

Radiocommunications Licence Conditions (Fixed Licence) Determination 2025

The Australian Communications and Media Authority makes the following determination under subsection 110A(2) of the *Radiocommunications Act 1992*.

Dated:

Member

Member/General Manager

Australian Communications and Media Authority

Part 1 Preliminary

1 Name

 This is the *Radiocommunications Licence Conditions (Fixed Licence) Determination 2025*.

2 Commencement

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

Note: The Federal Register of Legislation is available, free of charge, at www.legislation.gov.au.

3 Authority

 This instrument is made under subsection 110A(2) of the Act.

4 Repeal

 The *Radiocommunications Licence Conditions (Fixed Licence) Determination 2015* (F2015L01430) is repealed.

5 Interpretation

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

***3.4 GHz band uplink-downlink configuration*** means an uplink-downlink configuration that is consistent with both:

 (a) uplink-downlink configuration 2 in Table 4.2-2 of 3GPP TS 36.211; and

 (b) special subframe configuration 6 in Table 4.2-1 of 3GPP TS 36.211.

***3.4 GHz spectrum licence*** means a spectrum licence that authorises the operation of radiocommunications devices in the 3.4 GHz to 3.8 GHZ frequency band.

***3GPP TS 36.211*** means *LTE; Evolved Universal Terrestrial Radio Access (E-UTRA); Physical channels and modulation (3GPP TS 36.211)*, published by the European Telecommunications Standards Institute.

Note: 3GPP TS 36.211 is available, free of charge, from the European Telecommunication Standards Institute’s website at https://portal.etsi.org.

***AAS*** (short for active antenna system) means an 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.

***base station***: see subsection (2).

***bit error ratio*** means the ratio of:

 (a) the number of bit errors; to

 (b) the total number of bits transmitted;

in a given period.

***conducted spurious power*** means the power of spurious emissions:

 (a) generated from components and wiring in a radiocommunications device; and

 (b) conducted to the input terminals of the device’s antenna.

***distance education service*** means an education service known as School of the Air.

Example: The Alice Springs School of the Air is a distance education service (see www.assoa.nt.edu.au).

***duty cycle***: see subsection (3).

***fixed licence (point to multipoint station)*** means a fixed licence (other than a fixed licence (point to multipoint system)) that authorises the operation of a point to multipoint station.

***fixed licence (point to multipoint system)*** means a fixed licence that authorises the operation of:

 (a) one or more point to multipoint stations in a point to multipoint system; and

 (b) one or more remote mobile stations.

Note: A point to multipoint station is a fixed station. A remote mobile station is a land mobile station; however, the fixed licence that authorises the operation of the remote mobile station confines the area in which the remote mobile station may be used. For example, see section 33 for some fixed licences.

***fixed licence (point to point station)*** means a fixed licence that authorises the operation of a point to point station.

***fixed licence (sound outside broadcast station)*** means a fixed licence that authorises the operation of a sound outside broadcast station.

Note: A fixed licence (sound outside broadcast station) that authorises operation of a radiocommunications transmitter in a particular area may authorise operation of the transmitter on the same frequencies as specified for radiocommunications transmitters in other fixed licences (sound outside broadcast station) in the same area.

***fixed licence (television outside broadcast network station)*** means a fixed licence that authorises the operation of a television outside broadcast network station.

Note: A fixed licence (television outside broadcast network station) authorises operation of one or more radiocommunications transmitters on more than one frequency, anywhere in Australia.

***fixed licence (television outside broadcast station)*** means a fixed licence that authorises the operation of one television outside broadcast station.

Note: A fixed licence (television outside broadcast station) authorises operation of only one radiocommunications transmitter, in a specified area.

***fixed licence (television outside broadcast system station)*** means a fixed licence that authorises the operation of a television outside broadcast system station.

Note: A fixed licence (television outside broadcast system station) may authorise operation of one or more radiocommunications transmitters, in a specified area.

***front/back ratio***, for the antenna of a station, means the ratio of:

 (a) the maximum directivity of the antenna in the forward direction; to

 (b) the highest gain of the antenna within the range of angles from 140° to 220° from the maximum gain of the antenna.

***mid band gain***, for the antenna of a station, means the antenna gain in the centre of the frequency band in which the station is used.

***receive frequency***, for a base station, means each of the frequencies specified in the relevant licence for the receipt of transmissions by the base station.

***relevant licence***, for a base station, means the fixed licence that authorises the operation of the station.

***remote control station*** means a fixed station that is used, or intended to be used, to remotely control:

 (a) a base station; or

 (b) a supplementary base station.

***remote mobile station*** means a land mobile station that is used, or intended to be used, to communicate with:

 (a) a base station; or

 (b) a supplementary base station.

***remote station*** means a fixed station that is used, or intended to be used, to communicate with:

 (a) a base station; or

 (b) a supplementary base station.

***supplementary base station*** means a fixed point to multipoint station that is used, or intended to be used, with a base station to communicate with a remote station or remote mobile station.

***suppressed carrier single-sideband emission*** has the meaning given by the Radio Regulations.

Note: See Section VI, Article 1.143, Chapter I of the Radio Regulations. The Radio Regulations are available, free of charge, from the International Telecommunication Union’s website at www.itu.int.

***time division duplex***, in relation to operation of a base station, means using the same frequency or frequency band for both transmission and reception, where transmission occurs at a different time to reception.

***transmit frequency*** for a base station, means each of the frequencies specified in the relevant licence for transmissions by the base station.

***transmit power control*** means a function that changes the power at which a radiocommunications transmitter operates, to maintain a particular level of reception quality.

***unwanted emission***, in relation to the operation of a radiocommunications transmitter authorised by a fixed licence, means an emission outside the upper or lower frequency limits set out in the licence.

