



Radiocommunications (Low Interference Potential Devices) Class Licence 2025

The Australian Communications and Media Authority issues the following class licence under section 132 of the *Radiocommunications Act 1992*.

Dated: 4 September 2025

Adam Suckling
[signed]
Member

Michael Brealey
[signed]
General Manager

Australian Communications and Media Authority

Part 1—Preliminary

1 Name

This instrument is the *Radiocommunications (Low Interference Potential Devices) Class Licence 2025*.

2 Commencement

This instrument commences at the start of 1 October 2025.

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

3 Authority

This instrument is made under section 132 of the *Radiocommunications Act 1992*.

4 Interpretation

(1) In this instrument:

additional limitation, for a class of radiocommunications transmitters, means a limitation in a clause mentioned in column 4 of the table item in Schedule 1 for that class.

class of radiocommunications transmitters means a class of radiocommunications transmitters:

- (a) specified in column 1 of a table item in Schedule 1; and
- (b) that satisfies any additional requirements in a clause of Schedule 1 that applies to the table that includes the table item.

commercial broadcasting licence means a commercial radio broadcasting licence or a commercial television broadcasting licence.

commercial television broadcasting service has the meaning given by the *Broadcasting Services Act 1992*.

community television broadcasting licence has the meaning given by the *Broadcasting Services Act 1992*.

community television broadcasting service means a service provided under a community television broadcasting licence.

controlled premises, in relation to a person operating a radiocommunications transmitter, means premises that are owned by or under the control of that person.

coverage area, for a broadcasting station, means:

- (a) if the station is used to provide a commercial television broadcasting service or community television broadcasting service – the area within the licence area for the service where the median field strength E(50,50) of the transmission made by the station, at 10 metres above ground level, is at least the specified limit;
- (b) in any other case – the area where the median field strength E(50,50) of the transmission made by the station, at 10 metres above ground level, is at least the specified limit.

DAB means digital audio broadcasting.

EN 300 328 means EN 300 328, *Wideband transmission systems; Data transmission equipment operating in the 2,4 GHz band; Harmonised Standard for access to radio spectrum*, published by ETSI.

Note: EN 300 328 is available, free of charge, from ETSI's website at www.etsi.org.

EN 300 422-1 means EN 300 422-1, *Wireless Microphones; Audio PME up to 3 GHz; Part 1: Audio PMSE Equipment up to 3 GHz; Harmonised Standard for access to radio spectrum*, published by ETSI.

Note: EN 300 422-1 is available, free of charge, from ETSI's website at www.etsi.org.

EN 300 440 means EN 300 440, *Short Range Devices (SRD); Radio equipment to be used in the 1 GHz to 40 GHz frequency range; Harmonised Standard for access to radio spectrum*, published by ETSI.

Note: EN 300 440 is available, free of charge, from ETSI's website at www.etsi.org.

EN 301 091-1 means EN 301 091-1, *Short Range Devices; Transport and Traffic Telematics (TTT); Radar equipment operating in the 76 GHz to 77 GHz range; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU; Part 1: Ground based vehicular radar*, published by ETSI.

Note: EN 301 091-1 is available, free of charge, from ETSI's website at www.etsi.org.

EN 301 091-2 means EN 301 091-2, *Short Range Devices; Transport and Traffic Telematics (TTT); Radar equipment operating in the 76 GHz to 77 GHz range; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU; Part 2: Fixed infrastructure radar equipment*, published by ETSI.

Note: EN 301 091-2 is available, free of charge, from ETSI's website at www.etsi.org.

EN 301 091-3 means EN 301 091-3, *Short Range Devices; Transport and Traffic Telematics (TTT); Radar equipment operating in the 76 GHz to 77 GHz range; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU; Part 3: Railway/Road Crossings obstacle detection system applications*, published by ETSI.

Note: EN 301 091-3 is available, free of charge, from ETSI's website at www.etsi.org.

EN 301 357 means EN 301 357, *Cordless audio devices in the range 25 MHz to 2 000 MHz; Harmonised Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU*, published by ETSI.

Note: EN 301 357 is available, free of charge, from ETSI's website at www.etsi.org.

EN 301 559 means EN 301 559, *Short Range Devices (SRD); Low Power Active Medical Implants (LP-AMI) and associated Peripherals (LP-AMI-P) operating in the frequency range 2 483,5 MHz to 2 500 MHz; Harmonised Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU*, published by ETSI.

Note: EN 301 559 is available, free of charge, from ETSI's website at www.etsi.org.

EN 301 839 means EN 301 839, *Ultra Low Power Active Medical Implants (ULP-AMI) and associated Peripherals (ULP-AMI-P) operating in the frequency range 402 MHz to 405 MHz; Harmonised Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU*, published by ETSI.

Note: EN 301 839 is available, free of charge, from ETSI's website at www.etsi.org.

EN 302 065-1 means EN 302 065-1, *Short Range Devices (SRD) using Ultra Wide Band technology (UWB); Harmonised Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU; Part 1: Requirements for Generic UWB applications*, published by ETSI.

Note: EN 302 065-1 is available, free of charge, from ETSI's website at www.etsi.org.

EN 302 065-2 means EN 302 065-2, *Short Range Devices (SRD) using Ultra Wide Band technology (UWB); Harmonised Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU; Part 2: Requirements for UWB location tracking*, published by ETSI.

Note: EN 302 065-2 is available, free of charge, from ETSI's website at www.etsi.org.

EN 302 065-4 means EN 302 065-4, *Short Range Devices (SRD) using Ultra Wide Band technology (UWB); Harmonised Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU; Part 4: Material Sensing devices using UWB technology below 10,6 GHz*, published by ETSI.

Note: EN 302 065-4 is available, free of charge, from ETSI's website at www.etsi.org.

EN 302 065-5 means EN 302 065-5, *Short Range Devices (SRD) using Ultra Wide Band technology (UWB); Harmonised Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU; Part 5: Devices using UWB technology onboard aircraft*, published by ETSI.

Note: EN 302 065-5 is available, free of charge, from ETSI's website at www.etsi.org.

EN 302 066 means EN 302 066, *Short Range Devices (SRD) Ground- and Wall-Probing Radio determination (GPR/WPR) devices; Harmonised Standard for access to radio spectrum*, published by ETSI.

Note: EN 302 066 is available, free of charge, from ETSI's website at www.etsi.org.

EN 302 264 means EN 302 264, *Short Range Devices; Transport and Traffic Telematics (TTT); Short Range Radar equipment operating in the 77 GHz to 81 GHz band; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU*, published by ETSI.

Note: EN 302 264 is available, free of charge, from ETSI's website at www.etsi.org.

EN 302 288 means EN 302 288, *Short Range Devices; Transport and Traffic Telematics (TTT); Ultra-wideband radar equipment operating in the 24,35 GHz to 26,65 GHz range; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU*, published by ETSI.

Note: EN 302 288 is available, free of charge, from ETSI's website at www.etsi.org.

EN 302 372 means EN 302 372, *Short Range Devices (SRD); Tank Level Probing Radar (TLPR) equipment operating in the frequency ranges 4,5 GHz to 7 GHz, 8,5 GHz to 10,6 GHz, 24,05 GHz to 27 GHz, 57 GHz to 64 GHz, 75 GHz to 85 GHz; Harmonised Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU*, published by ETSI.

Note: EN 302 372 is available, free of charge, from ETSI's website at www.etsi.org.

EN 302 537 means EN 302 537, *Ultra Low Power Medical Data Service (MEDS) Systems operating in the frequency range 401 MHz to 402 MHz and 405 MHz to 406 MHz; Harmonised Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU*, published by ETSI.

Note: EN 302 537 is available, free of charge, from ETSI's website at www.etsi.org.

EN 302 729 means EN 302 729, *Short Range Devices (SRD); Level Probing Radar (LPR) equipment operating in the frequency ranges 6 GHz to 8,5 GHz, 24.05 GHz to 26,5 GHz, 57 GHz to 64 GHz, 75 GHz to 85 GHz; Harmonised Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU*, published by ETSI.

Note: EN 302 729 is available, free of charge, from ETSI's website at www.etsi.org.

EN 303 203 means EN 303 203, *Short Range Devices (SRD); Medical Body Area Network Systems (MBANSs) operating in the 2 483,5 MHz to 2 500 MHz range; Harmonised Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU*, published by ETSI.

