



## **Radiocommunications Spectrum Marketing Plan (850/900 MHz Band) 2021**

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The Australian Communications and Media Authority makes the following plan under section 39A of the *Radiocommunications Act 1992*.

Dated: 19 August 2021

Chris Jose  
[signed]  
Member

Linda Caruso  
[signed]  
~~Member~~/General Manager

Australian Communications and Media Authority

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## Part 1—Preliminary

### 1 Name

This is the *Radiocommunications Spectrum Marketing Plan (850/900 MHz Band) 2021*.

### 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 39A of the *Radiocommunications Act 1992*.

### 4 Purpose of the instrument

This instrument describes the following:

- (a) the procedures for allocating and issuing spectrum licences in the 850/900 MHz band;
- (b) the spectrum licences that will be allocated by the ACMA in accordance with this instrument;
- (c) some of the matters a licensee must take into account when operating radiocommunications devices under a spectrum licence to be allocated and issued in accordance with this instrument;
- (d) some of the other matters which a person should take into account when deciding whether to participate in a price-based allocation for a spectrum licence to be allocated and issued in accordance with this instrument.

### 5 Interpretation

- (1) In this instrument, unless the contrary interpretation appears:

**850/900 MHz band** means the following parts of the spectrum:

- (a) 814 MHz to 825 MHz;
- (b) 859 MHz to 870 MHz;
- (c) 890 MHz to 915 MHz;
- (d) 935 MHz to 960 MHz.

**850 major population product** means the product specified in item 1 of the table in Schedule 1.

**850 regional product** means the product specified in item 2 of the table in Schedule 1.

**900 lower major population product** means the product specified in item 3 of the table in Schedule 1.

**900 lower regional product** means the product specified in item 4 of the table in Schedule 1.

**900 upper major population product** means the product specified in item 5 of the table in Schedule 1.

**900 upper regional product** means the product specified in item 6 of the table in Schedule 1.

**AAS** means an antenna system where the amplitude and/or phase between multiple antenna elements is continually adjusted, resulting in an antenna pattern that varies in response to short term changes in the radio environment.

**Act** means the *Radiocommunications Act 1992*.

**advisory guidelines** means one or both of the following:

- (a) *Radiocommunications Advisory Guidelines (Managing Interference from Spectrum Licensed Transmitters – 850/900 MHz Band) 2021*;
- (b) *Radiocommunications Advisory Guidelines (Managing Interference to Spectrum Licensed Receivers – 850/900 MHz Band) 2021*.

Note: The advisory guidelines are registered on the Federal Register of Legislation and are accessible, free of charge, at [www.legislation.gov.au](http://www.legislation.gov.au).

**allocation determination** means the *Radiocommunications (Spectrum Licence Allocation – 850/900 MHz Band) Determination 2021*.

Note: The allocation determination is registered on the Federal Register of Legislation and is accessible, free of charge, at [www.legislation.gov.au](http://www.legislation.gov.au).

**applicant information package** has the meaning given by subsection 4(1) of the allocation determination.

**area-adjacent spectrum licences**, in relation to a spectrum licence, means spectrum licences that authorise the operation of radiocommunications devices in the geographic areas adjacent to each of the geographic areas for that spectrum licence.

**assignment stage** has the meaning given by subsection 4(1) of the allocation determination.

**assignment price** has the meaning given by subsection 4(1) of the allocation determination.

**auction** has the meaning given by subsection 4(1) of the allocation determination.

**Australian spectrum map grid** or **ASMG** means the *Australian Spectrum Map Grid 2012* published by the ACMA on its website at [www.acma.gov.au](http://www.acma.gov.au).

Note: The Australian spectrum map grid can be accessed, free of charge, on the ACMA website at [www.acma.gov.au](http://www.acma.gov.au).

**balance of the winning price** has the meaning given by subsection 4(1) of the allocation determination.

**bidder** has the meaning given by subsection 4(1) of the allocation determination.

**downshift metropolitan area** means the area set out in item 3 of the table in Schedule 2.

**downshift metropolitan licence**: see subsection 10(21).

**downshift metropolitan lot**: see subsection 10(4).

**downshift regional area** means the area set out in item 4 of the table in Schedule 2.

**downshift regional licence**: see subsection 10(22).

**downshift regional lot**: see subsection 10(5).

**EIRP** has the meaning given by

- (a) the *Radiocommunications (Interpretation) Determination*, as in force from time to time; or

- (b) if another instrument replaces that determination – the other instrument, as in force from time to time.

**frequency-adjacent spectrum licences**, in relation to a spectrum licence, means spectrum licences that authorise the operation of radiocommunications devices in the frequency bands adjacent to each of the frequency bands in which operation of a radiocommunications device is authorised under that spectrum licence.

**geographic area**, for a spectrum licence, means the area within which operation of a radiocommunications device is authorised under the licence.

**HCIS identifier** means an identifier used to describe an area in the HCIS.

**hierarchical cell identification scheme** or **HCIS** means the cell grouping hierarchy scheme used to describe areas in the ASMG.

**Licence Schedule** means a schedule to the sample spectrum licence.

**lot**: see subsections 10(2) and 10(3).

**lot bandwidth**: see subsection 10(6).

**lot rating** has the meaning given by subsection 4(1) of the allocation determination.

**major population area** means the area set out in item 1 of the table in Schedule 2.

**Mid-West Radio Quiet Zone** means the RQZ, as defined in:

- (a) section 4 of the *Radiocommunications (Mid-West Radio Quiet Zone) Frequency Band Plan 2011*, as in force from time to time; or
- (b) if another instrument replaces that plan – the other instrument, as in force from time to time.

**primary price** has the meaning given by subsection 4(1) of the allocation determination.

**primary stage** has the meaning given by subsection 4(1) of the allocation determination.

**product**: see subsection 10(1).

**provisional minimum spectrum requirement** has the meaning given by subsection 4(1) of the allocation determination.

**provisional start demand** has the meaning given by subsection 4(1) of the allocation determination.

**re-allocation declaration** means the *Radiocommunications (Spectrum Re-allocation – 850/900 MHz Band) Declaration 2020*.

Note: The re-allocation declaration is registered on the Federal Register of Legislation and is accessible, free of charge, at [www.legislation.gov.au](http://www.legislation.gov.au).

**re-allocation period** means the re-allocation period determined in the re-allocation declaration.

**region**: see clause 1 of Schedule 2.

**regional area** means the area set out in item 2 of the table in Schedule 2.

**residual lot** has the meaning given by subsection 4(1) of the allocation determination.

**sample spectrum licence**: see section 22.

**secondary price** has the meaning given by subsection 4(1) of the allocation determination.

**secondary stage** has the meaning given by subsection 4(1) of the allocation determination.

**set-aside applicant** has the meaning given by subsection 4(1) of the allocation determination.

**set-aside lot** has the meaning given by subsection 4(1) of the allocation determination.

**set-aside participant** has the meaning given by subsection 4(1) of the allocation determination.

**set-aside price** has the meaning given by subsection 4(1) of the allocation determination.

**spectrum licence limits direction** means the *Radiocommunications (Spectrum Licence Limits – 850/900 MHz Band) Direction 2021*.

**winning bidder** has the meaning given by subsection 4(1) of the allocation determination.

Note: A number of other expressions used in this instrument are defined in the Act, including the following:

- (a) ACMA;
- (b) apparatus licence;
- (c) core condition;
- (d) frequency band;
- (e) interference;
- (f) licensee;
- (g) public interest statement;
- (h) radio emission;
- (i) radiocommunications device;
- (j) radiocommunications receiver;
- (k) radiocommunications transmitter;
- (l) Register;
- (m) renewal application period;
- (n) renewal application period statement;
- (o) renewal decision-making period;
- (p) renewal decision-making period statement;
- (q) renewal statement;
- (r) spectrum licence;
- (s) transmitter licence.

- (2) In this instrument, a reference to a part of the spectrum, a frequency band or a frequency range includes all frequencies that are greater than but not including the lower frequency, up to and including the higher frequency.

Note: This means the lower number in the reference to a part of the spectrum, a frequency band or a frequency range is not included in the part of the spectrum, the frequency band or the frequency range.

## 6 References to other instruments

In this instrument, unless the contrary intention appears:

- (a) a reference to another legislative instrument is a reference to that other legislative instrument as in force from time to time; and

(b) a reference to any other kind of instrument or writing is a reference to that other instrument or writing as in force or existing from time to time.

Note 1: For references to Commonwealth Acts, see section 10 of the *Acts Interpretation Act 1901*; and see also subsection 13(1) of the *Legislation Act 2003* for the application of the *Acts Interpretation Act 1901* to legislative instruments.

Note 2: All Commonwealth Acts and legislative instruments are registered on the Federal Register of Legislation and are accessible, free of charge, at [www.legislation.gov.au](http://www.legislation.gov.au).

Note 3: See section 314A of the Act.



## Part 2—Allocation of spectrum licences

### 7 Simplified outline of this Part

This Part describes the procedures for allocating spectrum licences that authorise the operation of radiocommunications devices in the 850/900 MHz band.

### 8 Parts of the spectrum

The ACMA will allocate and issue spectrum licences for spectrum in the 850/900 MHz band in the manner described in this instrument and the allocation determination.

### 9 How spectrum licences will be allocated

- (1) Subject to subsections (2), (3) and (4), spectrum licences for spectrum in the 850/900 MHz band will be allocated by auction in accordance with the procedures set out in the allocation determination.

Note: Neither the ACMA nor the Commonwealth accepts any liability for any loss or damage suffered by any person participating in the auction. Any person intending to participate in the auction should obtain independent legal, technical and financial advice before applying.

- (2) The downshift metropolitan licence will be allocated to a particular bidder, in accordance with subsections 10(16) and 10(21) of this instrument and Schedule 4 to the allocation determination.
- (3) The downshift regional licence will be allocated to a particular bidder, in accordance with subsections 10(17) and 10(22) of this instrument and Schedule 4 to the allocation determination.
- (4) Some spectrum licences will be allocated on the basis of set-aside lots, in accordance with subsections 10(13) to 10(15) of this instrument and Schedules 1 and 4 to the allocation determination.

### 10 The allocation process

#### *Generally*

- (1) The ACMA has divided up the 850/900 MHz band, other than the downshift metropolitan lot and the downshift regional lot, into **products** described in Schedule 1. Each product is characterised by:
  - (a) the region for the product, specified in column 5 of the table in Schedule 1; and
  - (b) the two frequency ranges for the product specified in columns 3 and 4 of the table in Schedule 1.
- (2) The number of units of each product that will be available at the auction is set out in column 6 of the table in Schedule 1. A unit of a product is referred to in this instrument as a **lot**.

Note: However, see subsections (13) to (15) for how many units of the 900 upper major population product and of the 900 upper regional product may be available for bidding during the primary stage or secondary stage.

- (3) Each of the downshift metropolitan lot and the downshift regional lot is also a **lot**.

- (4) The frequency ranges:  
(a) 824 MHz to 825 MHz; and  
(b) 869 MHz to 870 MHz;  
in the downshift metropolitan area constitute the *downshift metropolitan lot*.
- (5) The frequency ranges:  
(a) 824 MHz to 825 MHz; and  
(b) 869 MHz to 870 MHz;  
in the downshift regional area constitute the *downshift regional lot*.
- (6) The *lot bandwidth* for a lot is:  
(a) for a lot other than the downshift metropolitan lot and the downshift regional lot – 10 MHz: or  
(b) for the downshift metropolitan lot and the downshift regional lot – 2 MHz.
- (7) For the lot of the 900 lower major population product and the lot of the 900 lower regional product:  
(a) 5 MHz of the lot bandwidth is located in the part of the spectrum from 890 MHz to 895 MHz; and  
(b) 5 MHz of the lot bandwidth is located in the part of the spectrum from 935 MHz to 940 MHz.
- (8) For each lot of the 900 upper major population product, and for each lot of the 900 upper regional product:  
(a) 5 MHz of the lot bandwidth is located in the part of the spectrum from 895 MHz to 915 MHz; and  
(b) 5 MHz of the lot bandwidth is located in the corresponding position in the part of the spectrum from 940 MHz to 960 MHz.
- (9) For each lot of the 850 major population product, and for each lot of the 850 regional product:  
(a) 5 MHz of the lot bandwidth is located in the part of the spectrum from 814 MHz to 824 MHz; and  
(b) 5 MHz of the lot bandwidth is located in the corresponding position in the part of the spectrum from 859 MHz to 869 MHz.
- (10) Subject to subsection (11), the ACMA will set a lot rating for the lots of each product under paragraph 28(1)(b) of the allocation determination.  
Note: See also paragraph 43(1)(b) of the allocation determination.
- (11) There is no lot rating for the downshift metropolitan lot or the downshift regional lot.
- (12) The auction will be held in accordance with the procedures set out in the allocation determination. Subject to this instrument and the allocation determination, all lots of each product will be available for allocation in accordance with the allocation determination.  
Note: See also the spectrum licence limits direction.

#### *The set-aside lots*

- (13) In accordance with the spectrum licence limits direction and the allocation determination, each set-aside applicant will be able, on application under the allocation determination, to elect to take up both a set-aside lot of the 900 upper major population product and a set-aside lot of the 900 upper regional product, and become a set-aside participant.  
Note: See section 6 of the spectrum licence limits direction.

- (14) Subject to the allocation determination, before the primary stage of the auction:
- (a) one lot of the 900 upper major population product will be allocated to each set-aside participant; and
  - (b) one lot of the 900 upper regional product will be allocated to each set-aside participant.

Note: See Schedules 1 and 4 to the allocation determination.

- (15) If one or more set-aside applicants elect to take up a set-aside lot of both the 900 upper major population product and the 900 upper regional product, and become a set-aside participant, then:
- (a) for each such set-aside participant:
    - (i) the number of lots of the 900 upper major population product available to all bidders in the primary stage is reduced by one; and
    - (ii) the number of lots of the 900 upper regional product available to all bidders in the primary stage is reduced by one; and
  - (b) subject to the allocation determination, each such set-aside participant will be entitled to participate in the assignment stage in relation to the set-aside lots; and
  - (c) the set-aside price for the set-aside lots will form part or all of the winning price to be paid by each such set-aside participant.

Note: See section 6 of the spectrum licence limits direction.

*The downshift metropolitan lot and the downshift regional lot*

- (16) If a bidder is allocated the one lot of the 900 lower major population product in the primary stage or secondary stage of the auction, then the downshift metropolitan lot is allocated to that bidder.
- (17) If a bidder is allocated the one lot of the 900 lower regional product in the primary stage or secondary stage of the auction, then the downshift regional lot is allocated to that bidder.

Note: See Schedule 4 to the allocation determination.

*Stages of the auction*

- (18) The auction will be carried out in the following four stages:
- (a) subject to the allocation determination, before the primary stage, any set-aside lots will be allocated to set-aside participants at the set-aside price;
  - (b) the primary stage, at which available lots are offered and which determines the number of available lots of each product allocated to, and the primary price to be paid by, each winning bidder in accordance with the allocation determination;
  - (c) the secondary stage, at which residual lots are offered and which determines the number of such lots allocated to, and the secondary price to be paid by, each winning bidder in accordance with the allocation determination;
  - (d) the assignment stage, which:
    - (i) determines frequency ranges assigned to the lots of each product allocated to each winning bidder (including a set-aside lot), and the assignment price to be paid in accordance with the allocation determination; and
    - (ii) may result in the allocation of the downshift metropolitan lot and the downshift regional lot.

