COMMONWEALTH OF AUSTRALIA
AUSTRALIAN COMMUNICATIONS AND MEDIA AUTHORITY

Radiocommunications Act 1992

SPECTRUM LICENCE FOR THE 1800 MHz BAND

This licence is issued under Part 3.2 of the *Radiocommunications Act 1992* ('the Act') to the person named at Item 1 of Part 1, Licence Schedule 1 of this licence.

1. The person named at Item 1 of Part 1, Licence Schedule 1 of this licence (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 6 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:

1800 MHz band means the following frequency bands:
(a) 1710 MHz - 1785 MHz (***1800 MHz lower band***);
(b) 1805 MHz - 1880 MHz (***1800 MHz upper band***).

Act means the *Radiocommunications Act 1992.*

active antenna system or ***AAS*** refers to a base station antenna system where the amplitude and/or phase between antenna elements is continually adjusted resulting in an antenna pattern that varies in response to short term changes in the radio environment.

affected area means the areas as defined in XXXX of RALI MS 34.

affected frequency range means the frequency range corresponding to an affected area as defined in XXXX of RALI MS 34.

area-adjacent spectrum licences mean the spectrum licences that authorise the operation of radiocommunications devices in the geographic areas adjacent to the geographic areas described in Part 2 of Licence Schedule 1 of this licence.

frequency-adjacent spectrum licences mean the spectrum licences that authorise the operation of radiocommunications devices in the frequency bands adjacent to the frequency bands described in Part 2 of Licence Schedule 1 of this licence.

harmful interference has the same meaning as in the spectrum plan made under subsection 30 (1) of the Act.

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* is available on the ACMA website at: www.acma.gov.au.

Definitions (cont)

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

Note: Copies of the Radio Regulations can be obtained from the International Telecommunications Union website at: www.itu.int

Licence Schedule means a Schedule to this licence.

metropolitan areas means the Adelaide, Brisbane, Melbourne, Perth and Sydney areas of high mobile use as defined in Schedule 4 of the *Radiocommunications (Unacceptable Levels of Interference - 1800 MHz Band) Determination 2023* (as in force at the commencement of the licence).

non-active antenna system or ***non-AAS*** means a base station antenna system that is not an AAS.

non-metropolitan areas means any areas that are not metropolitan areas.

occupied bandwidth, in relation to a radiocommunications transmitter, means the width of a frequency band having upper and lower limits that are necessary to contain 99% of the true mean power of the transmitter's radio emission at any time.

peak power means the average power measured within a specified bandwidth during one radio frequency cycle at the crest of the signal envelope.

RALI MS 34 means the Radiocommunications Assignment and Licensing Instruction MS 34 Frequency coordination and licensing procedures for apparatus licensed PTS in the 1800 MHz band, published by the ACMA, as existing at the commencement of the licence.

Note: RALI MS 34 is available, free of charge, from the ACMA's website at www.acma.gov.au

relevant rail licensee has the same meaning as in RALI MS 34.

total radiated power or ***TRP*** is defined as 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.

unwanted emission, in relation to the operation of a radiocommunications transmitter authorised by this licence, means a radio emission outside the lower and upper frequency limits of the frequency bands described in Table 1 of Part 2 of Licence Schedule 1 of this licence.

Definitions (cont)

5. Unless the contrary intention appears, terms and expressions used in this licence have the meanings given to them by the *Radiocommunications (Unacceptable Levels of Interference - 1800 MHz Band) Determination 2023* (as in force from time to time), or any instrument made under subsection 145(4) of the Act as a replacement of that determination (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 licence tax
   - 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) the range of numbers that identify a frequency band includes the higher, but not the lower, number.

Licence Schedule 1 Licence details, bands and areas

Part 1 Licence Details

Item	*Licensee Details*	
1	*Name of licensee*	
2	*Address of licensee*	
3	*Client number*	
	Licence Details	
4	*Band release*	1800 MHz Band
5	*Date of licence effect*	18/06/2028
6	*Date of licence expiry*	30/06/2044
7	*Licence number*	
8	*Date of licence issue*	4/05/2023

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 of Table 1 and within the corresponding geographic areas specified in column 2 of Table 1.

