
Meteorološki pripomočki (Met Aids) - Radiosonde za uporabo v frekvenčnem območju od 400,15 MHz do 406 MHz z močnostnimi nivoji do največ 200 mV - 2. del: Harmonizirani standard, ki zajema bistvene zahteve člena 3.2 direktive 2014/53/EU

Meteorological Aids (Met Aids); Radiosondes to be used in the 400,15 MHz to 406 MHz frequency range with power levels ranging up to 200 mW; Part 2: Harmonised Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU

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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 in reply to the Commission's standardisation request Commission Implementing Decision C(2015) 5376 final of 04.08.2015 to provide a 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" - also known as the Radio Equipment Directive [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 digitally modulated Radiosonde transmitters in the Meteorological Aids frequency band from 400,15 MHz to 406 MHz, as identified below:

- Part 1: "Technical characteristics and test methods"; 302 054-2 V1.2.1:2016
<https://standards.iteh.ai/catalog/standards/sist/c9f3c026-c02a-4b76-9e2d-199051e1836/sist-en-302-054-2-v1-2-1-2016>
- Part 2: "**Harmonised Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU**".

National transposition dates

Date of adoption of this EN:	22 October 2015
Date of latest announcement of this EN (doa):	31 January 2016
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	31 July 2016
Date of withdrawal of any conflicting National Standard (dow):	31 July 2017

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.

Executive summary

The present document contains Conformance requirements for Meteorological Aids (Radiosondes) to be used in the 400,15 to 406 MHz frequency range. These requirements are defined for frequency error, carrier power, effective radiated power, modulation bandwidth, spurious emissions and frequency stability under low voltage conditions.

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1 Scope

The present document applies to Radiosondes in the Meteorological Aids service to be used in the 400,15 MHz to 406 MHz frequency range with power levels ranging up to 200 mW.

The present document contains requirements to demonstrate that "... *Radio equipment shall be so constructed that it both effectively uses and supports the efficient use of radio spectrum in order to avoid harmful interference*" [i.1].

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 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.

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

- [1] ETSI EN 302 054-1 (V1.2.1) (10-2015): "Meteorological Aids (Met Aids); Radiosondes to be used in the 400,15 MHz to 406 MHz frequency range with power levels ranging up to 200 mW; Part 1: Technical characteristics and test methods".

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 reference document (including any amendments) applies.

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 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.
- [i.2] ETSI TR 100 028 (all parts) (V1.4.1): "Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics".
- [i.3] ETSI TR 100 028-2 (V1.4.1): "Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics; Part 2".
-

3 Definitions, symbols and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in the RE Directive [i.1] and ETSI EN 302 054-1 [1] apply.

3.2 Symbols

For the purposes of the present document, the symbols given in ETSI EN 302 054-1 [1] apply.

3.3 Abbreviations

For the purposes of the present document, the abbreviations given in ETSI EN 302 054-1 [1] apply.

4 Technical requirements specifications

4.1 Environmental profile

The technical requirements of the present document apply under the environmental profile for operation of the equipment, which shall be declared by the supplier. The equipment shall comply with all the technical requirements of the present document at all times when operating within the boundary limits of the declared operational environmental profile.

4.2 Conformance requirements

4.2.1 Transmitter requirements

4.2.1.1 Frequency error

The frequency error, as defined in ETSI EN 302 054-1 [1], clause 7.2.1, shall not exceed the limits given in ETSI EN 302 054-1 [1], clause 7.2.3.

In order to assess compliance the test procedure in clause 5.3.1.1 shall be done.

4.2.1.2 Carrier power (conducted)

The carrier power (conducted), as defined in ETSI EN 302 054-1 [1], clause 7.3.1, shall not exceed the limits in ETSI EN 302 054-1 [1], clause 7.3.3.

NOTE: This requirement applies to transmitters which may be used without an integral or dedicated antenna.

In order to assess compliance the test procedure in clause 5.3.1.2 shall be done.

4.2.1.3 Effective radiated power

The effective radiated power, as defined in ETSI EN 302 054-1 [1], clause 7.4.1, shall not exceed the limits given in ETSI EN 302 054-1 [1], clause 7.4.3.

NOTE: This requirement applies to transmitters with an integral or dedicated antenna.

In order to assess compliance the test procedure in clause 5.3.1.3 shall be done.

4.2.1.4 Modulation bandwidth

The modulation bandwidth, as defined in ETSI EN 302 054-1 [1], clause 7.5.1, shall not exceed the limits in ETSI EN 302 054-1 [1], clause 7.5.3.

In order to assess compliance the test procedure in clause 5.3.1.4 shall be done.

4.2.1.5 Spurious emissions

The spurious emissions, as defined in ETSI EN 302 054-1 [1], clause 7.6.1, shall not exceed the limits given in ETSI EN 302 054-1 [1], clause 7.6.3.

In order to assess compliance the test procedure in clause 5.3.1.4 shall be done.

4.2.1.6 Frequency stability under low-voltage conditions

The frequency stability under low-voltage conditions, as defined in ETSI EN 302 054-1 [1], clause 7.7.1, shall comply conditions given in ETSI EN 302 054-1 [1], clause 7.7.3.

In order to assess compliance the test procedure in clause 5.3.1.5 shall be done.