***urban area***: see Schedule 1.

Note 1: A number of other expressions used in this instrument are defined in the Act, including the following:

(a) ACMA;

(b) apparatus licence;

(c) frequency band;

(d) import;

(e) interference;

(f) operate;

(g) radiocommunication;

(h) radiocommunications device;

(i) radiocommunications receiver;

(j) radiocommunications transmitter;

(k) re-allocation period;

(l) reception;

(m) Register;

(n) spectrum;

(o) spectrum licence;

(p) spectrum re-allocation declaration

(q) transmitter licence.

Note 2: Other expressions used in this instrument may be defined in a determination, made under subsection 64(1) of the *Australian Communications and Media Authority Act 2005*, that applies to this instrument, including:

(a) Act;

(b) area-wide licence;

(c) communication;

(d) EIRP;

(e) fixed licence;

(f) fixed station;

(g) harmful interference;

(h) HCIS identifier;

(i) high frequency;

(j) land mobile station;

(k) medium frequency;

(l) point to multipoint station;

(m) point to multipoint system;

(n) point to point station;

(o) pX;

(p) Radio Regulations;

(q) sound outside broadcast station;

(r) spurious emission;

(s) station;

(t) television outside broadcast network station;

(u) television outside broadcast station;

(v) television outside broadcast system station;

(w) very high frequency.

 (2) In this instrument, if a point to multipoint station is operated at a fixed location mentioned in a fixed licence, the station is a ***base station***.

Note: Some fixed licences may authorise the operation of more than one radiocommunications transmitter. Each such transmitter may be, or be part of, a base station, a supplementary base station, a remote control station, a remote station or, for some fixed licences, a remote mobile station. A base station is at a fixed location specified in the licence. The locations of other stations, whether or not they are fixed, are not specified in the licence.

 (3) In this instrument, where a radiocommunications transmitter is operated during a period (the ***total period***), the ***duty cycle*** is the ratio of:

 (a) the period the transmitter was operated; to

 (b) the total period.

Note: The maximum possible value of the duty cycle is 1. The value of the duty cycle will be less than 1 if the radiocommunications transmitter was not continuously operated during the total period.

 (4) In this instrument, unless the contrary intention appears, a reference to a station is taken to be a reference to each radiocommunications transmitter that forms part of the station.

Note: A station is an installation or thing that is, or includes, one or more radiocommunications transmitters, one or more radiocommunications receivers, or both one or more radiocommunications transmitters and one or more radiocommunications receivers. This instrument imposes licence conditions on fixed licences, which are a type of transmitter licence, so this instrument is primarily concerned with transmitter licences and the radiocommunications transmitters whose operation is authorised by those licences. However, the operation of some conditions in relation to some fixed licences may depend on particular radiocommunications receivers (including fixed receive stations).

 (5) In this instrument, unless the contrary intention appears, a reference to a part of the spectrum or frequency band 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 the part of the spectrum or frequency band is not included in the part or band.

 (6) Unless the contrary intention appears, no condition in Parts 2 to 10 (inclusive) limits any other condition in those Parts.

6 References to other instruments

 In this instrument, unless the contrary intention appears:

 (a) a reference to any other 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.

Note 3: See section 314A of the Act.

Part 2 Conditions – fixed licence

7 Application of Part 2

 (1) Subject to subsection (2), every fixed licence is subject to the conditions in this Part.

 (2) If:

 (a) a condition is specified in a fixed licence under paragraph 107(1)(g) of the Act, or imposed on the licence under paragraph 111(1)(a) of the Act; and

 (b) that condition is inconsistent with a condition specified in this Part;

 then, to the extent of any inconsistency, the condition mentioned in paragraph (a) prevails.

8 Condition – no operation in part of the spectrum and area declared for spectrum licensing

 (1) This section applies if:

 (a) the ACMA makes a spectrum re-allocation declaration that:

(i) a specified part of the spectrum is subject to re-allocation under Part 3.6 of the Act (the ***declared part of the spectrum***) in relation to the re-allocation period for the declaration; and

(ii) under subsection 153B(3) of the Act, specifies an area (the ***declared area***) for the declared part of the spectrum; and

 (b) a fixed licence authorises the operation of a station without specifying the location from which the station must be operated (the ***relevant station***).

Example for paragraph (b): A fixed licence (point to multipoint station) authorises the operation of a base station, the location of which is specified in the licence, and one or more remote stations, the location of which is not specified in the licence. Each of the remote stations is a ***relevant station***.

 (2) A person must not operate the relevant station both:

 (a) at frequencies in the declared part of the spectrum; and

 (b) within the declared area;

 on or after the day the re-allocation period for the declaration ends.

Note: Subject to limited exceptions, if an apparatus licence authorises the operation of a radiocommunications device at frequencies in the declared part of the spectrum, and within the declared area, at the end of the re-allocation period, the licence is cancelled by section 153H of the Act.

9 Condition – no operation in part of the spectrum and area covered by spectrum licence

 (1) This section applies if:

 (a) a spectrum licence authorises a person to operate radiocommunications devices:

(i) at one or more frequencies;

(ii) within one or more areas; and

 (b) a fixed licence authorises the operation of a station without specifying the location from which the station must be operated (the ***relevant station***).

Example for paragraph (b): A fixed licence (point to multipoint station) authorises the operation of a base station, the location of which is specified in the licence, and one or more remote stations, the location of which is not specified in the licence. Each of the remote stations is a ***relevant station***.

 (2) A person must not operate the relevant station both:

 (a) at those frequencies; and

 (b) within those areas.

Note: See section 105 of the Act.

Part 3 Conditions – fixed licence (point to point station)

10 Application of Part 3

 (1) Subject to subsection (2), every fixed licence (point to point station) is subject to the conditions in this Part.

 (2) If:

 (a) a condition is specified in a fixed licence (point to point station) under paragraph 107(1)(g) of the Act, or imposed on the licence under paragraph 111(1)(a) of the Act; and

 (b) that condition is inconsistent with a condition specified in this Part;

 then, to the extent of any inconsistency, the condition mentioned in paragraph (a) prevails.