The frequency bands consist of the bandwidth between the lower and upper frequencies, where the lower frequency limit is exclusive and 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.

Licence Schedule 1 Licence details, bands and areas (cont)

Table 1: Frequency bands and geographic areas of this licence

Identifier (column 1)	Geographic areas (column 2)	Frequency bands (column 3)			
		Lower band (MHz)		Upper band (MHz)	
		Lower limit	Upper limit	Lower limit	Upper limit

Table 2: Description of the geographic areas of this licence

Geographic areas (column 1)	HCIS identifiers (column 2)
1	

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.

Part 3 Statements

Renewal statement

The licence may be renewed at the discretion of the ACMA.

Renewal application period statement

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

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 25 apply in relation to those frequencies that are outside the frequency bands set out in Part 2 of Licence Schedule 1.

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 a written agreement specifying the maximum permitted level of radio emission for frequencies and areas described in Core Conditions 15 and 16 exists between:
   (a) the licensee; and
   (b) the relevant rail licensee as defined in RALI MS34.

   the licensee must comply with that specified maximum permitted level of radio emission.

5. The licensee may exceed the maximum permitted level of radio emission for frequencies and areas described in Core Condition 15 and 16, if the licensee complies with all requirements detailed in RALI MS34 in relation to the coexistence between radiocommunications transmitters operated under this spectrum licence and services under another licence by a relevant rail licensee.

6. Subject to Core Condition 7, where there is no written agreement for the purposes of Core Condition 3 in force, the licensee must comply with Core Conditions 8 to 25.

7. Where a radiocommunications transmitter:
   (a) is authorised to operate under both this spectrum licence and another licence (the other licence) in another frequency band (the other band); and
   (b) the holder of this spectrum licence and the holder of the other licence:
      (i) are the same person; or
      (ii) are not the same person, and the holder of the other licence, by written agreement, authorises the holder of this spectrum licence to operate the transmitter under the other licence for the purposes of this condition

the radiocommunications transmitter, when operating under this spectrum licence:

(c) must comply with the unwanted emission limits in a particular frequency range that are specified in the other licence and that would be applicable to the transmitter's operation in the other band, to the extent that those limits differ from the unwanted emission limits described in Core Conditions 19 and 20 of this spectrum licence for that particular frequency range; and

(d) may exceed the unwanted emission limits described in Core Conditions 19 and 20 of this spectrum licence in respect of operation in frequency bands set out in the other licence.

Note 1: Under paragraph 7(c), operation of a radiocommunications transmitter must comply with the unwanted emission limits specified in the other licence if those limits are different to the unwanted emission limits for the same frequency range as specified in Core Conditions 19 and 20. This requirement only applies to frequency ranges for which unwanted emissions limits in Core Conditions 19 and 20 apply. For the purposes of paragraph 7(c), the applicable unwanted emission limits in the other licence are those that apply to the particular frequency range that the transmitter is operating in.

Note 2: The purpose of paragraph 7(d) is to allow the radiocommunications transmitter to exceed the unwanted emissions limits in Core Conditions 19 and 20 within the frequency bands authorised by the other licence.

Note 3: Under paragraph 7(a) "authorised to operate" also means that the radiocommunications transmitter meets the registration requirements as applicable for a transmitter operated under the other licence.

Unwanted emission limits outside the frequency bands

8. (1) The licensee must ensure that radiocommunications transmitters operated under this licence in the 1800 MHz upper band do not exceed the unwanted emission limits in Core Conditions 9, 11, 13 and 15 for non-AAS devices and Core Conditions 10, 12, 14 and 16 for AAS devices.

(2) Subject to sub-condition 8(3), the licensee must ensure that radiocommunications transmitters operated under this licence in the 1800 MHz lower band do not exceed the unwanted emission limits in Core Conditions 17 and 21.

(3) For any frequency where an emission limit described in Core Condition 18 is less than the emission limit described in Core Condition 17, the emission limits in Core Condition 18 applies.

(4) The licensee must ensure that radiocommunications receivers operated under this licence do not exceed the unwanted emission limits described in Core Conditions 22 to 25.

