

EXPLANATORY STATEMENT

Issued by the Australian Communications and Media Authority

Radiocommunications Advisory Guidelines (Managing Interference to Receivers – 2.3 GHz Band) 2009

Radiocommunications Act 1992

Purpose

The purpose of the *Radiocommunications Advisory Guidelines (Managing Interference to Receivers – 2.3 GHz Band) 2009* (the Advisory Guideline) is to provide information to assist in managing the potential for interference to spectrum licensed receivers from transmitters not operated under a spectrum licence.

Legislative Provisions

Under section 262 of the *Radiocommunications Act 1992* (the Act) the Australian Communications and Media Authority (ACMA) may make written advisory guidelines and describes advisory guidelines for the following areas:

- Any matter in respect of which standards may be made under Part 4.1 of the Act; or
- The use, construction, design or performance of any thing; or
- Interference with radiocommunications; or
- Frequency allocation and coordination.

These examples provided in the Act are not exhaustive. ACMA may make written advisory guidelines about any aspect of radiocommunications or radio emissions. The Advisory Guideline contains advice regarding interference with radiocommunications.

Background

A spectrum licence consists of a frequency band and a geographic area. Interference occurring between adjacent spectrum licences consists of:

- In-band interference, across the geographic boundaries; and
- Out-of-band interference, across the frequency boundaries.

However, interference can also occur between spectrum licensed services and services operating under apparatus and class licensing arrangements respectively. Interference is generally managed by a set of interference management tools given effect by the Act and implemented by ACMA. These tools include:

- The core conditions of the spectrum licence;
- A determination made under s.145 of the Act about what constitutes acceptable interference; and
- Advisory guidelines made under s.262 of the Act about managing interference in specific circumstances.

The Advisory Guideline was made by ACMA to manage and settle interference disputes regarding receivers operating under spectrum licences in the 2.3 GHz band caused by transmitters not operated by the spectrum licensee. In all cases, the receivers are considered by ACMA to be

radiocommunications devices located at a fixed point on land or sea, and not established for use on a mobile basis.

The Advisory Guideline also forms part of a set of legislative instruments that give effect to the variation of the technical framework applicable to the 2.3 GHz band. The complete set of instruments required for this purpose is listed below:

- *Radiocommunications (Spectrum Designation) Notice No.1 of 2000 (14/01/2009)*
- *Radiocommunications Spectrum Marketing Plan (2.3 GHz Band) 2009*
- *Radiocommunications (Unacceptable Levels of Interference – 2.3 GHz Band) Determination 2009*
- *Radiocommunications Advisory Guidelines (Registration of Devices under Spectrum Licences without an Interference Impact Certificate) 1998*
- *Radiocommunications Advisory Guidelines (Managing Interference to Receivers – 2.3 GHz Band) 2009*
- *Radiocommunications Advisory Guidelines (Managing Interference from Transmitters – 2.3 GHz Band) 2009*
- *Radiocommunications (section 145 (3) Certificates) Determination 2000*

Operation

The Advisory Guideline provides compatibility requirements for registered fixed receivers operating under spectrum licences issued in the 2.3 GHz band from interference caused by fixed transmitters operated under other licences.

A compatibility requirement essentially means a grade of service based on the conditions for wanted and unwanted signal levels at the receiver's input. Schedule 1 of the Advisory Guideline sets out the compatibility requirements relevant to receivers authorised under a spectrum licence issued in the 2.3 GHz band.

Consultation

To ensure that ACMA met the requirements of the *Legislative Instruments Act 2003* (the LIA), ACMA undertook consultation in the Commonwealth Gazette and on ACMA's website beginning in May 2008. The Advisory Guideline was made available from these sources for public comment from 12 May – 30 June 2008.

No submissions were received in relation to the Advisory Guideline during this time.

Regulatory Impact Statement

ACMA obtained advice from its SES contact officer for the Government's regulation impact analysis arrangements that the Advisory Guideline has no or low impact. For those reasons under the self assessment regime administered by the Office of Best Practice Regulation (OBPR), ACMA has determined that there is no need to produce a Business Cost Calculator report or to prepare a Regulation Impact Statement. The ACMA RIS exemption reference number is ACMA 078.

Document incorporated into this Advisory Guideline by reference

There are no documents incorporated into this Advisory Guideline by reference.

Detailed Description of the Instrument

Details of the instrument are in the attachment.

NOTES ON SECTIONS

Background

This section explains the purpose of the Advisory Guideline is to provide advice for the management and settlement of disputes regarding interference to receivers operating under a spectrum licence in the 2.3 GHz band from transmitters not operated by the spectrum licensee.

Part 1 – Preliminary

Subsection 1.1 – Name of Advisory Guidelines

This section gives the citation for the Advisory Guideline.

Subsection 1.2 – Commencement

This section specifies that the Advisory Guideline commences on the same day as the *Radiocommunications Spectrum Marketing Plan (2.3 GHz Band) 2009*.

Subsection 1.3 – Purpose of Advisory Guidelines

This section outlines the purpose of the Advisory Guideline which is to manage interference by providing the compatibility requirements for registered fixed receivers operating under spectrum licences issued in the 2.3 GHz band. The compatibility requirements aim to manage interference to receivers caused by transmitters not authorised under the spectrum licence, however operated under other licences.

Subsection 1.4 – Interpretation

This section provides definitions for terms used in the Advisory Guideline.

Part 2 – Interference

Subsection 2.1 – In-band interference

This section explains how in-band interference to receivers operating under a spectrum licence is to be managed in relation to interference caused by apparatus and class licensed transmitters respectively.

Subsection 2.2 – Out-of-band interference

This section explains what out-of-band interference is and how it can be managed through compatibility requirements for receivers.

Part 3 – Minimum level of receiver performance

Subsection 3.1 – Recording receiver details in the Register

This section explains that a receiver will not be afforded protection unless the details of the receiver are included in the Register of Radiocommunications Licences.

Subsection 3.2 – Mobile devices

This section explains that the compatibility requirements are not applicable to mobile devices.

The note to this section explains that low power mobile transmitters do not require registration in accordance with subsection 69 (2) of the Act where ACMA may exempt certain radiocommunications transmitters from registration under the spectrum licence.

Subsection 3.3 – Receiver performance level

This section explains the requirement to establish a benchmark minimum receiver performance level that a receiver must be able to meet in order to ensure protection from interference.

This section explains that the minimum performance level for receivers in the 2.3 GHz band is set out in Schedule 1 of the Advisory Guideline.

Part 4 – Compatibility requirement

Subsection 4.1 – The acceptable unwanted signal level at the receiver

This section outlines what level of unwanted signal is acceptable to receivers in the 2.3 GHz band to ensure compatibility with emissions from transmitters operating under other licences.

Schedule 1 – Receiver performance level

This Schedule provides spectrum licensees with information regarding the performance of receivers operating in the 2.3 GHz band. The Schedule provides information relating to:

- The minimum level of performance for a receiver;
- The selectivity of receivers to receive wanted signals without significant degradation;
- Receiver intermodulation response rejection; and
- Receiver blocking.