Note: EN 303 203 is available, free of charge, from ETSI's website at www.etsi.org.

ERP means effective radiated power.

ETSI means the European Telecommunications Standards Institute.

FCC Rules means the rules and regulations made by the United States of America Federal Communications Commission.

Note: The FCC Rules are available, free of charge, from United States government's Code of Federal Regulations website at www.ecfr.gov.

field strength means the intensity of the electromagnetic field produced by a radiocommunications transmitter, at a particular distance from the transmitter, measured in:

- (a) in relation to the electric component of the field – V/m, where *V* means volts and *m* means metres;
- (b) in relation to the magnetic component of the field – A/m, where *A* means amperes and *m* means metres.

infrared transmitter means a radiocommunications transmitter having a radio emission in the frequency range 187.5 THz to 420 THz.

licence area means:

- (a) in relation to a broadcasting station used to provide a commercial broadcasting service – the licence area designated for the relevant commercial broadcasting licence under section 29 of the *Broadcasting Services Act 1992*;
- (b) in relation to a broadcasting station used to provide a community broadcasting service, other than a service provided under a temporary community broadcasting licence – the licence area designated for the relevant community television broadcasting licence under section 29 of the *Broadcasting Services Act 1992*;
- (c) in relation to a broadcasting station used to provide a community broadcasting service provided under a temporary community broadcasting licence – the licence area designated for the relevant temporary community broadcasting licence under section 92G of the *Broadcasting Services Act 1992*.

maximum EIRP, for a class of radiocommunications transmitters, means the EIRP mentioned in:

- (a) column 3 of the table item in Schedule 1 for that class; or
- (b) if column 3 of the table item refers to a clause of Schedule 1 – that clause.

Note: See subsections 7(2), (4) and (5).

nominated distance of a specified Australian radio-astronomy site means the following:

- (a) in relation to the Parkes Observatory located at latitude 32° 59' 54.25" south, longitude 148° 15' 48.65" east – 10 kilometres of the Parkes Observatory;
- (b) in relation to the Paul Wild Observatory located at latitude 30° 18' 46.40" south, longitude 149° 33' 0.44" east – 10 kilometres of the Paul Wild Observatory;
- (c) in relation to the Canberra Deep Space Communications Complex located at latitude 35° 23' 48.39" south, longitude 148° 58' 44.35" east – 3 kilometres of the Canberra Deep Space Communications Complex.

nominated distance of a specified SRS earth station means:

- (a) in relation to the Perth facility located at latitude 31° 48' 13.37" south, longitude 115° 53' 1.24" east – 2 kilometres of the facility;
- (b) in relation to the New Norcia facility located at latitude 31° 02' 53.57" south, longitude 116° 11' 29.20" east – 5 kilometres of the facility;
- (c) in relation to the Canberra Deep Space Communications Complex located at latitude 35° 23' 48.39" south, longitude 148° 58' 44.35" east – 5 kilometres of the Canberra Deep Space Communications Complex.

permitted frequency, for a class of radiocommunications transmitters, means a frequency, or a frequency in a frequency band, mentioned in column 2 of the table item in Schedule 1 for that class.

radiated power, in relation to a radiocommunications transmitter, means the power that is emitted from or at any of the following:

- (a) an antenna that is an integral part of the transmitter;
- (b) an antenna that is connected to the transmitter;
- (c) the surface of a specified enclosure containing the antenna;
- (d) for a table item in Schedule 1 that mentions an opening and an underground environment – the opening to the underground environment.

radio broadcasting service means a broadcasting service that provides radio programs.

RFID transmitter means a radiocommunications transmitter used for a radiofrequency identification tag.

shielded enclosure means a container, room, or other thing that encloses a space, which prevents, or is designed to prevent, the entry or escape of radio emissions from that space.

significant event means an event declared to be a significant event by the ACMA under:

- (a) subsection 54A(2) of the *Radiocommunications Equipment (General) Rules 2021*; or
- (b) if a later instrument replaces those rules and provides for the ACMA to declare a significant event – the later instrument.

Note: The *Radiocommunications Equipment (General) Rules 2021* are available, free of charge, from the Federal Register of Legislation at www.legislation.gov.au.

specified limit, in relation to the median field strength E(50,50) of a transmission made by a station, means:

- (a) for a transmission in the band 174–230 MHz, in respect of a television broadcasting service – 44 dBu V/m;
- (b) for a transmission in the band 174–230 MHz, in respect of a radio broadcasting service – 63 dBu V/m;
- (c) for a transmission in the band 520–610 MHz – 50 dBu V/m;
- (d) for a transmission in the band 610–694 MHz – 54 dBu V/m.

television broadcasting service means a broadcasting service that provides television programs.

temporary community broadcasting licence has the meaning given by the *Broadcasting Services Act 1992*.

transmitter power means the power at the output of the transmitter going to the antenna.

TRP (short for total radiated power) means the integral of the power transmitted in different directions over the entire radiation sphere. It is measured by considering the combination of all radiating elements on an antenna panel or individual device.

TS 38.101-2 means TS 38.101-2, *Group Radio Access Network; NR; User Equipment (UE) radio transmission and reception; Part 2: Range 2 Standalone*, published by the 3rd Generation Partnership Project.

Note: TS 38.101-2 is published by the 3GPP and is available, free of charge, from its website at www.3gpp.org

TS 38.104 means TS 38.104, *Group Radio Access Network; NR; Base Station (BS) radio transmission and reception*, published by the 3rd Generation Partnership Project.

Note 1: TS 38.104 is published by the 3GPP and is available, free of charge, from its website at www.3gpp.org.

Note 2: A number of other expressions used in this instrument are defined in the Act, including the following:

- (a) ACMA;
- (b) broadcasting station;
- (c) commercial broadcasting service;
- (d) commercial radio broadcasting licence;
- (e) commercial television broadcasting licence;
- (f) community broadcasting service;
- (g) environment;
- (h) equipment;
- (i) equipment rules;
- (j) frequency band;
- (k) import
- (l) interference;
- (m) operate;
- (n) permit;
- (o) radiocommunication;
- (p) radiocommunications device;
- (q) radiocommunications transmitter;
- (r) radio emission;
- (s) spectrum plan;
- (t) television program;
- (u) transmitter.

Note 3: 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) ARPANSA Standard;
- (c) broadcasting services bands;
- (d) datacasting service station;
- (e) EIRP;
- (f) indoors;
- (g) radiodetermination.

- (2) In this instrument, latitude and longitude are measured with reference to the geodetic datum designated as the “Geocentric Datum of Australia (GDA94)” gazetted in the Commonwealth of Australia *Gazette* No. GN 35 on 6 September 1995.

Note: More information on the Geocentric Datum of Australia is available from the Geoscience Australia website at www.ga.gov.au.

5 References to other instruments

In this instrument, unless the contrary intention appears:

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- (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 is a reference to that other instrument as in force 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—Class licence

6 Class licence

This instrument authorises a person to operate a radiocommunications transmitter included in a class of radiocommunications transmitters, subject to the conditions set out in Part 3 of this instrument.

Note: Subsection 132(3) of the Act provides that the operation of a radiocommunications device is not authorised by a class licence if it is not in accordance with the conditions of the class licence.

Part 3—Conditions

7 Operation – operating parameters set out in Schedule 1

Conditions

- (1) A person must not operate a radiocommunications transmitter included in a class of radiocommunications transmitters otherwise than on a permitted frequency for the class.
- (2) A person must not operate a radiocommunications transmitter included in a class of radiocommunications transmitters at a radiated power that exceeds, in any direction, the maximum EIRP for the class.
- (3) A person must not operate a radiocommunications transmitter included in a class of radiocommunications transmitters otherwise than in accordance with any additional limitations for the class.

Note: A radiocommunications transmitter may fall within more than one class specified in Schedule 1. For each class the radiocommunications transmitter falls within, the transmitter may be operated in accordance with the permitted frequencies, maximum EIRP and additional limitations specified in the table item for that class.

Interpretation

- (4) For the purposes of subsection (2), if column 3 of a table item in Schedule 1 refers to a particular clause of Schedule 1, the maximum EIRP is worked out in accordance with that clause.

Note: A clause in Schedule 1 may refer to another document, which sets out what the maximum EIRP is for the class of radiocommunications transmitters.

