



Technical Report

**Electromagnetic compatibility
and Radio spectrum Matters (ERM);
Operation of RFID in the UHF Band;
Proposed improvements to be incorporated into
future versions of EN 302 208**

Reference

DTR/ERM-TG34-20

Keywords

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Contents

Intellectual Property Rights	4
Foreword.....	4
1 Scope	5
2 References	5
2.1 Normative references	5
2.2 Informative references.....	5
3 Definitions and abbreviations.....	5
3.1 Definitions.....	5
3.2 Abbreviations	5
4 Planned improvements to EN 302 208-1.....	6
4.1 Setting of Span	6
4.2 Setting of sweep time	6
4.3 Value for video bandwidth	6
4.4 Testing of tags with metal backplanes.....	6
History	8

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Foreword

This Technical Report (TR) has been produced by ETSI Technical Committee Electromagnetic compatibility and Radio spectrum Matters (ERM).

1 Scope

The present document has been produced to provide details of proposed improvements that will be incorporated into future versions of EN 302 208-1 [i.1]. It is believed that this information will provide helpful guidance to test houses and other similar bodies on interpretation of the clauses in the current version 1.4.1 of EN 302 208-1 [i.1].

2 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.

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2.1 Normative references

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

Not applicable.

2.2 Informative references

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] ETSI EN 302 208-1 (V1.4.1): "Electromagnetic compatibility and Radio spectrum Matters (ERM); Radio Frequency Identification Equipment operating in the band 865 MHz to 868 MHz with power levels up to 2 W; Part 1: Technical requirements and methods of measurement".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in [i.1] and the following apply:

interrogator: equipment that will activate an adjacent tag and read its data

NOTE: It may also enter or modify the information in a tag.

3.2 Abbreviations

For the purposes of the present document, the following abbreviations apply:

RFID Radio Frequency IDentification

4 Planned improvements to EN 302 208-1

This clause specifies a number of improvements to future versions of EN 302 208-1 [i.1] that will be implemented at the next revision of the document. It is intended that these changes will provide clarification to testing organisations and ensure greater consistency and repeatability in test results. Each of the improvements listed have already been considered and agreed by members of ERM-TG34.

4.1 Setting of Span

A clarification will be made to clauses 8.5.2.1 and 8.5.2.2 of EN 302 208-1 [i.1] to ensure the correct setting of "span". Reference will be made to a "note" at the end of the line in item d) in each of the two clauses as follows:

- d) Span: As defined by the relevant frequency ranges in figure 4 (see note).

NOTE: If the frequency range to be investigated is greater than 10 MHz, select Max Peak Detector and set the span to cover the full range of frequencies. Search for peaks and then measure these peaks with the Spectrum Analyser set to a span of 10 MHz using the average detector.

4.2 Setting of sweep time

Where a clause in EN 302 208-1 [i.1] specifies setting the sweep time to "AUTO", it should clarify how to perform the measurement. In such circumstances the spectrum analyser should be set to "max hold" and the test run until the display is stable. This will ensure a consistent and reliable result.

4.3 Value for video bandwidth

EN 302 208-1 [i.1] should clearly specify that the specified settings for video bandwidth and resolution bandwidth should be the same.

4.4 Testing of tags with metal backplanes

The method of test in EN 302 208-1 [i.1] should be amended to permit emissions from tags fitted with metal backplanes to be measured. The configuration should be changed from that shown at figure 6 of clause 10.1 of EN 302 208-1 [i.1] to that specified in the diagram in figure 1.

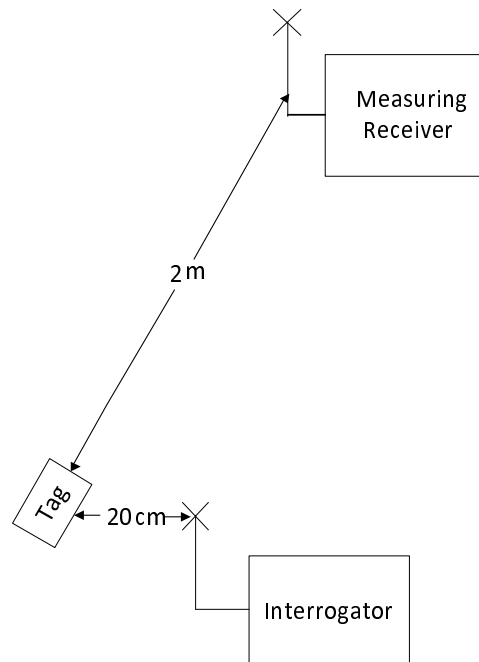


Figure 1: Measurement of tag emissions

The remainder of the test method remains unchanged.

History

Document history		
V1.1.1	July 2012	Publication