

STN	Elektromagnetická kompatibilita a záležitosti rádiového spektra (ERM). Zariadenia s krátkym dosahom (SRD). Rádiové zariadenia na použitie vo frekvenčnom rozsahu od 40 GHz do 246 GHz. Časť 1: Technické charakteristiky a skúšobné metódy	STN EN 305 550-1 V1.2.1 87 5550
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Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Radio equipment to be used in the 40 GHz to 246 GHz frequency range; Part 1: Technical characteristics and test methods

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**Electromagnetic compatibility
and Radio spectrum Matters (ERM);
Short Range Devices (SRD);
Radio equipment to be used
in the 40 GHz to 246 GHz frequency range;
Part 1: Technical characteristics and test methods**

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Foreword

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

The present document is part 1 of a multi-part deliverable covering Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Radio equipment to be used in the 40 GHz to 246 GHz frequency range, as identified below:

Part 1: "Technical characteristics and test methods";

Part 2: "Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive".

For non EEA countries the present document may be used for regulatory (type approval) purposes.

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Modal verbs terminology

In the present document "**shall**", "**shall not**", "**should**", "**should not**", "**may**", "**may not**", "**need**", "**need not**", "**will**", "**will not**", "**can**" and "**cannot**" are to be interpreted as described in clause 3.2 of the [ETSI Drafting Rules](#) (Verbal forms for the expression of provisions).

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1 Scope

The present document applies to the following Short Range Device major equipment types:

- Generic Short Range Devices, including alarms, telecommand, telemetry, data transmission in general, etc.

These radio equipment types are capable of operating in frequency bands within the 40 GHz to 246 GHz range as specified in table 1:

- either with a Radio Frequency (RF) output connection and dedicated antenna or with an integral antenna;
- for all types of modulation.

Table 1 shows a list of the frequency bands as designated in the CEPT/ERC Recommendation 70-03 [i.1] as known at the date of publication of the present document.

NOTE 1: Table 1 represents the most widely implemented position within the CEPT countries [i.1], but it should not be assumed that all designated bands are available in all countries. It is also foreseen that these frequencies may be implemented in European Commission Decision 2006/771/EC [i.2], European Commission Decision 2013/752/EU [i.12] and CEPT/ERC Recommendation 74-01 [i.4] in the future.

Table 1: Short Range Devices within the 40 GHz to 246 GHz frequency range

Frequency Bands (Transmit and Receive)	Applications	Notes
57 GHz to 64 GHz	Non-specific SRD	
61,0 GHz to 61,5 GHz	Non-specific SRD	
122 GHz to 123 GHz	Non-specific SRD	
244 GHz to 246 GHz	Non-specific SRD	

NOTE 2: In addition, it should be noted that other frequency bands may be available for short range devices in a country within the frequency range 40 GHz to 246 GHz covered by the present document. See the CEPT/ERC Recommendation 70-03 [i.1] or as implemented through National Radio Interfaces (NRI) and additional NRI as relevant.

NOTE 3: On non-harmonized parameters, national administrations may impose certain conditions such as the type of modulation, frequency, channel/frequency separations, maximum transmitter radiated power, duty cycle, and the inclusion of an automatic transmitter shut-off facility, as a condition for the issue of an individual or general licence, or as a condition for the issuing of Individual Rights for use of spectrum or General Authorization, or as a condition for use "under licence exemption" as it is in most cases for Short Range Devices.

The present document covers fixed stations, mobile stations and portable stations.

2 References

References are either specific (identified by date of publication and/or edition number or version number) or non-specific. For specific references, only the cited version applies. For non-specific references, the latest version of the reference document (including any amendments) applies.

Referenced documents which are not found to be publicly available in the expected location might be found at <http://docbox.etsi.org/Reference>.

NOTE: While any hyperlinks included in this clause were valid at the time of publication ETSI cannot guarantee their long term validity.

2.1 Normative references

The following referenced documents are necessary for the application of the present document.

- [1] CISPR 16 (2006) (parts 1-1, 1-4 and 1-5): "Specification for radio disturbance and immunity measuring apparatus and methods".
- [2] Recommendation ITU-T O.153: "Basic parameters for the measurement of error performance at bit rates below the primary rate".
- [3] ETSI TR 102 273 (V1.2.1) (all parts): "Electromagnetic compatibility and Radio spectrum Matters (ERM); Improvement on Radiated Methods of Measurement (using test site) and evaluation of the corresponding measurement uncertainties".
- [4] ETSI TR 100 028 (V1.4.1) (all parts): "Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics".
- [5] ETSI TS 103 052: "Electromagnetic compatibility and Radio spectrum Matters (ERM); Radiated measurement methods and general arrangements for test sites up to 100 GHz".

2.2 Informative references

The following referenced documents are not necessary for the application of the present document but they assist the user with regard to a particular subject area.

- [i.1] CEPT/ERC Recommendation 70-03: "Relating to the use of Short Range Devices (SRD)".
- [i.2] European Commission Decision 2006/771/EC of 9 November 2006 on harmonization of the radio spectrum for use by short-range devices.
- [i.3] Void.
- [i.4] CEPT/ERC Recommendation 74-01: "Unwanted emissions in the spurious domain", Hradec Kralove, Cardiff 2011.
- [i.5] Recommendation ITU-R P.676-5 (2001): "Attenuation by atmospheric gases".
- [i.6] Void.
- [i.7] IEC 60153: "Hollow metallic waveguides".
- [i.8] ETSI TR 102 215: "Electromagnetic compatibility and Radio spectrum Matters (ERM); Recommended approach, and possible limits for measurement uncertainty for the measurement of radiated electromagnetic fields above 1 GHz".
- [i.9] Void.
- [i.10] Void.
- [i.11] Void.
- [i.12] European Commission Decision 2013/752/EU of 11 December 2013 (amending Decision 2006/771/EC on harmonisation of the radio spectrum for use by short-range devices and repealing Decision 2005/928/EC).
- [i.13] Recommendation ITU-R SM.329-12 (09/2012): "Unwanted emissions in the spurious domain, SM Series, Spectrum management".

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