Note 1: The allocation determination sets out the detailed rules and procedures for each stage of the auction.

Note 2: As there is only one lot available in each of the 900 lower major population product and the 900 lower regional product, there will be no assignment round for these products in the assignment stage.

- (19) The primary stage includes a pre-bidding phase that allows bidders to change or confirm their provisional start demands and provisional minimum spectrum requirements, subject to the requirements of the allocation determination.

#### *Issuing licences*

- (20) Subject to the requirements of the Act, any other relevant laws, this instrument and the allocation determination, the ACMA will issue a spectrum licence to each winning bidder allocated one or more lots in the auction (including a set-aside lot). The spectrum licence will be for the number of lots of each product allocated to that winning bidder during the primary stage or secondary stage, and for any set-aside lot allocated to that winning bidder, at the frequency ranges assigned to that person for those lots during the assignment stage of the auction, in the region for the relevant product.
- (21) Despite subsection (20), if a person is allocated the downshift metropolitan lot, then a separate spectrum licence will be issued to that person solely for the frequency ranges represented by the downshift metropolitan lot, in the downshift metropolitan area (***downshift metropolitan licence***).
- (22) Despite subsection (20), if a person is allocated the downshift regional lot, then a separate spectrum licence will be issued to that person solely for the frequency ranges represented by the downshift regional lot, in the downshift regional area (***downshift regional licence***).

### **11 Advertising the auction**

The ACMA will publish details of the auction and invite persons to apply to take part in the auction, in accordance with the allocation determination.

### **12 Taking part in the auction**

- (1) The ACMA will make available an applicant information package that contains details about application requirements and the auction process in accordance with the allocation determination. Details of what must be in the applicant information package are in subsection 30(1) of the allocation determination.
- (2) Details of how to apply to take part in the auction are set out in Part 4 of the allocation determination.

## **Part 3—Spectrum licences to be issued**

### **13 Simplified outline of this Part**

This Part describes the following:

- (a) the spectrum licences that will be issued in accordance with this instrument;
- (b) conditions and renewal statements to be included in spectrum licences to be issued in accordance with this instrument;
- (c) some of the matters a licensee must take into account when operating radiocommunications devices under a spectrum licence to be issued in accordance with this instrument;
- (d) some of the other matters which a person should take into account when deciding whether to participate in an auction for a spectrum licence to be issued in accordance with this instrument.

### **14 Issue of spectrum licences and payment of spectrum access charges**

Subject to the Act, the allocation determination and other relevant law, the ACMA will issue a spectrum licence to a winning bidder, as soon as practicable after the winning bidder pays to the ACMA the balance of the winning price in accordance with Schedule 5 to the allocation determination.

### **15 Commencement of spectrum licences**

A spectrum licence issued to a person as a result of the allocation determination will come into force on 1 July 2024.

### **16 Duration of spectrum licences**

- (1) Subject to subsection (2), a spectrum licence issued to a person as a result of the allocation determination will remain in force for a period of 20 years, starting on 1 July 2024.

Note: These licences will cease to be in force at the end of 30 June 2044.

- (2) The downshift metropolitan licence and the downshift regional licence will remain in force for the period:
  - (a) starting on 1 July 2024; and
  - (b) ending at the end of 17 June 2028.

Note: In accordance with the Act, a spectrum licence may be resumed or cancelled before the expiry date.

### **17 Statements relating to renewal**

- (1) A spectrum licence issued to a person as a result of the allocation determination, other than the downshift metropolitan licence and the downshift regional licence:
  - (a) will include a renewal statement that the licence may be renewed at the discretion of the ACMA; and

- (b) will include a renewal application period statement that specifies the period:
  - (i) commencing at the start of 1 July 2039; and
  - (ii) ending at the end of 31 December 2039;as the renewal application period for the licence; and
- (c) will include a renewal decision-making period statement that specifies the period:
  - (i) commencing at the start of 1 January 2040; and
  - (ii) ending at the end of 31 December 2041;as the renewal decision-making period for the licence; and
- (d) will not include a public interest statement.

Note: See section 65A of the Act.

- (2) Each of the downshift metropolitan licence and the downshift regional licence:
  - (a) will include a renewal statement that the licence may be renewed at the discretion of the ACMA; and
  - (b) will include a renewal application period statement that specifies the period:
    - (i) commencing at the start of 18 June 2026; and
    - (ii) ending at the end of 17 September 2026;as the renewal application period for the licence; and
  - (c) will include a renewal decision-making period statement that specifies the period:
    - (i) commencing at the start of 18 September 2026; and
    - (ii) ending at the end of 17 September 2027;as the renewal decision-making period for the licence; and
  - (d) will not include a public interest statement.

Note: See section 65A of the Act.

## 18 Core licence conditions

- (1) Section 66 of the Act requires spectrum licences to include the following core conditions:
  - (a) a condition specifying the part or parts of the spectrum in which operation of radiocommunications devices is authorised under the licence;
  - (b) a condition specifying the maximum permitted level of radio emission, in parts of the spectrum outside such a part, that may be caused by operation of radiocommunications devices under the licence;
  - (c) a condition specifying the area within which operation of radiocommunications devices is authorised under the licence;
  - (d) a condition specifying the maximum permitted level of radio emission, outside that area, that may be caused by operation of radiocommunications devices under the licence.
- (2) These core conditions will be included in each spectrum licence to be issued in accordance with this instrument.

Note: These core conditions may be varied by the ACMA, with the licensee's agreement, under section 72 of the Act.

## 19 Determining core licence conditions

- (1) For each spectrum licence issued to a person as a result of the auction, other than the downshift metropolitan licence and the downshift regional licence:
  - (a) the licence will be for the frequency ranges, or the aggregation of the frequency ranges, assigned to the lots of each product allocated to the person in accordance with the allocation determination; and

- (b) the geographic areas for the licence will be, for each of the frequency ranges assigned to the lots of a product allocated to the person in accordance with the allocation determination, the region described in Schedule 2 that is the region for lots of that product.
- (2) For the downshift metropolitan licence:
  - (a) the licence will be for the frequency ranges of the downshift metropolitan lot; and
  - (b) the geographic area for the licence will be the downshift metropolitan area.
- (3) For the downshift regional licence:
  - (a) the licence will be for the frequency ranges of the downshift regional lot; and
  - (b) the geographic area for the licence will be the downshift regional area.
- (4) The emission limits outside the geographic area for each spectrum licence to be issued in accordance with this instrument will be calculated in accordance with Schedule 3.
- (5) The emission limits outside the part or parts of the spectrum for each spectrum licence to be issued in accordance with this instrument will be calculated in accordance with Schedule 4.

## 20 Other licence conditions

- (1) Each spectrum licence will also include conditions about the following:
  - (a) the payment of charges and taxes (section 67 of the Act);
  - (b) use by third parties (section 68 of the Act);
  - (c) registration of radiocommunications transmitters (section 69 of the Act);
  - (d) residency (section 69A of the Act).
- (2) Each spectrum licence will also include conditions about coordination for the purposes of the Mid-West Radio Quiet Zone.
- (3) Under section 71 of the Act, the ACMA may also include conditions about other matters as it thinks fit.
- (4) Other conditions likely to be included in a spectrum licence are included in the sample spectrum licence. The ACMA may include conditions in a spectrum licence that are not included in the sample spectrum licence.

## 21 Registration of radiocommunications transmitters

- (1) Each spectrum licence will include a condition that prohibits operation of a radiocommunications transmitter unless the requirements under Part 3.5 of the Act to have the transmitter registered have been met.

Note 1: Under subsection 145(1) of the Act, the ACMA may refuse to include in the Register details of a radiocommunications transmitter that is proposed to be operated under a spectrum licence if the ACMA is satisfied that operation of the transmitter could cause an unacceptable level of interference to the operation of other radiocommunications devices under that or any other licence.

Note 2: Subsection 145(4) of the Act states that the ACMA may determine, by written instrument, what are unacceptable levels of interference for the purposes of section 145 of the Act.

Note 3: The *Radiocommunications (Unacceptable Levels of Interference — 850/900 MHz Band) Determination 2021* sets out what are the unacceptable levels of interference for the purpose of registering radiocommunications transmitters to be operated under a spectrum licence to be issued in accordance with this instrument, and is to be used for the issue of certificates by accredited persons under subsection 145(3) of the Act. The *Radiocommunications (Unacceptable Levels of Interference – 850/900 MHz Band) Determination 2021* is registered on the Federal Register of Legislation and is accessible, free of charge, at [www.legislation.gov.au](http://www.legislation.gov.au).

- (2) Each spectrum licence will include a condition that states that the following radiocommunications transmitters are exempt from registration:
- (a) a radiocommunications transmitter that operates with a radiated maximum true mean power that is less than or equal to 25 dBm EIRP per occupied bandwidth in:
    - (i) the frequency range 814 MHz to 825 MHz; or
    - (ii) the frequency range 890 MHz to 915 MHz;
  - (b) a radiocommunications transmitter that operates with a radiated maximum true mean power that is less than or equal to 30 dBm EIRP per occupied bandwidth in:
    - (i) the frequency range 859 MHz to 870 MHz; or
    - (ii) the frequency range 935 MHz to 960 MHz.

## 22 Sample spectrum licence

Schedule 5 sets out a sample spectrum licence (*sample spectrum licence*) including conditions and statements relating to renewal that may be included in each spectrum licence that is issued in the 850/900 MHz band, other than the downshift metropolitan licence and the downshift regional licence.

Note 1: The ACMA may include conditions and statements in a spectrum licence that are not included in the sample spectrum licence and not set out in this Part. The conditions and statements may be varied in accordance with the Act.

Note 2: No sample of the downshift metropolitan licence or the downshift regional licence is included in this instrument.

## 23 Advisory guidelines

The advisory guidelines provide a means of coordinating services operating under spectrum licences with other services.



## Part 4—After allocation

### 24 Simplified outline of this Part

This Part describes various matters that apply after spectrum licences are issued in accordance with this instrument.

### 25 Registration of spectrum licences

The ACMA will register all spectrum licences in accordance with Part 3.5 of the Act.

Note: Details about registration are in the *Radiocommunications (Register of Radiocommunications Licences) Determination 2017*, which is registered on the Federal Register of Legislation and is accessible, free of charge, at [www.legislation.gov.au](http://www.legislation.gov.au).

### 26 Third party use

A licensee may authorise other persons to operate radiocommunications devices under any spectrum licence issued to it, provided it does so in accordance with Division 1 of Part 3.2 of the Act.

### 27 Trading in spectrum licences

- (1) A licensee may assign, or otherwise deal with, the whole or any part of a spectrum licence, provided it does so in accordance with Division 5 of Part 3.2 of the Act.
- (2) The ACMA has made rules under section 88 of the Act to regulate trading in spectrum licences. Subsection 85(2) of the Act requires assignments of the whole or part of any spectrum licence to comply with these rules.

Note: At the time this instrument was made, the rules were set out in the *Radiocommunications (Trading Rules for Spectrum Licences) Determination 2012*, which is registered on the Federal Register of Legislation and is accessible, free of charge, at [www.legislation.gov.au](http://www.legislation.gov.au).

### 28 Agreements about emission limits

- (1) A licensee may enter into an agreement for the purposes of clause 1 of Schedule 3 (about emission limits outside the area of the licence).
- (2) A licensee may enter into an agreement for the purposes of clause 1 of Schedule 4 (about emission limits outside the frequency band of the licence).

### 29 Spectrum licences that are about to expire

As required by section 78 of the Act, the ACMA must, from time to time, publish on its website a notice that:

- (a) states where information may be obtained about:
  - (i) the spectrum licences that will expire during a period specified in the notice; and
  - (ii) the parts of the spectrum to which they relate; and
- (b) invites expressions of interest from persons who wish to have issued to them spectrum licences relating to those parts of the spectrum.

### 30 Renewal of spectrum licences

- (1) The ACMA may renew spectrum licences in accordance with Division 3A of Part 3.2 of the Act.

- (2) The ACMA may request further information in connection with an application for renewal, in accordance with section 77B of the Act.
- (3) The ACMA must not renew a spectrum licence for a period of 10 years or longer unless satisfied that it is in the public interest to do so, in accordance with subsection 77C(5) of the Act.
- (4) If the ACMA renews a spectrum licence, the conditions of the new spectrum licence need not be the same as those of the licence it replaces.

### **31 Re-allocation of spectrum licences**

If a spectrum licence is not renewed, the ACMA may re-allocate the spectrum licence in accordance with section 80 of the Act, and issue it to the person to whom it is re-allocated.

## Schedule 1—Products

(subsections 5(1), and 10(1) and (2))

<b>Column 1</b>	<b>Column 2</b>	<b>Column 3</b>	<b>Column 4</b>	<b>Column 5</b>	<b>Column 6</b>
<b>Product</b>	<b>Product name</b>	<b>Lower frequency range</b>	<b>Upper frequency range</b>	<b>Region</b>	<b>No. of lots</b>
1 850MAJ01	850 major population product	814 MHz to 824 MHz	859 MHz to 869 MHz	Major population area	2
2 850REG01	850 regional product	814 MHz to 824 MHz	859 MHz to 869 MHz	Regional area	2
3 900MAJ01	900 lower major population product	890 MHz to 895 MHz	935 MHz to 940 MHz	Major population area	1
4 900REG01	900 lower regional product	890 MHz to 895 MHz	935 MHz to 940 MHz	Regional area	1
5 900MAJ02	900 upper major population product	895 MHz to 915 MHz	940 MHz to 960 MHz	Major population area	4
6 900REG02	900 upper regional product	895 MHz to 915 MHz	940 MHz to 960 MHz	Regional area	4

Note 1: Column 1 is included for information only.

Note 2: For the 900 upper major population product and the 900 upper regional product, there may be fewer than 4 lots available to bid on during the primary stage of the auction: see section 10.

Note 3: The downshift metropolitan lot and the downshift regional lot are not lots of a product.

## Schedule 2—Regions

(subsection 5(1), and paragraphs 19(1)(b), (2)(b) and (3)(b))

### 1 The regions

- (1) Each of the areas named in column 1 of the table in this Schedule is a *region*.
- (2) The regions are described using the hierarchical cell identification scheme in the ASMG. The regions are described by the HCIS identifiers specified in column 2 of the table for each region. There are four levels to the HCIS that are typically used in relation to spectrum licences, corresponding to 3 degree cells, 1 degree cells, 15 minute cells and 5 minute cells of the ASMG.
- (3) The geographic area of each region can be determined by the aggregation of block areas represented by the HCIS identifiers used to describe the region. Refer to the ASMG for a complete description of the HCIS naming convention.