11 Conditions – technical performance of antenna

 (1) A person must not operate a point to point station unless, if the fixed licence (point to point station) that authorises the operation of the station specifies an antenna for use by the station, the station uses that antenna.

 (2) If:

 (a) a fixed licence (point to point station) does not specify an antenna for use by a point to point station; and

 (b) the station is operated on a frequency specified in column 1 of a table item in Table 1;

 a person must not operate the station unless the station uses an antenna where:

 (c) the angle between the points at which the antenna gain is half the maximum gain of the antenna , measured in the plane of the electric field, is not greater than the angle specified in column 2 of the table item; and

 (d) the front/back ratio of the antenna is at least the ratio specified in column 3 of the table item; and

 (e) the mid band gain of the antenna is at least the value specified in column 4 of the table item.

Note 1: Persons are encouraged to use antennas that improve upon the requirements in subsection (2).

Note 2: The points at which the antenna gain is half the maximum gain of the antenna are known as the ‘half power points’.

**Table 1**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Item** | **Column 1** | **Column 2** | **Column 3** | **Column 4** | **Column 5** |
|  | **Frequency band** | **Beamwidth in the plane of the electric field** | **Minimum front/back ratio** | **Mid band gain of antenna** | **Example of suitable antenna** |
| *1* | 148 MHz to 174 MHz | 44 degrees | 20 dB | 12 dBi | 6 element Yagi antenna |
| *2* | 403 MHz to 520 MHz | 36 degrees | 17 dB | 13 dBi | 9 element Yagi antenna |
| *3* | 804 MHz to 960 MHz | 30 degrees | 20 dB | 16 dBi | 15 element Yagi antenna |

Note 1: The maximum beamwidth of an antenna is measured between the half power points.

Note 2: Column 5 is included for information only.

 (3) If:

 (a) a fixed licence (point to point station) does not specify an antenna for use by a point to point station; and

 (b) the station is not operated on a frequency specified in column 1 of a table item in Table 1;

 a person must not operate the station if its operation causes harmful interference.

Part 4 Conditions – general fixed licence (point to multipoint station)

12 Application of Part 4

 (1) Subject to subsection (2), every fixed licence (point to multipoint station) is subject to the conditions in this Part, other than:

 (a) a fixed licence (point to multipoint station) that is used to provide distance education services; and

 (b) a fixed licence (point to multipoint station) that authorises the operation of a station on a frequency in the part of the spectrum from 1 GHz to 275 GHz.

Example for paragraph (a): The Alice Springs School of the Air is a distance education service (see www.assoa.nt.edu.au).

 (2) If:

 (a) a condition is specified in a fixed licence (point to multipoint station) under paragraph 107(1)(g) of the Act, or imposed on the licence under paragraph 111(1)(a) of the Act; and

 (b) that condition is inconsistent with a condition specified in this Part;

 then, to the extent of any inconsistency, the condition mentioned in paragraph (a) prevails.

13 Condition – communication with other stations

 A person must not operate a fixed station (the ***first station***) otherwise than to communicate with another station (the ***other station***), where:

 (a) the operation of the other station is authorised by the licence that authorises the operation of the first station; or

 (b) the other station is otherwise referred to in that licence.

Note: A fixed licence (point to multipoint station) may authorise the operation of one or more radiocommunications transmitters. Each such transmitter may be, or be part of, a base station, a supplementary base station, a remote control station or a remote station. A fixed licence (point to multipoint station) does not authorise the operation of, but may refer to, a radiocommunications receiver.

14 Conditions – operation of supplementary base station

 (1) A person must not operate a supplementary base station if its operation causes harmful interference.

 (2) A person must not operate a supplementary base station under the relevant licence for a base station otherwise than on a receive frequency or transmit frequency specified in the relevant licence.

 (3) A person must not operate a supplementary base station otherwise than to overcome deficiencies, within the coverage area of a base station, in reception of transmissions from that base station.

 (4) A person must not operate a supplementary base station to extend the coverage area of a base station.

15 Conditions – operation of remote station

 (1) A person must not operate a remote station if its operation causes harmful interference.

 (2) A person must not operate a remote station under the relevant licence for a base station otherwise than on a receive frequency or transmit frequency specified in the relevant licence.

 (3) A person must not operate a remote station for:

 (a) data transmission; or

 (b) telecommand; or

 (c) telemetry;

 if:

 (d) the duty cycle of the station is more than 1 in 30; or

 (e) the duration of the transmission from the station is more than 2 seconds; or

 (f) the minimum repetition interval of the station is less than 10 seconds.

Note 1: The concepts of telecommand and telemetry are explained in the Radio Regulations, which are available, free of charge, from the International Telecommunication Union’s website at www.itu.int.

Note 2: The repetition interval is the time between the start of a transmission and the start of the next transmission of a station.

 (4) A person must not operate a remote station for:

 (a) data transmission; or

 (b) telecommand; or

 (c) telemetry;

 on a frequency specified in column 1 of a table item in Table 2 with an output power greater than the power specified in column 2 of that table item, measured at the antenna input.

Note: The concepts of telecommand and telemetry are explained in the Radio Regulations, which are available, free of charge, from the International Telecommunication Union’s website at www.itu.int.

**Table 2**

|  |  |  |
| --- | --- | --- |
| **Item** | **Column 1** | **Column 2** |
|  | **Frequency** | **Power level** |
| *1* | A frequency in any of the following frequency bands:(a) 451.5 MHz to 452.5 MHz(b) 805.5 MHz to 806 MHz | 5 W |
| *2* | A frequency not specified in table item 1 | 1 W |

 (5) A person must not operate a remote station otherwise than for

 (a) data transmission; or

 (b) telecommand; or

 (c) telemetry;

 unless:

 (d) if the fixed licence (point to multipoint station) that authorises the operation of the station specifies a maximum output transmitter power – the station is not operated to exceed that power; or

 (e) otherwise – the transmitter output power does not exceed 1 W, measured at the antenna input.

