



Radiocommunications (UHF CB Radio Equipment) Standard 2011 (No.1)

Radiocommunications Act 1992

The AUSTRALIAN COMMUNICATIONS AND MEDIA AUTHORITY makes this Standard under subsection 162 (1) of the *Radiocommunications Act 1992*.

Dated 17 May 2011

Chris Chapman
[signed]
Member

Richard Bean
[signed]
Member/~~General Manager~~

Australian Communications and Media Authority

1 Name of Standard

This Standard is the *Radiocommunications (UHF CB Radio Equipment) Standard 2011 (No.1)*.

2 Commencement

This Standard commences on the later of:

- (a) the day after it is registered; and
- (b) the commencement of the *Radiocommunications (Citizen Band Radio Stations) Class Licence Variation 2011 (No. 1)*.

Note 1: All legislative instruments and compilations are registered on the Federal Register of Legislative Instruments kept under the Legislative Instruments Act 2003. See <http://www.frli.gov.au>

Note 2: Both of these events must occur before this Standard commences.

3 Revocation of specified instruments

The following instruments are revoked:

- (a) the *Radiocommunications (UHF CB Radio Equipment) Standard 2004*; and
- (b) the *Radiocommunications (UHF CB Radio Equipment) Standard 2011*.

*Note: The **Radiocommunications (UHF CB Radio Equipment) Standard 2011** was made by the Australian Communications and Media Authority on 18 February 2011. It was not registered on the Federal Register of Legislative Instruments following the identification of a technical error in the instrument. Hence it never commenced operation. It is being revoked for the avoidance of doubt.*

4 Definitions

In this Standard:

ACMA means the Australian Communications and Media Authority.

Act means the *Radiocommunications Act 1992*.

AS/NZS 4365:2011 means the standard AS/NZS 4365:2011 (*Radiocommunications equipment used in the UHF citizen band radio service*) published by Standards Australia Limited, ACN 087 326 690, as in force from time to time.

device means a radiocommunications transmitter or a radiocommunications receiver as defined in subsections 7(2) and 7(3) of the Act.

model, in relation to UHF CB radio equipment, means a version of the device that has a particular design and identifying number.

multi-role device means a device that operates on a frequency specified by the ACMA for an ultra high frequency citizen band radio service in Australia and is capable of operating on other frequencies.

repeater station means a station that is capable of the reception and simultaneous automatic re-transmission of radio signals from a CB station.

significant event means an event at a specified location, or locations, notified, with the approval of the Chair of the ACMA, on the website <http://www.acma.gov.au>.

UHF CB radio equipment means a device, including a multi-role device, other than a repeater station, that:

- (a) can operate on a frequency specified by the ACMA for the provision of an ultra high frequency citizen band radio service in Australia; or
- (b) was designed or intended to provide a substantially similar service to an ultra high frequency citizen band radio service on a UHF frequency specified for such a service outside Australia.

ultra high frequency and **UHF** mean a frequency that exceeds 300 MHz but does not exceed 3 GHz.

Note: A number of terms used in this Standard are defined in the Act or in the Radiocommunications (Interpretation) Determination 2000 including:

- CB station
- import
- radiocommunication
- standard
- supply.

5 Application

- (1) This Standard applies to a device that is UHF CB radio equipment, other than:
 - (a) equipment imported into and used in Australia in the circumstances mentioned in subsection (2); and
 - (b) multi-role devices in respect of their operation on frequencies other than those specified by the ACMA for UHF CB radio services in Australia.
- (2) This Standard does not apply to UHF CB radio equipment that:
 - (a) is imported solely for use in connection with a significant event; and
 - (b) if required to be tested or inspected by the ACMA before it is used in Australia — meets any testing or inspection requirements; and
 - (c) if conditions or requirements are imposed by the ACMA on its use in Australia — is used in compliance with those conditions or requirements; and
 - (d) is used in Australia only:
 - (i) at the location of the significant event; and
 - (ii) for the duration of the significant event.