Licence Schedule 2 Core Conditions (cont)

9. The unwanted emission limits in Table 3 apply to all radiocommunications transmitters with non-AAS:
   (a) operating inside the 1805-1880 MHz frequency band; and
   (b) operating outside of affected areas; and
   (c) for unwanted emissions falling within the 1795-1880 MHz frequency range; and
   (d) at frequencies outside the upper or lower frequency limits set out in Part 2 of Licence Schedule 1; and
   (e) offset from the upper or lower frequency limits set out in Part 2 of Licence Schedule 1;

   where:
   f_{offset}: is the frequency offset from the upper or lower frequency limits set out in Part 2 of Licence Schedule 1. The closest -3dB point of the measurement bandwidth to the upper or lower frequency limits is placed at **f_{offset}**.

Table 3: Unwanted emission limits for transmitters operating in the 1800 MHz upper band outside of affected areas – at frequencies inside the 1795-1880 MHz range – non-AAS devices

Frequency offset (f_{offset})	Mean power (dBm) per transmitter port	Measurement Bandwidth
0 kHz $\leq f_{offset} <$ 200 kHz	6.5	30 kHz
200 kHz $\leq f_{offset} <$ 5 MHz	-7 – 1.4 x (f_{offset} (MHz) – 0.05)	100 kHz
5 MHz $\leq f_{offset} <$ 10 MHz	-14	100 kHz
10 MHz $\leq f_{offset}$	-15	1 MHz

10. The unwanted emission limits in Table 4 apply to all radiocommunications transmitters with AAS:
   (a) operating inside the 1805-1880 MHz frequency band; and
   (b) operating outside of affected areas; and
   (c) for unwanted emissions falling within the 1795-1880 MHz frequency range; and
   (d) at frequencies outside the upper or lower frequency limits set out in Part 2 of Licence Schedule 1; and
   (e) offset from the upper or lower frequency limits set out in Part 2 of Licence Schedule 1;

   where:
   f_{offset}: is the frequency offset from the upper or lower frequency limits set out in Part 2 of Licence Schedule 1. The closest -3dB point of the measurement bandwidth to the upper or lower frequency limits is placed at **f_{offset}**.

Table 4: Unwanted emission limits for transmitters operating in the 1800 MHz upper band outside of affected areas – at frequencies inside the 1795-1880 MHz range – AAS devices

Frequency offset (f_{offset})	Total Radiated Power (dBm) per cell/sector	Measurement Bandwidth
0 kHz $\leq f_{offset} <$ 200 kHz	15.5	30 kHz
200 kHz $\leq f_{offset} <$ 5 MHz	2 – 1.4 x (f_{offset} (MHz) – 0.05)	100 kHz
5 MHz $\leq f_{offset} <$ 10 MHz	-5	100 kHz
10 MHz $\leq f_{offset}$	-6	1 MHz

11. The unwanted emission limits in Table 5 apply to all radiocommunications transmitters with non-AAS:
    (a) operating inside the 1805-1880 MHz frequency band; and
    (b) at frequencies above 1880 MHz; and
    (c) offset no more than 10 MHz from 1880 MHz;

    where:
    f_{offset}: is the frequency offset from 1880 MHz. The closest -3dB point of the specified bandwidth to the upper or lower frequency limits is placed at **f_{offset}**.

Table 5: Unwanted emission limits for transmitters operating in the 1800 MHz upper band – at frequencies inside the 1880-1890 MHz band – non-AAS devices.

Frequency offset (f_{offset})	Mean power (dBm) per transmitter port	Measurement Bandwidth
0 kHz $\leq f_{offset} <$ 200 kHz	6.5	30 kHz
200 kHz $\leq f_{offset} <$ 1 MHz	-14 – 15 x (f_{offset} (MHz) – 0.215)	30 kHz
1 MHz $\leq f_{offset} <$ 1.5 MHz	-26	30 kHz
1.5 MHz $\leq f_{offset}$	-15	1 MHz

12. The unwanted emission limits in Table 6 apply to all radiocommunications transmitters with AAS:
    (a) operating inside the 1805-1880 MHz frequency band; and
    (b) at frequencies above 1880 MHz; and
    (c) offset no more than 10 MHz from 1880 MHz;

    where:
    f_{offset}: is the frequency offset from 1880 MHz. The closest -3dB point of the specified bandwidth to the upper or lower frequency limits is placed at **f_{offset}**.

