AS/NZS 4583:2016
ETSI EN 300 676-1:2011

AS/NZS 4583:2016

Australian/New Zealand Standard™

Amplitude modulated equipment for use in the aeronautical radio service in the frequency range 118 MHz to 137 MHz

This Standard is an identical adoption of ETSI EN 300 676-1:2011.

STANDARDS Australia

STANDARDS NEW ZEALAND
PAEREWA AOTEAROA

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee RC-006, Radiocommunications Equipment—General. It was approved on behalf of the Council of Standards Australia on 26 October 2015 and on behalf of the Council of Standards New Zealand on 4 November 2015.
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The following are represented on Committee RC-006:

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Australian Radio Communications Industry Association
Australian Wireless Audio Group
Civil Aviation Safety Authority
Department of Defence (Australian Government)
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This Standard was issued in draft form for comment as DR AS/NZS 4583:2015.

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee RC-006, Radiocommunications Equipment—General, to supersede AS/NZS 4583:2010.

The objective of this revision is to more closely align the testing requirements and testing methods with those used in Europe in order to remove the technical variations which caused equipment supply difficulties in Australia. This has been achieved by directly adopting ETSI EN 300 676-1:2011.

This Standard is identical with, and has been reproduced from ETSI EN 300 676-1:2011, *Ground-based VHF hand-held, mobile and fixed radio transmitters, receivers and transceivers for the VHF aeronautical mobile service using amplitude modulation*, Part 1: *Technical characteristics and methods of measurement*.

The requirements of Clauses 7.8 and 7.10 of ETSI EN 300 676-1:2011 apply only to transmitters to be used in base stations (fixed).

As this Standard is reproduced from a European Standard, a full point substitutes for a comma when referring to a decimal marker.

None of the normative references in the source document have been adopted as Australian or Australian/New Zealand Standards.

The terms ‘normative’ and ‘informative’ have been used in this Standard to define the application of the annex to which they apply. A ‘normative’ annex is an integral part of a Standard, whereas an ‘informative’ annex is only for information and guidance.

CONTENTS

INTRODUCTION

The present document states the minimum performance requirements for ground based radio transmitters, transceivers and receivers for the aeronautical mobile service operating in the VHF band (118 MHz to 136,975 MHz), using Double Sideband Amplitude Modulation with 8,33 kHz or 25 kHz channel spacing.

NOTE: For equipment designed to cover the extended VHF frequency bands 108 MHz to 117,975 MHz and 137 MHz to 155,975 MHz the same test methods and procedures may be applied to show technical acceptance of the product in the band 108 MHz to 155,975 MHz.

Additional requirements, outside the scope of the present document, may be required to ensure operation in the 108 MHz to 117,975 MHz band does not cause interference to the FM broadcast band.

The present document may be used by accredited test laboratories for the assessment of the performance of the equipment. The performance of the equipment submitted for type testing should be representative for the performance of the corresponding production model.

The present document has been written on the assumption that:

- the type test measurements will be performed only once, in an accredited test laboratory and the measurements accepted by the various authorities in order to grant type approval;
- if equipment available on the market is required to be checked it will be tested in accordance with the methods of measurement specified in the present document.

NOTES

AUSTRALIAN/NEW ZEALAND STANDARD

Amplitude modulated equipment for use in the aeronautical radio service in the frequency range 118 MHz to 137 MHz

1 Scope

The present document states the minimum performance requirements for radio transmitters, receivers and transceivers at ground-based aeronautical stations operating in the VHF band (118 MHz to 136,975 MHz) allocated to the aeronautical mobile service.

In situations where transmitters and receivers are located in close proximity there is the possibility of interference. In such cases, external filters and isolators may be necessary as part of the installation to achieve an isolation performance in excess of the minima defined in the present document to overcome the interference.

The present document applies to DSB AM systems, with channel separations of 8,33 kHz or 25 kHz intended for analogue speech and ground base stations with a channel spacing of 25 kHz intended for ACARS data communication.

NOTE: The test methods and procedures in the present document may also be used to show technical acceptance for radio transmitters, receivers and transceivers at ground based aeronautical stations operating with 25 kHz channel spacing in the extended VHF bands (108 MHz to 117,975 MHz and 137 MHz to 155,975 MHz).

The scope of the present document is limited to ground base stations, ground mobile and hand held radios for ground use.

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.

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.

2.1 Normative references

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

[1] ITU-T Recommendation O.41: "Psophometer for use on telephone-type circuits".

[2] ICAO Annex 10 Volume V (July 2001, including amendments up to amendment 84): "Aeronautical Radio Frequency Spectrum Utilization".

[3] ETSI EN 300 113-1: "Electromagnetic compatibility and Radio spectrum Matters (ERM); Land mobile service; Radio equipment intended for the transmission of data (and/or speech) using constant or non-constant envelope modulation and having an antenna connector; Part 1: Technical characteristics and methods of measurement".

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 TR 100 028 (all parts): "Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics".

[i.2] ISO 7637 (parts 1 and 2): "Road vehicles - Electrical disturbances from conduction and coupling".