6 Standard for performance

- (1) Subject to section 7, for the purposes of paragraph 162(1)(a) of the Act, the standard for performance of UHF CB radio equipment is AS/NZS 4365:2011 as modified by subsections (2), (3), (4), (5), (6) and (7).
- (2) Clause 5.2 of AS/NZS 4365:2011 does not form part of the standard for performance set by this Standard.
- (3) Paragraph 5.3(a) of AS/NZS 4365:2011 is replaced by the following paragraph:

‘(a) Advice that the use of the citizen band radio service is licensed in Australia under the *Radiocommunications (Citizen Band Radio Stations) Class Licence 2002* and operation is subject to conditions contained in that licence.’
- (4) The following provisions of AS/NZS 4365:2011 are omitted from, and do not form part of, the standard for performance set by this Standard:

- (a) in paragraph 5.3(e) – the words ‘and the MED website in New Zealand’;
- (b) in the note to paragraph 5.8(b) – the words ‘or the MED GURL’;
- (c) in the last paragraph of clause 5.8 – the words ‘or of the GURL (New Zealand)’;
- (d) in the note to clause 5.8 – the words ‘and New Zealand’;
- (e) ‘in the notes to Table 1 after the symbol ‘*’ – the words ‘or the MED General User Radio Licence (GURL) in New Zealand’; and
- (f) in the notes to Table 1 after the symbol ‘‡’ – the words ‘or the MED GURL in New Zealand’.

- (5) Clause 6.7.3 of AS/NZS 4365:2011 is replaced by the following clause:
‘6.7.3 *Limit for telemetry or telecommand transmissions*
When tested in accordance with clause 6.7.4, the adjacent channel power shall not exceed –22 dBm under any modulation condition.’
- (6) Clause 6.7.4 of AS/NZS 4365:2011 is replaced by the following clause:
‘6.7.4 *Method of test for telemetry or telecommand transmissions*
The measurement is made under standard test conditions (Clause 4.1) and using an adjacent channel power measuring ‘receiver’ conforming to the requirements of clause 6.7.5.

For test purposes, it is desirable that telemetry or telecommand transmissions of the test samples should be at least three seconds in duration.

The transmitter output shall be connected to an artificial load which is used to provide an appropriate signal level to the ‘receiver’ input. The output of the transmitter during a telemetry or telecommand transmission shall be observed by spectrum analysis or some other suitable means.

The transmitter shall be operated in a modulated state at the highest available power output.

For the purposes of this test the modulation shall be that which results in worst case adjacent channel power performance. The RMS power in the upper and lower adjacent channels as defined by Table 3D below shall be measured and recorded.’

- (7) After clause 6.7.4 of AS/NZS 4365:2011 insert new clause 6.7.5 as follows:
‘6.7.5 *Characteristics of Power Measuring Receiver (telemetry and telecommand transmissions)*
6.7.5.1 *General*
The characteristics of the power measuring receiver outlined below are consistent with ETS 300 086 V1.4.1 (2010-06).

6.7.5.2 *Power measuring receiver specification*

The power measuring receiver consists of an oscillator, a mixer, an IF filter, an amplifier, a variable attenuator and an RMS value indicator. Instead of the variable attenuator with the RMS value indicator it is also possible to use a dB

calibrated RMS voltmeter. The technical characteristics of the power measuring receiver are given below.

6.7.5.3 IF filter

The IF filter shall be within the limits of the selectivity characteristic in Figure 2A.