- (5) If, for a class of radiocommunications transmitters:
 - (a) there is an additional limitation; and
 - (b) that additional limitation refers to a document (the ***limitation document***);then, unless the contrary intention appears:
 - (c) a frequency or frequency band mentioned in an additional limitation for the class; and
 - (d) the maximum EIRP for the class;

must be construed in accordance with any interpretative provisions of the limitation document.

Note: The effect of paragraph (5)(c) is that any frequency or frequency band that appears in column 4 (or in a clause referred to in column 4) of a table item is interpreted in accordance with a limitation document that applies to that table item. For a frequency or frequency band that appears in column 2 (a permitted frequency), see subsection (6).

- (6) If, for a class of radiocommunications transmitters:
 - (a) there is an additional limitation; and
 - (b) that additional limitation refers to a document (the ***limitation document***);then, unless the contrary intention appears, a permitted frequency for the class must not be construed in accordance with any interpretative provisions of the limitation document.

Note: The effect of subsection (6) is that any frequency or frequency band that appears in column 2 of a table item is not interpreted in accordance with a limitation document that applies to that table item. For a frequency or frequency band that appears in column 4 (or in a clause referred to in column 4), see subsection (5).

- (7) If, for a class of radiocommunications transmitters:
 - (a) there is an additional limitation; and

- (b) the additional limitation refers to a document (the ***limitation document***); and
- (c) the additional limitation requires a radiocommunications transmitter in that class, or the operation of such a transmitter, to comply with all or part of the limitation document;

the additional limitation does not apply to the operation of a radiocommunications transmitter in that class where:

- (d) the transmitter is imported solely for use or operation in Australia in connection with a significant event; and
- (e) if there is a requirement, imposed otherwise than by the limitation document, to the effect that the transmitter must be tested or inspected before it may be used or operated in Australia – the requirement has been satisfied before the transmitter is used or operated; and
- (f) if there is a condition or requirement, imposed otherwise than by the limitation document, on the use or operation of the transmitter in Australia – the transmitter is only used or operated in accordance with that condition or requirement; and
- (g) the transmitter is only used or operated in Australia at the location, and during the period, specified in the notifiable instrument that declares the event to be a significant event.

Note 1: A radiocommunications transmitter may be operated under this instrument in parts of the radiofrequency spectrum used by other radiocommunications devices. A radiocommunications receiver tuned to the transmitter will not be afforded protection from interference caused by other radiocommunications devices. A radiocommunications transmitter operated under this instrument is generally not expected to suffer interference; however, an individual transmitter may experience interference arising from the particular circumstances of the transmitter's operation.

Note 2: In accordance with the requirements of footnote AUS 32 and footnote 150 to the Table of Frequency Band Allocations in the spectrum plan, a low interference potential device will not be afforded protection from interference that may be caused by industrial, scientific and medical (***ISM***) applications in the ISM frequency bands 13.553 MHz to 13.567 MHz, 26.957 MHz to 27.283 MHz, 40.66 MHz to 40.70 MHz, 918 MHz to 926 MHz, 2 400 MHz to 2 500 MHz, 5 725 MHz to 5 875 MHz and 24 000 MHz to 24 250 MHz.

Note 3: Some radiocommunications transmitters operated under this instrument must meet additional physical or technical requirements outside the scope of this instrument. The use, marketing and supply of such devices in Australia may be dependent on the approval of the appropriate regulatory body, such as the Therapeutic Goods Administration or State and Territory government authorities.

Note 4: The operation of a radiocommunications transmitter with an external antenna, other than an antenna supplied with the transmitter, may result in a breach of the conditions of this instrument. An external antenna is a removable antenna that is not an integral antenna. An integral antenna is an antenna that is permanently fixed to a transmitter, or which is intended for direct attachment to a fixed connector on the transmitter, without the use of an external cable.

Note 5: A radiocommunications transmitter, or group of transmitters, capable of operating simultaneously on more than one permitted frequency must comply with the standard prescribed by Schedule 4 to the *Radiocommunications Equipment (General) Rules 2021*, or by a later instrument that replaces those rules and prescribes a standard, for the total power that is emitted. Those rules are available, free of charge, from the Federal Register of Legislation at www.legislation.gov.au.

Note 6: Information about electromagnetic energy regulatory arrangements is available, free of charge, from the ACMA website at www.acma.gov.au.

8 Operation – interference

- (1) A person must not operate a radiocommunications transmitter, whether on its own or in operation with one or more other radiocommunications transmitters, if the operation causes interference to radiocommunications.
- (2) Without limiting subsection (1), a radiocommunications transmitter must not be operated if all the following circumstances exist:

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- (a) the transmitter is operated on a frequency, or in a frequency band, between 70 MHz and 25.25 GHz; and
- (b) the transmitter is operated within 70 kilometres of the Murchison Radioastronomy Observatory located at latitude 26° 42' 15" south, longitude 116° 39' 32" east;
- (c) the operation causes interference to the radio astronomy observations of the Observatory.

9 Operation – compliance with ARPANSA Standard

A person must not operate a radiocommunications transmitter, or a group of radiocommunications transmitters, if the electromagnetic energy emitted by the transmitter, or group of transmitters, exceeds the general public exposure limits specified in the ARPANSA Standard in a place accessible by the public.

- Note 1: A radiocommunications transmitter with an integral antenna must not be supplied unless it complies with the standard prescribed by Schedule 4 to the *Radiocommunications Equipment (General) Rules 2021*, which adopts the exposure limits specified in the ARPANSA Standard. Under section 9 of this instrument, the ARPANSA Standard exposure limits must also be met by a radiocommunications transmitter, whether on its own or included in a group of transmitters, to which, after it is supplied, a person attaches an external antenna (that is, an antenna other than an integral antenna), located in an area accessible to the public. An integral antenna is an antenna that is permanently fixed to a device, or which is intended for direct attachment to a fixed connector on the device, without the use of an external cable.
- Note 2: A radiocommunications transmitter with a dedicated antenna (as defined by applicable instruments produced by ETSI) is equivalent to a transmitter with an integral antenna for the purpose of the ARPANSA Standard.
- Note 3: The standards AS/NZS IEC 60825.14 *Safety of laser products, Part 14: A user's guide* and AS/NZS IEC 60825.1 *Safety of laser products, Part 1: Equipment classification and requirements* set out the requirements that are necessary to protect persons from radiation from a laser device, the use of which may be authorised by this instrument. These standards may be obtained, for a fee, from a Standards Australia distributor listed on the Standards Australia website at www.standards.org.au. They are also available to be viewed, on prior request, at an ACMA office, subject to licensing conditions.
- Note 4: Where a radiocommunications transmitter, or group of transmitters, is capable of operating simultaneously on more than one permitted frequency in places accessible by the public, the general public exposure limits specified in the ARPANSA Standard apply to the total power emitted.

Schedule 1 Conditions – operating parameters

(sections 4 and 7)

Part 1 General radiocommunications transmitters

1 Operating parameters for any radiocommunications transmitter

No additional requirements apply to Table 1.

Table 1

Item	Column 1	Column 2	Column 3	Column 4
	Class of radiocommunications transmitter	Permitted operating frequency band	Maximum EIRP	Additional limitations
1	Any	0–0.014 MHz	200 μ W	None
2	Any	0.014–0.01995 MHz	50 μ W	None
3	Any	0.02005–0.048 MHz	43 μ W	None
4	Any	0.048–0.07 MHz	7.5 μ W	None
5	Any	0.07–0.16 MHz	3 μ W	None
6	Any	0.16–0.19 MHz	1 μ W	None
7	Any	(a) 0.19–0.285 MHz (b) 0.325–0.415 MHz	500 nW	None
8	Any	3.025–3.155 MHz	7.5 nW	None
9	Any	3.5–3.7 MHz	30 pW	None
10	Any	(a) 3.7–3.95 MHz (b) 4.438–4.65 MHz	7.5 nW	None
11	Any	13.553–13.567 MHz	100 mW	None
12	Any	24–24.89 MHz	10 mW	None
13	Any	26.957–27.283 MHz	1 W	See clause 2
14	Any	(a) 29.7–29.72 MHz (b) 30–30.0625 MHz (c) 30.3125–31 MHz (d) 36.6–37 MHz (e) 39–39.7625 MHz (f) 40.25–40.66 MHz	100 mW	None
15	Any	40.66–41 MHz	1 W	None