Table 6: Unwanted emission limits for transmitters operating in the 1800 MHz upper band – at frequencies inside the 1880-1890 MHz band – AAS devices.

Frequency offset (f_{offset})	Total Radiated Power (dBm) per cell/sector	Measurement Bandwidth
0 kHz $\leq f_{offset} <$ 200 kHz	15.5	30 kHz
200 kHz $\leq f_{offset} <$ 1 MHz	-4 - 13.125 x (f_{offset} (MHz) – 0.2)	30 kHz
1 MHz $\leq f_{offset} <$ 5.8 MHz	0.7	1 MHz
5.8 MHz $\leq f_{offset}$	-3.7	1 MHz

13. The unwanted emission limits in Table 7 apply to all radiocommunications transmitters with non-AAS:
    (a) operating inside the 1805-1880 MHz frequency band; and
    (b) within an affected area; and
    (c) for unwanted emissions falling within the 1795-1880 MHz frequency range; and
    (d) not within the affected frequency range; and
    (e) at frequencies outside the upper or lower frequency limits set out in Part 2 of Licence Schedule 1; and
    (f) offset from the upper or lower frequency limits set out in Part 2 of Licence Schedule 1;

    where:

    f_{offset}: is the frequency offset from the upper or lower frequency limits set out in Part 2 of Licence Schedule 1. The closest -3dB point of the specified bandwidth to the upper or lower frequency limits is placed at **f_{offset}**.

Table 7: Unwanted emission limits for transmitters operating in the 1800 MHz upper band inside affected areas – at frequencies inside the 1795-1865/1870 MHz band – non-AAS devices.

Frequency offset (f_{offset})	Mean power (dBm) per transmitter port	Measurement Bandwidth
0 kHz $\leq f_{offset} <$ 200 kHz	6.5	30 kHz
200 kHz $\leq f_{offset} <$ 5 MHz	-7 – 1.4 x (f_{offset} (MHz) – 0.05)	100 kHz
5 MHz $\leq f_{offset} <$ 10 MHz	-14	100 kHz
10 MHz $\leq f_{offset}$	-15	1 MHz

14. The unwanted emission limits in Table 8 apply to all radiocommunications transmitters with AAS:
    (a) operating inside the 1805-1880 MHz frequency band; and
    (b) within an affected area; and
    (c) for unwanted emissions falling within the 1795-1880 MHz frequency range; and
    (d) not within the affected frequency range; and
    (e) at frequencies outside the upper or lower frequency limits set out in Part 2 of Licence Schedule 1; and
    (f) offset from the upper or lower frequency limits set out in Part 2 of Licence Schedule 1;

    where:
    f_{offset}: is the frequency offset from the upper or lower frequency limits set out in Part 2 of Licence Schedule 1. The closest -3dB point of the specified bandwidth to the upper or lower frequency limits is placed at **f_{offset}**.

Table 8: Unwanted emission limits for transmitters operating in the 1800 MHz upper band inside affected areas – at frequencies inside the 1795-1865/1870 MHz band – AAS devices.

Frequency offset (f_{offset})	Total Radiated Power (dBm) per cell/sector	Measurement Bandwidth
0 kHz $\leq f_{offset} <$ 200 kHz	15.5	30 kHz
200 kHz $\leq f_{offset} <$ 5 MHz	2 – 1.4 x (f_{offset} (MHz) – 0.05)	100 kHz
5 MHz $\leq f_{offset} <$ 10 MHz	-5	100 kHz
10 MHz $\leq f_{offset}$	-6	1 MHz

15. The unwanted emission limits in Table 9 apply to all radiocommunications transmitters with non-AAS:
    (a) operating inside the 1805-1880 MHz frequency band; and
    (b) within an affected area; and
    (c) for unwanted emissions falling within the affected frequency range; and
    (d) offset from the lower frequency limit of the affected frequency range;

    where:
    f_{offset}: is the frequency offset from the lower frequency limit in the affected frequency range. The closest -3dB point of the specified bandwidth to the upper or lower frequency limits is placed at **f_{offset}**.

