ICS 35.100.01, 35.240.80 SLOVENSKÁ TECHNICKÁ NORMA Apríl 2023

STN	**Nositeľné elektronické zariadenia a technológie Časť 801-1: Inteligentná sieť nosená na tele (SmartBAN) Fyzická vrstva s veľmi nízkou spotrebou energie**	**STN EN IEC 63203-801-1** 35 9350

Wearable electronic devices and technologies - Part 801-1: Smart body area network (SmartBAN) - Enhanced ultra-low power physical layer

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 03/23

Obsahuje: EN IEC 63203-801-1:2022, IEC 63203-801-1:2022

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 63203-801-1

December 2022

ICS 35.100.01; 35.240.80

English Version

Wearable electronic devices and technologies - Part 801-1: Smart body area network (SmartBAN) - Enhanced ultra-low power physical layer (IEC 63203-801-1:2022)

Technologies et dispositifs électroniques prêts-à-porter - Partie 801-1: Smart body area network (SmartBAN) - Couche physique améliorée à ultra-faible puissance (IEC 63203-801-1:2022)

Tragbare elektronische Geräte und Technologien -Teil 801-1: Smartes am Körper getragenes Netzwerk (SmartBAN) - Physikalische Schicht mit sehr geringem Energieverbrauch (IEC 63203-801-1:2022)

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Ref. No. EN IEC 63203-801-1:2022 E

European foreword

The text of document 124/197/FDIS, future edition 1 of IEC 63203-801-1, prepared by IEC/TC 124 "Wearable electronic devices and technologies" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 63203-801-1:2022.

The following dates are fixed:

•	latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop) 2023-09-09
•	latest date by which the national standards conflicting with the document have to be withdrawn	(dow) 2025-12-09

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Endorsement notice

The text of the International Standard IEC 63203-801-1:2022 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following note has to be added for the standard indicated:

IEC 63203-801-2:2022 NOTE Harmonized as EN IEC 63203-801-2:2022 (not modified)

IEC 63203-801-1

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INTERNATIONAL STANDARD

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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WEARABLE ELECTRONIC DEVICES AND TECHNOLOGIES –

Part 801-1: Smart body area network (SmartBAN) – Enhanced ultra-low power physical layer

FOREWORD

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IEC 63203-801-1 has been prepared by IEC technical committee 124: Wearable electronic devices and technologies. It is an International Standard.

The text of this International Standard is based on the following documents:

Draft	Report on voting
124/197/FDIS	124/205/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

A list of all parts in the IEC 63203 series, published under the general title *Wearable electronic devices and technologies*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

INTRODUCTION

TC 124 is developing International Standards (IS) for body area network (BAN) to define the wireless connectivity between the hub coordinator and the sensing nodes. The IEC 63203-801 series consists of the following sub-parts, under the general part title “Smart body area network (SmartBAN)”:

IEC 63203-801-1: Enhanced ultra-low power physical layer

IEC 63203-801-2: Low complexity medium access control (MAC) for SmartBAN

The present document describes the physical layer (PHY) specifications including packet formats, modulation and forward error correction.

This document originates from the corresponding technical specification (ETSI TS 103 326) standardized in the European Telecommunication Standard Institute (ETSI) and captures the results of the work of IEC TC 124 Working Group 4 on devices and systems. The current document reflects contributions and discussions by IEC TC 124 experts, mirror committees, liaison members and Joint Advisory Group (JAG) between IEC SyC AAL, IEC TC 100 and IEC TC 124. This document contains material gathered from reports and group output from the IEC TC 124 meetings in May 2018 (Manchester), October 2018 (Busan), May 2019 (San Francisco), September 2019 (Shanghai), November 2020 (online) as well as information obtained during various web meetings.

Experts from the following national committees, liaison organizations have contributed: BE, CN, DE, FI, FR, GB, IN, JP, KR, MY, NL, US and ETSI TC SmartBAN.

This document is also positioned as a result of the activities of the JAG. At the IEC General Meeting in Busan in 2018, three committees related to wearable systems and technologies, SyC AAL, IEC TC 100 and IEC TC 124 had a joint workshop and agreed to collaborate to develop relevant standards and to share roles. This collaboration agreement was made into a Joint Advisory Group (JAG) and the JAG was established and managed by SyC. AAL in 2019.

The target audience for this document includes the following stakeholders who have an interest in the systems and services using wearable devices:

- consumer electronics (CE) and information communications technology (ICT) device manufacturers;
- system integrators who want to utilize wearable device and technologies;
- service operators who are interested in the AAL systems and services;
- stakeholders who want to understand the technologies and requirements for wireless connectivity between wearable sensor nodes and hub coordinators.

WEARABLE ELECTRONIC DEVICES AND TECHNOLOGIES –

Part 801-1: Smart body area network (SmartBAN) – Enhanced ultra-low power physical layer

1 Scope

This part of IEC 63203-801 specifies the ultra-low power physical layer (PHY) of SmartBAN.

As the use of wearables and connected body sensor devices grows rapidly in the Internet of Things (IoT), wireless body area networks (BANs) facilitate the sharing of data in smart environments such as smart homes, smart life, etc. In specific areas of digital healthcare, wireless connectivity between the edge computing device or hub coordinator and the sensing nodes requires a standardized communication interface and protocols.

The present document describes the following physical layer (PHY) specifications:

– packet formats;
– modulation;
– forward error correction.

2 Normative references

There are no normative references in this document.