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16	Any	54–56 MHz	2.5 mW	None
17	Any	(a) 70–70.24375 MHz	100 mW	None
		(b) 77.29375–77.49375 MHz		
		(c) 150.7875–152.49375 MHz		
		(d) 173.29375–174 MHz		
18	Any	(a) 225–242 MHz	10 µW	None
		(b) 244–267 MHz		
		(c) 273–303.95 MHz		
		(d) 304.05–328.6 MHz		
		(e) 335.4–399.9 MHz		
19	Any	433.05–434.79 MHz	25 mW	None
20	Any	915–928 MHz	3 mW	None
21	Any	2400–2483.5 MHz	10 mW	None
22	Any	5725–5875 MHz	25 mW	None
23	Any	57–64 GHz	100 mW	See clause 3
24	Any	(a) 10.5–10.55 GHz	100 mW	None
		(b) 24–24.25 GHz		
		(c) 61–61.5 GHz		
		(d) 122.25–123 GHz		
		(e) 244–246 GHz		
25	Any	122–122.25 GHz	See clause 4	See clause 4

Note: A radiocommunications transmitter that complies with the field strength limit of 2400/F (kHz) µV/M, at a distance of 300 metres, will generally comply with the condition not to exceed the maximum EIRP specified in table items 3 to 7. That field strength limit is set out in FCC Rules Title 47 Part 15 Section 209. The FCC Rules are available, free of charge, from United States government's Code of Federal Regulations website at www.ecfr.gov.

2 Additional limitations for table item 13

- (1) A radiocommunications transmitter must be operated on a frequency that is at least 5 kHz from the centre frequency of any adjacent citizen band radio channel.
- (2) A radiocommunications transmitter must not have an emission bandwidth greater than 10 kHz.
- (3) In subclause (1), ***citizen band radio channel*** means a channel specified in:
 - (a) the *Radiocommunications (Citizen Band Radio Stations) Class Licence 2015*; or

- (b) if another instrument replaces that class licence – the other instrument.

Note: The *Radiocommunications (Citizen Band Radio Stations) Class Licence 2015* is available, free of charge, from the Federal Register of Legislation at www.legislation.gov.au.

3 Additional limitation for table item 23

- (1) A radiocommunications transmitter must not be operated if its maximum transmitter power exceeds 10 mW.
- (2) A radiocommunications transmitter must not be operated if its maximum radiated power spectral density exceeds 13 dBm per 1 MHz.

4 Additional limitations for table item 25

- (1) A radiocommunications transmitter must not be operated if its maximum radiated power spectral density exceeds 10 dBm per 250 MHz.
- (2) Without limiting subclause (1), for elevations above 30 degrees, a radiocommunications transmitter must not be operated if its maximum radiated power spectral density exceeds -48 dBm per 1 MHz.

Part 2 Wireless microphones and audio equipment

5 Operating parameters for wireless microphones and audio equipment

No additional requirements apply to Table 2.

Note: The classes of radiocommunications transmitters in Table 2 cover wireless microphones and other wireless audio equipment, including ear pieces and wireless speaker transmitters.

Table 2

Item	Column 1	Column 2	Column 3	Column 4
	Class of radiocommunications transmitter	Permitted operating frequency band	Maximum EIRP	Additional limitations
1	Auditory assistance transmitters	3.155–3.4 MHz, on a carrier frequency of: (a) 3.175 MHz; or (b) 3.225 MHz; or (c) 3.275 MHz; or (d) 3.325 MHz	60 μ W	None
2	Auditory assistance transmitters	(a) 41–42 MHz, on a carrier frequency of: (i) 41.55 MHz; or (ii) 41.65 MHz; or (iii) 41.75 MHz; or (iv) 41.85 MHz; or (v) 41.95 MHz (b) 43–44 MHz, on a carrier frequency of: (i) 43.05 MHz; or (ii) 43.15 MHz; or	1.3 mW	None

		(iii) 43.25 MHz; or		
		(iv) 43.35 MHz; or		
		(v) 43.45 MHz		
3	Wireless audio transmitters and auditory assistance transmitters	88–108 MHz	10 μ W	See clause 6
4	Wireless audio transmitters	174–230 MHz	50 mW	See clauses 7 and 8
5	Wireless audio transmitters	520–694 MHz	100 mW	See clauses 8 and 9
6	Digitally modulated wireless audio transmitters	520–694 MHz	100 mW	See clauses 7 and 8
7	Wireless audio transmitters	1785–1800 MHz	100 mW	See clause 10
8	Wireless audio transmitters	520–694 MHz	100 mW	See clause 11
9	Wireless audio transmitters	520–694 MHz	100 mW	See clause 8 and 12

Note 1: For table item 4, EIRP of 50 mW is equivalent to ERP of 30.5 mW.

Note 2: A wireless audio transmitter (other than a digitally modulated wireless audio transmitter) may be operated on a frequency between 520 MHz and 694 MHz in accordance with one of table item 5, table item 8 or table item 9.

Note 3: For table items 5 to 9, EIRP of 100 mW is equivalent to ERP of 60.95 mW.

6 Additional limitations for table item 3

- (1) The radio emissions from a radiocommunications transmitter must:
 - (a) be frequency modulated; and
 - (b) have a maximum bandwidth of 180 kHz.
- (2) If a radiocommunications transmitter is operated in a radio channel in the broadcasting services bands, the transmitter must not be located in the licence area of a radio broadcasting service if the service is provided using a radiocommunications transmitter that is operated in that radio channel.

7 Additional limitation for table items 4 and 6

The radio emissions from a radiocommunications transmitter must have a maximum bandwidth of 330 kHz.

8 Additional limitation for table items 4, 5, 6 and 9

If a radiocommunications transmitter is operated in a channel in the broadcasting services bands, the transmitter must not be located in the coverage area specified in a

transmitter licence for a radiocommunications transmitter that is, or is part of, a broadcasting station or a datacasting service station that operates in that channel.

9 Additional limitation for table item 5

The radio emissions from a radiocommunications transmitter must:

- (a) be frequency modulated; and
- (b) have a maximum bandwidth of 330 kHz.

10 Additional limitations for table item 7

- (1) A radiocommunications transmitter must comply with the requirements in EN 300 422-1.
- (2) A radiocommunications transmitter must not be operated on a carrier frequency between 1785 MHz and 1786 MHz.
- (3) If a radiocommunications transmitter is operated on a frequency below 1790 MHz, the transmitter must be indoors.

11 Additional limitations for table item 8

- (1) A radiocommunications transmitter must comply with the requirements in:
 - (a) EN 300 422-1; or
 - (b) EN 301 357.
- (2) A radiocommunications transmitter must only be operated indoors.

12 Additional limitation for table item 9

A radiocommunications transmitter must comply with the requirements in EN 300 422-1.

Part 3 Medical telemetry and telecommand transmitters

13 Operating parameters for medical telemetry and telecommand transmitters

For Table 3, each class of radiocommunications transmitter is authorised only where it relates to either or both:

- (a) medical telemetry; or
- (b) medical telecommand.

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 3

Item	Column 1	Column 2	Column 3	Column 4
	Class of radiocommunications transmitter	Permitted operating frequency band	Maximum EIRP	Additional limitations
1	Biomedical telemetry transmitters	174–230 MHz	10 μ W	None
2	Medical implant communications system transmitters	402–405 MHz	See clause 16	See clause 14
3	Medical implant communications systems transmitters	(a) 401–402 MHz (b) 405–406 MHz	See clause 16	See clause 15
4	Medical endoscopy capsule transmitters	430–440 MHz	See clause 17	See clause 17
5	Biomedical telemetry transmitters	520–668 MHz	11 mW	See clause 18
6	Medical body area network transmitters	2483.5–2500 MHz	See clause 19	See clause 19
7	Low power active medical implant	2483.5–2500 MHz	See clause 20	See clause 20

Note 1: The systems and associated medical communications systems transmitters specified in table items 2, 3, 4, 6 and 7 may require marketing approval from the Therapeutic Goods Administration.

Note 2: Operation of a radiocommunications transmitter that complies with EN 303 520, *Short Range Devices (SRD); Ultra Low Power (ULP) wireless medical capsule endoscopy devices operating in the band 430 MHz to 440 MHz; Harmonised Standard for access to radio spectrum*, published by ETSI, will generally comply with the limitations specified in table item 4. EN 303 520 is available, free of charge, from ETSI's website at www.etsi.org.