### HCIS identifiers for spectrum licences in the 850/900 MHz band

Column 1	Column 2
Region	HCIS identifiers
1 Major population area	NT, NU, AV9, AW3, BV4, BV7, BW1, BW5, GO7, GO8, KX3, KX6, LQ1, LQ2, LQ4, LQ5, LQ7, LQ8, LR2, LR3, LR6, LW6, LW7, LX1, LX4, MR1, MR4, MR5, MR8, MR9, MS2, MS3, MV6, MV8, MV9, MW1, MW2, MW3, MW4, MW5, MW6, NS4, NS7, NS8, NS9, NV1, NV2, NV3, NV4, NV5, NV7, BV1E, BV1F, BV1G, BV1H, BV1I, BV1J, BV1K, BV1L, BV1M, BV1N, BV1O, BV1P, BV2E, BV2F, BV2I, BV2J, BV2K, BV2L, BV2M, BV2N, BV2O, BV2P, BV5A, BV5B, BV5C, BV5D, BV5E, BV5F, BV5G, BV5H, BV5I, BV5J, BV5K, BV5L, BV5M, BV5N, BV5O, BV8A, BV8B, BV8C, BV8E, BV8F, BV8G, BV8I, BV8J, BV8K, BV8M, BV8N, BV8O, BW2A, BW2B, BW2C, BW2E, BW2F, BW2G, BW2I, BW2J, BW2K, BW2M, BW2N, BW2O, BW2P, IW3F, IW3G, IW3H, IW3J, IW3K, IW3L, IW3N, IW3O, IW3P, IW6B, IW6C, IW6D, IW6F, IW6G, IW6H, IW6J, IW6K, IW6L, JW1E, JW1I, JW1M, JW4A, JW4B, KW9I, KW9J, KW9K, KW9L, KW9M, KW9N, KW9O, KW9P, KX2H, KX2L, KX2P, KX5D, KX5G, KX5H, KX5K, KX5L, KX5O, KX5P, LW3L, LW3M, LW3N, LW3O, LW3P, LW4M, LW4N, LW4O, LW4P, LW5L, LW5M, LW5N, LW5O, LW5P, LW8A, LW8B, LW8C, LW8D, LW8E, LW8F, LW8G, LW8H, LW8I, LW8J, LW8K, LW8M, LW8N, LW9A, LW9B, LW9E, LX2A, LX2B, LX2C, LX2E, LX2F, LX2G, LX2I, LX2J, LX2K, LX2M, LX2N, LX2O, LX5A, LX5B, LX5C, LX5E, LX5F, LX5G, LX5I, LX5J, LX5K, LX5M, LX5N, LX5O, LY8L, LY8P, LY9I, LY9J, LY9K, LY9L, LY9M, LY9N, LY9O, LY9P, LZ2D, LZ2H, LZ3A, LZ3B, LZ3C, LZ3D, LZ3E, LZ3F, LZ3G, LZ3H, MR7A, MR7B, MR7C, MR7D, MR7E, MR7F, MR7G, MR7H, MR7J, MR7K, MR7L, MR7O, MR7P, MS1D, MS5C, MS5D, MS5H, MS6A, MS6B, MS6C, MS6D, MS6E, MS6F, MS6G, MS6H, MS6I, MS6J, MS6K, MS6L, MS6N, MS6O, MS6P, MS9C, MS9D, MS9H, MU6L, MU6P, MU9O, MU9P, MV3C, MV3D, MV3G, MV3H, MV3K, MV3L, MV3O, MV3P, MV7C, MV7D, MV7G, MV7H, MV7K, MV7L, MV7O, MV7P, NW1A, NW1B, NW1C, NW1D, NW1E, NW1F, NW1G, NW1H, NW1I, NW1J, NW1K, NW1L, BV1A4, BV1A5, BV1A6, BV1A7, BV1A8, BV1A9, BV1B4, BV1B5, BV1B6, BV1B7, BV1B8, BV1B9, BV1C4, BV1C5, BV1C6, BV1C7, BV1C8, BV1C9, BV1D4, BV1D5, BV1D6, BV1D7, BV1D8, BV1D9, BV2A4, BV2A5, BV2A6, BV2A7, BV2A8, BV2A9, BV2B4, BV2B5, BV2B6, BV2B7, BV2B8, BV2B9, BV2G7, BV2G8, BV2G9, BV2H7, BV2H8, BV2H9, BV5P1, BV5P4, BV5P7, BV8D1, BV8D4, BV8D7, BV8H1, BV8H4, BV8H7, BV8L1, BV8L4, BV8L7, BV8P1, BV8P4, BV8P7, BW2D1, BW2D4, BW2D7, BW2H1, BW2H4, BW2H7, BW2L1, BW2L4, BW2L7, IW3E2, IW3E3, IW3E5, IW3E6, IW3E8, IW3E9, IW3I2, IW3I3, IW3I5, IW3I6, IW3I8, IW3I9, IW3M2,

IW3M3, IW3M5, IW3M6, IW3M8, IW3M9, IW6A2, IW6A3, IW6A5, IW6A6, IW6A8, IW6A9, IW6E2, IW6E3, IW6E5, IW6E6, IW6E8, IW6E9, IW6I2, IW6I3, IW6I5, IW6I6, IW6I8, IW6I9, JW1N4, JW1N5, JW1N6, JW1N7, JW1N8, JW1N9, JW4E1, JW4E2, JW4E3, JW4E4, JW4E5, JW4E6, JW4E7, JW4F1, JW4F2, JW4F3, JW4F4, JW4F5, JW4F6, JW4I1, JW4I4, JW4I7, KW8L2, KW8L3, KW8L5, KW8L6, KW8L8, KW8L9, KW8P2, KW8P3, KW8P5, KW8P6, KW8P8, KW8P9, KX2C8, KX2C9, KX2D2, KX2D3, KX2D5, KX2D6, KX2D7, KX2D8, KX2D9, KX2G2, KX2G3, KX2G5, KX2G6, KX2G8, KX2G9, KX2K2, KX2K3, KX2K5, KX2K6, KX2K8, KX2K9, KX2O2, KX2O3, KX2O5, KX2O6, KX2O8, KX2O9, KX5B5, KX5B6, KX5B8, KX5B9, KX5C2, KX5C3, KX5C4, KX5C5, KX5C6, KX5C7, KX5C8, KX5C9, KX5F2, KX5F3, KX5F5, KX5F6, KX5F8, KX5F9, KX5J2, KX5J3, KX5J5, KX5J6, KX5J8, KX5J9, KX5N2, KX5N3, KX5N5, KX5N6, KX5N8, KX5N9, KX8B2, KX8B3, KX8B5, KX8B6, KX8C1, KX8C2, KX8C3, KX8C4, KX8C5, KX8C6, KX8D1, KX8D2, KX8D3, KX8D4, KX8D5, KX8D6, KX9A1, KX9A2, KX9A3, KX9A4, KX9A5, KX9A6, KX9B1, KX9B2, KX9B3, KX9B4, KX9B5, KX9B6, KX9C1, KX9C2, KX9C3, KX9C4, KX9C5, KX9C6, KX9D1, KX9D2, KX9D3, KX9D4, KX9D5, KX9D6, LX7A1, LX7A2, LX7A3, LX7A4, LX7A5, LX7A6, LX7B1, LX7B2, LX7B3, LX7B4, LX7B5, LX7B6, LX7C1, LX7C2, LX7C3, LX7C4, LX7C5, LX7C6, LX7D1, LX7D2, LX7D3, LX7D4, LX7D5, LX7D6, LX8A1, LX8A2, LX8A3, LX8A4, LX8A5, LX8A6, LX8B1, LX8B2, LX8B3, LX8B4, LX8B5, LX8B6, LX8C1, LX8C2, LX8C3, LX8C4, LX8C5, LX8C6, LY8H7, LY8H8, LY8H9, LY9E7, LY9E8, LY9E9, LY9F7, LY9F8, LY9F9, LY9G7, LY9G8, LY9G9, LY9H7, LY9H8, LY9H9, LZ2L1, LZ2L2, LZ2L3, LZ3I1, LZ3I2, LZ3I3, LZ3J1, LZ3J2, LZ3J3, LZ3K1, LZ3K2, LZ3K3, LZ3L1, LZ3L2, LZ3L3, NW1M1, NW1M2, NW1M3, NW1M4, NW1M5, NW1M7, NW1M8, NW1N1, NW1N2, NW1N3, NW1O1, NW1O2, NW1O3, NW1P1, NW1P2, NW1P3

## 2 Regional area

BR, BS, BU, CR, CS, CT, CU, CV, DQ, DR, DS, DT, DU, DV, EP, EQ, ER, ES, ET, EU, FP, FQ, FR, FS, FT, FU, GP, GQ, GR, GS, GT, GU, HO, HP, HQ, HR, HS, HT, HU, IO, IP, IQ, IR, IS, IT, IU, IV, JO, JP, JQ, JR, JS, JT, JU, JV, KQ, KR, KS, KT, KU, KV, LS, LT, LU, LV, MT, AR8, AR9, AS2, AS3, AS5, AS6, AS8, AS9, AT1, AT2, AT3, AT5, AT6, AT8, AT9, AU2, AU3, AU6, AU9, BT1, BT2, BT3, BV3, BV6, BV9, BW3, BW6, CW1, CW2, CW3, CW4, DW1, DW2, DW3, EV1, EV2, EV3, EV4, EV5, EV6, EV7, FV1, FV2, FV3, FV4, FV5, GO3, GO4, GO5, GO6, GO9, GV1, GV2, GV3, GV6, HV1, HV2, HV3, HV4, HV5, HV6, HV8, HV9, HW3, HW6, IW1, IW2, IW4, IW5, IW7, IW8, IW9, JW2, JW3, JW5, JW6, JW7, JW8, JW9, JX1, JX2, JX3, JX5, JX6, KO1, KO4, KO5, KO7, KO8, KP1, KP2, KP4, KP5, KP6, KP7, KP8, KP9, KW1, KW2, KW3, KW4, KW5, KW6, KW7, KX1, KX4, KY2, KY3, KY6, LP4, LP7, LR1, LR4, LR5, LR7, LR8, LR9, LW1, LW2, LX3, LX6, LX9, LY1, LY2, LY3, LY4, LY5, LY6, LY7, LZ1, MS4, MS7, MS8, MU1, MU2, MU3, MU4, MU5, MU7, MU8, MV1, MV2, MV4, MV5, MW7, MW8, MW9, MX1, MX2, MX3, MX4, MX7, MY1, MY4, MY7, MZ1, BT4A, BT4B, BT4C, BT4E, BT4F, BT4G, BT4I, BT4J, BT4K, BT4M, BT4N, BT4O, BT6C, BT6D, BT6G, BT6H, BT6K, BT6L, BT6O, BT6P, BT7A, BT7B, BT7C, BT7E, BT7F, BT7G, BT7I, BT7J, BT7K, BT7L, BT7M, BT7N, BT7O, BT7P, BT8I, BT8J, BT8K, BT8L, BT8M, BT8N, BT8O, BT8P, BT9C, BT9D, BT9G, BT9H, BT9I, BT9J, BT9K, BT9L, BT9M, BT9N, BT9O, BT9P, BV2C, BV2D, IW3A, IW3B, IW3C, IW3D, IW6M, IW6N, IW6O, IW6P, JW1A, JW1B, JW1C, JW1D, JW1F, JW1G, JW1H, JW1I, JW1K, JW1L, JW1O, JW1P, JW4C, JW4D, JW4G, JW4H, JW4J, JW4K, JW4L, JW4M, JW4N, JW4O, JW4P, KW8A, KW8B, KW8C, KW8D, KW8E, KW8F, KW8G, KW8H, KW8I, KW8J, KW8K, KW8M, KW8N, KW8O, KW9A, KW9B, KW9C, KW9D, KW9E, KW9F, KW9G, KW9H, KX2A, KX2B, KX2E, KX2F, KX2I, KX2J, KX2M, KX2N, KX5A, KX5E, KX5I, KX5M, KX8A, KX8E, KX8F, KX8G, KX8H, KX8I, KX8J, KX8K, KX8L, KX8M, KX8N, KX8O, KX8P, KX9E, KX9F, KX9G, KX9H, KX9I, KX9J, KX9K, KX9L, KX9M, KX9N, KX9O, KX9P, LW3A, LW3B, LW3C, LW3D, LW3E, LW3F, LW3G, LW3H, LW3I, LW3J, LW3K, LW4A, LW4B, LW4C, LW4D, LW4E, LW4F, LW4G, LW4H, LW4I, LW4J, LW4K, LW4L, LW5A, LW5B, LW5C, LW5D, LW5E, LW5F, LW5G, LW5H, LW5I, LW5J, LW5K, LW8L, LW8O, LW8P, LW9C, LW9D, LW9F, LW9G, LW9H, LW9I, LW9J, LW9K, LW9L, LW9M, LW9N, LW9O, LW9P, LX2D, LX2H, LX2L, LX2P, LX5D, LX5H, LX5L,

