Radiocommunications (Low Interference Potential Devices) Class Licence 2015

Radiocommunications Act 1992

The AUSTRALIAN COMMUNICATIONS AND MEDIA AUTHORITY makes this Class Licence under section 132 of the *Radiocommunications Act 1992*.

Dated: *4th September 2015*

Chris Chapman
[signed]
Member

Richard Bean
[signed]
Member /~~General Manager~~

Australian Communications and Media Authority

1 Name of Class Licence

This Class Licence is the *Radiocommunications (Low Interference Potential Devices) Class Licence 2015*.

2 Commencement

This Class Licence commences on the later of:

(a) the day after it is registered; or

(b) the day on which it is published in the *Gazette*.

Note 1 All legislative instruments must be registered on the Federal Register of Legislative Instruments required to be maintained under the *Legislative Instruments Act 2003*.

Note 2 Both (a) and (b) must occur for this Class Licence to commence.

3 Revocation

The *Radiocommunications (Low Interference Potential Devices) Class Licence 2000* [F2005B00339] is revoked.

3A Interpretation

(1) In this Class Licence:

Act means the *Radiocommunications Act 1992*.

ARPANSA Standard means the *Radiation Protection Standard for Maximum Exposure Levels to Radiofrequency Fields – 3 kHz to 300 GHz*, published by the Australian Radiation Protection and Nuclear Safety Agency.

Note The ARPANSA Standard is available from the Australian Radiation Protection and Nuclear Safety Agency website: http://www.arpansa.gov.au.

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

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

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

community 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.

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 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.

EIRP means equivalent isotropically radiated power.

ERP means effective radiated power.

ETSI means the European Telecommunications Standards Institute.

FCC means the United States of America Federal Communications Commission.

field strength means the intensity of the electromagnetic field produced by a 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.

international instrument means an international technical standard or performance indicator.

licence area means:

(a) in relation to a broadcasting station used to provide a commercial television broadcasting service – the licence area designated for the relevant commercial television 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 transmitter mentioned in column 1 of an item in Schedule 1, means the largest amount of EIRP, mentioned in column 3 of that item, that may be radiated by the transmitter in any direction.

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

(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 32° 23’ 48.39” south, longitude 148° 58’ 44.35” east – 3 kilometres of the Canberra Deep Space Communications Complex;

Federal Register of Legislative Instruments F2015L01438

(d) in relation to the Radio Astronomy Park located at latitude 26° 37’ 8.76” south, longitude 117° 30’ 44.97” east – 10 kilometres of the Radio Astronomy Park.

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.

radiated power means the power that is emitted from 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 an 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.

radio program has the meaning given by the *Broadcasting Services Act 1992*.

significant event means an event at a location or locations specified in a notice approved by the Chair of the ACMA and published on the ACMA’s website at http://www.acma.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.

television program has the meaning given by the *Broadcasting Services Act 1992*.

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.

Note 1 In accordance with paragraph 13(1)(b) of the *Legislative Instruments Act 2003,* other expressions in this Class Licence have the same meaning as in the Act, including:

- ACMA (see section 5)
- broadcasting station (see section 5)
- interference (see section 5)
- permit (see section 5)
- radiocommunications device (see section 7)
- standard (see section 5)
- transmitter (see section 6).

Note 2 Other terms used in this Class Licence may be defined in the *Radiocommunications (Interpretation) Determination 2015*, including:

- datacasting service station.

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

Note More information on the Geodetic Datum of Australia is available from the Geoscience Australia website: http://www.ga.gov.au.

4 Class Licence

(1) This Class Licence authorises a person to operate a transmitter included in a class of transmitters mentioned in column 1 of an item in Schedule 1, subject to the following conditions:

(a) the transmitter must be operated:

(i) on a frequency, or within a range of frequencies, mentioned in column 2 of the item;

(ii) at a radiated power that does not exceed the maximum EIRP mentioned in column 3 of the item; and

(iii) in accordance with the limitations (if any) mentioned in column 4 of the item;

(b) the transmitter, whether on its own or in operation with one or more other transmitters, must not cause interference to the operation of radiocommunications services;

(c) without limiting paragraph (1)(b), the transmitter must not be operated in the following circumstances:

(i) the transmitter is operated on a frequency, or within a range of frequencies, between 70 MHz and 25.25 GHz; and

(ii) the transmitter is operated within 70 kilometres of the Murchison Radioastronomy Observatory located at latitude 26° 42' 15" south, longitude 116° 39' 32" east;

if the transmission will cause interference with the operation of radio astronomy observations by the Observatory; and

(d) the conditions in section 5 of this Class Licence.

Federal Register of Legislative Instruments F2015L01438

(2) The following requirements must be construed in accordance with the interpretative provisions (if any) of a standard or international instrument mentioned in column 4 of an item in Schedule 1:

(a) a frequency or range of frequencies mentioned in column 4 of the item;

(b) the maximum EIRP mentioned in column 3 of the item.