14 Additional limitation for table item 2

A radiocommunications transmitter must comply with the requirements in:

- (a) EN 301 839; or
- (b) FCC Rules Title 47 Part 95 Sections 2573 and 2579.

Note 1: EN 301 839 is available, free of charge, from ETSI's website at www.etsi.org.

Note 2: The FCC Rules are available, free of charge, from United States government's Code of Federal Regulations website at www.ecfr.gov.

15 Additional limitation for table item 3

A radiocommunications transmitter must comply with the requirements in EN 302 537.

Note: EN 302 537 is available, free of charge, from ETSI's website at www.etsi.org.

16 Maximum EIRP for table items 2 and 3

A radiocommunications transmitter must not be operated if its EIRP, measured outside the body in which it is implanted, is greater than 25 μ W.

17 Maximum EIRP and additional limitations for table item 4

- (1) A radiocommunications transmitter must not be operated if its maximum effective radiated power spectral density is greater than -50 dBm per 100 kHz.
- (2) A radiocommunications transmitter must not be operated if its total ERP is greater than -40 dBm within a 10 MHz measurement bandwidth.
- (3) For the purposes of subclauses (1) and (2), the limitation is to be measured outside the body in which the radiocommunications transmitter is inserted.

18 Additional limitation for table item 5

If a radiocommunications transmitter is operated in a channel in the broadcasting services bands, the transmitter must not be located in the coverage area specified in a transmitter licence for a radiocommunications transmitter that is, or is part of, a broadcasting station or a datacasting service station that operates in that channel.

19 Maximum EIRP and additional limitations for table item 6

- (1) A radiocommunications transmitter must comply with the requirements in EN 303 203.
- (2) Without limiting subclause (1), a radiocommunications transmitter must not be operated if its EIRP is greater than the EIRP specified for the transmitter in EN 303 203.

Note: EN 303 203 is available, free of charge, from ETSI's website at www.etsi.org.

20 Maximum EIRP and additional limitations for table item 7

- (1) A radiocommunications transmitter must comply with the requirements in EN 301 559.
- (2) Without limiting subclause (1), a radiocommunications transmitter must not be operated if its EIRP is greater than the EIRP specified for the transmitter in EN 301 559.

Note: EN 301 559 is available, free of charge, from ETSI's website at www.etsi.org.

Part 4 General telemetry and telecommand transmitters

21 Operating parameters for general telemetry and telecommand transmitters

No additional requirements apply to Table 4.

Note 1: The classes of radiocommunications transmitters in Table 4 cover general telemetry and telecommand transmitters.

Note 2: 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 4

Item	Column 1	Column 2	Column 3	Column 4
	Class of radiocommunications transmitter	Permitted operating frequency band	Maximum EIRP	Additional limitations
1	Telecommand or telemetry transmitters	472.0125–472.1125 MHz	100 mW	None
2	Telecommand or telemetry transmitters	(a) 0.07–0.119 MHz (b) 0.135–0.16 MHz	10 mW	None
3	Telecommand or telemetry transmitters	0.119–0.135 MHz	1.5 W	None
4	Telecommand or telemetry transmitters	0.16–0.19 MHz	See clause 22	See clause 22
5	Telecommand or telemetry transmitters	(a) 169.4–169.4875 MHz (b) 169.5875–169.8125 MHz	16.4 mW	See clause 23
6	Telecommand or telemetry transmitters	169.4875–169.5875 MHz	16.4 mW	See clause 24
7	Fixed telecommand or telemetry transmitters	928–935 MHz	25 mW	See clauses 23 and 25
8	Telecommand or telemetry transmitters	(a) 2400–2450 MHz (b) 5725–5795 MHz (c) 5815–5875 MHz	1 W	None
9	Telecommand or telemetry transmitters	5795–5815 MHz	2 W	None

22 Maximum EIRP and additional limitation for table item 4

- (1) A radiocommunications transmitter must comply with the requirements in FCC Rules Title 47 Part 15 Section 217 (**Section 217**).

Note: The FCC Rules are available, free of charge, from United States government's Code of Federal Regulations website at www.ecfr.gov.

- (2) Without limiting subclause (1), a radiocommunications transmitter must not be operated if its EIRP is greater than the EIRP specified for the transmitter in Section 217.

23 Additional limitation for table items 5 and 7

- (1) A radiocommunications transmitter must not be operated if its maximum duty cycle exceeds 0.1%, averaged over one hour, on any given frequency.
- (2) In this clause, where a radiocommunications transmitter is operated during a period (the ***total period***), the ***duty cycle*** is the ratio (expressed as a percentage) of:
- (a) the period the transmitter was operated; to
 - (b) the total period.

Note: The maximum possible value of the duty cycle is 100%. The value of the duty cycle will be less than 100% if the radiocommunications transmitter was not continuously operated during the total period.

24 Additional limitation for table item 6

- (1) A radiocommunications transmitter must not be operated if its maximum duty cycle exceeds:
- (a) for operation between 6 am and midnight local time – 0.001%, averaged over one hour, on any given frequency;
 - (b) for operation between midnight and 6 am local time – 0.1%, averaged over one hour, on any given frequency.
- (2) In this clause, where a radiocommunications transmitter is operated during a period (the ***total period***), the ***duty cycle*** is the ratio (expressed as a percentage) of:
- (a) the period the transmitter was operated; to
 - (b) the total period.

Note: The maximum possible value of the duty cycle is 100%. The value of the duty cycle will be less than 100% if the radiocommunications transmitter was not continuously operated during the total period.

25 Additional limitation for table item 7

A radiocommunications transmitter must not be operated if its maximum radiated power spectral density is greater than -14.5 dBm per 1 kHz.

Part 5 Radiofrequency identification tags

26 Operating parameters for radiofrequency identification tags

No additional requirements apply to Table 5.

Note: The classes of radiocommunications transmitters in Table 5 cover RFID transmitters.

Table 5

Item	Column 1	Column 2	Column 3	Column 4
	Class of radiocommunications transmitter	Permitted operating frequency band	Maximum EIRP	Additional limitations
1	RFID transmitters	(a) 1.77–2.17 MHz (b) 2.93–3.58 MHz (c) 7.2–10.01 MHz	100 pW	None
2	RFID transmitters	(a) 13.553–13.567 MHz (b) 918–926 MHz (c) 2400–2450 MHz (d) 5725–5795 MHz (e) 5815–5875 MHz (f) 24–24.25 GHz	1 W	None
3	RFID transmitters	5795–5815 MHz	2 W	None
4	RFID transmitters	920–926 MHz	4W	See clause 27
5	RFID transmitters	(a) 22–23.480 GHz (b) 24.1–26.5 GHz	630 mW	See clause 28

27 Additional limitations for table item 4

- (1) A radiocommunications transmitter must not be operated if its EIRP:
 - (a) measured below 917.75 MHz, is greater than -37 dBm; or
 - (b) measured above 926 MHz, is greater than -33 dBm.
- (2) A radiocommunications transmitter must not be operated unless an EIRP greater than 1 W is necessary for satisfactory system performance.

Note: Where an EIRP of 1 W or lower is sufficient for satisfactory system performance, a radiocommunications transmitter may be operated in accordance with table item 2.

28 Additional limitations for table item 5

- (1) A radiocommunications transmitter must not be within the nominated distance of a specified Australian radio-astronomy site.
- (2) A radiocommunications transmitter must only be operated indoors.

Part 6 Radiocommunications transmitters used in tunnels, etc

29 Operating parameters for radiocommunications transmitters used in tunnels, etc

- (1) For Table 6, each class of radiocommunications transmitter is authorised only where the transmitter is operated in an underground location.
- (2) In this Part, ***underground location*** includes the following:
- (a) a tunnel;
 - (b) a mine;
 - (c) a cave.