Note: The concepts of telecommand and telemetry are explained in the Radio Regulations, which are available, free of charge, from the International Telecommunication Union’s website at www.itu.int.

16 Conditions – operation of remote control station

 (1) A person must not operate a remote control station if its operation causes harmful interference.

 (2) A person must not operate a remote control station under the relevant licence for a base station otherwise than on a receive frequency or transmit frequency specified in the relevant licence.

 (3) A person must not operate a remote control station unless the transmitter output power does not exceed 1 W, measured at the antenna input.

 (4) A person must not operate a remote control station for:

 (a) data transmission; or

 (b) telecommand; or

 (c) telemetry;

 if the transmitter output power of the remote control station exceeds the power necessary to achieve a receive signal level, at the base station intended to receive the transmission, of 10 dB above the signal level required to achieve a bit error ratio of 1 in 1000.

Note: The concepts of telecommand and telemetry are explained in the Radio Regulations, which are available, free of charge, from the International Telecommunication Union’s website at www.itu.int.

Part 5 Conditions – fixed licence (point to multipoint station) used for distance education services

17 Application of Part 5

 (1) Subject to subsection (2), every fixed licence (point to multipoint station) that authorises the operation of a radiocommunications transmitter that is used to provide distance education services is subject to the conditions in this Part.

 (2) If:

 (a) a condition is specified in a licence mentioned in subsection (1) under paragraph 107(1)(g) of the Act, or imposed on the licence under paragraph 111(1)(a) of the Act; and

 (b) that condition is inconsistent with a condition specified in this Part;

 then, to the extent of any inconsistency, the condition mentioned in paragraph (a) prevails.

18 Condition – communication with other stations

 A person must not operate a fixed station (the ***first station***) otherwise than:

 (a) to communicate with another station (the ***other station***), where:

(i) the operation of the other station is authorised by the licence that authorises the operation of the first station; or

(ii) the other station is otherwise referred to in that licence; or

 (b) if no other means of communication is available, to communicate messages in relation to distress or emergency situations.

Note for paragraph (a): A fixed licence (point to multipoint station) may authorise the operation of one or more radiocommunications transmitters. Each such transmitter may be, or be part of, a base station, a supplementary base station, a remote control station or a remote station. A fixed licence (point to multipoint station) does not authorise the operation of, but may refer to, a radiocommunications receiver.

19 Condition – use of call sign

 (1) A person must not operate a point to multipoint station unless the person transmits:

 (a) the station’s call sign; or

 (b) another form of identification that clearly identifies the station;

 at the start of each transmission, or each series of transmissions, made by the person.

 (2) In this section, ***call sign***, for a station, means the call sign specified for the station in the fixed licence (point to multipoint station) that authorises the operation of the station.

Part 6 Conditions – fixed licence (point to multipoint station) used on medium frequencies or high frequencies

20 Application of Part 6

 (1) Subject to subsection (2), every fixed licence (point to multipoint station) that authorises the operation of a radiocommunications transmitter on a medium frequency or a high frequency is subject to the conditions in this Part.

 (2) If:

 (a) a condition is specified in a licence mentioned in subsection (1) under paragraph 107(1)(g) of the Act, or imposed on the licence under paragraph 111(1)(a) of the Act; and

 (b) that condition is inconsistent with a condition specified in this Part;

 then, to the extent of any inconsistency, the condition mentioned in paragraph (a) prevails.

21 Conditions –operating remote station on medium or high frequency

 (1) This section applies to a remote station:

 (a) operated on a medium frequency or a high frequency; and

 (b) that transmits suppressed carrier single-sideband emissions.

 (2) A person must not operate a remote station unless it is operated with a transmitter output power equal to or less than 100 W pX.

 (3) A person must not operate a remote station if its operation causes harmful interference.

 (4) A person must not operate a remote station to transmit to a base station unless the remote station uses a receive frequency specified in the relevant licence for the base station.

Part 7 Conditions – fixed licence (point to multipoint station) used on very high frequencies

22 Application of Part 7

 (1) Subject to subsection (2), every fixed licence (point to multipoint station) that authorises the operation of a radiocommunications transmitter on a very high frequency is subject to the conditions in this Part.

 (2) If:

 (a) a condition is specified in a licence mentioned in subsection (1) under paragraph 107(1)(g) of the Act, or imposed on the licence under paragraph 111(1)(a) of the Act; and

 (b) that condition is inconsistent with a condition specified in this Part;

 then, to the extent of any inconsistency, the condition mentioned in paragraph (a) prevails.

23 Conditions – operating remote station on very high frequency

 (1) A person must not operate a remote station on a very high frequency if its operation causes harmful interference.

 (2) A person must not operate a remote station on a very high frequency to transmit to a base station unless the remote station uses a receive frequency specified in the relevant licence for the base station.

24 Conditions – operating supplementary base station on very high frequency

 (1) A person must not operate a supplementary base station on a very high frequency if its operation causes harmful interference.

 (2) A person must not operate a supplementary base station under the relevant licence for a base station on a very high frequency otherwise than on a transmit frequency or receive frequency specified in the relevant licence.

 (3) A person must not operate a supplementary base station on a very high frequency otherwise than to overcome deficiencies, within the coverage area of a base station, in reception of transmissions from that base station.

25 Conditions – operating remote control station on very high frequency

 (1) A person must not operate a remote control station on a very high frequency if its operation causes harmful interference.

 (2) A person must not operate a remote control station on a very high frequency to transmit to a base station unless the remote control station uses a receive frequency specified in the relevant licence for the base station.

 (3) A person must not operate a remote control station on a very high frequency unless it is operated with a transmitter output power equal to or less than 1 W, measured at the antenna input.