Table 9: Unwanted emission limits for transmitters operating in the 1800 MHz upper band inside affected areas – at frequencies inside the 1865/1870-1880 MHz band – non-AAS devices.

Frequency offset (f_{offset})	Radiated Maximum True Mean Power (dBm EIRP)	Measurement Bandwidth
0 kHz $\leq f_{offset} <$ 200 kHz	21.5	30 kHz
200 kHz $\leq f_{offset} <$ 1 MHz	2 - 13.125 x (f_{offset} (MHz) – 0.2)	30 kHz
1 MHz $\leq f_{offset} <$ 5.8 MHz	-8.5	30 kHz
5.8 MHz $\leq f_{offset}$	-13	30 kHz

16. The unwanted emission limits in Table 10 apply to all radiocommunications transmitters with AAS:
    (a) operating inside the 1805-1880 MHz frequency band; and
    (b) within an affected area; and
    (c) for unwanted emissions falling within the affected frequency range; and
    (d) offset from the lower frequency limit in the affected frequency range;

    where:
    f_{offset}: is the frequency offset from the lower frequency limit in the affected frequency range. The closest -3dB point of the specified bandwidth to the upper or lower frequency limits is placed at **f_{offset}**.

Table 10: Unwanted emission limits for transmitters operating in the 1800 MHz upper band inside affected areas – at frequencies inside the 1865/1870-1880 MHz band – AAS devices.

Frequency offset (f_{offset})	Total Radiated Power (dBm) per cell/sector	Measurement Bandwidth
0 kHz $\leq f_{offset} <$ 200 kHz	15.5	30 kHz
200 kHz $\leq f_{offset} <$ 1 MHz	-4 - 13.125 x (f_{offset} (MHz) – 0.2)	30 kHz
1 MHz $\leq f_{offset} <$ 5.8 MHz	0.7	1 MHz
5.8 MHz $\leq f_{offset}$	-3.7	1 MHz

17. The unwanted emission limits in Table 11 apply to all radiocommunications transmitters:
    (a) operating inside the 1710-1785 MHz frequency band; and
    (b) at $f_{offset} \leq$ occupied bandwidth (measured in MHz) + 5 MHz; and
    (c) at frequencies outside the upper or lower frequency limits as set out in Part 2 of Licence Schedule 1; and
    (d) offset from the upper or lower frequency limits set out in Part 2 of Licence Schedule 1;
    where:
    f_{offset}: is the frequency offset from the upper or lower frequency limits set out in Part 2 of Licence Schedule 1. The closest -3dB point of the specified bandwidth to the upper or lower frequency limits of the licence is placed at **f_{offset}**.

Table 11: Unwanted emission limits for transmitters operating in the 1800 MHz lower band for $f_{offset} \leq$ occupied bandwidth + 5 MHz - all transmitters.

Frequency offset (f_{offset})	Radiated Maximum True Mean Power (dBm EIRP)	Measurement Bandwidth
0 kHz $\leq f_{offset} <$ 200 kHz	21.5	30 kHz
200 kHz $\leq f_{offset} <$ 1 MHz	2 - 13.125 x (f_{offset} - 0.2)	30 kHz
1 MHz $\leq f_{offset} <$ 5.8 MHz	-8.5	30 kHz
5.8 MHz $\leq f_{offset}$	-13	30 kHz

18. The unwanted emission limits in Tables 12a and 12b apply to all radiocommunications transmitters:
    (a) operating inside the 1710-1785 MHz frequency band; and
    (b) at frequencies below 1710 MHz; and
    (c) at $f_{offset} \leq$ occupied bandwidth (measured in MHz) + 5 MHz;

    where:
    f_{offset}: is the frequency offset from the upper or lower frequency limits set out in Part 2 of Licence Schedule 1. The closest -3dB point of the specified bandwidth to the lower frequency limits of the licence is placed at **f_{offset}**.