Table 6

Item	Column 1	Column 2	Column 3	Column 4
	Class of radiocommunications transmitter	Permitted operating frequency band	Maximum EIRP	Additional limitations
1	Any	(a) 31–32 MHz	See clause 30	None
		(b) 33–34 MHz		
		(c) 35–36 MHz		
		(d) 37–38 MHz		
		(e) 42–43 MHz		
		(f) 44–45 MHz		
		(g) 70–74.8 MHz		
		(h) 75.2–85 MHz		
		(i) 148–149.9 MHz		
		(j) 150.05–156 MHz		
		(k) 157.45–160.6 MHz		
		(l) 160.975–161.475 MHz		
		(m) 162.05–174 MHz		
		(n) 403–406 MHz		
		(o) 406.1–430 MHz		
		(p) 450–520 MHz		

2	Any	(a)	0.5265– 1.605 MHz	See clause 31	See clause 32
		(b)	87.5–108 MHz		
		(c)	174–230 MHz		
		(d)	520–694 MHz		

30 Maximum EIRP for table item 1

A radiocommunications transmitter must not be operated if its EIRP, measured at an above-ground opening to the underground location where the transmitter is operated, is greater than 3.5 nW.

31 Maximum EIRP for table item 2

A radiocommunications transmitter must not be operated if its EIRP, measured at an above-ground opening to the underground location where the transmitter is operated, is greater than 10 μ W.

32 Additional limitation for table item 2

A radiocommunications transmitter must be operated primarily for the augmentation of the transmission of an above-ground broadcasting service in a tunnel.

Part 7 Radiocommunications transmitters used in alarms, etc

33 Operating parameters for radiocommunications transmitters used in alarms, etc

No additional requirements apply to Table 7.

Table 7

Item	Column 1	Column 2	Column 3	Column 4
	Class of radiocommunications transmitter	Permitted operating frequency band	Maximum EIRP	Additional limitations
1	Personal alarm radiocommunications transmitters	27.5–27.51 MHz	100 μ W	None
2	Radiocommunications transmitters operated in connection with personal alarm radiocommunications transmitters	27.5–27.51 MHz	500 mW	See clause 34
3	Alarm radiocommunications transmitters (including security and personal safety radiocommunications transmitters)	303.6–304.05 MHz	See clause 35	See clause 35
4	Home detention monitoring equipment radiocommunications transmitters	314.075–314.325 MHz	200 μ W	See clause 36
5	Alarm radiocommunications transmitters	344.8–345.2 MHz	See clause 37	See clause 37

34 Additional limitation for table item 2

A radiocommunications transmitter must not be operated to cause more than 4 seconds of transmissions within a 60 second period.

35 Maximum and average EIRP for table item 3

- (1) A radiocommunications transmitter must not be operated if its EIRP is greater than 1 mW.
- (2) A radiocommunications transmitter must not be operated if its EIRP is greater than 100 μ W, unless the transmitter is both:
 - (a) manually operated; and
 - (b) not operated for any continuous period longer than 10 seconds.

- (3) A radiocommunications transmitter must not be operated if its average EIRP is greater than 100 μ W in any 10 second period.

36 Additional limitation for table item 4

A radiocommunications transmitter must not be operated to cause more than 10 milliseconds of transmissions within a 10 second period.

37 Maximum and average EIRP for table item 5

- (1) A radiocommunications transmitter must not be operated if its EIRP is greater than 1 mW.
- (2) A radiocommunications transmitter must not be operated if its average EIRP is greater than 100 μ W in:
- (a) if, for the transmitter, a pulse train is not longer than 0.1 seconds – the length of one complete pulse train; or
 - (b) if, for the transmitter, a pulse train is 0.1 seconds or longer – the 0.1 second period during which the EIRP is at its maximum value; or
 - (c) if the transmitter operates for more than 0.1 seconds continuously – the 0.1 second period during which the EIRP is at its maximum value.

Part 8 Frequency hopping, WiFi and RLAN transmitters

38 Operating parameters for frequency hopping, WiFi and RLAN transmitters

No additional requirements apply to Table 8.

Table 8

Item	Column 1	Column 2	Column 3	Column 4
	Class of radiocommunications transmitter	Permitted operating frequency band	Maximum EIRP	Additional limitations
1	Frequency hopping radiocommunications transmitters	915–928 MHz	1 W	See clause 39
2	Frequency hopping radiocommunications transmitters	2400–2483.5 MHz	500 mW	See clause 40
3	Frequency hopping radiocommunications transmitters	2400–2483.5 MHz	4 W	See clause 41
4	Frequency hopping radiocommunications transmitters	5725–5850 MHz	4 W	See clause 41
5	Frequency hopping radiocommunications transmitters	5925–6425 MHz	25 mW	See clause 42
6	Digital modulation radiocommunications transmitters	915–928 MHz	1 W	See clause 43
7	Digital modulation radiocommunications transmitters	2400–2483.5 MHz	4 W	See clause 43
8	Digital modulation radiocommunications transmitters	5150–5250 MHz	1 W, averaged over the entire transmission burst	See clause 44
9	Digital modulation radiocommunications transmitters	5725–5850 MHz	4 W	See clause 43
10	Radio Local Area Network (RLAN) radiocommunications transmitters	5150–5250 MHz	200 mW, averaged over the entire transmission burst	See clause 45

11	RLAN radiocommunications transmitters	5250–5350 MHz	200 mW, averaged over the entire transmission burst	See clause 46
12	RLAN radiocommunications transmitters	(a) 5470–5600 MHz (b) 5650–5725 MHz	1 W, averaged over the entire transmission burst	See clause 47
13	RLAN radiocommunications transmitters	5925–6585 MHz	250 mW	See clause 48
14	RLAN radiocommunications transmitters	5925–6585 MHz	25 mW	See clause 49
15	Data communications radiocommunications transmitters used indoors on controlled premises	24.25–24.7 GHz	See clause 50	See clause 50
16	Data communications radiocommunications transmitters used on controlled premises	24.7–25.1 GHz	See clause 51	See clause 51
17	Data communications radiocommunications transmitters not used indoors	59–63 GHz	150 W	See clause 52
18	Data communications radiocommunications transmitters	57–71 GHz	20 W	See clause 53
19	Fixed point to point link radiocommunications transmitters not used indoors	57–71 GHz	See clause 54	See clause 54

39 Additional limitation for table item 1

A radiocommunications transmitter must not be operated if its operation uses fewer than 20 hopping frequencies.

40 Additional limitations for table item 2

A radiocommunications transmitter either:

- (a) must comply with the requirements in EN 300 328; or
- (b) must not be operated if its operation uses fewer than 15 hopping frequencies.

Note: EN 300 328 is available, free of charge, from ETSI's website at www.etsi.org.

41 Additional limitation for table items 3 and 4

A radiocommunications transmitter must not be operated if its operation uses fewer than 75 hopping frequencies.

42 Additional limitations for table item 5

- (1) The power spectral density of a radiocommunications transmitter must not be greater than 10 mW EIRP per 1 MHz.
- (2) A radiocommunications transmitter must not be operated if its operation uses fewer than 15 hopping frequencies.
- (3) The radio emissions from a radiocommunications transmitter must have a maximum bandwidth of 20 MHz.
- (4) A radiocommunications transmitter must not be operated if its EIRP measured below 5925 MHz is greater than -45 dBm per 1 MHz.
- (5) A radiocommunications transmitter must use contention-based protocols for multiple access.

Example: Carrier Sense Multiple Access (CSMA) and Multiple Access Collision Avoidance (MACA) are examples of contention-based protocols.

43 Additional limitation for table items 6, 7 and 9

A radiocommunications transmitter must not be operated if its radiated peak power spectral density is greater than 25 mW per 3 kHz.

44 Additional limitation for table item 8

A radiocommunications transmitter must not be operated if its maximum EIRP exceeds 125 mW (21 dBm) in any direction above 30 degrees of elevation.

45 Additional limitations for table item 10

- (1) A radiocommunications transmitter must only be operated indoors.
- (2) The power spectral density of a radiocommunications transmitter must not be greater than:
 - (a) 10 mW EIRP per 1 MHz, if the transmitter has a bandwidth of 1 MHz or greater; or
 - (b) 40 μ W per 4 kHz, if the transmitter has a bandwidth less than 1 MHz.

46 Additional limitations for table item 11

- (1) A radiocommunications transmitter must only be operated indoors.
- (2) The power spectral density of a radiocommunications transmitter must not be greater than:
 - (a) 10 mW EIRP per 1 MHz, if the transmitter has a bandwidth equal to or greater than 1 MHz; or
 - (b) 40 μ W per 4 kHz, if the transmitter has a bandwidth less than 1 MHz.
- (3) A radiocommunications transmitter must use:
 - (a) Dynamic Frequency Selection; and
 - (b) if the transmitter is operated with a maximum EIRP greater than 100 mW – Transmit Power Control.