Part 8 Conditions – fixed licence (point to multipoint station) used in 1 GHz to 275 GHz

26 Application of Part 8

 (1) Subject to subsection (2), every fixed licence (point to multipoint station) that authorises the operation of a radiocommunications transmitter on a frequency in the part of the spectrum from 1 GHz to 275 GHz is subject to the conditions in this Part.

 (2) If:

 (a) a condition is specified in a licence mentioned in subsection (1) under paragraph 107(1)(g) of the Act, or imposed on the licence under paragraph 111(1)(a) of the Act; and

 (b) that condition is inconsistent with a condition specified in this Part;

 then, to the extent of any inconsistency, the condition mentioned in paragraph (a) prevails.

27 Conditions – remote station

 (1) A person must not operate a remote station if its operation causes harmful interference.

 (2) A person must not operate a remote station to transmit to a base station unless the remote station uses a receive frequency or transmit frequency specified in the relevant licence for the base station.

28 Condition – adjacent channel interference

 (1) A person must not operate a base station that uses time division duplex in one of the following frequency bands:

 (a) 1900 MHz to 1920 MHz;

 (b) 3400 MHz to 4000 MHz;

 (c) 5600 MHz to 5650 MHz;

 if its operation causes harmful interference to a radiocommunications receiver that is part of another base station that:

 (d) operates on an adjacent channel; and

 (e) uses time division duplex.

Note: The ACMA does not generally intend to afford protection from interference to a radiocommunications receiver that is part of the first base station mentioned in subsection (1), where the interference is caused by the second base station mentioned in subsection (1).

 (2) A person is taken have complied with subsection (1), in relation to a particular radiocommunications receiver, if:

 (a) the person, and the person who operates the receiver, align transmission and reception timing to avoid interference; or

 (b) the person, and the person who operates the receiver, agree other arrangements to avoid interference.

 (3) In this section, ***adjacent channel***, in relation to a base station, means a frequency band that is immediately adjacent to the frequency band on which the base station is authorised to operate.

29 Condition – transmit power control

 A person must not operate a point to multipoint station unless the person uses transmit power control on the station.

Part 9 Conditions – fixed licence used in relation to broadcasting services

30 Application of Part 9

 (1) Subject to subsection (2), the following licences are subject to the conditions in this Part:

 (a) fixed licence (sound outside broadcast station);

 (b) fixed licence (television outside broadcast station);

 (c) fixed licence (television outside broadcast network station);

 (d) fixed licence (television outside broadcast system station).

 (2) If:

 (a) a condition is specified in a fixed licence mentioned in subsection (1), under paragraph 107(1)(g) of the Act, or imposed on the licence under paragraph 111(1)(a) of the Act; and

 (b) that condition is inconsistent with a condition specified in this Part;

 then, to the extent of any inconsistency, the condition mentioned in paragraph (a) prevails.

31 Condition – harmful interference

 A person must not operate a radiocommunications transmitter if its operation causes harmful interference.

Part 10 Conditions – fixed licence (point to multipoint system)

32 Application of Part 10

 (1) Subject to subsection (2), every fixed licence (point to multipoint system) that authorises the operation of a radiocommunications transmitter in one of the following frequency bands:

 (a) 3400 MHz to 3475 MHz;

 (b) 3950 MHz to 4000 MHz;

 is subject to the conditions in this Part.

 (2) If:

 (a) a condition is specified in a licence mentioned in subsection (1) under paragraph 107(1)(g) of the Act, or imposed on the licence under paragraph 111(1)(a) of the Act; and

 (b) that condition is inconsistent with a condition specified in this Part;

 then, to the extent of any inconsistency, the condition mentioned in paragraph (a) prevails.

Note: Except as set out in this Part, the ACMA generally will not afford protection from harmful interference to a radiocommunications receiver that is part of a station operated under a fixed licence (point to multipoint system) in the 3400 MHz to 3475 MHz frequency band, or the 3950 MHz to 4000 MHz frequency band, where the interference was caused by a radiocommunications device operated under another fixed licence (point to multipoint system).

33 Condition – location of use

 (1) A person must not operate a radiocommunications transmitter under a fixed licence (point to multipoint system) (the ***relevant licence***) otherwise than at a location that is both:

 (a) within 100 metres of the site address specified for the transmitter on the relevant licence; and

 (b) on controlled premises in relation to the licensee of the relevant licence.

 (2) In this section, ***controlled premises***, in relation to the licensee of the relevant licence, means premises that are owned or under the control of:

 (a) the licensee; or

 (b) a person authorised by the licensee under section 114 of the Act to operate radiocommunications transmitters under the licence (***authorised person***); or

 (c) a person who has an agreement or arrangement with the licensee or an authorised person for the provision of radiocommunications services at the premises.

Note: This section means that any radiocommunications transmitter, including a remote mobile station, must only be operated on the controlled premises, and within 100 metres of the specified site.

Example: A fixed licence (point to multipoint system) specifies an industrial plant owned by the licensee. A radiocommunications transmitter may only be operated under the licence on premises owned or under the control of the licensee within 100 metres of the industrial plant.

34 Condition – purpose of use

 (1) A person must not operate a base station otherwise than to communicate with:

 (a) a remote station; or

 (b) a remote mobile station; or

 (c) a supplementary base station.

 (2) A person must not operate a supplementary base station otherwise than to communicate with:

 (a) a remote station; or

 (b) a remote mobile station; or

 (c) a base station.

35 Condition – in-band emission limits

 A person must not operate a radiocommunications transmitter on a frequency specified in a fixed licence (point to multipoint system) with a power greater than 17 dBm per 1 MHz EIRP.

