5 GHz, high speed, local area network (LAN), orthogonal frequency division multiplexing (OFDM), radio frequency, unlicensed national information infrastructure (U-NII), wireless

iTeh STANDARD PREVIEW (standards.iteh.ai)

[ISO/IEC 8802-11:1999/Amd 1:2000](https://standards.iteh.ai/catalog/standards/sist/510def47-03f8-4f7a-a83c-041ff12da315/iso-iec-8802-11-1999-amd-1-2000)

<https://standards.iteh.ai/catalog/standards/sist/510def47-03f8-4f7a-a83c-041ff12da315/iso-iec-8802-11-1999-amd-1-2000>

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

Copyright © 2000 by the Institute of Electrical and Electronics Engineers, Inc.
All rights reserved. Published November 2000. Printed in the United States of America.

Print: ISBN 0-7381-2695-0 SH94896
PDF: ISBN 0-7381-2696-9 SS94896

No part of this publication may be reproduced in any form, in an electronic retrieval system or otherwise, without the prior written permission of the publisher.

International Standard ISO/IEC 8802-11:1999/Amd.1:2000(E)

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this Amendment may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights.

Amendment 1 to International Standard ISO/IEC 8802-11 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 6, *Telecommunications and information exchange between systems*.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[ISO/IEC 8802-11:1999/Amd 1:2000](https://standards.iteh.ai/catalog/standards/sist/510def47-03f8-4f7a-a83c-041ff12da315/iso-iec-8802-11-1999-amd-1-2000)

<https://standards.iteh.ai/catalog/standards/sist/510def47-03f8-4f7a-a83c-041ff12da315/iso-iec-8802-11-1999-amd-1-2000>



IEEE Std 802.11a-1999

IEEE Standards documents are developed within the IEEE Societies and the Standards Coordinating Committees of the IEEE Standards Association (IEEE-SA) Standards Board. Members of the committees serve voluntarily and without compensation. They are not necessarily members of the Institute. The standards developed within IEEE represent a consensus of the broad expertise on the subject within the Institute as well as those activities outside of IEEE that have expressed an interest in participating in the development of the standard.

Use of an IEEE Standard is wholly voluntary. The existence of an IEEE Standard does not imply that there are no other ways to produce, test, measure, purchase, market, or provide other goods and services related to the scope of the IEEE Standard. Furthermore, the viewpoint expressed at the time a standard is approved and issued is subject to change brought about through developments in the state of the art and comments received from users of the standard. Every IEEE Standard is subjected to review at least every five years for revision or reaffirmation. When a document is more than five years old and has not been reaffirmed, it is reasonable to conclude that its contents, although still of some value, do not wholly reflect the present state of the art. Users are cautioned to check to determine that they have the latest edition of any IEEE Standard.

Comments for revision of IEEE Standards are welcome from any interested party, regardless of membership affiliation with IEEE. Suggestions for changes in documents should be in the form of a proposed change of text, together with appropriate supporting comments.

Interpretations: Occasionally questions may arise regarding the meaning of portions of standards as they relate to specific applications. When the need for interpretations is brought to the attention of IEEE, the Institute will initiate action to prepare appropriate responses. Since IEEE Standards represent a consensus of all concerned interests, it is important to ensure that any interpretation has also received the concurrence of a balance of interests. For this reason, IEEE and the members of its societies and Standards Coordinating Committees are not able to provide an instant response to interpretation requests except in those cases where the matter has previously received formal consideration.

<https://standards.ieee.org/catalog/standards/sist/510def47-03f8-4f7a-a83c-041872fa315/ieee-std-802-11-1999-amd-1-2000>

Comments on standards and requests for interpretations should be addressed to:

Secretary, IEEE-SA Standards Board
445 Hoes Lane
P.O. Box 1331
Piscataway, NJ 08855-1331
USA

Note: Attention is called to the possibility that implementation of this standard may require use of subject matter covered by patent rights. By publication of this standard, no position is taken with respect to the existence or validity of any patent rights in connection therewith. The IEEE shall not be responsible for identifying patents for which a license may be required by an IEEE standard or for conducting inquiries into the legal validity or scope of those patents that are brought to its attention.