Note: IEEE 802.11 *Telecommunications and Information Exchange between Systems – Local and Metropolitan Area Networks – Specific Requirements – Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications* provides for Dynamic Frequency Selection and Transmit Power Control. IEEE 802.11 is published by the Institute of Electrical

and Electronics Engineers and is available for purchase from the Institute's website at www.ieee.org.

47 Additional limitations for table item 12

- (1) The maximum radiated mean power density of a radiocommunications transmitter must not exceed 50 mW EIRP per 1 MHz.
- (2) A radiocommunications transmitter must use:
 - (a) Dynamic Frequency Selection; and
 - (b) if the transmitter is operated with a maximum EIRP greater than 500 mW – Transmit Power Control.

Note: IEEE 802.11 *Telecommunications and Information Exchange between Systems – Local and Metropolitan Area Networks – Specific Requirements – Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications* provides for Dynamic Frequency Selection and Transmit Power Control. IEEE 802.11 is published by the Institute of Electrical and Electronics Engineers and is available for purchase from the Institute's website at www.ieee.org.

48 Additional limitations for table item 13

- (1) The radiocommunications transmitter must only be operated indoors.
- (2) The power spectral density of a radiocommunications transmitter must not be greater than 12.5 mW EIRP per 1 MHz.
- (3) A radiocommunications transmitter must use contention-based protocols for multiple access.

Example: Carrier Sense Multiple Access (CSMA) and Multiple Access Collision Avoidance (MACA) are examples of contention-based protocols.
- (4) The radio emissions from a radiocommunications transmitter below 5925 MHz must not be greater than -27 dBm/MHz EIRP.

49 Additional limitations for table item 14

- (1) The power spectral density of a radiocommunications transmitter must not be greater than 1.25 mW EIRP per 1 MHz.
- (2) A radiocommunications transmitter must use contention-based protocols for multiple access.

Example: Carrier Sense Multiple Access (CSMA) and Multiple Access Collision Avoidance (MACA) are examples of contention-based protocols.
- (3) The radio emissions from a radiocommunications transmitter below 5925 MHz must not be greater than -37 dBm per 1 MHz EIRP.

50 Maximum EIRP and additional limitations for table item 15

- (1) The radio emissions from a radiocommunications transmitter that is, or is part of, a base station must not exceed 20 dBm per 200 MHz TRP.
- (2) The radio emissions from a radiocommunications transmitter that is, or is part of, user equipment must not exceed 22 dBm per occupied bandwidth TRP.
- (3) A radiocommunications transmitter that is, or is part of, a base station must comply with the unwanted and spurious emission limits set out in TS 38.104.

Note: TS 38.104 is published by the 3GPP and is available, free of charge, from its website at www.3gpp.org.

- (4) A radiocommunications transmitter that is, or is part of, user equipment must comply with the unwanted and spurious emission limits set out in TS 38.101-2.

Note: TS 38.101-2 is published by the 3GPP and is available, free of charge, from its website at www.3gpp.org.

- (5) The radio emissions from a radiocommunications transmitter must not exceed the TRP emission limits set out in Table 1 of International Telecommunication Union Resolution 750 (Rev. WRC-19) in the 23.6 GHz to 24 GHz frequency band.

Note: Resolution 750 is available, free of charge, from the website of the International Telecommunication Union at www.itu.int.

- (6) The aggregate power flux-density of a radiocommunications transmitter must not exceed -105.4 dBW/MHz/m² at the external boundary walls of controlled premises, when measured at a height of 5 metres above ground level.

Note: Table item 15 only authorises the operation of radiocommunications transmitters indoors on controlled premises.

51 Maximum EIRP and additional limitations for table item 16

- (1) The radio emissions from a radiocommunications transmitter that is, or is part of, a base station must not exceed 25 dBm per 200 MHz TRP.

- (2) The radio emissions from a radiocommunications transmitter that is, or is part of, user equipment must not exceed 22 dBm per occupied bandwidth TRP.

- (3) A radiocommunications transmitter that is, or is part of, a base station must comply with the unwanted and spurious emission limits set out in TS 38.104.

Note: TS 38.104 is published by the 3GPP and is available, free of charge, from its website at www.3gpp.org.

- (4) A radiocommunications transmitter that is, or is part of, user equipment must comply with the unwanted and spurious emission limits set out in TS 38.101-2.

Note: TS 38.101-2 is published by the 3GPP and is available, free of charge, from its website at www.3gpp.org.

- (5) The radio emissions from a radiocommunications transmitter must not exceed the TRP emission limits set out in Table 1 of International Telecommunication Union Resolution 750 (Rev. WRC-19) in the 23.6 GHz to 24 GHz frequency band.

Note: Resolution 750 is available, free of charge, from the website of the International Telecommunication Union at www.itu.int.

- (6) The aggregate power flux-density of a radiocommunications transmitter must not be greater than -105.4 dBW/MHz/m² at:

- (a) if the transmitter is operated indoors – the external boundary walls of the controlled premises;
- (b) if the transmitter is not operated indoors – at the boundary of the controlled premises;

when measured at a height of 5 metres above ground level.

Note: Table item 16 authorises the operation of radiocommunications transmitters indoors or outdoors on controlled premises.

52 Additional limitations for table item 17

- (1) A radiocommunications transmitter must not be operated on board an aircraft.
- (2) The transmitter power must not be greater than 20 mW.
- (3) A radiocommunications transmitter must not cause spurious emissions outside the 59 GHz to 63 GHz frequency band equal to or greater than -30 dBm per 1 MHz.

Note: Table item 17 only authorises the operation of radiocommunications transmitters outdoors.

53 Additional limitation for table item 18

A radiocommunications transmitter must comply with the requirements in FCC Rules Title 47 Part 15 Section 255.

Note: The FCC Rules are available, free of charge, from United States government's Code of Federal Regulations website at www.ecfr.gov.

54 Maximum EIRP and additional limitations for table item 19

- (1) A radiocommunications transmitter must comply with the requirements in FCC Rules Title 47 Part 15 Section 255.

Note: The FCC Rules are available, free of charge, from United States government's Code of Federal Regulations website at www.ecfr.gov.

- (2) A radiocommunications transmitter must not be operated in:
 - (a) the 58.2 GHz to 59 GHz frequency band; or
 - (b) the 64 GHz to 65 GHz frequency band;within the nominated distance of a specified Australian radio-astronomy site.

Part 9 Radiocommunications transmitters used in sensors using radar for measurement (radiodetermination)

55 Operating parameters for radiocommunications transmitters used in sensors using radar for measurement

For Table 9, each class of radiocommunications transmitter is authorised only where the transmitter is used in a sensor using radar for measurement.

Table 9

Item	Column 1	Column 2	Column 3	Column 4
	Class of radiocommunications transmitter	Permitted operating frequency band	Maximum EIRP	Additional limitations
1	Radiodetermination radiocommunications transmitters	24–24.25 GHz	1 W	None
2	Radiodetermination radiocommunications transmitters	10.5–10.55 GHz	2 W	See clause 56
3	Radiodetermination radiocommunications transmitters	13.4–14 GHz	25 mW	See clause 57
4	Radiodetermination radiocommunications transmitters	60–61 GHz	20 mW	None
5	Radiodetermination radiocommunications transmitters operated in shielded enclosures	(a) 5250–7000 MHz (b) 8500 MHz–10.6 GHz (c) 24.05–26.5 GHz (d) 75–85 GHz	75 nW, when measured outside the shielded enclosure	See clause 58
6	Radiodetermination radiocommunications transmitters	76–77 GHz	25 W	None
7	Radiodetermination radiocommunications transmitters	76–77 GHz	See clause 59	See clause 59
8	Radiodetermination radiocommunications transmitters	77–81 GHz	See clause 60	See clause 60
9	Radiodetermination radiocommunications transmitters	(a) 6000–8500 MHz (b) 24.05–26.5 GHz (c) 57–64 GHz	See clause 61	See clause 61

(d) 75–85 GHz				
10	Radiodetermination radiocommunications transmitters	30 MHz–12.4 GHz	See clause 62	See clause 62
<p>Note: For table item 10, ETSI Guide EG 202 730 provides advice on the control, use and application of found penetration radar and wall probing radar systems. ETSI Guide EG 202 730 is available, free of charge, from ETSI's website at www.etsi.org.</p>				

56 Additional limitation for table item 2

A radiocommunications transmitter must comply with the requirements in FCC Rules Title 47 Part 15 Section 245.

