

STN	Primárny prehľadový radar (PSR) Harmonizovaná norma pre prístup k rádiovému spektru Časť 1: Senzory PSR riadenia letovej prevádzky (ATC) pracujúce vo frekvenčnom pásme od 1 215 MHz do 1 400 MHz (pásmo L) Oddiel 1: radarové systémy používajúce reflektorové antény	STN EN 303 364-1-1 V1.1.1 87 3364
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Primary Surveillance Radar (PSR); Harmonised Standard for access to radio spectrum; Part 1: Air Traffic Control (ATC) PSR sensors operating in the frequency band 1 215 MHz to 1 400 MHz (L band); Sub-part 1: radar systems using reflector antennas

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

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**Primary Surveillance Radar (PSR);
Harmonised Standard for access to radio spectrum;
Part 1: Air Traffic Control (ATC) PSR sensors operating in the
frequency band 1 215 MHz to 1 400 MHz (L band);
Sub-part 1: radar systems using reflector antennas**

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ETSI

650 Route des Lucioles
F-06921 Sophia Antipolis Cedex - FRANCE

Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

Siret N° 348 623 562 00017 - APE 7112B
Association à but non lucratif enregistrée à la
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Contents

Intellectual Property Rights	5
Foreword.....	5
Modal verbs terminology.....	6
1 Scope	7
2 References	7
2.1 Normative references	7
2.2 Informative references	7
3 Definition of terms, symbols and abbreviations.....	8
3.1 Terms.....	8
3.2 Symbols.....	9
3.3 Abbreviations	10
4 Technical requirements specifications	11
4.1 Environmental profile.....	11
4.2 Conformance Requirements	11
4.2.1 Transmitter requirements	11
4.2.1.1 Occupied bandwidth.....	11
4.2.1.1.1 Definition.....	11
4.2.1.1.2 Limits	11
4.2.1.1.3 Conformance	11
4.2.1.2 Transmitter Peak Power	11
4.2.1.2.1 Definition.....	11
4.2.1.2.2 Limits	11
4.2.1.2.3 Conformance	11
4.2.1.3 Measured B ₄₀ bandwidth.....	11
4.2.1.3.1 Definition.....	11
4.2.1.3.2 Limits	12
4.2.1.3.3 Conformance	12
4.2.1.4 Unwanted emissions.....	12
4.2.1.4.1 General requirements.....	12
4.2.1.4.2 Out-of-band Emissions.....	12
4.2.1.4.3 Emissions in the spurious domain	14
4.2.1.4.4 Stand-by mode emissions	14
4.2.2 Receiver requirements	15
4.2.2.1 General requirement.....	15
4.2.2.2 System Noise Figure	15
4.2.2.2.1 Definition.....	15
4.2.2.2.2 Limits	15
4.2.2.2.3 Conformance	15
4.2.2.3 Receiver Compression Level	15
4.2.2.3.1 Definition.....	15
4.2.2.3.2 Limits	16
4.2.2.3.3 Conformance	16
4.2.2.4 Receiver selectivity	16
4.2.2.4.1 Definition.....	16
4.2.2.4.2 Limit	16
4.2.2.4.3 Conformance	17
4.2.2.5 Receiver non-linearity.....	17
4.2.2.5.1 Definition.....	17
4.2.2.5.2 Limits	18
4.2.2.5.3 Conformance	18
5 Testing for compliance with technical requirements.....	18
5.1 Environmental conditions for testing	18
5.1.1 General requirements.....	18
5.1.2 Test conditions.....	18