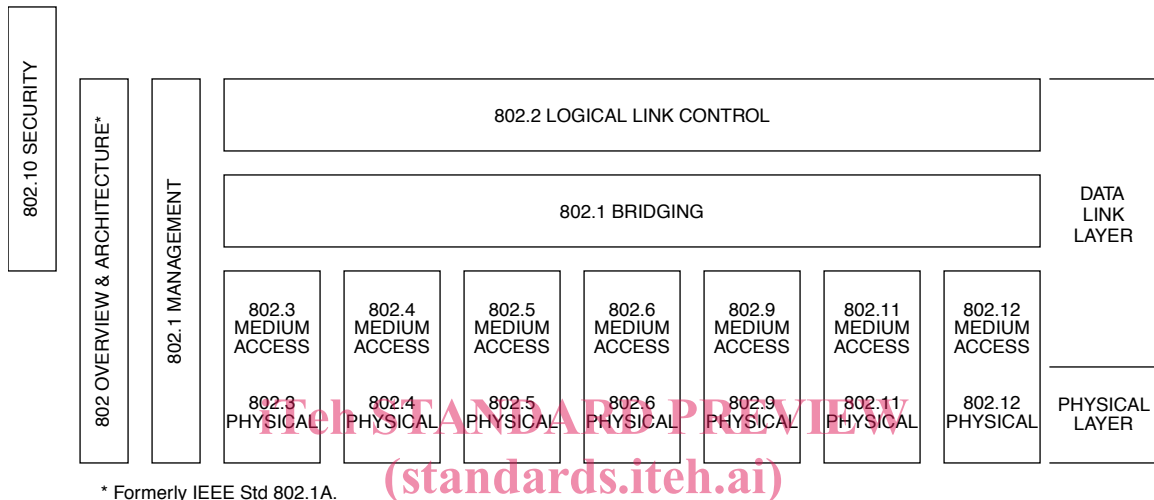
IEEE is the sole entity that may authorize the use of certification marks, trademarks, or other designations to indicate compliance with the materials set forth herein.

Authorization to photocopy portions of any individual standard for internal or personal use is granted by the Institute of Electrical and Electronics Engineers, Inc., provided that the appropriate fee is paid to Copyright Clearance Center. To arrange for payment of licensing fee, please contact Copyright Clearance Center, Customer Service, 222 Rosewood Drive, Danvers, MA 01923 USA; (978) 750-8400. Permission to photocopy portions of any individual standard for educational classroom use can also be obtained through the Copyright Clearance Center.

Introduction

(This introduction is not part of IEEE Std 802.11a-1999, Supplement to IEEE Standard for Information technology—Telecommunications and information exchange between systems—Local and metropolitan area networks—Specific Requirements—Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) specifications: High-speed Physical Layer in the 5 GHz Band.)

This standard is part of a family of standards for local and metropolitan area networks. The relationship between the standard and other members of the family is shown below. (The numbers in the figure refer to IEEE standard numbers.)



This family of standards deals with the Physical and Data Link layers as defined by the International Organization for Standardization (ISO) Open Systems Interconnection (OSI) Basic Reference Model (ISO/IEC 7498-1:1994). The access standards define seven types of medium access technologies and associated physical media, each appropriate for particular applications or system objectives. Other types are under investigation.

The standards defining the access technologies are as follows:

- IEEE Std 802 *Overview and Architecture.* This standard provides an overview to the family of IEEE 802 Standards.
- ANSI/IEEE Std 802.1B and 802.1k [ISO/IEC 15802-2] *LAN/MAN Management.* Defines an OSI management-compatible architecture, and services and protocol elements for use in a LAN/MAN environment for performing remote management.
- ANSI/IEEE Std 802.1D [ISO/IEC 15802-3] *Media Access Control (MAC) Bridges.* Specifies an architecture and protocol for the interconnection of IEEE 802 LANs below the MAC service boundary.
- ANSI/IEEE Std 802.1E [ISO/IEC 15802-4] *System Load Protocol.* Specifies a set of services and protocol for those aspects of management concerned with the loading of systems on IEEE 802 LANs.
- IEEE Std 802.1F *Common Definitions and Procedures for IEEE 802 Management Information*
- ANSI/IEEE Std 802.1G [ISO/IEC 15802-5] *Remote Media Access Control Bridging .* Specifies extensions for the interconnection, using non-LAN communication technologies, of geographically separated IEEE 802 LANs below the level of the logical link control protocol.