(3) The permitted operating frequency band in column 2 of an item in Schedule 1 must not be construed in accordance with the interpretative provisions (if any) of a standard or international instrument mentioned in column 4 of the item.

Note 1 A transmitter operated under this Class Licence can be expected to be operating in parts of the radiofrequency spectrum used by other radiocommunications devices. A receiver tuned to the transmitter will not be afforded protection from interference caused by other radiocommunications devices. A low interference potential device operated under this Class Licence is generally not expected to suffer interference, however an individual low interference potential device may experience interference arising from the particular circumstances of the device'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 *Australian Radiofrequency Spectrum Plan 2013*, 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 bands 13.553 MHz – 13.567 MHz, 26.957 MHz – 27.283 MHz, 40.66 MHz – 40.70 MHz, 918 MHz – 926 MHz, 2 400 MHz – 2 500 MHz, 5 725 MHz – 5 875 MHz and 24 000 MHz – 24 250 MHz.

Note 3 Some transmitters operated under this Class Licence must meet additional physical or technical requirements outside the scope of this Class Licence. 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 device with an external antenna, other than an antenna supplied with the device, may result in a breach of the conditions of this Class Licence. 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 device, or which is intended for direct attachment to a fixed connector on the device, without the use of an external cable.

Note 5 A transmitter, or group of transmitters, capable of operating simultaneously on frequencies in more than one permitted operating frequency band (mentioned in column 2 of the table in Schedule 1) must comply with the *Radiocommunications (Electromagnetic Radiation – Human Exposure) Standard 2014* for the total power that is emitted.

Note 6 The applicable requirements related to the electromagnetic radiation regulatory arrangements are available from the ACMA website: http://www.acma.gov.au.

5 Standards and international instruments

(1) A person must not operate a transmitter under this Class Licence unless the transmitter complies with each applicable instrument for the transmitter.

(2) Subsection (1) does not apply if:

(a) the person operates the transmitter in accordance with a permit; or

(b) the transmitter:

(i) is imported into Australia solely for use in connection with a significant event;

(ii) if there is a requirement that the transmitter is tested or inspected before it is used in Australia – meets the requirement;

(iii) if there are conditions or requirements imposed on the use of the transmitter in Australia – complies with all of those conditions or requirements;

(iv) is used in Australia only at the location of the significant event; and

(v) is used in Australia only for the duration of the significant event.

(3) In this section, ***applicable instrument***, in relation to a transmitter, means either:

(a) a standard that applies to the transmitter; or

(b) an international instrument that applies to the transmitter that is mentioned in column 2 of an item in Schedule 2 for a transmitter mentioned in column 1 of the item.

Note 1 The upper and lower limits of the permitted operating frequency band mentioned in column 2 of an item in Schedule 1 apply to a transmitter mentioned in column 1 of the item, irrespective of any frequency limits specified in any applicable instrument for the transmitter.

Note 2 The full titles and sources for an international instrument that is an applicable instrument mentioned in column 4 (Limitations) of the table in Schedule 1 are set out in Schedule 2.

Note 3 If a device is labelled with the Regulatory Compliance Mark or the C-Tick compliance mark, it is a representation by the supplier that the device, as supplied, complies with any standard that applies to the device.

Note 4 A reference to a ***standard*** is to a standard made by the ACMA under section 162 of the Act. This Class Licence also requires transmitters to comply with instruments that set requirements for performance, including instruments produced by the ETSI and the FCC.

Note 5 An applicable instrument for a transmitter may be amended over time, or may incorporate amendments to other instruments. A person who wishes to operate a transmitter should check the ACMA's standards or other instruments to determine which version of the applicable instrument applies to the transmitter.

(4) A person must not operate a transmitter or group of transmitters under this Class Licence if the electromagnetic radiation 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 transmitter with an integral antenna must not be supplied unless it complies with the *Radiocommunications (Electromagnetic Radiation – Human Exposure) Standard 2014*, which adopts the exposure limits specified in the ARPANSA Standard. Subsection 5(4) has the effect that the exposure limits specified in the ARPANSA Standard must also be met by a 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 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 Australia/New Zealand Standard AS/NZS 2211.10:2004 details the requirements that are necessary to protect persons from radiation from laser devices, the use of many of which is authorised by this Class Licence.

Note 4 Where a transmitter or group of transmitters, is capable of operating simultaneously on frequencies in more than one operating frequency band mentioned in column 2 of the table in Schedule 1 in places accessible by the public, the general public exposure limits specified in the ARPANSA Standard apply to the total power that is emitted.