LX5P, LX7E, LX7F, LX7G, LX7H, LX7I, LX7J, LX7K, LX7L, LX7M, LX7N, LX7O, LX7P, LX8D, LX8E, LX8F, LX8G, LX8H, LX8I, LX8J, LX8K, LX8L, LX8M, LX8N, LX8O, LX8P, LY8A, LY8B, LY8C, LY8D, LY8E, LY8F, LY8G, LY8I, LY8J, LY8K, LY8M, LY8N, LY8O, LY9A, LY9B, LY9C, LY9D, LZ2A, LZ2B, LZ2C, LZ2E, LZ2F, LZ2G, LZ2I, LZ2J, LZ2K, LZ2M, LZ2N, LZ2O, LZ2P, LZ3M, LZ3N, LZ3O, LZ3P, MR7I, MR7M, MR7N, MS1A, MS1B, MS1C, MS1E, MS1F, MS1G, MS1H, MS1I, MS1J, MS1K, MS1L, MS1M, MS1N, MS1O, MS1P, MS5A, MS5B, MS5E, MS5F, MS5G, MS5I, MS5J, MS5K, MS5L, MS5M, MS5N, MS5O, MS5P, MS6M, MS9A, MS9B, MS9E, MS9F, MS9G, MS9I, MS9J, MS9K, MS9L, MS9M, MS9N, MS9O, MS9P, MU6A, MU6B, MU6C, MU6D, MU6E, MU6F, MU6G, MU6H, MU6I, MU6J, MU6K, MU6M, MU6N, MU6O, MU9A, MU9B, MU9C, MU9D, MU9E, MU9F, MU9G, MU9H, MU9I, MU9J, MU9K, MU9L, MU9M, MU9N, MV3A, MV3B, MV3E, MV3F, MV3I, MV3J, MV3M, MV3N, MV7A, MV7B, MV7E, MV7F, MV7I, MV7J, MV7M, MV7N, BT4D1, BT4D2, BT4D4, BT4D5, BT4D7, BT4D8, BT4H1, BT4H2, BT4H4, BT4H5, BT4H7, BT4H8, BT4L1, BT4L2, BT4L4, BT4L5, BT4L7, BT4L8, BT4P1, BT4P2, BT4P4, BT4P5, BT4P7, BT4P8, BT6B3, BT6B6, BT6B9, BT6F3, BT6F6, BT6F9, BT6J3, BT6J6, BT6J9, BT6N3, BT6N6, BT6N9, BT7D1, BT7D2, BT7D4, BT7D5, BT7D7, BT7D8, BT7H1, BT7H2, BT7H4, BT7H5, BT7H7, BT7H8, BT7H9, BT8E7, BT8E8, BT8E9, BT8F7, BT8F8, BT8F9, BT8G7, BT8G8, BT8G9, BT8H7, BT8H8, BT8H9, BT9B3, BT9B6, BT9B9, BT9E7, BT9E8, BT9E9, BT9F3, BT9F6, BT9F7, BT9F8, BT9F9, BV1A1, BV1A2, BV1A3, BV1B1, BV1B2, BV1B3, BV1C1, BV1C2, BV1C3, BV1D1, BV1D2, BV1D3, BV2A1, BV2A2, BV2A3, BV2B1, BV2B2, BV2B3, BV2G1, BV2G2, BV2G3, BV2G4, BV2G5, BV2G6, BV2H1, BV2H2, BV2H3, BV2H4, BV2H5, BV2H6, BV5P2, BV5P3, BV5P5, BV5P6, BV5P8, BV5P9, BV8D2, BV8D3, BV8D5, BV8D6, BV8D8, BV8D9, BV8H2, BV8H3, BV8H5, BV8H6, BV8H8, BV8H9, BV8L2, BV8L3, BV8L5, BV8L6, BV8L8, BV8L9, BV8P2, BV8P3, BV8P5, BV8P6, BV8P8, BV8P9, BW2D2, BW2D3, BW2D5, BW2D6, BW2D8, BW2D9, BW2H2, BW2H3, BW2H5, BW2H6, BW2H8, BW2H9, BW2L2, BW2L3, BW2L5, BW2L6, BW2L8, BW2L9, IW3E1, IW3E4, IW3E7, IW3I1, IW3I4, IW3I7, IW3M1, IW3M4, IW3M7, IW6A1, IW6A4, IW6A7, IW6E1, IW6E4, IW6E7, IW6I1, IW6I4, IW6I7, JW1N1, JW1N2, JW1N3, JW4E8, JW4E9, JW4F7, JW4F8, JW4F9, JW4I2, JW4I3, JW4I5, JW4I6, JW4I8, JW4I9, KW8L1, KW8L4, KW8L7, KW8P1, KW8P4, KW8P7, KX2C1, KX2C2, KX2C3, KX2C4, KX2C5, KX2C6, KX2C7, KX2D1, KX2D4, KX2G1, KX2G4, KX2G7, KX2K1, KX2K4, KX2K7, KX2O1, KX2O4, KX2O7, KX5B1, KX5B2, KX5B3, KX5B4, KX5B7, KX5C1, KX5F1, KX5F4, KX5F7, KX5J1, KX5J4, KX5J7, KX5N1, KX5N4, KX5N7, KX8B1, KX8B4, KX8B7, KX8B8, KX8B9, KX8C7, KX8C8, KX8C9, KX8D7, KX8D8, KX8D9, KX9A7, KX9A8, KX9A9, KX9B7, KX9B8, KX9B9, KX9C7, KX9C8, KX9C9, KX9D7, KX9D8, KX9D9, LX7A7, LX7A8, LX7A9, LX7B7, LX7B8, LX7B9, LX7C7, LX7C8, LX7C9, LX7D7, LX7D8, LX7D9, LX8A7, LX8A8, LX8A9, LX8B7, LX8B8, LX8B9, LX8C7, LX8C8, LX8C9, LY8H1, LY8H2, LY8H3, LY8H4, LY8H5, LY8H6, LY9E1, LY9E2, LY9E3, LY9E4, LY9E5, LY9E6, LY9F1, LY9F2, LY9F3, LY9F4, LY9F5, LY9F6, LY9G1, LY9G2, LY9G3, LY9G4, LY9G5, LY9G6, LY9H1, LY9H2, LY9H3, LY9H4, LY9H5, LY9H6, LZ2L4, LZ2L5, LZ2L6, LZ2L7, LZ2L8, LZ2L9, LZ3I4, LZ3I5, LZ3I6, LZ3I7, LZ3I8, LZ3I9, LZ3J4, LZ3J5, LZ3J6, LZ3J7, LZ3J8, LZ3J9, LZ3K4, LZ3K5, LZ3K6, LZ3K7, LZ3K8, LZ3K9, LZ3L4, LZ3L5, LZ3L6, LZ3L7, LZ3L8, LZ3L9

3 Downshift metropolitan area

BV1I, BV1J, BV1K, BV1L, BV1M, BV1N, BV1O, BV1P, BV2I, BV2J, BV2M, BV2N, BV4A, BV4B, BV4C, BV4D, BV4E, BV4F, BV4G, BV4H, BV4I, BV4J, BV4K, BV4L, BV5A, BV5B, BV5E, BV5F, BV5I, BV5J, BV1E7, BV1E8, BV1E9, BV1F7, BV1F8, BV1F9, BV1G7, BV1G8, BV1G9, BV1H7, BV1H8, BV1H9, BV2E7, BV2E8, BV2E9, BV2F7, BV2F8, BV2F9, BV4M1, BV4M2, BV4M3, BV4N1, BV4N2, BV4N3, BV4O1, BV4O2, BV4O3, BV4P1, BV4P2, BV4P3, BV5M1, BV5M2, BV5M3, BV5N1, BV5N2, BV5N3, IW3J, IW3K, IW3L, IW3N, IW3O, IW3P, IW6B, IW6C, IW6D, IW6F, IW6G, IW6H, IW3E5, IW3E6, IW3E8, IW3E9, IW3F4, IW3F5, IW3F6, IW3F7, IW3F8, IW3F9, IW3G4, IW3G5, IW3G6, IW3G7, IW3G8, IW3G9, IW3H4, IW3H5, IW3H6, IW3H7, IW3H8, IW3H9, IW3I2, IW3I3, IW3I5, IW3I6, IW3I8, IW3I9, IW3M2, IW3M3, IW3M5, IW3M6, IW3M8,

IW3M9, IW6A2, IW6A3, IW6A5, IW6A6, IW6A8, IW6A9, IW6E2, IW6E3, IW6E5, IW6E6, IW6E8, IW6E9, JW1E4, JW1E7, JW1I1, JW1I4, JW1I7, JW1M1, JW1M4, KX3J, KX3K, KX3L, KX3N, KX3O, KX3P, KX6B, KX6C, KX6D, KX6F, KX6G, KX6H, KX6J, KX6K, KX6L, LX1I, LX1M, LX1N, LX1O, LX4A, LX4B, LX4C, LX4E, LX4I, KX3F7, KX3F8, KX3F9, KX3G7, KX3G8, KX3G9, KX3H4, KX3H5, KX3H6, KX3H7, KX3H8, KX3H9, KX3M6, KX3M8, KX3M9, KX6A2, KX6A3, KX6A5, KX6A6, KX6A8, KX6A9, KX6E2, KX6E3, KX6E5, KX6E6, KX6E8, KX6E9, KX6I2, KX6I3, KX6I5, KX6I6, KX6I8, KX6I9, LX1E4, LX1E7, LX1E8, LX1E9, LX1J1, LX1J4, LX1J5, LX1J6, LX1J7, LX1J8, LX1J9, LX1K4, LX1K7, LX4F1, LX4F2, LX4F4, LX4F5, LX4F7, LX4F8, LX4J1, LX4J2, LX4J4, LX4J5, LX4J7, LX4J8, MV9I, MV9J, MV9K, MV9L, MV9M, MV9N, MV9O, MV9P, MW3C, MW3D, MW3G, MW3H, MW3K, MW3L, NV4N, NV4O, NV4P, NV5M, NV5N, NV5O, NV5P, NV7B, NV7C, NV7D, NV7E, NV7F, NV7G, NV7H, NV7I, NV7J, NV7K, NV7L, NV7M, NV7N, NV7O, NV7P, NW1A, NW1B, NW1C, NW1D, NW1E, NW1F, NW1G, NW1H, NW1I, NW1J, NW1K, NW1L, MV9D9, MV9D9, MV9E4, MV9E5, MV9E6, MV9E7, MV9E8, MV9E9, MV9F4, MV9F5, MV9F6, MV9F7, MV9F8, MV9F9, MV9G4, MV9G5, MV9G6, MV9G7, MV9G8, MV9G9, MV9H3, MV9H4, MV9H5, MV9H6, MV9H7, MV9H8, MV9H9, MW3B2, MW3B3, MW3B5, MW3B6, MW3B8, MW3B9, MW3F2, MW3F3, MW3F5, MW3F6, MW3F8, MW3F9, MW3J2, MW3J3, MW3O1, MW3O2, MW3O3, MW3P1, MW3P2, MW3P3, NV4I5, NV4I6, NV4I8, NV4I9, NV4J4, NV4J5, NV4J6, NV4J7, NV4J8, NV4J9, NV4K4, NV4K5, NV4K6, NV4K7, NV4K8, NV4K9, NV4L4, NV4L5, NV4L6, NV4L7, NV4L8, NV4L9, NV4M2, NV4M3, NV4M5, NV4M6, NV4M8, NV4M9, NV5I4, NV5I5, NV5I6, NV5I7, NV5I8, NV5I9, NV5J4, NV5J5, NV5J6, NV5J7, NV5J8, NV5J9, NV5K4, NV5K5, NV5K6, NV5K7, NV5K8, NV5K9, NV5L4, NV5L5, NV5L6, NV5L7, NV5L8, NV5L9, NV7A2, NV7A3, NV7A4, NV7A5, NV7A6, NV7A7, NV7A8, NV7A9, NW1M1, NW1M2, NW1M3, NW1N1, NW1N2, NW1N3, NW1O1, NW1O2, NW1O3, NW1P1, NW1P2, NW1P3, NT9, NT8C, NT8D, NT8G, NT8H, NT8K, NT8L, NT8O, NT8P, NU3A, NU3B, NU3C, NU3D, NU3F, NU3G, NU3H, NT5O4, NT5O5, NT5O6, NT5O7, NT5O8, NT5O9, NT5P4, NT5P5, NT5P6, NT5P7, NT5P8, NT5P9, NT6M4, NT6M5, NT6M6, NT6M7, NT6M8, NT6M9, NT6N4, NT6N5, NT6N6, NT6N7, NT6N8, NT6N9, NT6O4, NT6O5, NT6O6, NT6O7, NT6O8, NT6O9, NT6P4, NT6P5, NT6P6, NT6P7, NT6P8, NT6P9, NU2C1, NU2C2, NU2C3, NU2D1, NU2D2, NU2D3, NU2D5, NU2D6, NU2D8, NU2D9, NU2H2, NU2H3, NU3E1, NU3E2, NU3E3, NU3E5, NU3E6, NU3E8, NU3E9, NU3I2, NU3I3, NU3J1, NU3J2, NU3J3, NU3K1, NU3K2, NU3K3, NU3L1, NU3L2, NU3L3

4 Downshift regional area

BR, BS, BU, CR, CS, CT, CU, CV, DQ, DR, DS, DT, DU, DV, EP, EQ, ER, ES, ET, EU, FP, FQ, FR, FS, FT, FU, GP, GQ, GR, GS, GT, GU, HO, HP, HQ, HR, HS, HT, HU, IO, IP, IQ, IR, IS, IT, IU, IV, JO, JP, JQ, JR, JS, JT, JU, JV, KQ, KR, KS, KT, KU, KV, KW, LR, LS, LT, LU, LV, LW, LY, MS, MT, MU, AR8, AR9, AS2, AS3, AS5, AS6, AS8, AS9, AT1, AT2, AT3, AT5, AT6, AT8, AT9, AU2, AU3, AU6, AU9, AV9, AW3, BT1, BT2, BT3, BV3, BV6, BV7, BV8, BV9, BW1, BW2, BW3, BW5, BW6, CW1, CW2, CW3, CW4, DW1, DW2, DW3, EV1, EV2, EV3, EV4, EV5, EV6, EV7, FV1, FV2, FV3, FV4, FV5, GO3, GO4, GO5, GO6, GO7, GO8, GO9, GV1, GV2, GV3, GV6, HV1, HV2, HV3, HV4, HV5, HV6, HV8, HV9, HW3, HW6, IW1, IW2, IW4, IW5, IW7, IW8, IW9, JW2, JW3, JW4, JW5, JW6, JW7, JW8, JW9, JX1, JX2, JX3, JX5, JX6, KO1, KO4, KO5, KO7, KO8, KP1, KP2, KP4, KP5, KP6, KP7, KP8, KP9, KX1, KX2, KX4, KX5, KX8, KX9, KY2, KY3, KY6, LP4, LP7, LQ1, LQ2, LQ4, LQ5, LQ7, LQ8, LX2, LX3, LX5, LX6, LX7, LX8, LX9, LZ1, LZ2, LZ3, MR1, MR4, MR5, MR7, MR8, MR9, MV1, MV2, MV3, MV4, MV5, MV6, MV7, MV8, MW1, MW2, MW4, MW5, MW6, MW7, MW8, MW9, MX1, MX2, MX3, MX4, MX7, MY1, MY4, MY7, MZ1, NS4, NS7, NS8, NS9, NT1, NT2, NT3, NT4, NT7, NU1, NU4, NU5, NU6, NU7, NU8, NU9, NV1, NV2, NV3, BT4A, BT4B, BT4C, BT4E, BT4F, BT4G, BT4I, BT4J, BT4K, BT4M, BT4N, BT4O, BT6C, BT6D, BT6G, BT6H, BT6K, BT6L, BT6O, BT6P, BT7A, BT7B, BT7C, BT7E, BT7F, BT7G, BT7I, BT7J, BT7K, BT7L, BT7M, BT7N, BT7O, BT7P, BT8I, BT8J, BT8K, BT8L, BT8M, BT8N, BT8O, BT8P, BT9C, BT9D, BT9G, BT9H, BT9I, BT9J, BT9K, BT9L, BT9M, BT9N, BT9O, BT9P, BV1A, BV1B, BV1C, BV1D, BV2A,

