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**Fixed Short Range Devices (SRD) in data networks;
Radio equipment to be used in the 870 MHz to 876 MHz
frequency range with power levels
ranging up to 500 mW e.r.p.;
Harmonised Standard for access to the radio spectrum**

Reference
REN/ERM-TG28-555

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Contents

List of figures

List of tables

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Foreword

This Harmonised European Standard (EN) has been produced by ETSI Technical Committee Electromagnetic compatibility and Radio spectrum Matters (ERM).

The present document has been prepared under the Commission's standardisation request C(2015) 5376 final [i.4] to provide one voluntary means of conforming to the essential requirements of Directive 2014/53/EU on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment and repealing Directive 1999/5/EC [i.1].

Once the present document is cited in the Official Journal of the European Union under that Directive, compliance with the normative clauses of the present document given in Tables A.1 to A.3 confers, within the limits of the scope of the present document, a presumption of conformity with the corresponding essential requirements of that Directive, and associated EFTA regulations.

National transposition dates	
Date of adoption of this EN:	22 February 2021
Date of latest announcement of this EN (doa):	31 May 2021
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	30 November 2021
Date of withdrawal of any conflicting National Standard (dow):	31 May 2024

Modal verbs terminology

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Introduction

This revision of the present document has three main purposes:

- To add technical requirements necessary for SRD in data networks introduced in EC Decision 2018/1538 [i.3] using the interpretation of under control of NAP provided by CEPT WGFM and SRD/MG.
- Add the 874,0 MHz - 874,4 MHz harmonised minimum core band to the operational frequency bands.
- To bring the present document in line with current Harmonised Standard editorial practices.

Background

The present document describes performance requirements and conformance test procedures for Short Range Devices (SRDs) intended to operate in association with other SRDs in network topologies supporting the intended applications in the frequency range 870 MHz - 876 MHz at power levels up to 500 mW.

The frequency band is shared with other SRDs intended to support applications with more restrictive power levels.

In some countries the frequency band, or parts of the frequency band, are used for radio services for government and rail applications and use for networks of SRDs may be subject to restrictions. National radio interfaces should be consulted for all intended applications.

The specifications included in the present document are not intended for devices operating at low data rates and in narrow operating channels.

Network of SRDs

Earlier versions of the present document permitted the construction of networks of SRDs with little or no restrictions on technology, topology or architecture. A network could be formed in any topology and be self-contained or form part of a larger inter-network. The latter class of SRD networks were facilitated by certain infrastructure SRDs (Network Relay Points (NRPs), with greater duty cycle allowance than non-NRP devices, providing the relay between the SRD network and an external network or service.

EC Decision 2018/1538 [i.3] identifies a harmonised minimum core band within the frequency range covered by the present document. This core band, 874,0 MHz - 874,4 MHz, is for *SRDs in data networks* and relevant definitions are contained in the EC Decision:

- A network access point in a data network is a fixed terrestrial short-range device that acts as a connection point for the other short-range devices in the data network to service platforms located outside of that data network.
- The term data network refers to several short-range devices, including the network access point, as network components and to the wireless connections between them.
- All devices within the data network shall be under the control of network access points.

The present document aligns its use of terms with those of the EC Decision 2018/1538 [i.3] and replaces NRP with NAP.

Guidance from CEPT WGFM and SRD/MG is adopted for the interpretation of under control of NAP to apply to nomadic and mobile SRDs. The scope of the present document is explicitly defined for only fixed SRD in data networks.

Channel spacing

Earlier versions of the present document aligned with a narrowband/non-narrowband boundary at 25 kHz by specifying a minimum channel spacing/occupied bandwidth of 25 kHz. The present document adds a specific channel spacing requirement with a minimum spacing limit of 25 kHz, and a corresponding test suite to measure operating frequencies and verify correctness of operating frequencies and channel spacing.