- ANSI/IEEE Std 802.2 [ISO/IEC 8802-2] *Logical Link Control*
- ANSI/IEEE Std 802.3 [ISO/IEC 8802-3] *CSMA/CD Access Method and Physical Layer Specifications*
- ANSI/IEEE Std 802.4 [ISO/IEC 8802-4] *Token Passing Bus Access Method and Physical Layer Specifications*
- ANSI/IEEE Std 802.5 [ISO/IEC 8802-5] *Token Ring Access Method and Physical Layer Specifications*
- ANSI/IEEE Std 802.6 [ISO/IEC 8802-6] *Distributed Queue Dual Bus Access Method and Physical Layer Specifications*
- ANSI/IEEE Std 802.9 [ISO/IEC 8802-9] *Integrated Services (IS) LAN Interface at the Medium Access Control and Physical Layers*
- ANSI/IEEE Std 802.10 *Interoperable LAN/MAN Security*
- IEEE Std 802.11 [ISO/IEC DIS 8802-11] *Wireless LAN Medium Access Control and Physical Layer Specifications*
- ANSI/IEEE Std 802.12 [ISO/IEC DIS 8802-12] *Demand Priority Access Method, Physical Layer and Repeater Specifications*

iTeh STANDARD PREVIEW

In addition to the family of standards, the following is a recommended practice for a common Physical Layer technology:

- IEEE Std 802.7 *IEEE Recommended Practice for Broadband Local Area Networks*
<https://standards.iteh.ai/catalog/standards/sist/510def47-03f8-4f7a-a83c-041ff12da315/iso-iec-8802-11-1999-amd-1-2000>

The following additional working groups have authorized standards projects under development:

- IEEE 802.14 *Standard Protocol for Cable-TV Based Broadband Communication Network*
- IEEE 802.15 *Wireless Personal Area Networks Access Method and Physical Layer Specifications*
- IEEE 802.16 *Broadband Wireless Access Method and Physical Layer Specifications*

Editor's Notes

Clause 4, subclause 9.1, and Clause 17 in this supplement will be inserted into the base standard as an additional PHY specification for the 5 GHz unlicensed national information infrastructure (U-NII) band.

There are three annexes included in this supplement. Following are instructions to merge the information in these annexes into the base document.

Annex A: This annex shows a change to the table in A.4.3 of the base standard (IUT configuration) and the addition of a new subclause. Item *CF6 should be added to the table in A.4.3 of the base standard. The entire subclause A.4.8 (Orthogonal frequency division multiplex PHY functions) should be added to the end of Annex A in the base standard (i.e., after A.4.7).

Annex D: This annex contains additions to be made to Annex D (ASN.1 encoding of the MAC and PHY MIB) of the base standard. There are five sections that provide instructions to merge the information contained herein into the appropriate locations in Annex D of the base standard.

Annex G: This annex is new to the base standard. The purpose of Annex G is to provide an example of encoding a frame for the OFDM PHY, described in Clause 17, including all intermediate stages.

iTeh STANDARD PREVIEW (standards.iteh.ai)

[ISO/IEC 8802-11:1999/Amd 1:2000](https://standards.iteh.ai/catalog/standards/sist/510def47-03f8-4f7a-a83c-041ff12da315/iso-iec-8802-11-1999-amd-1-2000)

<https://standards.iteh.ai/catalog/standards/sist/510def47-03f8-4f7a-a83c-041ff12da315/iso-iec-8802-11-1999-amd-1-2000>

Participants

At the time this standard was balloted, the 802.11 working group had the following membership:

Vic Hayes, *Chair*

Stuart J. Kerry, *Vice Chair*

Al Petrick, *Co-Vice Chair*

George Fishel, *Secretary*

Robert O'Hara, *Chair and editor, 802.11-rev*

Allen Heberling, *State-diagram editor*

Michael A. Fischer, *State-diagram editor*

Dean M. Kawaguchi, *Chair PHY group*

David Bagby, *Chair MAC group*

Naftali Chayat, *Chair Task Group a*

Hitoshi Takanashi, *Editor 802.11a*

John Fakatselis, *Chair Task Group b*

Carl F. Andren, *Editor 802.11b*

iTeh STANDARD PREVIEW
(standards.iteh.ai)