36 Conditions – unwanted emissions

*Remote stations and remote mobile stations*

 (1) A person must not operate a:

 (a) a remote station; or

 (b) a remote mobile station;

 if the unwanted emissions of the station exceed the limits specified in section 6.5.2.2 of Technical Specification 38.101-1, *NR; User Equipment (UE) radio transmission and reception; Part 2: Range 2 Standalone*, published by 3GPP.

Note: Technical Specification 38.101-1 is available, free of charge, from the 3rd Generation Partnership Project website at www.3gpp.org.

*Base stations and supplementary base stations*

 (2) A person must not operate a:

 (a) a base station; or

 (b) a supplementary base station;

 if the unwanted emissions of the transmitter exceed the limits in subclauses (3) to (7).

*Unwanted emissions limits in 3260 MHz to 4240 MHz – non-AAS transmitters*

 (3) For a radiocommunications transmitter without AAS, the unwanted emission limits in Table 3, measured over the specified bandwidth, apply at frequencies:

 (a) outside the upper or lower frequency limits set out in the licence that authorises the operation of the transmitter; and

 (b) offset from the upper and lower frequency limits set out in that licence; and

 (c) in the 3260 MHz to 4240 MHz frequency band;

 where ***foffset*** means the frequency offset from the upper or lower frequency limit set out in the licence. The closest -3dB point of the specified bandwidth closest to the upper and lower frequency limits set out in the licence is placed at *foffset*.

**Table 3**

|  |  |  |  |
| --- | --- | --- | --- |
| **Item** | **Column 1** | **Column 2** | **Column 3** |
|  | **frequency offset (*foffset*)** | **Mean power (dBm) per radiocommunications transmitter** | **Specified bandwidth** |
| *1* | 0 MHz ≤ *foffset* < 5 MHz | –22 – (7/5) *foffset* (MHz) | 100 kHz |
| *2* | *foffset* ≥ 5 MHz | –29 | 100 kHz |

*Unwanted emissions limits in 3260 MHz to 4240 MHz – AAS transmitters*

 (4) For a radiocommunications transmitter with AAS, the unwanted emission limits in Table 4, measured over the specified bandwidth, apply at frequencies:

 (a) outside the upper or lower frequency limits set out in the licence that authorises the operation of the transmitter; and

 (b) offset from the upper and lower frequency limits set out in that licence; and

 (c) in the 3260 MHz to 4240 MHz frequency band;

 where ***foffset*** means the frequency offset from the upper or lower frequency limit set out in the licence. The closest -3dB point of the specified bandwidth closest to the upper and lower frequency limits set out in the licence is placed at *foffset*.

**Table 4**

|  |  |  |  |
| --- | --- | --- | --- |
| **Item** | **Column 1** | **Column 2** | **Column 3** |
|  | **frequency offset (*foffset*)** | **Total radiated power (dBm)** | **Specified bandwidth** |
| *1* | 0 MHz ≤ *foffset* < 5 MHz | –13 – (7/5) *foffset* (MHz) | 100 kHz |
| *2* | *foffset* ≥ 5 MHz | –20 | 100 kHz |

*Unwanted emissions limits outside 3260 MHz to 4240 MHz – non-AAS transmitters*

 (5) For a radiocommunications transmitter without AAS, the unwanted emission limits in Table 5, measured over the specified bandwidth, apply at frequencies outside the 3260 MHz to 4240 MHz frequency band, where ***f*** means the frequency of the unwanted emission.

**Table 5**

|  |  |  |  |
| --- | --- | --- | --- |
| **Item** | **Column 1** | **Column 2** | **Column 3** |
|  | **frequency (*f*)** | **Mean power (dBm) per radiocommunications transmitter** | **Specified bandwidth** |
| *1* | 9 kHz ≤ *f* < 150 kHz | -36 | 1 kHz |
| *2* | 150 kHz ≤ *f* < 30 MHz | -36 | 10 kHz |
| *3* | 30 MHz ≤ *f* < 1 GHz | -36 | 100 kHz |
| *4* | 1 GHz ≤ *f* < 20 GHz | –30 | 1 MHz |

*Unwanted emissions limits outside 3260 MHz to 4240 MHz – AAS transmitters*

 (6) For a radiocommunications transmitter with AAS, the unwanted emission limits in Table 6, measured over the specified bandwidth, apply at frequencies outside the 3260 MHz to 4240 MHz frequency band, where ***f*** means the frequency of the unwanted emission.

**Table 6**

|  |  |  |  |
| --- | --- | --- | --- |
| **Item** | **Column 1** | **Column 2** | **Column 3** |
|  | **frequency (*f*)** | **Total radiated power (dBm)** | **Specified bandwidth** |
| *1* | 9 kHz ≤ *f* < 150 kHz | -27 | 1 kHz |
| *2* | 150 kHz ≤ *f* < 30 MHz | -27 | 10 kHz |
| *3* | 30 MHz ≤ *f* < 1 GHz | -27 | 100 kHz |
| *4* | 1 GHz ≤ *f* < 20 GHz | –21 | 1 MHz |

37 Conditions – remote station and remote mobile station

 (1) A person must not operate a remote station or a remote mobile station if its operation causes harmful interference.

Note: The ACMA generally will not afford protection from harmful interference to a radiocommunications receiver that is part of a station operated under a fixed licence (point to multipoint system), the details of which are not entered in the Register, where the interference is caused by licensed radiocommunications.

 (2) A person must not operate a remote station or remote mobile station under the relevant licence for a base station, to transmit to a base station or supplementary base station, unless the remote station or remote mobile station uses a receive frequency or transmit frequency specified in the relevant licence.

38 Condition – harmful interference

 A person must not operate a radiocommunications transmitter under a fixed licence (point to multipoint system), other than a remote station or remote mobile station, on a frequency in the following frequency bands:

 (a) 3400 MHz to 3475 MHz;

 (b) 3950 MHz to 4000 MHz;

 if its operation causes harmful interference to radiocommunications from a radiocommunications transmitter operated under another fixed licence (point to multipoint system).