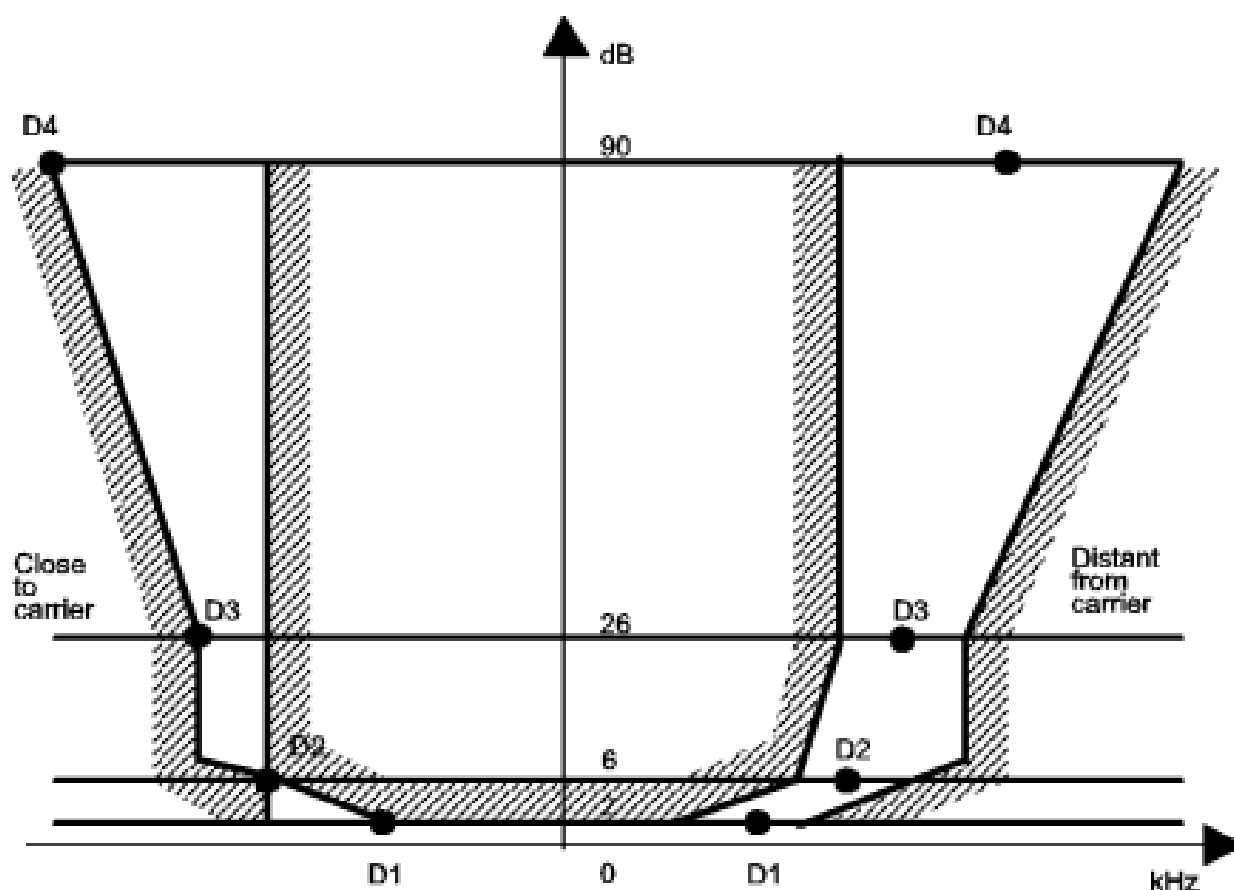


FIGURE 2A SELECTIVITY CHARACTERISTIC

The selectivity characteristics shall keep the following frequency separations from the nominal centre frequency of the adjacent channel as shown in Table 3A.

**TABLE 3A
SELECTIVITY FREQUENCY SEPARATIONS**

| Frequency separation of filter curve from nominal centre frequency of adjacent channel kHz | | | |
|---|-----|------|-------|
| D1 | D2 | D3 | D4 |
| 5 | 8.0 | 9.25 | 13.25 |

The attenuation points shall not exceed the tolerances shown in Tables 3B and 3C.

TABLE 3B

ATTENUATION POINTS CLOSE TO CARRIER

| Tolerance range kHz | | | |
|------------------------|------|-------|-------|
| D1 | D2 | D3 | D4 |
| +3.1 | ±0.1 | −1.35 | −5.35 |

TABLE 3C
ATTENUATION POINTS DISTANT FROM CARRIER

| Tolerance range kHz | | | |
|------------------------|------|------|--------------|
| D1 | D2 | D3 | D4 |
| ±3.5 | ±3.5 | ±3.5 | +3.5 −7.5 |

The minimum attenuation of the filter outside the 90 dB attenuation points must be equal to or greater than 90 dB. The tuning of the power measuring receiver shall be adjusted away from the carrier so that the −6 dB response nearest to the transmitter carrier frequency is located at a displacement from the nominal carrier frequency as given in Table 3D.

TABLE 3D
FREQUENCY DISPLACEMENT

| Specified necessary bandwidth kHz | Displacement from the −6 dB point kHz |
|---|---|
| 16 | 17 |

6.7.5.4 Attenuation indicator

The attenuation indicator shall have a minimum range of 80 dB and a reading resolution of 1 dB.

6.7.5.5 RMS value indicator

The instrument shall accurately indicate non-sinusoidal signals in a ratio of up to 10:1 between peak value and RMS value.

6.7.5.6 Oscillator and amplifier

The oscillator and amplifier shall be designed in such a way that the measurement of the adjacent channel power of a low-noise unmodulated transmitter, whose self-noise has a negligible influence on the measurement result, yields a measured value of ≤ -90 dB referred to the carrier of the oscillator.'

7 Compliance with this Standard — devices complying with former standard

- (1) This section has effect despite the revocation of the *Radiocommunications (UHF CB Radio Equipment) Standard 2004* (***the former standard***).
- (2) If a particular model of UHF CB radio equipment complies with the former standard, any UHF CB radio equipment of that model is taken to comply with this Standard, if it is manufactured or imported within 18 months after the commencement of this Standard.

Note: Legacy 25 kHz channel spacing equipment may continue to be used in accordance with, and subject to the licence conditions of, the Radiocommunications (Citizen Band Radio Stations) Class Licence 2002.