INTERNATIONAL STANDARD

ISO/ IEC/IEEE 8802-1AC

First edition
2018-04

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

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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**

Developed by the

LAN/MAN Standards Committee
of the
IEEE Computer Society

Approved 8 December 2021

IEEE SA Standards Board

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.

Contents

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.)

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[1] Notes in text, tables, and figures are given for information only and do not contain requirements needed to implement the standard.

IEEE Std 802.1ACct-2021
IEEE Standard for Local and Metropolitan Area Networks—Media Access Control (MAC) Service Definition—
Amendment 1: Support for IEEE Std 802.15.3

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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