BV2B, BV2C, BV2D, BV2G, BV2H, BV2K, BV2L, BV2O, BV2P, BV5C, BV5D, BV5G, BV5H, BV5K, BV5L, BV5O, BV5P, IW3A, IW3B, IW3C, IW3D, IW6I, IW6J, IW6K, IW6L, IW6M, IW6N, IW6O, IW6P, JW1A, JW1B, JW1C, JW1D, JW1F, JW1G, JW1H, JW1I, JW1K, JW1L, JW1N, JW1O, JW1P, KX3A, KX3B, KX3C, KX3D, KX3E, KX3I, KX6M, KX6N, KX6O, KX6P, LX1A, LX1B, LX1C, LX1D, LX1F, LX1G, LX1H, LX1L, LX1P, LX4D, LX4G, LX4H, LX4K, LX4L, LX4M, LX4N, LX4O, LX4P, MV9A, MV9B, MV9C, MW3A, MW3E, MW3I, MW3M, MW3N, NT5A, NT5B, NT5C, NT5D, NT5E, NT5F, NT5G, NT5H, NT5I, NT5J, NT5K, NT5L, NT5M, NT5N, NT6A, NT6B, NT6C, NT6D, NT6E, NT6F, NT6G, NT6H, NT6I, NT6J, NT6K, NT6L, NT8A, NT8B, NT8E, NT8F, NT8I, NT8J, NT8M, NT8N, NU2A, NU2B, NU2E, NU2F, NU2G, NU2I, NU2J, NU2K, NU2L, NU2M, NU2N, NU2O, NU2P, NU3M, NU3N, NU3O, NU3P, NV4A, NV4B, NV4C, NV4D, NV4E, NV4F, NV4G, NV4H, NV5A, NV5B, NV5C, NV5D, NV5E, NV5F, NV5G, NV5H, BT4D1, BT4D2, BT4D4, BT4D5, BT4D7, BT4D8, BT4H1, BT4H2, BT4H4, BT4H5, BT4H7, BT4H8, BT4L1, BT4L2, BT4L4, BT4L5, BT4L7, BT4L8, BT4P1, BT4P2, BT4P4, BT4P5, BT4P7, BT4P8, BT6B3, BT6B6, BT6B9, BT6F3, BT6F6, BT6F9, BT6J3, BT6J6, BT6J9, BT6N3, BT6N6, BT6N9, BT7D1, BT7D2, BT7D4, BT7D5, BT7D7, BT7D8, BT7H1, BT7H2, BT7H4, BT7H5, BT7H7, BT7H8, BT7H9, BT8E7, BT8E8, BT8E9, BT8F7, BT8F8, BT8F9, BT8G7, BT8G8, BT8G9, BT8H7, BT8H8, BT8H9, BT9B3, BT9B6, BT9B9, BT9E7, BT9E8, BT9E9, BT9F3, BT9F6, BT9F7, BT9F8, BT9F9, BV1E1, BV1E2, BV1E3, BV1E4, BV1E5, BV1E6, BV1F1, BV1F2, BV1F3, BV1F4, BV1F5, BV1F6, BV1G1, BV1G2, BV1G3, BV1G4, BV1G5, BV1G6, BV1H1, BV1H2, BV1H3, BV1H4, BV1H5, BV1H6, BV2E1, BV2E2, BV2E3, BV2E4, BV2E5, BV2E6, BV2F1, BV2F2, BV2F3, BV2F4, BV2F5, BV2F6, BV4M4, BV4M5, BV4M6, BV4M7, BV4M8, BV4M9, BV4N4, BV4N5, BV4N6, BV4N7, BV4N8, BV4N9, BV4O4, BV4O5, BV4O6, BV4O7, BV4O8, BV4O9, BV4P4, BV4P5, BV4P6, BV4P7, BV4P8, BV4P9, BV5M4, BV5M5, BV5M6, BV5M7, BV5M8, BV5M9, BV5N4, BV5N5, BV5N6, BV5N7, BV5N8, BV5N9, IW3E1, IW3E2, IW3E3, IW3E4, IW3E7, IW3F1, IW3F2, IW3F3, IW3G1, IW3G2, IW3G3, IW3H1, IW3H2, IW3H3, IW3I1, IW3I4, IW3I7, IW3M1, IW3M4, IW3M7, IW6A1, IW6A4, IW6A7, IW6E1, IW6E4, IW6E7, JW1E1, JW1E2, JW1E3, JW1E5, JW1E6, JW1E8, JW1E9, JW1I2, JW1I3, JW1I5, JW1I6, JW1I8, JW1I9, JW1M2, JW1M3, JW1M5, JW1M6, JW1M7, JW1M8, JW1M9, KX3F1, KX3F2, KX3F3, KX3F4, KX3F5, KX3F6, KX3G1, KX3G2, KX3G3, KX3G4, KX3G5, KX3G6, KX3H1, KX3H2, KX3H3, KX3M1, KX3M2, KX3M3, KX3M4, KX3M5, KX3M7, KX6A1, KX6A4, KX6A7, KX6E1, KX6E4, KX6E7, KX6I1, KX6I4, KX6I7, LX1E1, LX1E2, LX1E3, LX1E5, LX1E6, LX1J2, LX1J3, LX1K1, LX1K2, LX1K3, LX1K5, LX1K6, LX1K8, LX1K9, LX4F3, LX4F6, LX4F9, LX4J3, LX4J6, LX4J9, MV9D1, MV9D2, MV9D3, MV9D4, MV9D5, MV9D7, MV9D8, MV9E1, MV9E2, MV9E3, MV9F1, MV9F2, MV9F3, MV9G1, MV9G2, MV9G3, MV9H1, MV9H2, MW3B1, MW3B4, MW3B7, MW3F1, MW3F4, MW3F7, MW3J1, MW3J4, MW3J5, MW3J6, MW3J7, MW3J8, MW3J9, MW3O4, MW3O5, MW3O6, MW3O7, MW3O8, MW3O9, MW3P4, MW3P5, MW3P6, MW3P7, MW3P8, MW3P9, NT5O1, NT5O2, NT5O3, NT5P1, NT5P2, NT5P3, NT6M1, NT6M2, NT6M3, NT6N1, NT6N2, NT6N3, NT6O1, NT6O2, NT6O3, NT6P1, NT6P2, NT6P3, NU2C4, NU2C5, NU2C6, NU2C7, NU2C8, NU2C9, NU2D4, NU2D7, NU2H1, NU2H4, NU2H5, NU2H6, NU2H7, NU2H8, NU2H9, NU3E4, NU3E7, NU3I1, NU3I4, NU3I5, NU3I6, NU3I7, NU3I8, NU3I9, NU3J4, NU3J5, NU3J6, NU3J7, NU3J8, NU3J9, NU3K4, NU3K5, NU3K6, NU3K7, NU3K8, NU3K9, NU3L4, NU3L5, NU3L6, NU3L7, NU3L8, NU3L9, NV4I1, NV4I2, NV4I3, NV4I4, NV4I7, NV4J1, NV4J2, NV4J3, NV4K1, NV4K2, NV4K3, NV4L1, NV4L2, NV4L3, NV4M1, NV4M4, NV4M7, NV5I1, NV5I2, NV5I3, NV5J1, NV5J2, NV5J3, NV5K1, NV5K2, NV5K3, NV5L1, NV5L2, NV5L3, NV7A1, NW1M4, NW1M5, NW1M7, NW1M8

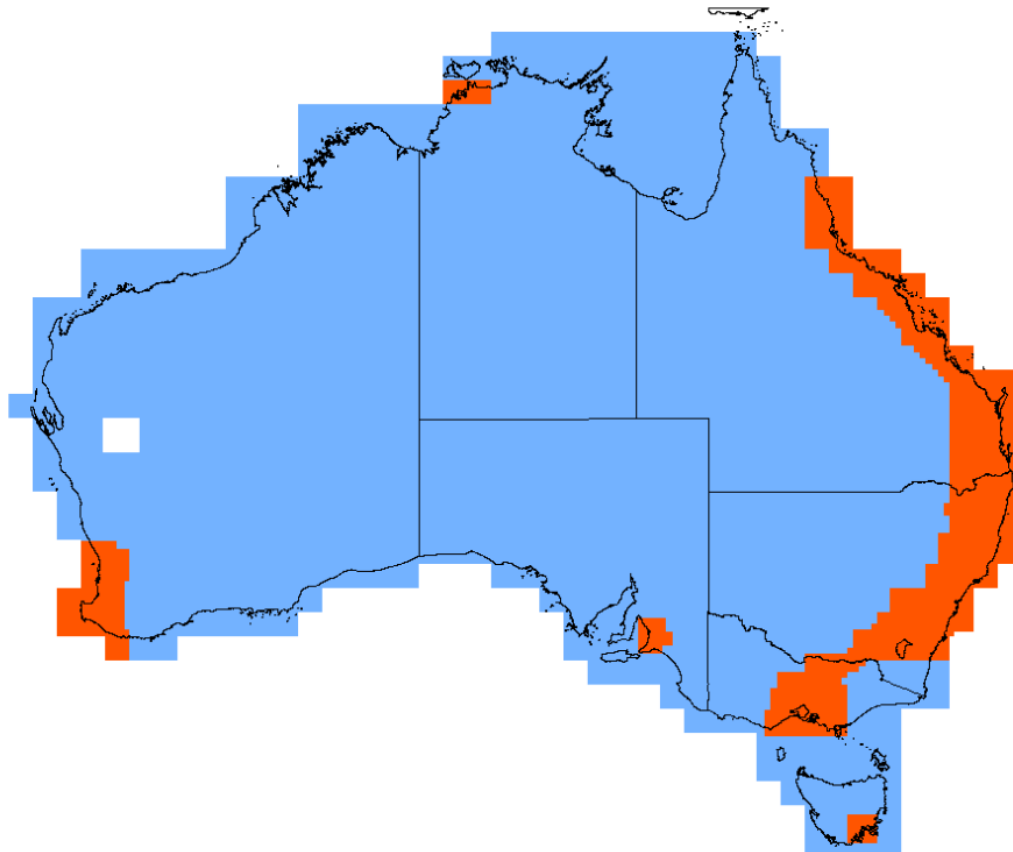


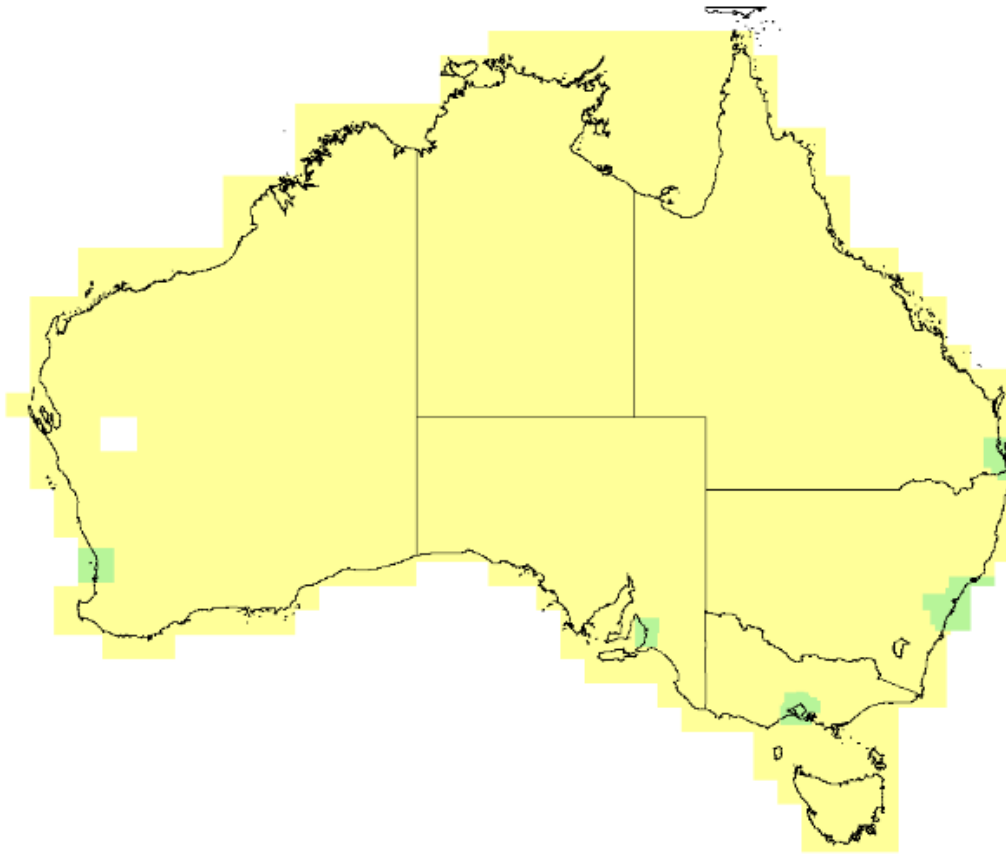
## 2 Indicative pictorial representation

The areas shaded in the maps below are only an indicative pictorial representation of each region.

Note: The maps included in this Schedule are included for information only. The ACMA does not accept responsibility for the accuracy of that information. Potential participants in the allocation process should obtain their own advice and make their own inquiries into the pictorial representation of the region.

KEY	
Orange	Major population area
Blue	Regional area
Green	Downshift metropolitan area
Yellow	Downshift regional area





## **Schedule 3—Emission limits outside the area**

(subsections 19(4) and 28(1))

### **1 Emission limits outside the area specified by written agreement**

- (1) Where a written agreement specifying the maximum permitted level of radio emission exists between:
  - (a) the licensee; and
  - (b) all the affected licensees of frequency-adjacent spectrum licences and area-adjacent spectrum licences;the licensee must comply with that specified maximum permitted level of radio emission.
- (2) Where there is no written agreement for the purposes of this clause in force, or where this clause does not apply, the maximum permitted level of radio emission outside the area within which operation of radiocommunications devices is authorised under the spectrum licence is determined in accordance with clause 2.

### **2 Emission limits outside the area – no agreement**

- (1) The licensee must ensure that the maximum permitted level of radio emission for an area outside the geographic area within which the spectrum licence authorises the operation of radiocommunications devices, caused by the operation of radiocommunications transmitters with AAS under the licence, does not exceed a total radiated power, per registered device, of 42 dBm per 30 kHz.
- (2) The licensee must ensure that the maximum permitted level of radio emission for an area outside the geographic area within which the spectrum licence authorises the operation of radiocommunications devices, caused by the operation of radiocommunications transmitters without AAS under the licence, does not exceed a total conducted power of 33 dBm per 30 kHz.

## Schedule 4—Emission limits outside the band

(subsections 19(5) and 28(2))

### 1 Emission limits outside the band specified by written agreement

- (1) Where a written agreement specifying the maximum permitted level of radio emission exists between:
  - (a) the licensee; and
  - (b) all the affected licensees of frequency-adjacent spectrum licences and area-adjacent spectrum licences;the licensee must comply with that specified maximum permitted level of radio emission.
- (2) Where there is no written agreement for the purposes of this clause in force, or where this clause does not apply, the maximum permitted level of radio emission outside the parts of the spectrum in which operation of radiocommunications devices is authorised under the spectrum licence is determined in accordance with clause 2.

### 2 Emission limits outside the band – no agreement

- (1) The licensee must ensure that a radiocommunications transmitter that is operated under the spectrum licence in the frequency range 859 MHz–870 MHz or the frequency range 935 MHz–960 MHz does not exceed the unwanted emission limits in:
  - (a) for non-AAS transmitters – subclauses (5) and (7);
  - (b) for transmitters with AAS – subclauses (6) and (8).

Note: A radiocommunications transmitter operated in the frequency range 935 MHz–960 MHz must also be operated in accordance with subclause (2).
- (2) The licensee must ensure that a radiocommunications transmitter with AAS that is operated under the spectrum licence in the frequency range 935 MHz–960 MHz does not exceed the unwanted emission limits in subclause (9).

Note: A radiocommunications transmitter operated in the frequency range 935 MHz–960 MHz must also be operated in accordance with subclause (1).
- (3) The licensee must ensure that a radiocommunications transmitter that is operated under the spectrum licence in the frequency range 814 MHz–825 MHz or the frequency range 890 MHz–915 MHz does not exceed the unwanted emission limits in subclauses (10) and (11).
- (4) The licensee must ensure that a radiocommunications receiver that is operated under the spectrum licence does not exceed the unwanted emission limits in:
  - (a) for non-AAS receivers – subclauses (12) and (13);
  - (b) for receivers with AAS – subclause (14).

