



# **Radiocommunications Advisory Guidelines (Managing Interference from Spectrum Licensed Transmitters – 3.4 GHz Band) Variation 2023 (No. 1)**

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The Australian Communications and Media Authority makes the following instrument under section 262 of the *Radiocommunications Act 1992*.

Dated:

Member

Member/General Manager

Australian Communications and Media Authority

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## **1 Name**

This is the *Radiocommunications Advisory Guidelines (Managing Interference from Spectrum Licensed Transmitters – 3.4 GHz Band) Variation 2023 (No. 1)*.

## **2 Commencement**

This instrument commences on the day after the day it is registered on the Federal Register of Legislation.

Note: The Federal Register of Legislation may be accessed free of charge at [www.legislation.gov.au](http://www.legislation.gov.au).

## **3 Authority**

This instrument is made under section 262 of the *Radiocommunications Act 1992*.

## **4 Amendments**

The instrument that is specified in Schedule 1 is amended as set out in the applicable items in that Schedule.

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## Schedule 1—Amendments

### *Radiocommunications Advisory Guidelines (Managing Interference from Spectrum Licensed Transmitters – 3.4 GHz Band) 2015 (F2015L00728)*

#### 1 Subsection 1.5(1), definition of 3.4 GHz band

Repeal the definition, substitute:

*3.4 GHz band* means the part of the spectrum from 3400 MHz to 3800 MHz.

#### 2 Subsection 1.5(1), definitions of *RALI FX 14* (including the note), *RALI FX 19* (including the note) and *RALI MX 39* (including the note)

Repeal the definitions.

#### 3 Subsection 1.5(1)

Insert:

*RALI MS 47* means the Radiocommunications Assignment and Licensing Instruction MS 47 *Frequency coordination and licensing procedures for Area-Wide Licences (AWL) in the 3400–4000 MHz band*, published by the ACMA.

Note: *RALI MS 47* is available, free of charge, from the ACMA’s website at [www.acma.gov.au](http://www.acma.gov.au).

#### 4 Subsection 1.5(1), definition of *Spectrum Plan*

Repeal the definition, substitute:

*Spectrum Plan* means the plan prepared under subsection 30(1) of the Act.

Note: The *Spectrum Plan* is a legislative instrument and is available, free of charge, from the Federal Register of Legislation at [www.legislation.gov.au](http://www.legislation.gov.au).

#### 5 Section 2.1

Omit “Australia-wide”, substitute “in specified parts of Australia”.

#### 6 Section 2.3

Omit:

- Earth station protection zones (Part 9 of these guidelines);
- Earth station facility near Uralla, NSW (Part 10 of these guidelines).

substitute:

- Adjacent area spectrum licensed licenced receivers (Part 8 of these guidelines);
- Earth station protection zones (Part 9 of these guidelines);
- Earth station facility near Uralla, New South Wales (Part 10 of these guidelines);
- Adjacent frequency wireless broadband services in the 3400–4000 MHz band (Part 11 of these guidelines);
- Geographically adjacent area wide licences (Part 12 of these guidelines);
- Aeronautical mobile and aeronautical radionavigation services operating in the 4200–4400 MHz band (Part 13 of these guidelines).

## 7 Section 2.4

Repeal the section.

## 8 Subparagraph 4.3(1)(c)(ii)

Omit “3700 MHz”, substitute “3800 MHz”.

## 9 After subsection 4.3(4)

Insert:

- (4A) For the purposes of Table 1 in subsection (4), for a licensed FSS earth receive station that is operated in the 3600–4200 MHz frequency band, the assumptions set out in subsections (4B) to (4D) apply.
- (4B) If the licence that authorises the station was issued before 16 July 2022, then, from the commencement of this subsection until 16 July 2027, the filter is assumed to apply only below the lower limit of the licence. In this subsection, **lower limit of the licence** means:
- (a) if the licensee holds only one licence authorising the operation of one relevant station on a particular centre frequency at a specific site and on a specific antenna, subject to a particular bandwidth – the frequency obtained by subtracting, from the particular centre frequency, half the particular bandwidth; or
  - (b) if the licensee holds only one licence authorising the operation of more than one relevant station at the same site and on the same antenna, each on a particular centre frequency and subject to a particular bandwidth – the frequency obtained by subtracting, from the lowest of the particular centre frequencies, half the bandwidth for the device authorised to operate on the lowest of the particular centre frequencies; or
  - (c) if the licensee holds more than one licence authorising the operation of one or more relevant stations at the same site and on the same antenna, each on a particular centre frequency and subject to a particular bandwidth – the frequency obtained by subtracting, from the lowest of the particular centre frequencies, half the bandwidth for the device authorised to operate on the lowest of the particular centre frequencies.
- (4C) If the licence that authorises the station was issued before 16 July 2022, then, on and after 16 July 2027, the filter is assumed to apply below the lower limit for the station and above the upper limit of the station. In this subsection:
- lower limit for the station** means the frequency obtained by subtracting, from the particular centre or emission frequency specified in the licence for the station, half the particular bandwidth specified in the licence for the station.
- upper limit for the station** means the frequency obtained by adding, to the particular centre or emission frequency specified in the licence for the station, half the particular bandwidth specified in the licence for the station.
- (4D) If the licence that authorises the station was issued on or after 16 July 2022, the filter is assumed to apply below the lower limit for the station and above the upper limit of the station. In this subsection, **lower limit for the station** and **upper limit for the station** have the same meaning as in subsection (4C).

**10 Subsection 4.3(4), table 1, heading to column 1**

Omit the heading, substitute:

**Frequency offset from appropriate frequency limit of licence for earth station receiver (MHz)**

**11 Subsection 4.3(4), note**

Omit the note.

**12 Section 4.4, heading**

Omit “3700 MHz”, substitute “3800 MHz”.

**13 Subsection 4.4(1)**

Omit “3700 MHz”, substitute “3800 MHz”.

**14 Paragraph 4.4(1)(b)**

Omit “and”.

**15 Paragraph 4.4(1)(c)**

Omit the paragraph, substitute:

(c) *Radiocommunications (Spectrum Re-allocation – 3.6 GHz Band for Regional Australia) Declaration 2018;*

(d) *Radiocommunications (Spectrum Re-allocation – 3.4 GHz and 3.7 GHz Bands) Declaration 2022.*

**16 Section 5.1**

Omit “RALI FX14, RALI FX19 and RALI MS39”, substitute “RALI MS 47”.

**17 Section 5.2**

Omit “RALI FX14, RALI FX19 and RALI MS39”, substitute “RALI MS 47”.

**18 Section 5.2**

Omit “and PMTS class B receivers”.

**19 After section 6.2**

Add:

Note: This section does not apply in relation to aeronautical mobile services and aeronautical radionavigation services in the 4200-4400 MHz band. For those services, see Part 11.

**20 Subsection 7.1(1)**

Omit “*Radiocommunications (Overseas Amateurs Visiting Australia) Class Licence 2008 and Radiocommunications (Low Interference Potential Devices) Class Licence 2000 class licences*”, substitute “class licences listed in subsection (3)”.

**21 Subsection 7.1(1)**

Omit “3400-3700 MHz band”, substitute “3.4 GHz band”.

## 22 After subsection 7.1(2)

Add:

- (3) For subsection (1), the class licences are:
- (a) the *Radiocommunications (Overseas Amateurs Visiting Australia) Class Licence 2015* or, if a later instrument replaces that class licence, the later instrument; and
  - (b) the *Radiocommunications (Low Interference Potential Devices) Class Licence 2015* or, if a later instrument replaces that class licence, the later instrument.

## 23 Section 7.2

After “a class licence”, insert “listed in subsection 7.1(3)”.

## 24 Section 9.2, note

Omit the note; substitute:

Note: The ACMA may vary RALI MS 44 to change the ESPZs.