Jeffrey Abramowitz
Reza Ahy
Keith B. Amundsen
James R. Baker
Kevin M. Barry
Phil Belanger
John Biddick
Simon Black
Timothy J. Blaney
Jan Boer
Ronald Brockmann
Wesley Brodsky
John H. Cafarella
Wen-Chiang Chen
Ken Clements
Wim Diepstraten
Peter Ecclesine
Richard Eckard
Darwin Engwer
Greg Ennis
Jeffrey J. Fischer
John Fisher
Ian Gifford
Motohiro Gochi
Tim Godfrey
Steven D. Gray
Jan Haagh
Karl Hannestad
Kei Hara

Chris D. Heegard
Robert Heile
Juha T. Heiskala
Maarten Hoeben
Masayuki Ikeda
Donald C. Johnson
Tal Kaitz
Ad Kamerman
Mika Kasslin
Patrick Kinney
Steven Knudsen
Bruce P. Kraemer
David S. Landeta
James S. Li
Stanley Ling
Michael D. McInnis
Gene Miller
Akira Miura
Henri Moelard
Masaharu Mori
Masahiro Morikura
Richard van Nee
Erwin R. Noble
Tomoki Ohsawa
Kazuhiro Okanoue
Richard H. Paine
Roger Pandanda
Victoria M. Poncini
Gregory S. Rawlins
Stanley A. Reible

Frits Riep
William Roberts
Kent G. Rollins
Clemens C.W. Ruppel
Anil K. Sanwalka
Roy Sebring
Tie-Jun Shan
Stephen J. Shellhammer
Matthew B. Shoemake
Thomas Siep
Donald I. Sloan
Gary Spiess
Satoru Toguchi
Cherry Tom
Mike Trompower
Tom Tsoulogiannis
Bruce Tuch
Sarosh N. Vesuna
Ikuo Wakayama
Robert M. Ward, Jr.
Mark Webster
Leo Wilz
Harry R. Worstell
Lawrence W. Yonge, III
Chris Zegelin
Jonathan M. Zweig
James Zyren

The following members of the balloting committee voted on this standard:

Carl F. Andren	Raj Jain	Pete Rautenberg
Jack S. Andresen	A. Kamerman	Stanley A. Reible
Lek Ariyavitakul	Dean M. Kawaguchi	Edouard Y. Rocher
David Bagby	Stuart J. Kerry	Kent Rollins
Kevin M. Barry	Patrick Kinney	James W. Romlein
John H. Cafarella	Daniel R. Krent	Floyd E. Ross
James T. Carlo	Walter Levy	Christoph Ruland
David E. Carlson	Stanley Ling	Anil K. Sanwalka
Linda T. Cheng	Randolph S. Little	Norman Schneidewind
Thomas J. Dineen	Roger B. Marks	James E. Schuessler
Christos Douligeris	Peter Martini	Rich Seifert
Peter Ecclesine	Richard McBride	Matthew B. Shoemake
Richard Eckard	Bennett Meyer	Leo Sintonen
Philip H. Enslow	David S. Millman	Hitoshi Takanashi
John Fakatselis	Hiroshi Miyano	Mike Trompower
Jeffrey J. Fischer	Warren Monroe	Mark-Rene Uchida
Michael A. Fischer	Masahiro Morikura	Scott A. Valcourt
Robert J. Gagliano	Shimon Muller	Richard Van Nee
Gautam Garai	Peter A. Murphy	Sarosh N. Vesuna
Alireza Ghazizahedi	Paul Nikolich	John Viaplana
Tim Godfrey	Erwin R. Noble	Hirohisa Wakai
Patrick S. Gonia	Satoshi Obara	Robert M. Ward, Jr.
Steven D. Gray	Robert O'Hara	Mark Webster
Chris G. Guy	Charles Oestereicher	Harry R. Worstell
Vic Hayes	Kazuhiro Okanoue	Stefan M. Wurster
Allen Heberling	Roger Pandanda	Oren Yuen
Chris D. Heegard	Ronald C. Petersen	Jonathan M. Zweig
Juha T. Heiskala	Al Petrick	James Zyren
	Vikram Punj	

iTeh STANDARD PREVIEW
(standards.iteh.ai)