Table 12a: Unwanted emission limits for transmitters operating in the 1800 MHz lower band at frequencies below 1710 MHz and for foffset < occupied bandwidth + 5 MHz - all transmitters.

Frequency Range	Radiated Maximum True Mean Power (dBm EIRP)	Measurement Bandwidth
1709.5 MHz $\leq f <$ 1710 MHz	-8.5	30 kHz
f < 1709.5 MHz	-33.5	30 kHz

Table 12b: Unwanted emission limits for transmitters operating in the 1800 MHz lower band at frequencies between 1709.7 MHz and 1710 MHz and for $f_{offset} \leq$ occupied bandwidth + 5 MHz - all transmitters.

Frequency Range	Radiated Peak Power (dBm EIRP)	Measurement Bandwidth
1709.7 MHz $\leq f <$ 1710 MHz	-10	300 kHz

19. The unwanted emission limits in Table 13 apply to all radiocommunications transmitters with non-AAS:
    (a) operating inside the 1805-1880 MHz frequency band; and
    (b) at frequencies outside the 1795-1890 frequency band.

Table 13: Unwanted emission limits for transmitters operating in the 1800 MHz upper band at frequencies outside the 1795-1890 MHz band - non-AAS devices.

Frequency range (f)	Mean power (dBm) per transmitter port	Measurement Bandwidth
9 kHz < f ≤ 150 kHz	-36	1 kHz
150 kHz < f ≤ 30 MHz	-36	10 kHz
30 MHz < f ≤ 1 GHz	-36	100 kHz
1 GHz < f ≤ 12.75 GHz	-30	1 MHz

20. The unwanted emission limits in Table 14 apply to all radiocommunications transmitters with AAS:
    (a) operating inside the 1805-1880 MHz frequency band; and
    (b) at frequencies outside the 1795-1890 frequency band.

Table 14: Unwanted emission limits for transmitters operating in the 1800 MHz upper band at frequencies outside the 1795-1890 MHz band - AAS devices.

Frequency range (f)	Total Radiated Power (dBm) per cell/sector	Measurement Bandwidth
9 kHz < f ≤ 150 kHz	-27	1 kHz
150 kHz < f ≤ 30 MHz	-27	10 kHz
30 MHz < f ≤ 1 GHz	-27	100 kHz
1 GHz < f ≤ 12.75 GHz	-21	1 MHz

21. The unwanted emission limits in Table 15 apply to all radiocommunications transmitters:
    (a) operating inside the 1710-1785 MHz frequency band; and
    (b) at f_{offset} > occupied bandwidth (measured in MHz) + 5 MHz;

    where:
    f_{offset}: is the frequency offset from the upper or lower frequency limits set out in Part 2 of Licence Schedule 1. The closest -3dB point of the specified bandwidth to the upper or lower frequency limits of the licence is placed at **f_{offset}**.

Table 15: Unwanted emission limits for transmitters operating in the 1800 MHz lower band for foffset > occupied bandwidth + 5 MHz - all transmitters.

Frequency range (f)	Total Radiated Power (dBm)	Measurement Bandwidth
9 kHz < f ≤ 150 kHz	-36	1 kHz
150 kHz < f ≤ 30 MHz	-36	10 kHz
30 MHz < f ≤ 1 GHz	-36	100 kHz
1 GHz < f ≤ 12.75 GHz	-30	1 MHz

22. The unwanted emission limits in Table 16 apply to all radiocommunications receivers with non-AAS:
    (a) operating inside the 1710-1785 MHz frequency band; and
    (b) at frequencies outside the 1795-1890 MHz frequency band.

Table 16: Unwanted emission limits for receivers operating in the 1800 MHz lower band at frequencies outside the 1795-1890 MHz band - non-AAS devices.