5.1.2.1	Thermal Balance	18
5.1.2.2	Environmental Test Conditions.....	18
5.1.2.2.1	Temperature and humidity.....	18
5.1.2.2.2	Power supply (AC only)	19
5.2	Radio test suites.....	19
5.2.1	Transmitter test specification.....	19
5.2.1.1	Occupied bandwidth.....	19
5.2.1.2	Transmitter Peak Power	19
5.2.1.3	Measured B ₄₀ bandwidth.....	20
5.2.1.4	Unwanted emissions.....	20
5.2.1.4.1	Out-of-band Emissions.....	20
5.2.1.4.2	Emissions in the spurious domain	21
5.2.1.4.3	Stand-by mode emissions	21
5.2.1.5	Pulse Length.....	21
5.2.1.6	Pulse Rise Time	22
5.2.1.7	Pulse Fall Time	22
5.2.2	Receiver test specification	23
5.2.2.1	System Noise Figure	23
5.2.2.2	Receiver Compression Level	23
5.2.2.2.1	General setup	23
5.2.2.2.2	Test Signal.....	23
5.2.2.2.3	Measurement Procedure	23
5.2.2.3	Receiver selectivity	24
5.2.2.3.1	General setup	24
5.2.2.3.2	Disturbing Test Signals	24
5.2.2.3.3	Measurement Procedure	24
5.2.2.4	Receiver non-linearity.....	24
Annex A (informative):	Relationship between the present document and the essential requirements of Directive 2014/53/EU	26
Annex B (normative):	Calculation of the B₄₀ bandwidth.....	28
Annex C (normative):	Occupied bandwidth and B₄₀ measurement set-up	30
Annex D (normative):	Transmitter Peak Power measurement set-up	31
Annex E (normative):	Out-of-Band Emissions measurement set-up	32
Annex F (normative):	Spurious Emissions and Stand-By Mode emissions measurement set-up	33
Annex G (normative):	Pulse Length, Pulse Rise Time and Pulse Fall time measurement set-up	35
Annex H (normative):	System Noise Figure measurement set-up	36
Annex I (normative):	Compression level measurement set-up	38
Annex J (normative):	Selectivity measurement set-up	39
Annex K (normative):	Receiver non-linearity measurement set-up	40
Annex L (informative):	Maximum Measurement Uncertainty.....	41
Annex M (informative):	Checklist	42
Annex N (informative):	Bibliography.....	44
History		45

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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 1, sub-part 1, of a multi-part deliverable covering 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)";

Sub-part 1: "radar systems using reflector antennas";

Sub-part 2: "radar systems using phased array antennas".

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)".

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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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1 Scope

The present document specifies technical characteristics and methods of measurements for ground based monostatic ATC solid state primary surveillance radars that are intended to work with a waveguide-based rotating passive antenna and have the following characteristics:

- operation in the 1 215 MHz to 1 400 MHz frequency range;
- transmitter output peak power up to 100 kW;
- the transceiver output uses an RF circulator;
- a piece of waveguide of at least 66 cm is integral to the transceiver.

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

NOTE 2: 66 cm equals 2 times the cut-off wavelength of a WR650/WG6/R14 waveguide which is typically used in the 1 215 MHz to 1 400 MHz frequency range.

NOTE 3: 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.

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

- [1] [ETSI EN 300 019-1-3 \(V2.4.1\) \(04-2014\)](#): "Environmental Engineering (EE); Environmental conditions and environmental tests for telecommunications equipment; Part 1-3: Classification of environmental conditions; Stationary use at weather protected locations".

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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- [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.

- [i.2] [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.3] ITU Radio Regulations (2024).
 - [i.4] Recommendation ITU-R SM.1541-7 (09/2024): "Unwanted emissions in the out-of-band domain".
 - [i.5] ETSI EG 203 336 (V1.2.1): "Guide for the selection of technical parameters for the production of Harmonised Standards covering article 3.1(b) and article 3.2 of Directive 2014/53/EU".
 - [i.6] IEC 60153-2 (2016): "Hollow metallic waveguides - Part 2: Relevant specifications for ordinary rectangular waveguides".
 - [i.7] Recommendation ITU-R SM.331-4 (07/78): "Noise and sensitivity of receivers".
 - [i.8] Recommendation ITU-R SM.332-4 (07/78): "Selectivity of receivers".
 - [i.9] [ECC Recommendation \(02\)05 \(October 2012\)](#): "Unwanted emissions".
 - [i.10] [ERC Recommendation 74-01 \(May 2022\)](#): "Unwanted emissions in the spurious domain".
 - [i.11] Recommendation ITU-R M.1177-4 (04/2011): "Techniques for measurement of unwanted emissions of radar systems".
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