When the IEEE-SA Standards Board approved this standard on 16 September 1999, it had the following membership:

ISO/IEC 8802-11:1999/Amd 1:2000

<https://standards.iteh.ai/catalog/standards/sist/510de147-0516-417a-a83c-041ff12da315/iso-iec-8802-11-1999-amd-1-2000>

041ff12da315/iso-iec-8802-11-1999-amd-1-2000

Richard J. Holleman, Chair
Donald N. Heirman, Vice Chair
Judith Gorman, Secretary

Satish K. Aggarwal	James H. Gurney	Louis-François Pau
Dennis Bodson	Lowell G. Johnson	Ronald C. Petersen
Mark D. Bowman	Robert J. Kennelly	Gerald H. Peterson
James T. Carlo	E. G. "Al" Kiener	John B. Posey
Gary R. Engmann	Joseph L. Koepfinger*	Gary S. Robinson
Harold E. Epstein	L. Bruce McClung	Akio Tojo
Jay Forster*	Daleep C. Mohla	Hans E. Weinrich
Ruben D. Garzon	Robert F. Munzner	Donald W. Zipse

**Member Emeritus

Also included is the following nonvoting IEEE-SA Standards Board liaison:

Robert E. Hebner

Janet Rutigliano
IEEE Standards Project Editor

Contents

Editor's Notes.....	v
4. Abbreviations and acronyms.....	2
9.1 Multirate support.....	2
10.4 PLME SAP interface.....	2
17. OFDM PHY specification for the 5 GHz band.....	3
17.1 Introduction.....	3
17.2 OFDM PHY specific service parameter list	5
17.3 OFDM PLCP sublayer.....	7
17.4 OFDM PLME	34
17.5 OFDM PMD sublayer.....	39
Annex A (normative), Protocol Implementation Conformance Statement (PICS) proforma	46
Annex D (normative), ASN.1 encoding of the MAC and PHY MIB.....	51
Annex G (informative), An example of encoding a frame for OFDM PHY	54

iTeh STANDARD PREVIEW (standards.iteh.ai)

[ISO/IEC 8802-11:1999/Amd 1:2000](https://standards.iteh.ai/catalog/standards/sist/510def47-03f8-4f7a-a83c-041ff12da315/iso-iec-8802-11-1999-amd-1-2000)

<https://standards.iteh.ai/catalog/standards/sist/510def47-03f8-4f7a-a83c-041ff12da315/iso-iec-8802-11-1999-amd-1-2000>

Information technology—
Telecommunications and information
exchange between systems—
Local and metropolitan area networks—
Specific requirements

Part 11: Wireless LAN Medium Access
Control (MAC) and Physical Layer (PHY)
specifications

iTeh STANDARD PREVIEW

(standards.iteh.ai)

Amendment 1: High-speed Physical
Layer in the 5 GHz band

ISO/IEC 8802-11:1999/Amd 1:2000

<https://standards.iteh.ai/catalog/standards/sist/041ff12da315/iso-iec-8802-11-1999-amd-1-2000>

[These additions are based on ISO/IEC 8802-11:1999(E) (IEEE Std 802.11, 1999 Edition).]

EDITORIAL NOTE—The editing instructions contained in this supplement define how to merge the material contained herein into ISO/IEC 8802-11:1999(E) (IEEE Std 802.11, 1999 Edition), to form the new comprehensive standard as created by the addition of ISO/IEC 8802-11:1999/Amd 1:2000(E) (IEEE Std 802.11a-1999).

The editing instructions are shown in ***bold italic***. Three editing instructions are used: change, delete, and insert. ***Change*** is used to make small corrections to existing text or tables. The editing instruction specifies the location of the change and describes what is being changed either by using ~~strike through~~ (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 instructions. Editorial notes will not be carried over into future editions.

