INTERNATIONAL STANDARD

ISO/IEC/IEEE 8802-22

First edition
2015-05-01

Corrected version
2016-06-01

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

Part 22: Cognitive Wireless RAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications: Policies and Procedures for Operation in the TV Bands

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

Partie 22: Spécifications du contrôle d'accès du milieu sans fil cognitif (MAC) et de la couche physique (PHY) : Politiques et procédures pour le fonctionnement dans les bandes TV

Reference number
ISO/IEC/IEEE 8802-22:2015(E)

ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

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

stds.ipr@ieee.org
www.ieee.org

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ISO/IEC/IEEE 8802 consists of the following parts, under the general title *Information technology — Telecommunications and information exchange between systems — Local and metropolitan area networks — Specific requirements*

— *Part 1: Overview of Local Area Network Standards*

— *Part 2: Logical link control*

— *Part 5: Token ring access method and physical layer specifications*

— *Part 11: Wireless LAN medium access control (MAC) and physical layer (PHY) specifications*

— *Part 1X: Port-based network access control*

— *Part 1AB: Station and media access control connectivity discovery*

— *Part 1AE: Media access control (MAC) security*

— *Part 1AR: Secure device identity*

— *Part 1AS: Timing and synchronization for time-sensitive applications in bridged local area networks*

— *Part 15-4: Wireless medium access control (MAC) and physical layer (PHY) specifications for low-rate wireless personal area networks (WPANs)*

This corrected version of ISO/IEC/IEEE 8802-22 incorporates the following corrections.

The abbreviation MAC has been corrected in the English title and the part title has been added for the French title.

Abstract: This standard specifies the air interface, including the cognitive medium access control layer (MAC) and physical layer (PHY), of point-to-multipoint wireless regional area networks comprised of a professional fixed base station with fixed and portable user terminals operating in the VHF/UHF TV broadcast bands between 54 MHz to 862 MHz.
Keywords: broadband wireless access network, cognitive radio, fixed user terminals, IEEE 802.22, portable user terminals, radio spectrum sensing, regional area network, WRAN standards

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

PDF: **ISBN 978-0-7381-6723-7** **STD97146**
Print: **ISBN 978-0-7381-6724-4** **STDPD97146**

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Introduction

This introduction is not part of IEEE Std 802.22-2011, IEEE Standard for Information Technology—Telecommunications and information exchange between systems—Wireless Regional Area Networks (WRAN)—Specific requirements—Part 22: Cognitive Wireless RAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications: Policies and Procedures for Operation in the TV Bands.

This standard specifies the air interface of broadband wireless access (BWA) systems for fixed and portable user terminals supporting multimedia services. The medium access control layer (MAC) supports a point-to-multipoint architecture. The MAC is structured to support a physical layer (PHY) specification especially suited for operation in TV broadcast bands while avoiding interference to the incumbent broadcast services.

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Gerald Chouinard, *Vice-chair and lead editor*

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Chee Wei Ang	W. Carl Day	Ravi Kalavakunta
Kwok Shum Au	Upkar Dhaliwal	Jerome J. Kalke
Mark Austin	Johnny Dixon	Bub-Joo Kang
Anuj Batra	Peter Ecclesine	Mark Kelley
John Benko	Charles Einolf	Ramon Khalona
Robert Berger	Michael Fischer	Thomas Kiernan
Dagnachew Birru	Wen Gao	Chang-Joo Kim
Scott Blue	Ingo Gaspard	Kihong Kim
Monique Bourgeois Brown	Monisha Ghosh	Sangbum Kim
Gregory Buchwald	Joanna Guenin	HakSun Kim
Winston Caldwell	Jin Guo	Byoung-Jo Kim
Ed Callaway	Thomas Gurley	Gwangzeen Ko
Dave Cavalcanti	JaeSong Han	Tom Kolze
Kiran Challapali	Hiroshi Harada	Bruce Kraemer
Soo-Young Chang	Ahren Hartman	Steve Kuffner
Remi Chayer	Robert F. Heile	Denis Kuwahara
Shiuh Yuan Chen	Anh Twan Hoang	Jeong Suk Lee
Tao Chen	Michael Hoghooghi	Chang-Ho Lee
Jinxia Cheng	Mark Hopkins	Geunho Lee
Aik Chindapol	Victor Hou	Haeyoung Lee
InHwan Choi	Wendong Hu	Zhongding Lei
Liwen Chu	Junhong Hui	Wing Seng Leon
Joon-Hwa Chun	Sung Hyun Hwang	Barry Lewis
Chris Clanton	Duckdong Hwang	Lingjie Li
Charles Cook	Tae-In Hyon	Ying-Chang Liang
Charles Cooper	Yutaka Ikeda	Kyutae Lim
Carlos Cordeiro	Soon Ik Jeon	Euntack Lim

Jiezhen Lin
Jinnan Liu
Hang Liu
Michael Lynch
Steve Mace
David Magee
Ben Manny
David Mazzarese
Tony Morella
Peter Murray
Max Muterspaugh
Mullaguru Naidu
Paul Nikolich
John Notor
Moh Nouroozian
Seungmok Oh
Barry O'Mahony
Ashish Pandharipande
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Tom Wasilewski
Alfred Wieczorek
Kelly Williams
Yuchun Wu
Shiquan Wu
Bo Xia
Changlong Xu
ShanShan Xu
Steve Yao
Yonghong Zeng
Jianwei Zhang
Xin Zhang

Major contributions to this standard were made by the following individuals:

Kwok Shum Au
John Benko
Winston Caldwell
Dave Cavalcanti
Soo-Young Chang
Gerald Chouinard
Carlos Cordeiro
Charles Einolf
Wen Gao
Monisha Ghosh
Thomas Gurley
Anh Twan Hoang
Wendong Hu
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Ranga K. Reddy
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Anna Urra
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