Note: See the condition in section 37 in relation to harmful interference caused by remote stations and remote mobile stations in these, and other, frequency bands.

39 Condition – synchronisation requirement with particular transmitter licences in 3950 MHz to 4000 MHz

 (1) If:

 (a) interference occurs between:

(i) a radiocommunications transmitter (the ***first device***) operated under a fixed licence (point to multipoint system) in the 3950 MHz to 4000 MHz frequency band; and

(ii) one or more radiocommunications devices (the ***other devices***) operated under another fixed licence (point to multipoint system) or an area-wide licence (the ***other licence***); and

 (b) the level of interference to the first device, or to the other devices, exceeds the compatibility requirement set out in:

(i) Schedule 2 to the *Radiocommunications Advisory Guidelines (Managing Interference to Spectrum Licensed Receivers – 3.4 GHz Band) 2015*; or

(ii) if a later instrument made under section 262 of the Act replaces those guidelines – the later instrument; and

 (c) either the person operating the first device or a person operating one of the other devices wishes to resolve the interference; and

 (d) no agreement between the person operating the first device and each person operating one of the other devices can be reached on how to manage the interference;

 then, by the end of the day specified in subsection (2), the person operating the first device is required to manage the interference by:

 (e) either:

(i) operating the first device with the 3.4 GHz band uplink-downlink configuration; or

(ii) operating the first device using a sequence and duration of radio emissions that is consistent with that configuration (disregarding any time at which the device is not making a radio emission); and

 (f) synchronising the timing of the 3.4 GHz band uplink-downlink configuration or other sequence of radio emissions of the first device with the timing of the uplink-downlink configuration or other sequence of radio emissions of each of the other devices (disregarding any device at a time at which the device is not making a radio emission).

 (2) For the purposes of subsection (1), the following day is specified:

 (a) the day occurring 14 days after the day the interference was first reported in writing to the person operating the first device; or

 (b) if an alternative day is agreed with each person operating one of the other devices – that alternative day.

Note 1: This condition applies equally to all fixed licences (point to multipoint system) that authorise the operation of a radiocommunications transmitter in the 3400 MHz to 3475 MHz or the 3950 MHz to 4000 MHz frequency band. If interference occurs between two radiocommunications transmitters operated under two or more fixed licences (point to multipoint system), each person operating such a transmitter must comply with this condition.

Note 2: The *Radiocommunications Advisory Guidelines (Managing Interference to Spectrum Licensed Receivers – 3.4 GHz Band) 2015* are available, free of charge, from the Federal Register of Legislation at www.legislation.gov.au

Note 3: An equivalent condition is imposed on area-wide licences operating in the 3400 MHz to 4000 MHz frequency band: see clause 5 of Schedule 4 to the *Radiocommunications Licence Conditions (Area-Wide Licence) Determination 2020*, which is available, free of charge, from the Federal Register of Legislation at www.legislation.gov.au

40 Condition – synchronisation requirement with spectrum licences in 3400 MHz to 3475 MHz

 (1) This section applies if:

 (a) a radiocommunications transmitter (the ***first transmitter***) is operated under a fixed licence (point to multipoint system):

(i) on a frequency (the ***relevant frequency***) in the 3400 MHz to 3475 MHz frequency band; and

(ii) at a location (the ***relevant location***) in an urban area;

 (b) a 3.4 GHz spectrum licence authorises the operation of radiocommunications devices:

(i) in a part of the spectrum that includes the relevant frequency; and

(ii) in a geographic area that is adjacent to the urban area.

 (2) Subject to subsection (3), a person must not operate the first transmitter otherwise than:

 (a) with a frame structure that is consistent with the frame structure used by radiocommunications devices operating under the spectrum licence; and

 (d) by synchronising the timing of the uplink-downlink configuration or other sequence of radio emissions of the first transmitter with the timing of the uplink-downlink configuration or other sequence of radio emissions of each of the radiocommunications devices operating under the spectrum licence.

 (3) Subsection (1) does not apply where an agreement exists between the person and the licensee of the spectrum licence on how to manage radio emissions from the first transmitter.

Note: Generally, no equivalent condition is imposed on spectrum licences operating in the 3400 MHz to 3800 MHz frequency band. Accordingly, where this condition applies, the operation of a radiocommunications transmitter under a fixed licence (point to multipoint system) may need to change to align with the operation of radiocommunications devices under a spectrum licence.

41 Conditions – interference management in 3400 MHz to 3475 MHz

 (1) A person must not operate a base station or supplementary base station on a frequency in the 3400 MHz to 3475 MHz frequency band, unless the station is indoors.

 (2) For the purposes of subsection (1), a station is ***indoors*** if it is in a space that is:

 (a) enclosed by permanent walls on all sides, a permanent roof and a permanent floor; and

 (b) permanently fixed to a location.

 (3) A person must not operate a radiocommunications transmitter on a frequency in the 3400 MHz to 3475 MHz frequency band, if its operation causes harmful interference to a radiocommunications receiver operated under a 3.4 GHz spectrum licence.

Note: The ACMA generally will not afford protection from harmful interference to radiocommunications receiver that is part of a station operated under a fixed licence (point to multipoint system) in the 3400 MHz to 3475 MHz frequency band, where the interference was caused by a radiocommunications device operated under a spectrum licence.

42 Conditions – additional unwanted emission limits in 3950 MHz to 4000 MHz

 (1) Subject to subsection (3), a person must not operate a base station or a supplementary base station both:

 (a) on a frequency in the 3950 MHz to 4000 MHz frequency band; and

 (b) located within a restriction zone for an identified runway;

 if the unwanted emissions of the station exceed EIRPlim in the 4200 MHz to 4400 MHz frequency band at any angle (***θ***) between 28.5 and 90 degrees above the horizon.

Note: The additional unwanted emission limit in this condition does not apply at angles that are lower than 28.5 degrees above the horizon.

