FINAL DRAFT

INTERNATIONAL STANDARD

ISO/IEC/IEEE FDIS 8802-22

ISO/IEC JTC **1**/SC **6**

Secretariat: **KATS**

Voting begins on:
2021-10-29

Voting terminates
2022-03-18

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 bands that allow spectrum sharing where the communications devices may opportunistically operate in the spectrum of primary service

Télécommunications et échange d'information entre systèmes — Réseaux régionaux sans fil (WRAN) — 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 qui permettent le partage du spectre, où les dispositifs de communication peuvent fonctionner de manière opportuniste dans le spectre du service primaire

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Reference number
ISO/IEC/IEEE FDIS 8802-22:2021(E)

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

Email: stds.ipr@ieee.org
Website: www.ieee.org

Published in Switzerland

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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 (WRANs) comprised of a professional fixed base station (BS) with fixed and portable user terminals operating in the VHF/UHF TV broadcast bands between 54 MHz to 862 MHz, and potentially in the 1300 MHz to 1750 MHz, and 2700 MHz to 3700 MHz bands provided the regulatory regime allows it.

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

Print: ISBN 978-1-5044-6148-1 STDPD23878
PDF: ISBN 978-1-5044-6147-4 STD23878

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Oliver Holland, *Vice Chair*
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Subir Das
Robert F. Heile
Gianfranco Miele
Paul Nikolich
Steve Shellhammer

Historical participants

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Apurva N. Mody, *Chair*
Gerald Chouinard, *Vice Chair and Lead Editor*

Kyu Hwan An
Chee Wei Ang
Kwok Shum Au
Mark Austin
Anuj Batra
John Benko
Robert Berger
Dagnachew Birru
Scott Blue
Monique Bourgeois Brown
Gregory Buchwald
Winston Caldwell
Ed Callaway
Dave Cavalcanti
Kiran Challapali
Soo-Young Chang
Remi Chayer
Shiuh Yuan Chen
Tao Chen
Jinxia Cheng
Aik Chindapol
InHwan Choi
Liwen Chu
Joon–Hwa Chun
Chris Clanton
Charles Cook
Charles Cooper
Carlos Cordeiro
Subir Das
W. Carl Day
Upkar Dhaliwal
Johnny Dixon
Peter Ecclesine
Charles Einolf
Michael Fischer
Wen Gao
Ingo Gaspard
Monisha Ghosh
Joanna Guenin
Jin Guo
Thomas Gurley
JaeSong Han
Hiroshi Harada
Ahren Hartman
Robert F. Heile
Anh Twan Hoang
Michael Hoghooghi
Mark Hopkins
Victor Hou
Wendong Hu
Junhong Hui
Duckdong Hwang
Sung Hyun Hwang
Tae–In Hyon
Yutaka Ikeda
Soon Ik Jeon
Baowei Ji
Ravi Kalavakunta
Jerome J. Kalke
Bub-Joo Kang
Mark Kelley
Ramon Khalona
Thomas Kiernan
Byoung–Jo Kim
Chang-Joo Kim
HakSun Kim
Kihong Kim
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Gwangzeen Ko
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John Notor
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Barry O'Mahony
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Juha Pihlaja
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Lei Wang
Jianfeng Wang
Yunbiao Wang
Tom Wasilewski
Alfred Wieczorek
Kelly Williams
Yuchun Wu
Shiquan WuBo 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
Sung Hyun Hwang
Jerome J. Kalke
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Thomas Kiernan
Kak-Sun Kim
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Lingjie Li
Kyutae Lim
Jinnan Liu
David Mazzarese
Apurva N. Mody
Peter Murray
Mogh Nouroozian
Ashish Pandharipande
Patrick Pirat
Mohammad Rahman
Ranga K. Reddy
Ivan Reede
Shigenobu Sasaki
Cheng Shan
Steve Shellhammer
Eli Sofer
Carl Stevenson
Victor Tawil
JungSun Um
George Vlantis
Jianfeng Wang
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Donghun Lee
Liru Lu
Michael Lynch
Paul Nikolich
Shigenobu Sasaki
Steven Shellhammer
Chunyi Song
Victor Tawil
Keat-Beng Toh
Junyi Wang
Bing Xuan Zhao
Xin (Amy) Zhang

Major contributions were received from the following individuals:

Gerald Chouinard
Charles Einolf
Sunghyun Hwang
Gwangzeen Ko
Chang-woo Pyo
Ranga K. Reddy
Ivan Reede

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Masayuki Oodo
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Richard Alfvin
Amelia Andersdotter
Butch Anton
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Introduction

This introduction is not part of IEEE Std 802.22–2019, 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 Bands that Allow Spectrum Sharing where the Communications Devices May Opportunistically Operate in the Spectrum of Primary Service.

This standard specifies the air interface, including the cognitive radio MAC and PHY, of point-to-multipoint and backhaul WRANs comprised of a professional fixed BS with fixed and portable user terminals. The standard specifies operation in the bands that allow spectrum sharing where the communications devices may opportunistically operate in the spectrum of the primary service, such as the VHF/UHF TV broadcast bands between 54 MHz to 862 MHz, and the 1300 MHz to 1750 MHz and 2700 MHz to 3700 MHz bands provided the regulatory regime allows it.

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