Frequency range (f)	Mean power (dBm) per receiver port	Measurement Bandwidth
30 MHz < f ≤ 1 GHz	-57	100 kHz
1 GHz < f ≤ 12.75 GHz	-47	1 MHz

23. For a radiocommunications receiver mentioned in Core Condition 22, where the antenna or transceiver array boundary connectors support both the radiocommunications receiver and a radiocommunications transmitter:
    (a) the unwanted emission limits in Table 16 do not apply; and
    (b) the unwanted emission limits in Table 13 apply, measured over the measurement bandwidth, for the relevant frequency range.

24. The unwanted emission limits in Table 14, measured over the measurement bandwidth for the relevant frequency range, apply to radiocommunications receivers with AAS:

    (a) for receivers operating inside the 1710-1785 MHz frequency band; and
    (b) at frequencies outside the 1795-1890 MHz frequency band.

25. The unwanted emission limits in Table 17 apply to all radiocommunications receivers operating inside the 1805-1880 MHz frequency band.

Table 17: Unwanted emission limits for receivers operating in the 1800 MHz upper band - all receivers

Frequency range (f)	Total Radiated Power (dBm)	Measurement Bandwidth
30 MHz < f ≤ 1 GHz	-57	100 kHz
1 GHz < f ≤ 12.75 GHz	-47	1 MHz

Emission limits outside the geographic area

26. Core Conditions 27 to 30 apply in relation to those areas that are outside the geographic areas set out in Part 2 of Licence Schedule 1.

27. Where a written agreement specifying the maximum permitted level of radio emission for areas described in Core Condition 26 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.

28. Where there is no written agreement for the purposes of Core Condition 27 in force, the licensee must comply with Core Condition 29.

29. The licensee must ensure that the maximum permitted level of radio emission for an area that is outside the geographic areas set out in Part 2 of Licence Schedule 1 caused by the operation of radiocommunications transmitters under this licence does not exceed either:
    (a) a total radiated power of 50 dBm/5 MHz for transmitters located in metropolitan areas; or
    (b) a total radiated power of 53 dBm/5 MHz for transmitters located in non-metropolitan areas.

30. The licensee complies with Core Condition 29 by ensuring that the maximum permitted level of radio emissions caused by the operation of radiocommunications transmitters under this licence does not exceed either:
    (a) a total radiated power of 50 dBm/5 MHz for transmitters located in metropolitan areas; or
    (b) a total radiated power of 53 dBm/5 MHz for transmitters located in non-metropolitan areas.

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 the licence (if applicable); 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. The licensee must not operate a radiocommunications transmitter under this licence unless:
   (a) the transmitter has been exempted from 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. A radiocommunications transmitter that operates in the 1800 MHz band with a total radiated power of less than or equal to 28 dBm per occupied bandwidth is exempt from the registration requirement in Statutory Condition 3.

Residency

5. (1) The licensee must not derive any income, profits or gains from operating radiocommunications devices under this licence, or from authorising an authorised person 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) An authorised person must not derive any 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*.

   authorised person means a person authorised under section 68 of the Act by the licensee to operate radiocommunications devices under this licence.

   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:

   communal site has the same meaning as in the *Radiocommunications Licence Conditions (Transmitter Licence) Determination 2025* (the ***Transmitter Licence Determination***), as in force from time to time, or any instrument made under subsection 110A(2) of the Act as a replacement of the Transmitter Licence Determination, as in force from time to time.

   managing interference includes but is not limited to:
   (a) investigating the possible causes of the interference; and
   (b) taking all steps reasonably necessary to resolve disputes about interference; and
   (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; and
   (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 a radiocommunications device:
      (i) operated under this spectrum licence; and
      (ii) 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.

Licence Schedule 4 Other Conditions (cont)

Information for the 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 radiocommunications device registration details as soon as possible.

International coordination

5. A 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 each condition (the ***applied conditions***) in Parts 2, 3 and 4 of the *Radiocommunications Licence Conditions (Transmitter Licence) Determination 2025* (the ***Transmitter Licence Determination***), as in force from time to time, or the equivalent Parts of any instrument made under subsection 110A(2) of the Act as a replacement of the Transmitter Licence Determination (the ***replacement determination***), as in force from time to time, as if the applied conditions apply to, and are included in, this licence. Each definition in, and each other provision in Parts 2, 3 and 4 of, the Transmitter Licence Determination or the equivalent Parts of the replacement determination has the same or equivalent effect in relation to this condition as it does in relation to the applied conditions.