*Radiocommunications transmitters operating in 859 MHz–870 MHz or 935 MHz–960 MHz frequency range*

- (5) The unwanted emission limits in Table 1, measured over the measurement bandwidth, apply to non-AAS transmitters:
  - (a) for transmitters operating in the frequency range 859 MHz–870 MHz, in the period commencing the day the licence comes into force and ending on 17 June 2028 – in the frequency range 849 MHz–900 MHz;
  - (b) for transmitters operating in the frequency range 859 MHz–870 MHz, from 18 June 2028 – in the frequency range 849 MHz–899 MHz;
  - (c) for transmitters operating in the frequency range 935 MHz–960 MHz – in the frequency range 925 MHz–970 MHz;

where:

$f_{offset}$  is the frequency offset from the upper or lower frequency limits for the spectrum licence. The closest -3dB point of the specified bandwidth closest to the upper and lower frequency limits for the spectrum licence is placed at  $f_{offset}$ .

**Table 1 Unwanted emission limits in 849 MHz to 899/900 MHz and 925 MHz to 970 MHz for transmitters operating in 859 MHz to 870 MHz or 935 MHz to 960 MHz – non-AAS transmitters**

Frequency offset of measurement filter -3dB point from upper/lower limit of licence	Mean power per transmitter port (dBm)	Measurement bandwidth
$0 \text{ MHz} \leq f_{offset} \leq 5 \text{ MHz}$	$-7 \text{ dBm} - \frac{7}{5} \left( \frac{f_{offset}}{\text{MHz}} - 0.05 \right) \text{ dB}$	100 kHz
$5 \text{ MHz} \leq f_{offset} \leq 10 \text{ MHz}$	-14	100 kHz
$f_{offset} \geq 10 \text{ MHz}$	-16	100 kHz

- (6) The unwanted emission limits in Table 2, measured over the measurement bandwidth, apply to radiocommunications transmitters with AAS:
- for transmitters operating in the frequency range 859 MHz–870 MHz, in the period commencing the day the licence comes into force and ending on 17 June 2028 – in the frequency range 849 MHz–900 MHz;
  - for transmitters operating in the frequency range 859 MHz–870 MHz, from 18 June 2028 – in the frequency range 849 MHz–899 MHz;
  - for transmitters operating in the frequency range 935 MHz–960 MHz – in the frequency range 925 MHz–960 MHz;

where:

$f_{offset}$  is the frequency offset from the upper or lower frequency limits for the spectrum licence. The closest -3dB point of the specified bandwidth closest to the upper and lower frequency limits for the spectrum licence is placed at  $f_{offset}$ .

**Table 2 Unwanted emission limits in 849 MHz to 899/900 MHz and 925 MHz to 960 MHz for transmitters operating in 859 MHz to 870 MHz or 935 MHz to 960 MHz – transmitters with AAS**

Frequency offset of measurement filter -3dB point from upper/lower limit of licence	Total radiated power per cell/sector (dBm)	Measurement bandwidth
$0 \text{ MHz} \leq f_{offset} < 5 \text{ MHz}$	$2 \text{ dBm} - \frac{7}{5} \left( \frac{f_{offset}}{\text{MHz}} \right) \text{ dB}$	100 kHz
$5 \text{ MHz} \leq f_{offset} < 10 \text{ MHz}$	-5	100 kHz
$f_{offset} \geq 10 \text{ MHz}$	-7	100 kHz

- (7) The unwanted emission limits in Table 3, measured over the measurement bandwidth, apply to non-AAS transmitters:
- for transmitters operating in the frequency range 859 MHz–870 MHz, in the period commencing the day the licence comes into force and ending on 17 June 2028 – outside the frequency range 849 MHz–900 MHz;
  - for transmitters operating in the frequency range 859 MHz–870 MHz, from 18 June 2028 – outside the frequency range 849 MHz–899 MHz;
  - for transmitters operating in the frequency range 935 MHz–960 MHz – outside the frequency range 925 MHz–970 MHz.

**Table 3 Unwanted emission limits outside 849 MHz to 899/900 MHz and 925 MHz to 970 MHz for transmitters operating in 859 MHz to 870 MHz or 935 MHz to 960 MHz – non-AAS transmitters**

Frequency range (f)	Mean power per transmitter port (dBm)	Measurement bandwidth
$9 \text{ kHz} < f \leq 150 \text{ kHz}$	-36	1 kHz
$150 \text{ kHz} < f \leq 30 \text{ MHz}$	-36	10 kHz
$30 \text{ MHz} < f \leq 1 \text{ GHz}$	-36	100 kHz
$1 \text{ GHz} < f \leq 12.75 \text{ GHz}$	-30	1 MHz

- (8) The unwanted emission limits in Table 4, measured over the measurement bandwidth, apply to radiocommunications transmitters with AAS:
- for transmitters operating in the frequency range 859 MHz–870 MHz, in the period commencing the day the licence comes into force and ending on 17 June 2028 – outside the frequency range 849 MHz–900 MHz;
  - for transmitters operating in the frequency range 859 MHz–870 MHz, from 18 June 2028 – outside the frequency range 849 MHz–899 MHz;
  - for transmitters operating in the frequency range 935 MHz–960 MHz – outside the frequency range 925 MHz–970 MHz.

**Table 4 Unwanted emission limits outside 849 MHz to 899/900 MHz and 925 MHz to 970 MHz for transmitters operating in 859 MHz to 870 MHz or 935 MHz to 960 MHz – transmitters with AAS**

Frequency range (f)	Total radiated power per cell/sector (dBm)	Measurement bandwidth
$9 \text{ kHz} < f \leq 150 \text{ kHz}$	-27	1 kHz
$150 \text{ kHz} < f \leq 30 \text{ MHz}$	-27	10 kHz
$30 \text{ MHz} < f \leq 1 \text{ GHz}$	-27	100 kHz
$1 \text{ GHz} < f \leq 12.75 \text{ GHz}$	-21	1 MHz

*Radiocommunications transmitters operating in 935 MHz–960 MHz frequency range*

- (9) The unwanted emission limits in Table 5, measured over the measurement bandwidth, apply in the frequency range 960 MHz–970 MHz, for radiocommunications transmitters with AAS operating in the frequency range 935 MHz–960 MHz;

where:

$f_{offset}$  is the frequency offset from the upper or lower frequency limits for the spectrum licence. The closest -3dB point of the specified bandwidth closest to the upper and lower frequency limits for the spectrum licence is placed at  $f_{offset}$ .

**Table 5 Unwanted emission limits in 960 MHz to 970 MHz for transmitters operating in 935 MHz to 960 MHz – transmitters with AAS**

Frequency offset of measurement filter -3dB point from upper/lower limit of licence	Total radiated power per cell/sector (dBm)	Measurement bandwidth
$0 \text{ MHz} \leq f_{offset} < 5 \text{ MHz}$	$-7 \text{ dBm} - \frac{7}{5} \left( \frac{f_{offset}}{\text{MHz}} \right) \text{ dB}$	100 kHz
$5 \text{ MHz} \leq f_{offset} < 10 \text{ MHz}$	-14	100 kHz
$f_{offset} \geq 10 \text{ MHz}$	-16	100 kHz

*Radiocommunications transmitters operating in 814 MHz–825 MHz or 890 MHz–915 MHz frequency range*

- (10) The unwanted emission limits in Table 6, measured over the measurement bandwidth, apply for radiocommunications transmitters operating in the frequency range 814 MHz–825 MHz or 890 MHz–915 MHz, at  $f_{offset} \leq 25 \text{ MHz}$ ;

where:

$f_{offset}$  is the frequency offset from the upper or lower frequency limits for the spectrum licence. The closest -3dB point of the specified bandwidth closest to the upper and lower frequency limits for the spectrum licence is placed at  $f_{offset}$ .

**Table 6 Unwanted emission limits for transmitters operating in 814 MHz to 825 MHz or 890 MHz to 915 MHz – frequency offset less than or equal to 25 MHz**

Frequency offset of measurement filter -3dB point from upper/lower limit of licence	Mean power per transmitter port (dBm)	Measurement bandwidth
$0 \text{ MHz} \leq f_{offset} < 1 \text{ MHz}$	-13	50 kHz
$1 \text{ MHz} \leq f_{offset} < 5 \text{ MHz}$	-10	1 MHz
$5 \text{ MHz} \leq f_{offset} < 20 \text{ MHz}$	-13	1 MHz
$20 \text{ MHz} \leq f_{offset} \leq 25 \text{ MHz}$	-25	1 MHz

- (11) The unwanted emission limits in Table 7, measured over the measurement bandwidth, apply for radiocommunications transmitters operating in the frequency range 814 MHz–825 MHz or 890 MHz–915 MHz, at  $f_{\text{offset}} > 25$  MHz;

where:

$f_{\text{offset}}$  is the frequency offset from the upper or lower frequency limits for the spectrum licence. The closest -3dB point of the specified bandwidth closest to the upper and lower frequency limits for the spectrum licence is placed at  $f_{\text{offset}}$ .

**Table 7 Unwanted emission limits for transmitters operating in 814 MHz to 825 MHz or 890 MHz to 915 MHz – frequency offset greater than 25 MHz**

Frequency range (f)	Mean power per transmitter port (dBm)	Measurement bandwidth
$9 \text{ kHz} < f \leq 150 \text{ kHz}$	-36	1 kHz
$150 \text{ kHz} < f \leq 30 \text{ MHz}$	-36	10 kHz
$30 \text{ MHz} < f \leq 1 \text{ GHz}$	-36	100 kHz
$1 \text{ GHz} < f \leq 12.75 \text{ GHz}$	-30	1 MHz

*Radiocommunications receivers*

- (12) Subject to subclause (13), the unwanted emissions limits in Table 8, measured over the measurement bandwidth for the relevant frequency range, apply for non-AAS receivers:
- for all receivers operating in the frequency range 859 MHz–870 MHz or 935 MHz–960 MHz;
  - for receivers operating in the frequency range 814 MHz–825 MHz – outside the frequency range 849 MHz–900 MHz;
  - for receivers operating in the frequency range 890 MHz–915 MHz – outside the frequency range 925 MHz–970 MHz.
- (13) For a radiocommunications receiver mentioned in paragraph (12)(b) or (c), where the antenna or transceiver array boundary connectors support both a radiocommunications receiver and a radiocommunications transmitter:
- the unwanted emission limits in Table 8 do not apply; and
  - the unwanted emission limits in Table 3 apply, measured over the measurement bandwidth, for the relevant frequency range:
    - for receivers operating in the frequency range 814 MHz–825 MHz – outside the frequency range 849 MHz–900 MHz;
    - for receivers operating in the frequency range 890 MHz–915 MHz – outside the frequency range 925 MHz–970 MHz.

**Table 8 Unwanted emission limits for non-AAS receivers**

Frequency range (f)	Mean power per receiver port (dBm)	Measurement bandwidth
$30 \text{ MHz} < f \leq 1 \text{ GHz}$	-57	100 kHz
$1 \text{ GHz} < f \leq 12.75 \text{ GHz}$	-47	1 MHz



- (14) The unwanted emissions limits in Table 4, measured over the measurement bandwidth for the relevant frequency range, apply to radiocommunications receivers with AAS:
- (a) for receivers operating in the frequency range 814 MHz–825 MHz – outside the frequency range 849 MHz–900 MHz;
  - (b) for receivers operating in the frequency range 890 MHz–915 MHz – outside the frequency range 925 MHz–970 MHz.

*Definitions*

- (15) In this clause:

**mean power**, in relation to a radiocommunications transmitters, means the average power of the transmitter measured during an interval of time that is at least 10 times the period of the lowest modulation frequency.

**non-AAS receiver** means a radiocommunications receiver without AAS.

**non-AAS transmitter** means a radiocommunications transmitter without AAS.

**total radiated power** is the integral of the power transmitted in different directions over the entire radiation sphere. It is measured considering the combination of all radiating elements on an antenna panel or individual device.

**upper or lower frequency limits**, for a spectrum licence, means the maximum and minimum frequencies, respectively, specified in the core condition included in the licence in accordance with paragraph 66(1)(a) of the Act.

## **Schedule 5—Sample spectrum licence**

(section 22)

This Schedule sets out a sample spectrum licence, and the conditions and statements that may be included in a spectrum licence issued in the 850/900 MHz band (other than the downshift metropolitan licence or the downshift regional licence), in accordance with this instrument.



### **COMMONWEALTH OF AUSTRALIA**

### **AUSTRALIAN COMMUNICATIONS AND MEDIA AUTHORITY**

### ***Radiocommunications Act 1992***

## **Sample Spectrum Licence for the 850/900 MHz band**

Prepared under section 61 of the *Radiocommunications Act 1992* ('the Act') in accordance with the

*Radiocommunications Spectrum Marketing Plan (850/900 MHz Band) 2021*

This licence is issued under Part 3.2 of the Act to the person named at Item 1 of Part 1, Licence Schedule 1.

1. The person named at Item 1 of Part 1, Licence Schedule 1 ('the licensee'), or a person authorised under subsection 68(1) of the Act, is authorised, under this licence, to operate radiocommunications devices in accordance with the following:
  - (a) the Act;
  - (b) the core conditions set out in Licence Schedule 2;
  - (c) the statutory conditions set out in Licence Schedule 3;
  - (d) the other conditions set out in Licence Schedule 4.
2. This licence comes into force at the start of the date shown at Item 5 of Part 1, Licence Schedule 1 and remains in force until the end of the date shown at Item 7 of Part 1, Licence Schedule 1.

3. The statements in this licence that relate to renewal of the licence are set out in Part 3, Licence Schedule 1.

## Definitions

4. In this licence, unless the contrary intention appears:

**AAS** means an antenna system where the amplitude and/or phase between multiple antenna elements is continually adjusted, resulting in an antenna pattern that varies in response to short term changes in the radio environment.

**Act** means the *Radiocommunications Act 1992*, as in force from time to time.

**area-adjacent spectrum licences** means spectrum licences that authorise the operation of radiocommunications devices in the geographic areas adjacent to each of the geographic areas described in Tables 1 and 2 of Part 2 of Licence Schedule 1.

**frequency-adjacent spectrum licences** means spectrum licences that authorise the operation of radiocommunications devices in the frequency bands adjacent to each of the frequency bands described in Table 1 of Part 2 of Licence Schedule 1.

**harmful interference** has the same meaning as in the spectrum plan made under subsection 30(1) of the Act, as in force from time to time.

**HCIS identifier** means an identifier used to describe a geographic area in the HCIS.

**Hierarchical Cell Identification Scheme** or **HCIS** means the cell grouping hierarchy scheme used to describe geographic areas in the *Australian Spectrum Map Grid 2012* published by the ACMA, as existing from time to time.

Note: The *Australian Spectrum Map Grid 2012* can be accessed, free of charge, on the ACMA website at [www.acma.gov.au](http://www.acma.gov.au).

**ITU Radio Regulations** means the Radio Regulations published by the International Telecommunication Union, as in force from time to time.

Note: The Radio Regulations can be accessed, free of charge, on the ITU website at [www.itu.int](http://www.itu.int).

**Licence Schedule** means a schedule to this licence.

**mean power**, in relation to a radiocommunications transmitter, means the average power of the transmitter measured during an interval of time that is at least 10 times the period of the lowest modulation frequency.

**non-AAS receiver** means a radiocommunications receiver without AAS.

**non-AAS transmitter** means a radiocommunications transmitter without AAS.

**occupied bandwidth**, in relation to a radiocommunications transmitter, means the bandwidth of a frequency band, having fixed upper and lower frequency limits, that is necessary to contain not less than 99% of the true mean power of the transmitter's radio emission at any time.

