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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 IEEE 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**

**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 802.1ACt-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.

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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.<sup>2, 3</sup>

## 4. Acronyms and abbreviations

*Insert the following abbreviations into Clause 4 in alphanumeric order:*

|       |                                |
|-------|--------------------------------|
| DEVID | device identifier <sup>4</sup> |
| 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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