

5 GHz WAS/RLAN;
Harmonised Standard for access to radio spectrum
(ETSI EN 301 893 V2.2.1 (2024-11))

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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.2] 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 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	
Date of adoption of this EN:	25 November 2024
Date of latest announcement of this EN (doa):	28 February 2025
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	31 August 2025
Date of withdrawal of any conflicting National Standard (dow):	29 February 2028

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).

"**must**" and "**must not**" are **NOT** allowed in ETSI deliverables except when used in direct citation.

Introduction

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

The spectrum usage conditions for equipment within the scope of the present document are set out as follows:

- ECC Decision (04)08 [i.6], Commission Implementing Decision (EU) 2022/179 [i.7] amended by Commission Implementing Decision (EU) 2022/2307 [i.8] for sub-band 1, sub-band 2 and sub-band 3 as shown in table 1.
- The operation in sub-band 4 as shown in table B.1 is subject to national frequency usage conditions. Hence, it should be verified whether national frequency usage conditions permit operations in this sub-band in accordance with the present document.

NOTE: An example for national frequency usage conditions is given in UK Interface Requirements IR 2030 [i.12].

1 Scope

The present document specifies technical characteristics and methods of measurement for Wireless Access Systems (WAS) including Radio Local Area Network (RLAN) equipment operating in the 5 GHz RLAN band.

The present document specifies spectrum access requirements to facilitate spectrum sharing with other equipment.

Radio equipment capable of operating in all or parts of the service frequency bands given in table 1 is within the scope of the present document.

Table 1: Service frequency bands

	Sub-band 1	Sub-band 2	Sub-band 3
Transmit	5 150 MHz to 5 250 MHz	5 250 MHz to 5 350 MHz	5 470 MHz to 5 725 MHz
Receive	5 150 MHz to 5 250 MHz	5 250 MHz to 5 350 MHz	5 470 MHz to 5 725 MHz

Provisions for radio equipment capable of operating in all or parts of the 5 725 MHz to 5 850 MHz frequency band (sub-band 4 as given in table B.1) are contained in annex B. However, operation in sub-band 4 is subject to national frequency usage conditions. The present document also contains provisions for equipment operating on channels whose nominal channel bandwidth falls partly in sub-band 3 and partly in sub-band 4.

NOTE 1: The technical requirements for equipment operating in the service frequency bands identified in table 1 are contained in the main part of the present document (see clause 4) while the technical requirements for equipment operating in the service frequency band identified in table B.1 are contained in annex B.

NOTE 2: The relationship between the present document and essential requirements of article 3.2 of Directive 2014/53/EU [i.1] 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 in the [ETSI docbox](#).

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] [ETSI TS 136 141 \(V18.4.0\) \(05-2024\)](#): "LTE; Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) conformance testing (3GPP TS 36.141 version 18.4.0 Release 18)".
- [2] [ISO/IEC/IEEE 8802-11:2022](#): "Telecommunications and information exchange between systems - Specific requirements for local and metropolitan area networks - Part 11: Wireless LAN medium access control (MAC) and physical layer (PHY) specifications".