## 25 Subsection 10.2(1)

Omit “3600”, substitute “3400”.

## 26 Subsection 10.2(2)

Omit the subsection.

## 27 Section 10.2, note 2

Omit “3700”, substitute “3400”.

## 28 After Part 10

Add:

# Part 11 **Adjacent frequency wireless broadband services in the 3400-4000 MHz band**

## 11.1 Background

- (1) The 3400–3475 MHz band has been identified by the ACMA for use by highly localised wireless broadband services in urban areas. This encompasses public, private and enterprise networks, including services at warehouses, factories, airports, ports, transport hubs, hospitals, schools and smart buildings.
- (2) There are arrangements for area-wide licences to operate in frequencies adjacent to the 3.4 GHz band. These licences are typically used to provide wireless broadband services.

Note: For the conditions that will apply to all such area-wide licences, see the *Radiocommunications Licence Conditions (Area-Wide Licence) Determination 2020*.

## 11.2 Protection requirements

To manage interference between 3.4 GHz band spectrum licences and adjacent frequency wireless broadband services:

- (a) the ACMA intends generally not to issue apparatus licences in the 3470–3475 MHz band for the operation of radiocommunications devices for highly localised wireless broadband services in urban areas; and

- (b) the ACMA intends generally not to issue area-wide licences authorising the operation of radiocommunications transmitters in the 15 MHz of spectrum directly adjacent to a 3.4 GHz band spectrum licence.

## Part 12 Geographically adjacent area wide licences

### 12.1 Background

There are arrangements for area-wide licences to operate in remote areas in the 3.4 GHz band. These licences are typically used to provide wireless broadband services and can be near or geographically adjacent to a 3.4 GHz spectrum licence.

Note: For the conditions that will apply to all such area-wide licences, see the *Radiocommunications Licence Conditions (Area-Wide Licence) Determination 2020*.

### 12.2 Protection requirements

The device boundary criterion, as defined in the subsection 145(4) Determination, is the primary mechanism for managing interference across geographical boundaries from a spectrum licence to an area wide licence. Geographically adjacent area-wide licensees and spectrum licensees are able to agree on the implementation of alternative measures to manage interference.

### 12.3 Interpretation

- (1) In this Part, **area-wide licence** and **area-wide receive licence** have the corresponding meanings given by:
  - (a) the *Radiocommunications (Interpretation) Determination 2015*; or
  - (b) if a later instrument replaces that determination and defines the terms – the later instrument.
- (2) In this Part, a radiocommunications receiver is **operating in relation to a radiocommunications transmitter operated under an area-wide licence** if the radiocommunications receiver is operated:
  - (a) by, or on behalf of, the licensee of an area-wide licence; and
  - (b) for the primary purpose of receiving radiocommunications from a radiocommunications transmitter operated under that area-wide licence.

## Part 13 Aeronautical services

### 13.1 Background

- (1) The Spectrum Plan allocates the 4200–4400 MHz frequency band to the aeronautical mobile service and aeronautical radionavigation service, as primary services.
- (2) The operation of aircraft stations as radio altimeters in the 4200–4400 MHz band is authorised under the *Radiocommunications (Aircraft and Aeronautical Mobile Stations) Class Licence 2016*.
- (3) In this Part, **aeronautical mobile service** and **aircraft station** have the corresponding meanings given by:
  - (a) the *Radiocommunications (Interpretation) Determination 2015*; or
  - (b) if a later instrument replaces that determination and defines the terms – the later instrument.

- (4) In this Part, *aeronautical radionavigation service* has the meaning given by the Spectrum Plan.

### **13.2 Protection requirements**

For spectrum licences, it is recommended when planning and deploying their networks, to take note of the co-existence issues that may arise due to aeronautical radio-navigation services, typically radio altimeters on aircraft, that may operate in the 4200–4400 MHz band. It is also recommended that affected licensees seek to coordinate with airports, heliports and aircraft operators to help prevent, manage and resolve interference that may arise to aeronautical radio-navigation stations.

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