ÖVE/ÖNORM
EN 303 364-2 V1.1.1

Ausgabe: 2021-05-01

Primary Surveillance Radar (PSR); Harmonised Standard for access to radio spectrum;
Part 2: Air Traffic Control (ATC) PSR sensors operating in the frequency band 2 700 MHz to 3 100 MHz (S band)

(ETSI EN 303 364-2 V1.1.1 (2021-02))

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Nationales Vorwort

Diese Europäische Norm EN 303 364-2 V1.1.1:2021 hat sowohl den Status einer nationalen elektrotechnischen Norm gemäß ETG 1992 als auch den einer nationalen Norm gemäß NormG 2016. Bei ihrer Anwendung ist dieses Nationale Vorwort zu berücksichtigen.

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ETSI EN 303 364-2 V1.1.1 (2021-02)

Primary Surveillance Radar (PSR);
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Part 2: Air Traffic Control (ATC) PSR sensors operating in the frequency band 2 700 MHz to 3 100 MHz (S band)

Reference
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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.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.

The present document is part 2 of a multi-part deliverable covering ground based ATC Primary Surveillance Radar (PSR), as identified below:

Part 1: "Air Traffic Control (ATC) PSR sensors operating in the frequency band 1 215 MHz to 1 400 MHz (L band)";

Part 2: "Air Traffic Control (ATC) PSR sensors operating in the frequency band 2 700 MHz to 3 100 MHz (S band)";

Part 3: "Air Traffic Control (ATC) PSR sensors operating in the frequency band 8 500 MHz to 10 000 MHz (X band)".

National transposition dates	
Date of adoption of this EN:	18 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):	30 November 2022

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.

1 Scope

The present document specifies technical characteristics and methods of measurements for ground based monostatic ATC primary surveillance radars with the following characteristics:

- operating in the 2 700 MHz to 3 100 MHz frequency range;
- transmitter output peak power up to 100 kW;
- the transceiver-antenna connection uses a hollow metallic rectangular waveguide of type WR284/WG10/R32 according to IEC 60153-2 [i.6] with a minimum length between the output of the power amplifier and the input to the antenna of 2,886 m (20 times the wavelength of the waveguide cut-off frequency);
- the antenna rotates, is waveguide-based and passive;
- the transceiver output uses a RF circulator.

NOTE 1: Phased array ATC primary surveillance radars are not covered by the present document.

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 at https://docbox.etsi.org/Reference/.

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

[1] ECC/Recommendation (02)05 (2012): "Unwanted emissions".

[2] ERC/Recommendation 74-01 (2019): "Unwanted emissions in the spurious domain".

[3] Recommendation ITU-R M.1177-4 (04/2011): "Techniques for measurement of unwanted emissions of radar systems".

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] 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.