 (2) In subsection (1), ***EIRPlim***, in dBm per MHz, is worked out using the formula:



where:

“***xrt***” means the distance the base station or supplementary base station is from the runway threshold in the restriction zone, measured along a line in the restriction zone that is parallel to the runway.

Example: For an identified runway, for a particular point *(r,t)*, *xrt* is 30 metres (that is, the point is both in the restriction zone for the runway, and 30 metres from the runway threshold).

 For unwanted emissions from a station operating at that point, at an angle of 28.5 degrees above the horizon, EIRPlim is approximately -13.936 dBm per MHz.

 (3) Subsection (1) does not apply in relation to a base station or a supplementary base station if the unwanted emissions of the station do not exceed the limit in subsection 36(5) in the 4200 MHz to 4400 MHz frequency band.

Note: Subsection 36(5) sets an unwanted emissions limit for radiocommunications transmitters without AAS, that applies at frequencies outside the 3260 MHz to 4240 MHz frequency band. Subsection (3) has effect where a person complies with the condition in relation to that limit, and also complies with the limit in the 4200 MHz to 4240 MHz frequency band. For the purposes of subsection (3), it does not matter whether a radiocommunications transmitter has AAS, so long as the operation of the transmitter complies with the limit in subsection 36(5).

 (4) In this section:

***identified runway*** means a runway specified in Appendix G to RALI MS 47.

***landing end coordinate***, for an identified runway, has the meaning given by Appendix G to RALI MS 47.

Note: An identified runway may have two landing end coordinates, if aircraft can approach the runway from either direction.

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

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

***restriction zone***, for an identified runway, means the area bounded by the rectangle:

 (a) one side of which is the runway threshold; and

 (b) two sides of which extend for 600 metres parallel to the runway, in the direction away from the runway; and

 (b) the final side of which is parallel to the runway threshold.

Note 1: If an identified runway has two landing end coordinates, there are two restriction zones for the identified runway (one for each end).

Note 2: The area of a restriction zone is 60,000 square metres, or 6 hectares.

***runway threshold***, for an identified runway, means a line centred on the landing end coordinate for the runway, and extending for 50 metres in each direction perpendicular to the runway.

Note: If an identified runway has two landing end coordinates, there are two runway thresholds for the identified runway (one for each end).

Schedule 1—Urban areas

(subsection 5(1))

**1 Urban areas**

 Each area that consists of the HCIS identifiers specified in column 2 of the table is an ***urban area***.

Note: A tool to convert lists of HCIS identifiers, such as the lists in the table, into Placemark files to allow these areas to be visualised using computer mapping software is available from the ACMA’s website at [www.acma.gov.au](http://www.acma.gov.au).

**Table** **HCIS identifiers for urban areas**

| **Item** | **Column 1** | **Column 2** |
| --- | --- | --- |
|  | **Urban area** | **HCIS identifiers for the urban area** |
| *1* | Adelaide | IW3N, IW3O4, IW3O5, IW3O7, IW3O8, IW6B1, IW6B2, IW6B3, IW6B5, IW6B6 |
| *2* | Brisbane | NT9B, NT9C, NT9D, NT9E, NT9F, NT9G, NT9H, NT9K, NT9L, NT8H3, NT8L2, NT8L3, NT8L5, NT8L6, NT8L8, NT8L9, NT9A6, NT9A7, NT9A8, NT9A9, NT9I1, NT9I2, NT9I3, NT9I4, NT9I5, NT9I6, NT9J1, NT9J2, NT9J3, NT9J4, NT9J5, NT9J6, NT9J9, NT9N5, NT9N6, NT9N8, NT9N9, NT9O4, NT9O7, NU3B2, NU3B3, NU3C1, NU3C4 |
| *3* | Canberra | MW4D, MW4H, MW5A, MW5B, MW5E, MW5F, MW2M5, MW2M6, MW2M7, MW2M8, MW2M9, MW2N4, MW2N5, MW2N7, MW2N8, MW2N9, MW4L1, MW4L2, MW4L3, MW4L5, MW4L6, MW5I1, MW5I2, MW5I3, MW5I4, MW5I5, MW5I6, MW5J1, MW5J2, MW5J4, MW5J5 |
| *4* | Melbourne | KX3P, KX3L6, KX3L7, KX3L8, KX3L9, KX6D1, KX6D2, KX6D3, KX6D5, KX6D6, LX1M, LX1I7, LX1N4, LX4A1, LX4A2, LX4A3, LX4A4, LX4A5, LX4B1 |
| *5* | Perth | BV1M, BV1N, BV1O, BV4A, BV4B, BV4C, BV1L5, BV1L8, BV1P1, BV1P2, BV1P4, BV1P5, BV1P7, BV1P8, BV4D1, BV4D2, BV4E1, BV4E2, BV4E3, BV4F1, BV4F2, BV4F3, BV4G1, BV4G2, BV1P9, BV4D3, BV4D4, BV4G3 |
| *6* | Sydney | NV7G, NV7H, NV7J, NV7K, NV7L, NV7M, NV7N, NV7O, NV7P, NW1A, NW1B, NW1C, NW1D, NW1E, NW1F, NW1G, NW1H, MV9P2, MV9P3, MV9P5, MV9P6, MV9P7, MV9P8, MV9P9, MW3D1, MW3D2, MW3D3, MW3D5, MW3D6, MW3D8, MW3D9, MW3H2, MW3H3, MW3H5, MW3H6, MW3H9, MW3L2, MW3L3, NV4O7, NV4O8, NV4O9, NV4P7, NV7F6, NV7F8, NV7F9, NV7I6, NV7I8, NV7I9, NW1I1, NW1I2, NW1I3, NW1J1, NW1J2, NW1J3, NW1K1, NW1K2, NW1K3, NW1L1, NW1L2, NW1L3 |

Note: Column 1 is included for information only.