Note: The FCC Rules are available, free of charge, from United States government's Code of Federal Regulations website at www.ecfr.gov.

57 Additional limitations for table item 3

- (1) A radiocommunications transmitter must not be operated on board an aircraft.
- (2) A radiocommunications transmitter must comply with the requirements in EN 300 440.

Note: EN 302 372 is available, free of charge, from ETSI's website at www.etsi.org.

58 Additional limitation for table item 5

A radiocommunications transmitter must comply with the requirements in EN 302 372.

Note: EN 302 372 is available, free of charge, from the European Telecommunication Standard Institute's website at www.etsi.org.

59 Maximum EIRP and additional limitation for table item 7

A radiocommunications transmitter must comply with the requirements in one of the following:

- (a) EN 301 091-1;
- (b) EN 301 091-2;
- (c) EN 301 091-3.

Note 1: EN 301 091-1, EN 301 091-2 and EN 301 091-3 are available, free of charge, from ETSI's website at www.etsi.org.

Note 2: EN 301 091-1, EN 301 091-2 and EN 301 091-3 each sets the maximum EIRP for a radiocommunications transmitter.

60 Maximum EIRP and additional limitations for table item 8

- (1) A radiocommunications transmitter must comply with the requirements in EN 302 264.

Note 1: EN 302 264 is available, free of charge, from ETSI's website at www.etsi.org.

Note 2: EN 302 264 sets the maximum EIRP for a radiocommunications transmitter.

- (2) A radiocommunications transmitter must not be operated within the nominated distance of a specified Australian radio-astronomy site.

61 Maximum EIRP and additional limitations for table item 9

- (1) A radiocommunications transmitter must be operated such that its radio emissions are directed towards:

- (a) the ground; or
 - (b) the floor or a wall of a building or similar structure.
- (2) A radiocommunications transmitter must comply with the requirements in EN 302 729.
 - Note 1: EN 302 729 is available, free of charge, from ETSI's website at www.etsi.org.
 - Note 2: EN 302 729 sets the maximum EIRP for a radiocommunications transmitter.
- (3) A radiocommunications transmitter must not be operated within the nominated distance of a specified Australian radio-astronomy site.

62 Maximum EIRP and additional limitations for table item 10

- (1) A radiocommunications transmitter must be operated such that its radio emissions are directed towards:
 - (a) the ground; or
 - (b) the floor or a wall of a building or similar structure.
- (2) A radiocommunications transmitter must comply with either:
 - (a) the requirements in EN 302 066; or
 - (b) the technical requirements set out in FCC Rules Title 47 Part 15 Section 509.
 - Note 1: EN 302 066 is available, free of charge, from ETSI's website at www.etsi.org.
 - Note 2: The FCC Rules are available, free of charge, from United States government's Code of Federal Regulations website at www.ecfr.gov.
 - Note 3: EN 302 066 and FCC Rules Title 47 Part 15 Section 509 each sets the maximum EIRP for a radiocommunications transmitter.
 - Note 4: Ultra-wideband sensors used in crop harvesting, where the sensor is no more than 1 metre above crop height and no more than 3.7 metres above the ground, will generally comply with the technical requirements of FCC Rules Title 47 Part 15 Section 509. The FCC Rules are available, free of charge, from the United States government's Code of Federal Regulations website at www.ecfr.gov.
- (3) A radiocommunications transmitter must not be operated within the nominated distance of a specified Australian radio-astronomy site.
- (4) A radiocommunications transmitter must not be operated in the 8400 MHz to 8500 MHz frequency band, within the nominated distance of a specified SRS earth station.

Part 10 Radiocommunications transmitters used for other purposes

63 Operating parameters for radiocommunications transmitters used for other purposes

No additional requirements apply to Table 10.

Note: The classes of radiocommunications transmitters in Table 10 cover radiocommunications transmitters that do not fall into any other Part of Schedule 1, other than Part 1 or, in some cases, Part 6.

Table 10

Item	Column 1	Column 2	Column 3	Column 4
	Class of radiocommunications transmitter	Permitted operating frequency band	Maximum EIRP	Additional limitations
1	In-store pricing system radiocommunications transmitters	0.0366–0.0402 MHz	4.8 W	See clause 64
2	In-store DAB repeater radiocommunications transmitters	174–230 MHz	10 μ W, when measured outside the building in which the transmitter is located	See clause 65
3	Aquatic animal tracking radiocommunications transmitters	48–49 MHz	10 mW	None
4	Video sender radiocommunications transmitters	529–694 MHz	12 μ W	None
5	Ultra-wideband short-range vehicle radar system radiocommunications transmitters	22–26.5 GHz	See clause 66	See clause 66
6	Infrared radiocommunications transmitters	187.5–420 THz	125 mW (output power)	None
7	Ultra-wideband radiocommunications transmitters	(a) 3100–4800 MHz (b) 6000–9000 MHz	See clause 67	See clause 67
8	Ultra-wideband radiocommunications transmitters on board aircraft	6000–8500 MHz	See clause 68	See clause 68

9	In-ground ultra-wideband radiocommunications transmitters	(a)	4200–4800 MHz	-62 dBm per 1 MHz	See clause 69
		(b)	6000–6800 MHz		
10	Building material analysis radiocommunications transmitters		2200–8500 MHz	See clause 70	See clause 70

64 Additional limitation for table item 1

A radiocommunications transmitter must only be operated indoors.

65 Additional limitation for table item 2

A radiocommunications transmitter must only be operated for the purposes of augmenting the reception of co-channel DAB broadcasting services provided in the area where the transmitter is located.

66 Maximum EIRP and additional limitations for table item 5

- (1) A radiocommunications transmitter must comply with the requirements in EN 302 288.

Note 1: EN 302 288 is available, free of charge, from ETSI's website at www.etsi.org.

Note 2: EN 302 288 sets the maximum EIRP for a radiocommunications transmitter.

- (2) A radiocommunications transmitter must not be operated within the nominated distance of a specified Australian radio-astronomy site.

67 Maximum EIRP and additional limitations for table item 7

- (1) A radiocommunications transmitter must comply with the requirements in EN 302 065-1.

Note 1: EN 302 065-1 is available, free of charge, from ETSI's website at www.etsi.org.

Note 2: EN 302 065-1 sets the maximum EIRP for a radiocommunications transmitter.

- (2) A radiocommunications transmitter must not be operated on board an aircraft.
- (3) A radiocommunications transmitter must not be operated from a fixed location, otherwise than indoors.

Note: A radiocommunications transmitter may be operated outdoors if it is mobile.

- (4) A radiocommunications transmitter must not be operated within the nominated distance of a specified Australian radio-astronomy site.
- (5) A radiocommunications transmitter must not be operated in the 8400 MHz to 8500 MHz frequency band, within the nominated distance of a specified SRS earth station.

68 Maximum EIRP and additional limitation for table item 8

A radiocommunications transmitter must comply with the requirements in EN 302 065-5.

Note: EN 302 065-5 is available, free of charge, from ETSI's website at www.etsi.org.

Note 2: EN 302 065-5 sets the maximum EIRP for a radiocommunications transmitter.

69 Additional limitations for table item 9

- (1) A radiocommunications transmitter must comply with the requirements in EN 302 065-2.

Note: EN 302 065-2 is available, free of charge, from ETSI's website at www.etsi.org.

- (2) A radiocommunications transmitter must not be operated within the nominated distance of a specified Australian radio-astronomy site.

70 Maximum EIRP and additional limitations for table item 10

- (1) A radiocommunications transmitter must comply with the requirements in EN 302 065-4.

Note 1: EN 302 065-4 is available, free of charge, from ETSI's website at www.etsi.org.

Note 2: EN 302 065-4 sets the maximum EIRP for a radiocommunications transmitter.

- (2) A radiocommunications transmitter must be operated such that its radio emissions are directed into building material.
- (3) A radiocommunications transmitter must not be operated within the nominated distance of a specified Australian radio-astronomy site.
- (4) A radiocommunications transmitter must not be operated in the 8400 MHz to 8500 MHz frequency band, within the nominated distance of a specified SRS earth station.