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STN	**Televízne zariadenia pre biele miesta (TVWSD) Bezdrôtové prístupové systémy pracujúce v televíznom vysielacom pásme od 470 MHz do 694 MHz Harmonizovaná norma pre prístup k rádiovému spektru**	**STN EN 301 598 V2.2.1** 87 1598

TV White Space Devices (TVWSD); Wireless Access Systems operating in the 470 MHz to 694 MHz TV broadcast band; Harmonised Standard for access to radio spectrum

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Foreword

This Harmonised European Standard (EN) has been produced by ETSI Technical Committee Broadband Radio Access Networks (BRAN).

The present document has been prepared under the Commission's standardisation request C(2015) 5376 final [i.13] 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.3].

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 table A.1 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	
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Date of withdrawal of any conflicting National Standard (dow):	31 December 2023

Modal verbs terminology

In the present document "**shall**", "**shall not**", "**should**", "**should not**", "**may**", "**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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Introduction

The present document covers TV band high performance Wireless Access Systems (WAS) including RLAN equipment which is used in wireless local area networks. Such networks provide high speed data communications in between devices connected to the wireless infrastructure. The present document also covers ad-hoc networking where devices communicate directly with each other, without the use of a wireless infrastructure.

The methods and principles used in the present document for the operation of TV White Space devices in the band 470 MHz to 694 MHz are taken from the ECC Report 186 [i.6], which explains the regulatory principles under which it is envisaged such devices will be permitted to operate in Europe. This approach is also explained in further detail in chapter 9 of "Dynamic White Space Spectrum Access" [i.12].

1 Scope

The present document specifies technical characteristics and methods of measurements for TV White Space Devices (TVWSDs) controlled by a TV White Space Database (TVWSDB) and which operate in the TV broadcast band 470 MHz to 694 MHz.

The present document applies to the following radio equipment categories:

1) Primary TV white space device.

2) Secondary TV white space device.

The present document applies to TVWSDs with integral, dedicated or external antennas, where TVWSDs using external antennas is covered only in the case of fixed use.

NOTE: The relationship between the present document and essential requirements of article 3.2 of Directive 2014/53/EU [i.3] is given in annex A.

2 References

2.1 Normative 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 referenced document (including any amendments) applies.

Referenced documents which are not found to be publicly available in the expected location might be found at https://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.

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

[1] IETF RFC 4122 (July 2005): "A Universally Unique IDentifier (UUID) URN Namespace".

NOTE: Available at http://www.ietf.org/rfc/rfc4122.txt.

2.2 Informative 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 referenced document (including any amendments) applies.

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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] Void.

[i.2] Void.

[i.3] Directive 2014/53/EU of the European Parliament and of the Council of 16 April 2014 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.4] ETSI TR 100 028-1 (12-2001): "Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics; Part 1".

[i.5] ETSI TR 100 028-2 (V1.4.1) (12-2001): "Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics; Part 2".

[i.6] ECC Report 186: "Technical and operational requirements for the operation of white space devices under geo-location approach", January 2013.

[i.7] ETSI TR 102 273-2: "Electromagnetic compatibility and Radio spectrum Matters (ERM); Improvement on Radiated Methods of Measurement (using test site) and evaluation of the corresponding measurement uncertainties; Part 2: Anechoic chamber".

[i.8] ETSI TR 102 273-3: "Electromagnetic compatibility and Radio spectrum Matters (ERM); Improvement on Radiated Methods of Measurement (using test site) and evaluation of the corresponding measurement uncertainties; Part 3: Anechoic chamber with a ground plane".

[i.9] ETSI TR 102 273-4: "Electromagnetic compatibility and Radio spectrum Matters (ERM); Improvement on Radiated Methods of Measurement (using test site) and evaluation of the corresponding measurement uncertainties; Part 4: Open area test site".

[i.10] ETSI TR 103 231: "White Space Devices (WSD); Wireless Access Systems operating in the 470 MHz to 790 MHz TV broadcast band; Information on weblistings of TV White Space Databases (TVWSDBs)".

[i.11] ECC Report 159: "Technical and operational requirements for the possible operation of cognitive radio systems in the "white spaces" of the frequency band 470-694 MHz", January 2011.

[i.12] William Webb and contributors: "Dynamic White Space Spectrum Access".

NOTE: Available at http://www.webbsearch.co.uk/publications/.

[i.13] Commission Implementing Decision C(2015) 5376 final of 4.8.2015 on a standardisation request to the European Committee for Electrotechnical Standardisation and to the European Telecommunications Standards Institute as regards radio equipment in support of Directive 2014/53/EU of the European Parliament and of the Council.

[i.14] NIMA Technical Report TR8350.2 (1984, including amendment 1 of 03 January 2000 and amendment 2 of 23 June 2004): "Department of Defense World Geodetic System 1984. Its Definition and Relationships with Local Geodetic Systems".

[i.15] ITU GE06: "Final Acts of the Regional Radiocommunication Conference for planning of the digital terrestrial broadcasting service in parts of Regions 1 and 3, in the frequency bands 174-230 MHz and 470-862 MHz".

NOTE: Available at https://www.itu.int/dms_pub/itu-r/opb/act/R-ACT-RRC.14-2006-PDF-E.pdf.