Record Keeping - transmitters located at communal sites

7. (1) If the licensee operates a radiocommunications transmitter under this licence, and the transmitter:
   (a) is located at a communal site; and
   (b) is not exempt under Statutory Condition 4 of Licence Schedule 3;

   the licensee must comply with sub-conditions 7(2) and 7(3).

7. (2) In relation to each radiocommunications transmitter, the licensee must keep a record which includes the following information:

(a) the transmitter's device registration number as specified in the Register;
(b) the licence number of this licence;
(c) the transmitter's geographic location;
(d) if the licensee owns the transmitter, the licensee's name and address;
(e) if the licensee does not own the transmitter, the owner's name and address;
(f) the transmitter's centre frequency;
(g) the transmitter's emission designator;
(h) details of the transmitter's antenna including the manufacturer, model, type, gain, polarisation, azimuth and average ground height;
(i) the transmitter's maximum true mean power;
(j) the transmitter's maximum EIRP.

(3) If the ACMA requests a copy of a record kept under sub-condition 7(2), the licensee must comply with the request as soon as practicable.

Harmful interference

8. 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 operating under a different spectrum or apparatus licence.

Licence Schedule 5 Licence Notes

Variation to licence conditions

1. The ACMA may, with the written agreement of the licensee, vary this licence by including one or more further conditions, or 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, 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 the 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 Interference

3. The ACMA has made the *Radiocommunications (Unacceptable Levels of Interference - 1800 MHz Band) Determination 2023*, as in force from time to time, 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 advised because one of the matters the ACMA will take into account in settling interference disputes is the time of registration of the receiver involved in the interference.

Note 2: The *Radiocommunications (Unacceptable Levels of Interference - 1800 MHz Band) Determination 2023*, can be accessed, free of charge, on the Federal Register of Legislation at www.legislation.gov.au.

Note 3: The *Radiocommunications (Unacceptable Levels of Interference - 1800 MHz Band) Determination 2023* may be replaced as a result of the sunsetting provisions in the *Legislation Act 2003* or for other reasons.

Guidelines

4. The ACMA has issued written radiocommunications advisory guidelines (***the guidelines***) under section 262 of the Act about the following:
   (a) co-ordinating the operation of radiocommunications transmitters under this licence with radiocommunications receivers operated under other licences:
      - *Radiocommunications Advisory Guidelines (Managing Interference from Spectrum Licensed Transmitters - 1800 MHz Band) 2023*;
   (b) co-ordinating the operation of radiocommunications receivers operated under this licence with radiocommunications transmitters operated under other licences:
      - *Radiocommunications Advisory Guidelines (Managing Interference to*

5. The guidelines should be read in conjunction with the *Radiocommunications Unacceptable Levels of Interference - 1800 MHz Band) Determination 2023* (see Licence Note 3). The 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.

   Note 1: These guidelines can be accessed, free of charge, on the Federal Register of Legislation at www.legislation.gov.au.

   Note 2: The guidelines may be replaced as a result of the sunsetting provisions in the *Legislation Act 2003* or for other reasons.

Suspension and cancellation of spectrum licences

6. 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

7. The ACMA may renew spectrum licences in accordance with Division 3A of Part 3.2 of the Act and the licence statements set out in Part 3 of Licence Schedule 1.

8. A person may apply for renewal in accordance with section 77A of the Act. The application must be made within the renewal application period set out in Part 3 of Licence Schedule 1.

9. The ACMA must make its decision within the renewal decision-making period set out in Part 3 of Licence Schedule 1.

10. 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.

Trading

11. (1) A licensee may assign or otherwise deal with the whole or any part of a spectrum licence provided that 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 licence that involves any change to a licence does not take effect until the Register in respect of spectrum licences has been amended under Part 3.5 of the Act, to take it into account.

Appeals

12. An application may be made to the ACMA for re-consideration 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 Review Tribunal, subject to the provisions of the *Administrative Review Tribunal Act 2024*.

Labelling of transmitters

13. 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'".