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AMENDMENT 1

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

Part 1AC: Media access control (MAC) service definition

AMENDMENT 1: Support for ISO/IEC/IEEE 8802-15-3

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

Partie 1AC: Définition du service de contrôle d'accès au support (MAC)

AMENDEMENT 1: Support pour l'ISO/IEC/IEEE 8802-15-3

Reference number
ISO/IEC/IEEE 8802-1AC:2018/Amd.1:2023(E)

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IEEE Std 802.1ACct™-2021
(Amendment to EEE Std 802.1AC™-2016
as amended by IEEE Std 802.1AC-2016/Cor 1-2018)

IEEE Standard for Local and Metropolitan Area networks—

Media Access Control (MAC) Service Definition

Amendment 1: Support for IEEE Std 802.15.3

Developed by the

LAN/MAN Standards Committee
of the
IEEE Computer Society

Approved 8 December 2021

IEEE SA Standards Board

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Abstract: The Internal Sublayer Service for the IEEE 802.15.3 MAC entity is defined in this amendment.

Keywords: ad-hoc network, IEEE 802.1AC, IEEE 802.15.3, Internal Sublayer Service, multi-media, wireless

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Introduction

This introduction is not part of IEEE Std 802.1ACct-2021, Standard for Local and Metropolitan Area Networks—Media Access Control (MAC) Service Definition—Amendment 1: Support for IEEE Std 802.15.3.

This amendment to IEEE Std 802.1AC-2016 was developed to support the 100 Gb/s wireless switched point-to-point physical layer that was added to IEEE Std 802.15.3-2016 by the IEEE Std 802.15.3d-2017 amendment.

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IEEE Standard for Local and Metropolitan Area networks—

Media Access Control (MAC) Service Definition

Amendment 1: Support for IEEE Std 802.15.3

(This amendment is based on IEEE Std 802.1AC™-2016 as amended by IEEE Std 802.1AC-2016/ Cor 1-2018.)

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

The editing instructions are shown in ***bold italic***. Four editing instructions are used: change, delete, insert, and replace. ***Change*** is used to make corrections in existing text or tables. The editing instruction specifies the location of the change and describes what is being changed by using ~~strikethrough~~ (to remove old material) and underscore (to add new material). ***Delete*** removes existing material. ***Insert*** adds new material without disturbing the existing material. Deletions and insertions may require renumbering. If so, renumbering instructions are given in the editing instruction. ***Replace*** is used to make changes in figures or equations by removing the existing figure or equation and replacing it with a new one. Editing instructions, change markings, and this NOTE will not be carried over into future editions because the changes will be incorporated into the base standard.[1]

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2. Normative references

Insert the following reference into Clause 2 in alphanumeric order:

IEEE Std 802.15.3-2016™, IEEE Standard for High Data Rate Wireless Multi-Media Networks.[2, 3]

4. Acronyms and abbreviations

Insert the following abbreviations into Clause 4 in alphanumeric order:

DEVID	device identifier[4]
FCSL	frame convergence sublayer

13. Support of the Internal Sublayer Service by specific MAC procedures

Insert new subclause 13.7 at the end of Clause 13 as follows:

13.7 High Data Rate Wireless Multi-Media Networks convergence functions

Annex B of IEEE Std 802.15.3-2016 defines the frame convergence sublayer (FCSL) that interfaces to the MAC Service, including multiple service-specific convergence specifications. IEEE Std 802.15.3-2016 specifies the use of the EPD and does not support the use of the LPD. The FCSL is described in the following subclauses of that standard:

— The function of the EPD FCSL is described in B.2.

— The QoS aspects of the EPD FCSL SAP are defined in B.3.

— The EPD FCSL SAP is defined in B.4.

IEEE Std 802.15.3-2016 defines two MAC modes of operation, a piconet, consisting of one or more devices (up to approximately 250) and a pairnet, consisting of only 2 devices. In either case, the FCSL acts as a single interface to the underlying MAC Service.

When a device joins a piconet or a pairnet, it receives an 8-bit device identifier (DEVID) that is unique within the piconet or pairnet. The DEVID is used in most frames in place of the MAC address. However, a device is able to determine the associated MAC address of any device in the piconet or pairnet from the DEVID.

When the FCSL receives an M_UNITDATA.request primitive, it generates an IEEE Std 802.15.3 MAC SAP primitive as shown in Table 13-3.

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