**total radiated power** is the integral of the power transmitted in different directions over the entire radiation sphere. It is measured considering the combination of all radiating elements on an antenna panel or individual device.

**upper or lower frequency limits**, in relation to a geographic area, means the maximum and minimum frequencies, respectively, specified in Part 2 of Licence Schedule 1 for that geographic area.

5. Unless the contrary intention appears, terms and expressions used in this licence have the meaning given to them by any determination made under section 64 of the *Australian Communications and Media Authority Act 2005*, as in force from time to time.

Note: A number of terms used in this licence are defined in the Act and have the meanings given to them by the Act, including:

- ACMA;
- core condition;
- frequency band;
- radiocommunications device;
- radiocommunications receiver;
- radiocommunications transmitter;
- radio emission;
- Register;
- renewal application period;
- renewal application period statement;
- renewal decision-making period;
- renewal decision-making period statement;
- renewal statement;
- spectrum licence;
- spectrum plan.

6. Unless the contrary intention appears, in this licence:
- (a) the value of a parameter in Licence Schedules 2 and 3 must be estimated with a level of confidence not less than 95% that the true value of the parameter will always remain below the requirement specified; and
  - (b) a reference to a part of the spectrum, a frequency band or a frequency range includes all frequencies that are greater than but not including the lower frequency, up to and including the higher frequency.

## Licence Schedule 1      Licence Details, Bands and Areas

### Part 1      Licence details

<b>Item</b>	<b><i>Licencee Details</i></b>	
1	<i>Name of licensee</i>	
2	<i>Address of licensee</i>	
3	<i>Client number</i>	
	<b><i>Licence Details</i></b>	
4	<i>Band release</i>	850/900 MHz band
5	<i>Date of licence effect</i>	01/07/2024
6	<i>Licence period</i>	20 years
7	<i>Date of licence expiry</i>	30/06/2044
8	<i>Licence number</i>	
9	<i>Date of licence issue</i>	dd/mm/yyyy

### Part 2      Frequency bands and geographic areas

For Core Condition 1, this licence authorises the operation of radiocommunications devices in the frequency bands specified in column 3 and within the corresponding geographic areas specified in column 2 of Table 1.

Each frequency band consists of the bandwidth between the lower and upper frequencies, where the lower frequency limit is exclusive and the upper frequency limit is inclusive. The geographic areas in column 2 of Table 1 are described by the sequence of HCIS identifiers in Table 2.

**Table 1: Frequency bands and geographic areas for this licence**

<b>Identifier (column 1)</b>	<b>Geographic areas (column 2)</b>	<b>Frequency bands (column 3)</b>			
		<b>Lower band (MHz)</b>		<b>Upper band (MHz)</b>	
		<b>Lower limit</b>	<b>Upper limit</b>	<b>Lower limit</b>	<b>Upper limit</b>
-	-	- MHz	- MHz	- MHz	- MHz

**Table 2: Description of the geographic areas for this licence**

<b>Geographic areas (column 1)</b>	<b>HCIS identifiers (column 2)</b>

Note: The HCIS is described in the *Australian Spectrum Map Grid 2012*. The *Australian Spectrum Map Grid 2012* can be accessed, free of charge, on the ACMA website at [www.acma.gov.au](http://www.acma.gov.au).

### **Part 3            Statements**

#### *Renewal statement*

- (1) This licence may be renewed at the discretion of the ACMA.

#### *Renewal application period statement*

- (2) The renewal application period for this licence is the period:
- (a) commencing at the start of 1 July 2039; and
  - (b) ending at the end of 31 December 2039.

#### *Renewal decision-making period statement*

- (3) The renewal decision-making period for this licence is the period:
- (a) commencing at the start of 1 January 2040; and
  - (b) ending at the end of 31 December 2041.

#### *Public interest statement*

No statement.

## Licence Schedule 2      Core Conditions

### Frequency bands and geographic areas

1. This licence authorises the operation of radiocommunications devices in the frequency bands and within the geographic areas set out in Part 2 of Licence Schedule 1.

### Emission limits outside the frequency bands

2. Core Conditions 3 to 15 apply in relation to those frequencies that are outside each of the frequency bands set out in Part 2 of Licence Schedule 1. For a frequency band set out in Part 2 of Licence Schedule 1, Core Conditions 3 to 15 apply within the geographic area specified for the frequency band.
3. Where a written agreement specifying the maximum permitted level of radio emission for frequencies described in Core Condition 2 exists between:
  - (a) the licensee; and
  - (b) all the affected licensees of frequency-adjacent spectrum licences and area-adjacent spectrum licences;the licensee must comply with that specified maximum permitted level of radio emission.
4. Where there is no written agreement for the purposes of Core Condition 3 in force, or where Core Condition 3 does not apply, the licensee must comply with Core Conditions 5 to 15.

### Unwanted emission limits outside the frequency bands

5. (1) The licensee must ensure that a radiocommunications transmitter that is operated under this licence in the frequency range 859 MHz–870 MHz or the frequency range 935 MHz–960 MHz does not exceed the unwanted emission limits in Core Conditions 6 to 9.

Note: A radiocommunications transmitter operated in the frequency range 935 MHz–960 MHz must also be operated in accordance with Core Condition 5(2).

(2) The licensee must ensure that a radiocommunications transmitter that is operated under this licence in the frequency range 935 MHz–960 MHz does not exceed the unwanted emission limits in Core Condition 10.

Note: A radiocommunications transmitter operated in the frequency range 935 MHz–960 MHz must also be operated in accordance with Core Condition 5(1).

(3) The licensee must ensure that a radiocommunications transmitter that is operated under this licence in the frequency range 814 MHz–825 MHz or the frequency range 890 MHz–915 MHz does not exceed the unwanted emission limits in Core Conditions 11 and 12.
- (4) The licensee must ensure that a radiocommunications receiver that is operated under this licence does not exceed the unwanted emission limits in Core Conditions 13 to 15.

### *Radiocommunications transmitters operating in 859 MHz–870 MHz or 935 MHz–960 MHz frequency range*

6. The unwanted emission limits in Table 1, measured over the measurement bandwidth, apply to non-AAS transmitters:
  - (a) for transmitters operating in the frequency range 859 MHz–870 MHz in the period commencing the day the licence comes into force and ending on 17 June 2028 – in the frequency range 849 MHz–900 MHz;

- (b) for transmitters operating in the frequency range 859 MHz–870 MHz, from 18 June 2028 – in the frequency range 849 MHz–899 MHz;
- (c) for transmitters operating in the frequency range 935 MHz–960 MHz – in the frequency range 925 MHz–970 MHz;

where:

$f_{offset}$  is the frequency offset from the upper or lower frequency limits for the spectrum licence. The closest -3dB point of the specified bandwidth closest to the upper and lower frequency limits for the spectrum licence is placed at  $f_{offset}$ .

**Table 1 Unwanted emission limits in 849 MHz to 899/900 MHz and 925 MHz to 970 MHz for transmitters operating in 859 MHz to 890 MHz or 935 MHz to 960 MHz – non-AAS transmitters**

Frequency offset of measurement filter -3dB point from upper/lower limit of licence	Mean power per transmitter port (dBm)	Measurement bandwidth
$0 \text{ MHz} \leq f_{offset} \leq 5 \text{ MHz}$	$-7 \text{ dBm} - \frac{7}{5} \left( \frac{f_{offset}}{\text{MHz}} - 0.05 \right) \text{ dB}$	100 kHz
$5 \text{ MHz} \leq f_{offset} \leq 10 \text{ MHz}$	-14	100 kHz
$f_{offset} \geq 10 \text{ MHz}$	-16	100 kHz

7. The unwanted emission limits in Table 2, measured over the measurement bandwidth, apply to radiocommunications transmitters with AAS:
- (a) for transmitters operating in the frequency range 859 MHz–870 MHz in the period commencing the day the licence comes into force and ending on 17 June 2028 – in the frequency range 849 MHz–900 MHz;
  - (b) for transmitters operating in the frequency range 859 MHz–870 MHz, from 18 June 2028 – in the frequency range 849 MHz–899 MHz;
  - (c) for transmitters operating in the frequency range 935 MHz–960 MHz – in the frequency range 925 MHz–960 MHz;

where:

$f_{offset}$  is the frequency offset from the upper or lower frequency limits for the spectrum licence. The closest -3dB point of the specified bandwidth closest to the upper and lower frequency limits for the spectrum licence is placed at  $f_{offset}$ .



**Table 2** Unwanted emission limits in 849 MHz to 899/900 MHz and 925 MHz to 960 MHz for transmitters operating in 859 MHz to 870 MHz or 935 MHz to 960 MHz –transmitters with AAS

Frequency offset of measurement filter -3dB point from upper/lower limit of licence	Total radiated power per cell/sector (dBm)	Measurement bandwidth
$0 \text{ MHz} \leq f_{\text{offset}} < 5 \text{ MHz}$	$2 \text{ dBm} - \frac{7}{5} \left( \frac{f_{\text{offset}}}{\text{MHz}} \right) \text{ dB}$	100 kHz
$5 \text{ MHz} \leq f_{\text{offset}} < 10 \text{ MHz}$	-5	100 kHz
$f_{\text{offset}} \geq 10 \text{ MHz}$	-7	100 kHz

8. The unwanted emission limits in Table 3, measured over the measurement bandwidth, apply to non-AAS transmitters:
- for transmitters operating in the frequency range 859 MHz–870 MHz in the period commencing the day the licence comes into force and ending on 17 June 2028 – outside the frequency range 849 MHz–900 MHz;
  - for transmitters operating in the frequency range 859 MHz–870 MHz, from 18 June 2028 – outside the frequency range 849 MHz–899 MHz;
  - for transmitters operating in the frequency range 935 MHz–960 MHz – outside the frequency range 925 MHz–970 MHz.

**Table 3** Unwanted emission limits outside 849 MHz to 899/900 MHz and 925 MHz to 970 MHz for transmitters operating in 859 MHz to 870 MHz or 935 MHz to 960 MHz – non-AAS transmitters

Frequency range (f)	Mean power per transmitter port (dBm)	Measurement bandwidth
$9 \text{ kHz} < f \leq 150 \text{ kHz}$	-36	1 kHz
$150 \text{ kHz} < f \leq 30 \text{ MHz}$	-36	10 kHz
$30 \text{ MHz} < f \leq 1 \text{ GHz}$	-36	100 kHz
$1 \text{ GHz} < f \leq 12.75 \text{ GHz}$	-30	1 MHz

9. The unwanted emission limits in Table 4, measured over the measurement bandwidth, apply to radiocommunications transmitters with AAS:
- for transmitters operating in the frequency range 859 MHz–870 MHz in the period commencing the day the licence comes into force and ending on 17 June 2028 – outside the frequency range 849 MHz–900 MHz;
  - for transmitters operating in the frequency range 859 MHz–870 MHz, from 18 June 2028 – outside the frequency range 849 MHz–899 MHz;
  - for transmitters operating in the frequency range 935 MHz–960 MHz – outside the frequency range 925 MHz–970 MHz.

**Table 4** Unwanted emission limits outside 849 MHz to 899/900 MHz and 925 MHz to 970 MHz for transmitters operating in 859 MHz to 870 MHz or 935 MHz to 960 MHz – transmitters with AAS

Frequency range (f)	Total radiated power per cell/sector (dBm)	Measurement bandwidth
$9 \text{ kHz} < f \leq 150 \text{ kHz}$	-27	1 kHz
$150 \text{ kHz} < f \leq 30 \text{ MHz}$	-27	10 kHz
$30 \text{ MHz} < f \leq 1 \text{ GHz}$	-27	100 kHz
$1 \text{ GHz} < f \leq 12.75 \text{ GHz}$	-21	1 MHz

*Radiocommunications transmitters operating in 935 MHz–960 MHz frequency range*

10. The unwanted emission limits in Table 5, measured over the measurement bandwidth, apply in the frequency range 960 MHz–970 MHz, for radiocommunications transmitters with AAS operating in the frequency range 935 MHz–960 MHz;

where:

$f_{\text{offset}}$  is the frequency offset from the upper or lower frequency limits for the spectrum licence. The closest -3dB point of the specified bandwidth closest to the upper and lower frequency limits for the spectrum licence is placed at  $f_{\text{offset}}$ .

**Table 5** Unwanted emission limits in 960 MHz to 970 MHz for transmitters operating in 935 MHz to 960 MHz – transmitters with AAS

Frequency offset of measurement filter -3dB point from upper/lower limit of licence	Total radiated power per cell/sector (dBm)	Measurement bandwidth
$0 \text{ MHz} \leq f_{\text{offset}} < 5 \text{ MHz}$	$-7 \text{ dBm} - \frac{7}{5} \left( \frac{f_{\text{offset}}}{\text{MHz}} \right) \text{ dB}$	100 kHz
$5 \text{ MHz} \leq f_{\text{offset}} < 10 \text{ MHz}$	-14	100 kHz
$f_{\text{offset}} \geq 10 \text{ MHz}$	-16	100 kHz

*Radiocommunications transmitters operating in 814 MHz–825 MHz or 890 MHz–915 MHz frequency range*

11. The unwanted emission limits in Table 6, measured over the measurement bandwidth, apply for radiocommunications transmitters operating in the frequency range 814 MHz–825 MHz or 890 MHz–915 MHz, at  $f_{\text{offset}} \leq 25 \text{ MHz}$ ;

where:

$f_{\text{offset}}$  is the frequency offset from the upper or lower frequency limits for the spectrum licence. The closest -3dB point of the specified bandwidth closest to the upper and lower frequency limits for the spectrum licence is placed at  $f_{\text{offset}}$ .

**Table 6** Unwanted emission limits for transmitters operating in 814 MHz to 825 MHz or 890 MHz to 915 MHz – frequency offset less than or equal to 25 MHz

Frequency offset of measurement filter -3dB point from upper/lower limit of licence	Mean power per transmitter port (dBm)	Measurement bandwidth
$0 \text{ MHz} \leq f_{\text{offset}} < 1 \text{ MHz}$	-13	50 kHz
$1 \text{ MHz} \leq f_{\text{offset}} < 5 \text{ MHz}$	-10	1 MHz
$5 \text{ MHz} \leq f_{\text{offset}} < 20 \text{ MHz}$	-13	1 MHz
$20 \text{ MHz} \leq f_{\text{offset}} \leq 25 \text{ MHz}$	-25	1 MHz

12. The unwanted emission limits in Table 7, measured over the measurement bandwidth, apply for radiocommunications transmitters operating in the frequency range 814 MHz–825 MHz or 890 MHz–915 MHz, at  $f_{\text{offset}} > 25 \text{ MHz}$ ;

where:

$f_{\text{offset}}$  is the frequency offset from the upper or lower frequency limits for the spectrum licence. The closest -3dB point of the specified bandwidth closest to the upper and lower frequency limits for the spectrum licence is placed at  $f_{\text{offset}}$ .