4. Abbreviations and acronyms

Insert the following acronyms alphabetically in the list in Clause 4:

BPSK	binary phase shift keying
C-MPDU	coded MPDU
FFT	Fast Fourier Transform
GI	guard interval
IFFT	inverse Fast Fourier Transform
OFDM	orthogonal frequency division multiplexing
PER	packet error rate
QAM	quadrature amplitude modulation
QPSK	quadrature phase shift keying
U-NII	unlicensed national information infrastructure

9.1 Multirate support

Add the following text to the end of 9.6:

For the 5 GHz PHY, the time required to transmit a frame for use in the Duration/ID field is determined using the PLME-TXTIME.request primitive and the PLME-TXTIME.confirm primitive. The calculation method of TXTIME duration is defined in 17.4.3.

(standards.iteh.ai)

10.4 PLME SAP interface

[ISO/IEC 8802-11:1999/Amd 1:2000](https://standards.iteh.ai/catalog/standards/sist/510def47-03f8-4f7a-a83c-041ff12da315/iso-iec-8802-11-1999-amd-1-2000)

Add the following text to the end of 10.4: [catalog/standards/sist/510def47-03f8-4f7a-a83c-041ff12da315/iso-iec-8802-11-1999-amd-1-2000](https://standards.iteh.ai/catalog/standards/sist/510def47-03f8-4f7a-a83c-041ff12da315/iso-iec-8802-11-1999-amd-1-2000)

Remove the references to aMPDUDurationFactor from 10.4.3.1.

Add the following subclauses at the end of 10.4:

10.4.6 PLME-TXTIME.request

10.4.6.1 Function

This primitive is a request for the PHY to calculate the time that will be required to transmit onto the wireless medium a PPDU containing a specified length MPDU, and using a specified format, data rate, and signalling.

10.4.6.2 Semantics of the service primitive

This primitive provides the following parameters:

PLME-TXTIME.request(TXVECTOR)

The TXVECTOR represents a list of parameters that the MAC sublayer provides to the local PHY entity in order to transmit a MPDU, as further described in 12.3.4.4 and 17.4 (which defines the local PHY entity).

10.4.6.3 When generated

This primitive is issued by the MAC sublayer to the PHY entity whenever the MAC sublayer needs to determine the time required to transmit a particular MPDU.

10.4.6.4 Effect of receipt

The effect of receipt of this primitive by the PHY entity shall be to generate a PHY-TXTIME.confirm primitive that conveys the required transmission time.

10.4.7 PLME-TXTIME.confirm

10.4.7.1 Function

This primitive provides the time that will be required to transmit the PPDU described in the corresponding PLME-TXTIME.request.

10.4.7.2 Semantics of the service primitive

This primitive provides the following parameters:

PLME-TXTIME.confirm(TXTIME)

The TXTIME represents the time in microseconds required to transmit the PPDU described in the corresponding PLME-TXTIME.request. If the calculated time includes a fractional microsecond, the TXTIME value is rounded up to the next higher integer.

10.4.7.3 When generated

This primitive is issued by the local PHY entity in response to a PLME-TXTIME.request.

10.4.7.4 Effect of receipt

The receipt of this primitive provides the MAC sublayer with the PPDU transmission time.

Add the entire Clause 17 to the base standard:

17. OFDM PHY specification for the 5 GHz band

17.1 Introduction

This clause specifies the PHY entity for an orthogonal frequency division multiplexing (OFDM) system and the additions that have to be made to the base standard to accommodate the OFDM PHY. The radio frequency LAN system is initially aimed for the 5.15–5.25, 5.25–5.35 and 5.725–5.825 GHz unlicensed national information structure (U-NII) bands, as regulated in the United States by the Code of Federal Regulations, Title 47, Section 15.407. The OFDM system provides a wireless LAN with data payload communication capabilities of 6, 9, 12, 18, 24, 36, 48, and 54 Mbit/s. The support of transmitting and receiving at data rates of 6, 12, and 24 Mbit/s is mandatory. The system uses 52 subcarriers that are modulated using binary or quadrature phase shift keying (BPSK/QPSK), 16-quadrature amplitude modulation (QAM), or 64-QAM. Forward error correction coding (convolutional coding) is used with a coding rate of 1/2, 2/3, or 3/4.