

Australian/New Zealand Standard™

**MF and HF radiocommunications  
equipment in the land mobile service  
utilizing single sideband suppressed  
carrier emission**

## **AS/NZS 4770:2000**

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee RC-001, Radiocommunications Equipment—General. It was approved on behalf of the Council of Standards Australia on 18 May 2000 and on behalf of the Council of Standards New Zealand on 29 August 2000.  
This Standard was published on 25 September 2000.

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The following are represented on Committee RC-001:

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Originated as AS/NZS 4770:2000.  
Reissued incorporating Amendment No 1 (December 2004).

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Jointly published by Standards Australia International Ltd, GPO Box 5420, Sydney, NSW 2001 and Standards New Zealand, Private Bag 2439, Wellington 6020

ISBN 0 7337 3465 0

## PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee RC/1 on General Radiocommunication Equipment. It is harmonized as closely as possible with maritime requirements, especially with respect to methods of test which are based on ETSI ETS 300 373, *Radio equipment and systems (RES)—Technical characteristics and methods of measurement for maritime mobile transmitters and receivers for use in the MF and HF bands*.

*This Standard incorporates Amendment No. 1 (December 2004). The changes required by the Amendment are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure or part thereof affected.*

It is issued as a joint Standard under the Active Cooperation Agreement between Standards Australia and Standards New Zealand.

The objective of this Standard is to specify essential requirements and minimum standards for radiocommunications equipment intended to operate in the MF and HF bands in the land mobile services, including methods of test.

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**1 SCOPE**

This Standard establishes technical requirements and minimum performance requirements for land mobile radiocommunications equipment, operating in the 2 MHz to 30 MHz bands, to give satisfactory performance in Australia and New Zealand.

The equipment covered in this Standard applies to single sideband suppressed carrier transmitting and receiving equipment operating in the J3E mode only, intended for operation in fixed and land mobile radiotelephone services and includes base and hand-held portable stations.

**2 REFERENCED DOCUMENTS**

The following document is referred to in this Standard:

ITU

ITU-R Recommendation 332-4 Selectivity of Receivers

**3 DEFINITIONS**

For the purpose of this Standard, the following definitions apply.

**3.1 ALC (Automatic Level Control) threshold**

The 1 dB compression point on a transmitter output power characteristic at which an increase in the modulating signal level does not cause a proportional increase in output power.

**3.2 J3E**

An emission whose basic characteristic is that of a single sideband amplitude modulated suppressed carrier on a single channel containing primarily analogue telephony information.

**3.3 Rated audio output power**

The maximum power declared by the manufacturer available at the audio frequency test load, under standard test conditions and with standard input signal applied.

**3.4 SINAD**

A measure of the audio output of a receiver, expressed in decibels, equal to the ratio of the power of the signal-plus-noise-plus-distortion to the power of the noise-plus-distortion at the audio frequency test load (signal + noise + distortion/noise + distortion).

**3.5 Standard audio output power**

The standard audio output power is—

- (a) 1 mW for headphone reception;
- (b) 500 mW for loudspeaker reception; and
- (c) 50 mW for loudspeaker reception in portable equipment.