**Table 7** Unwanted emission limits for transmitters operating in 814 MHz to 825 MHz or 890 MHz to 915 MHz – frequency offset greater than 25 MHz

Frequency range (f)	Mean power per transmitter port (dBm)	Measurement bandwidth
$9 \text{ kHz} < f \leq 150 \text{ kHz}$	-36	1 kHz
$150 \text{ kHz} < f \leq 30 \text{ MHz}$	-36	10 kHz
$30 \text{ MHz} < f \leq 1 \text{ GHz}$	-36	100 kHz
$1 \text{ GHz} < f \leq 12.75 \text{ GHz}$	-30	1 MHz

#### *Radiocommunications receivers*

13. Subject to Core Condition 14, the unwanted emissions limits in Table 8, measured over the measurement bandwidth for the relevant frequency range, apply for non-AAS receivers:
- for all receivers operating in the frequency range 859 MHz–870 MHz or 935 MHz–960 MHz;
  - for receivers operating in the frequency range 814 MHz–825 MHz – outside the frequency range 849 MHz–900 MHz;
  - for receivers operating in the frequency range 890 MHz–915 MHz – outside the frequency range 925 MHz–970 MHz.

14. For a radiocommunications receiver mentioned in Core Condition 13(b) or (c), where the antenna or transceiver array boundary connectors support both a radiocommunications receiver and a radiocommunications transmitter:
- (a) the unwanted emission limits in Table 8 do not apply; and
  - (b) the unwanted emission limits in Table 3 apply, measured over the measurement bandwidth, for the relevant frequency range:
    - (i) for receivers operating in the frequency range 814 MHz–825 MHz – outside the frequency range 849 MHz–900 MHz;
    - (ii) for receivers operating in the frequency range 890 MHz–915 MHz – outside the frequency range 925 MHz–970 MHz.

**Table 8 Unwanted emission limits for non-AAS receivers**

Frequency range (f)	Total radiated power (dBm)	Measurement bandwidth
$30 \text{ MHz} < f \leq 1 \text{ GHz}$	-57	100 kHz
$1 \text{ GHz} < f \leq 12.75 \text{ GHz}$	-47	1 MHz

15. The unwanted emissions limits in Table 4, measured over the measurement bandwidth for the relevant frequency range, apply to radiocommunications receivers with AAS:
- (a) for receivers operating in the frequency range 814 MHz–825 MHz – outside the frequency range 849 MHz–900 MHz;
  - (b) for receivers operating in the frequency range 890 MHz–915 MHz – outside the frequency range 925 MHz–970 MHz.

#### Emission limits outside the geographic areas

16. Core Conditions 17 to 20 apply in relation to those areas that are outside the geographic areas set out in Part 2 of Licence Schedule 1.
17. Where a written agreement specifying the maximum permitted level of radio emission for areas described in Core Condition 16 exists between:
- (a) the licensee; and
  - (b) all the affected licensees of frequency-adjacent spectrum licences and area-adjacent spectrum licences;
- the licensee must comply with that specified maximum permitted level of radio emission.
18. Where there is no written agreement for the purposes of Core Condition 17 in force, or where Core Condition 17 does not apply, the licensee must comply with Core Conditions 19 and 20.

#### Unwanted emission limits outside the geographic areas

19. The licensee must ensure that the maximum permitted level of radio emission for an area outside the geographic area within which the licence authorises the operation of radiocommunications devices, caused by the operation of radiocommunications transmitters with AAS under the licence, does not exceed a total radiated power, per registered device, of 42 dBm per 30 kHz.
20. The licensee must ensure that the maximum permitted level of radio emission for an area outside the geographic area within which the licence authorises the operation of radiocommunications devices, caused by the operation of non-AAS transmitters under the licence, does not exceed a total conducted power of 33 dBm per 30 kHz.

## **Licence Schedule 3      Statutory Conditions**

### **Liability to pay charges**

1. The licensee must comply with all its obligations (if any) to pay:
  - (a) charges fixed by determinations made under section 60 of the *Australian Communications and Media Authority Act 2005*; and
  - (b) spectrum access charges fixed by determinations made under section 294 of the Act; and
  - (c) amounts of spectrum licence tax.

### **Third party use**

2. (1) The licensee must notify any person whom the licensee authorises, under section 68 of the Act, to operate radiocommunications devices under this licence of that person's obligations under the Act, in particular:
  - (a) the registration requirements under Part 3.5 of the Act for operation of radiocommunications devices under this licence; and
  - (b) any rules made by the ACMA under subsection 68(3) of the Act.
- (2) Any person other than the licensee who operates a radiocommunications device under this licence must comply with rules made by the ACMA under subsection 68(3) of the Act.

### **Radiocommunications transmitter registration requirements**

3. A person must not operate a radiocommunications transmitter under this licence unless:
  - (a) the transmitter has been exempted from the registration requirements, under Statutory Condition 4 below; or
  - (b) both:
    - (i) the requirements under Part 3.5 of the Act relating to registration of the transmitter have been met; and
    - (ii) the transmitter complies with the details about it that have been entered in the Register.

### **Exemption from registration requirements**

4. The following kinds of radiocommunications transmitters are exempt from the registration requirement in Statutory Condition 3:
  - (a) a radiocommunications transmitter that operates with a radiated maximum true mean power that is less than or equal to 25 dBm EIRP per occupied bandwidth in:
    - (i) the frequency range 814 MHz to 825 MHz; or
    - (ii) the frequency range 890 MHz to 915 MHz;
  - (b) a radiocommunications transmitter that operates with a radiated maximum true mean power that is less than or equal to 30 dBm EIRP per occupied bandwidth in:
    - (i) the frequency range 859 MHz to 870 MHz; or
    - (ii) the frequency range 935 MHz to 960 MHz.

## Residency

5. (1) The licensee must not derive any income, profits or gains from operating radiocommunications devices under this licence, or from authorising others to do so, unless:
- (a) the licensee is an Australian resident; or
  - (b) the income, profits or gains are attributable to a permanent establishment in Australia through which the licensee carries on business.
- (2) A person (the **authorised person**) authorised under section 68 of the Act in relation to this licence must not derive income, profits or gains from operating radiocommunications devices under this licence unless:
- (a) the authorised person is an Australian resident; or
  - (b) the income, profits or gains are attributable to a permanent establishment in Australia through which the authorised person carries on business.
- (3) In this condition:
- Australian resident** has the same meaning as in the *Income Tax Assessment Act 1997*.
- permanent establishment** has the same meaning as in:
- (a) if the licensee or authorised person (as appropriate) is a resident of a country or other jurisdiction with which Australia has an agreement within the meaning of the *International Tax Agreements Act 1953* — that agreement; or
  - (b) in any other case — the *Income Tax Assessment Act 1997*.

## Licence Schedule 4      Other Conditions

### Definitions

1. In this Licence Schedule 4:

*managing interference* includes, but is not limited to, the following:

- (a) investigating the possible causes of interference;
- (b) taking all steps reasonably necessary to resolve disputes about interference;
- (c) taking steps (or requiring persons authorised to operate radiocommunications devices under this licence to take steps) reasonably likely to reduce interference to acceptable levels;
- (d) negotiating with other persons to reduce interference to acceptable levels.

### Responsibility to manage interference

2. The licensee must manage interference between:

- (a) radiocommunications devices operated under this licence; and
- (b) radiocommunications devices operated under this licence and under each other spectrum licence held by the licensee.

### Co-sited radiocommunications devices

3. If:

(a) interference occurs between:

- (i) a radiocommunications device operated under this licence; and
- (ii) another radiocommunications device operated under another licence (the *other licence*);

when the measured separation between the phase centre of the antenna used with each device is less than 200 metres; and

- (b) that interference is not the result of operation of a radiocommunications device in a manner that does not comply with the conditions of the relevant licence; and
- (c) either the licensee or the holder (or authorised third party) of the other licence wishes to resolve the interference;

the licensee must manage interference with:

- (d) the holder of the other licence; or
- (e) if a site manager is responsible for managing interference at that location, that site manager.

### Information for Register

4. The licensee must give the ACMA all information as required by the ACMA from time to time for inclusion in the Register.

Note: Licensees should assist the ACMA in keeping the Register accurate and up to date by informing the ACMA of changes to device registration details as soon as possible.

### **International coordination**

5. The licensee must ensure that operation of a radiocommunications transmitter under this licence does not cause harmful interference to a radiocommunications receiver that operates in accordance with the ITU Radio Regulations and is located in a country other than Australia.

### **Electromagnetic energy (EME) requirements**

6. The licensee must comply with Parts 2, 3 and 4 of the *Radiocommunications Licence Conditions (Apparatus Licence) Determination 2015*, or any instrument that replaces that determination, as in force from time to time. For the purpose of compliance with this condition, the definition of **licence** in subsection 4(1) of the *Radiocommunications Licence Conditions (Apparatus Licence) Determination 2015*, or in the interpretation section of the replacement instrument, is to be read as if it referred to a spectrum licence.

Note: The *Radiocommunications Licence Conditions (Apparatus Licence) Determination 2015* can be accessed, free of charge, on the Federal Register of Legislation at [www.legislation.gov.au](http://www.legislation.gov.au).

### **Coordination with the Mid-West Radio Quiet Zone**

7. Before seeking to register a radiocommunications transmitter for use in or around the RQZ and supplementary RQZ, the licensee must follow the procedures set out in Radiocommunications Assignment and Licensing Instruction (RALI) MS 32, as in existence from time to time.

Note: RALI MS 32 can be accessed, free of charge, on the ACMA website at [www.acma.gov.au](http://www.acma.gov.au).

8. In Condition 7 of this Licence Schedule 4, **RQZ** and **supplementary RQZ** have the same meanings as in:
  - (a) the *Radiocommunications (Mid-West Radio Quiet Zone) Frequency Band Plan 2011*, as in force from time to time; or
  - (b) if another instrument replaces that band plan – the other instrument, as in force from time to time.

### **Harmful interference**

9. The licensee must ensure that operation of a radiocommunications transmitter that is exempt from registration under Statutory Condition 4 of Licence Schedule 3 does not cause harmful interference to other radiocommunications devices operated under a different spectrum licence or an apparatus licence.



## Licence Schedule 5      Licence Notes

### Variation to licence conditions and statements

1. The ACMA may, with the written agreement of the licensee, vary this licence by including one or more further conditions, or by revoking or varying any conditions of this licence, provided that the conditions, as varied, still comply with the requirements of Subdivision C of Division 1 of Part 3.2 of the Act.
2. The ACMA may, with the written agreement of the licensee, vary this licence by varying the renewal statement, omitting the renewal statement and substituting another renewal statement, varying the renewal application period statement, omitting the renewal decision-making period, or varying the renewal decision-making period, provided that each such statement, as varied or replaced, still complies with the requirements of section 65A of the Act.
3. The ACMA may, by written notice given to the licensee, vary this licence by including one or more further conditions (other than core conditions), or by revoking or varying any conditions (other than core conditions) of this licence, provided that the conditions, as varied, still comply with the requirements of Subdivision C of Division 1 of Part 3.2 of the Act.

### Determination of unacceptable levels of interference

4. The ACMA has made the *Radiocommunications (Unacceptable Levels of Interference — 850/900 MHz Band) Determination 2021* that sets out the unacceptable levels of interference for the purpose of registering radiocommunications transmitters to be operated under this licence, and which is to be used for the issuing of certificates by accredited persons under subsection 145(3) of the Act.

Note 1: Although not mandatory, the registration of radiocommunications receivers to be operated under this licence is recommended because one of the matters the ACMA may take into account in settling interference disputes is the time of registration of the receiver involved in the dispute.

Note 2: The *Radiocommunications (Unacceptable Levels of Interference — 850/900 MHz Band) Determination 2021* can be accessed, free of charge, on the Federal Register of Legislation at [www.legislation.gov.au](http://www.legislation.gov.au).

### Guidelines

5. The ACMA has made written Radiocommunications Advisory Guidelines (the **guidelines**) under section 262 of the Act about the following:
  - (a) coordinating the operation of radiocommunications transmitters under this licence with radiocommunications receivers operated under other licences: see the *Radiocommunications Advisory Guidelines (Managing Interference from Spectrum Licensed Transmitters — 850/900 MHz Band) 2021*;
  - (b) coordinating the operation of radiocommunications receivers operated under this licence with radiocommunications transmitters operated under other licences: see the *Radiocommunications Advisory Guidelines (Managing Interference to Spectrum Licensed Receivers — 850/900 MHz Band) 2021*.
- Note: The guidelines can be accessed, free of charge, on the Federal Register of Legislation at [www.legislation.gov.au](http://www.legislation.gov.au).
6. The guidelines should be read in conjunction with the *Radiocommunications (Unacceptable Levels of Interference — 850/900 MHz Band) Determination 2021* (see Licence Note 4). That determination sets out the unacceptable levels of interference for the purpose of registration of radiocommunications transmitters to be operated under this licence. The guidelines should be followed by licensees (and accredited persons) in the planning of services and the resolution of interference cases. The ACMA will consider these guidelines during the settlement of interference disputes. Each case will be assessed on its merits.

### **Suspension and cancellation of spectrum licences**

7. The ACMA may by written notice given to a licensee, suspend or cancel a spectrum licence in accordance with Division 3 of Part 3.2 of the Act.

### **Renewal**

8. The ACMA may renew spectrum licences in accordance with Division 3A of Part 3.2 of the Act.
9. A person must apply for renewal in accordance with section 77A of the Act. The renewal application period for this licence is set out in the renewal application period statement in Part 3 of Licence Schedule 1. Other statements in Part 3 of Licence Schedule 1 may also affect the renewal of the licence.
10. The ACMA may request further information in connection with an application for renewal, in accordance with section 77B of the Act.
11. The ACMA must not renew a spectrum licence for a period of 10 years or longer unless satisfied that it is in the public interest to do so.
12. If the ACMA renews a spectrum licence, the conditions of the new spectrum licence need not be the same as those of the licence it replaces.
13. If the ACMA has the discretion to renew the licence, it also has the discretion to refuse to renew the licence. The ACMA must make its decision within the renewal decision-making period, set out in Part 3 of Licence Schedule 1.

### **Trading**

14.
  - (1) A licensee may assign or otherwise deal with the whole or any part of a spectrum licence provided that it is done in accordance with any rules determined by the ACMA under section 88 of the Act.
  - (2) An assignment under section 85 of the Act of the whole or any part of a spectrum licence that involves any change to a spectrum licence does not take effect until the Register has been amended under Part 3.5 of the Act, to take it into account.

### **Appeals**

15. An application may be made to the ACMA for reconsideration of a decision of a kind listed in section 285 of the Act. A person affected by and dissatisfied with an ACMA decision may seek a reconsideration of the decision by the ACMA under subsection 288(1) of the Act. This decision can be subject to further review by the Administrative Appeals Tribunal, subject to the provisions of the *Administrative Appeals Tribunal Act 1975*.

### **Labelling of radiocommunications transmitters**

16. Licensees should affix identification labels containing the name and address of the licensee on all fixed transmitters operated under this licence.

Note: An example of an identification label would be one containing the following statement: "This device is the property of 'name'".

**No protection from existing radiocommunications transmitters**

17. The ACMA does not intend to afford protection to a radiocommunications device operated under this licence (*relevant device*) from:
- (a) radiocommunications transmitters operated under spectrum licences, which were already in force before this licence was issued, that were registered on the Register before the relevant device was registered on the Register; or
  - (b) any other radiocommunications device operated under an apparatus licence and registered on the Register before the relevant device was registered on the Register, that is operating in accordance with the conditions of the apparatus licence.