Federal Register of Legislative Instruments F2015L01438

Schedule 1 Transmitters

(subsections 3A(1), 4(1), (2) and (3), and Schedule 2)

Table—Transmitters

	Column 1 **Class of transmitter**	*Column 2* **Permitted operating frequency band (MHz) (lower limit exclusive, upper limit inclusive)**	*Column 3* **Maximum EIRP**	*Column 4* **Limitations**
Transmitters for non-specific applications				
1	All transmitters	0–0.014	200 μW	
2	All transmitters	0.014–0.01995	50 μW	
3	All transmitters	0.02005–0.048	43 μW (see Note 1)	
4	All transmitters	0.048– 0.07	7.5 μW (see Note 1)	
5	All transmitters	0.07–0.16	3 μW (see Note 1)	
6	All transmitters	0.16–0.19	1 μW (see Note 1)	
7	All transmitters	(a) 0.19–0.285 (b) 0.325–0.415	500 nW (see Note 1)	
8	All transmitters	3.025–3.155	7.5 nW	
9	All transmitters	3.5–3.7	30 pW	
10	All transmitters	(a) 3.7–3.95 (b) 4.438–4.65	7.5 nW	
11	All transmitters	13.553–13.567	100 mW	
12	All transmitters	24–24.89	10 mW	
13	All transmitters	26.957–27.283	1 W	(a) Separation of the operating frequency from the centre frequency of any adjacent citizen band radio channel must be at least 5 kHz. (b) The emission bandwidth must not exceed 10 kHz.

	Column 1	*Column 2*	*Column 3*	*Column 4*
	Class of transmitter	**Permitted operating frequency band (MHz) (lower limit exclusive, upper limit inclusive)**	**Maximum EIRP**	**Limitations**
14	All transmitters	(a) 29.7–29.72 (b) 30–30.0625 (c) 30.3125–31 (d) 36.6–37 (e) 39–39.7625 (f) 40.25–40.66	100 mW	
15	All transmitters	40.66–41	1 W	
16	All transmitters	54–56	2.5 mW	
17	All transmitters	(a) 70–70.24375 (b) 77.29375–77.49375 (c) 150.7875–152.49375 (d) 173.29375–174	100 mW	
18	All transmitters	(a) 225–242 (b) 244–267 (c) 273–303.95 (d) 304.05–328.6 (e) 335.4–399.9	10 μW	
19	All transmitters	433.05–434.79	25 mW	
20	All transmitters	915–928	3 mW	
21	All transmitters	2400–2483.5	10 mW	
22	All transmitters	5725–5875	25 mW	
23	All transmitters	(a) 10500–10550 (b) 24000–24250 (c) 61000–61500	100 mW	

	Column 1	*Column 2*	*Column 3*	*Column 4*
	Class of transmitter	**Permitted operating frequency band (MHz) (lower limit exclusive, upper limit inclusive)**	**Maximum EIRP**	**Limitations**
Wireless microphones and other wireless audio equipment, including ear pieces and wireless speaker transmitters				
24	Auditory assistance transmitters	3.155–3.4, with a carrier frequency of: (a) 3.175; (b) 3.225; (c) 3.275; or (d) 3.325	60 μW	
25	Auditory assistance transmitters	(a) 41–42, with a carrier frequency of: (i) 41.55; (ii) 41.65; (iii) 41.75; (iv) 41.85; or (v) 41.95 (b) 43–44, with a carrier frequency of: (i) 43.05; (ii) 43.15; (iii) 43.25; or (iv) 43.35 (c) 43.45	1.3 mW	
26	Wireless audio transmitters and auditory assistance transmitters	88–108	10 μW	(a) Emission must be frequency modulated and have a maximum bandwidth of 180 kHz. (b) Transmission in a broadcasting services bands radio channel must not originate in the licence area of a radio broadcasting station (including a repeater or translator station)

	Column 1 **Class of transmitter**	*Column 2* **Permitted operating frequency band (MHz) (lower limit exclusive, upper limit inclusive)**	*Column 3* **Maximum EIRP**	*Column 4* **Limitations**
				operating in the same channel.
27	Wireless audio transmitters	174–230	50 mW (~30.5 mW ERP)	(a) Emission must have a maximum bandwidth of 330 kHz. (b) Transmission in a broadcasting services bands channel must not originate in the coverage area of a broadcasting station or datacasting service station (including a repeater or translator station) operating in the same channel.
28	Wireless audio transmitters	520–694	100 mW (~60.95 mW ERP)	(a) Emission must be frequency modulated and have a maximum bandwidth of 330 kHz. (b) Transmission in a broadcasting services band channel must not originate in the coverage area of a broadcasting station or datacasting service station (including a repeater or translator station) operating in the same channel.
29	Digitally modulated wireless audio transmitters	520–694	100 mW (~60.95 mW ERP)	(a) Emission must have a maximum bandwidth of 330 kHz. (b) Transmission in a broadcasting

Federal Register of Legislative Instruments F2015L01438

	Column 1 **Class of transmitter**	*Column 2* **Permitted operating frequency band (MHz) (lower limit exclusive, upper limit inclusive)**	*Column 3* **Maximum EIRP**	*Column 4* **Limitations**
				services band channel must not originate in the coverage area of a broadcasting station or datacasting service station (including a repeater or translator station) operating in the same channel.
30	Wireless audio transmitter	1785–1800	100 mW (~60.95 mW ERP)	(a) The transmitter must comply with ETSI Standard EN 300 422. (b) The transmitter must not be operated on a carrier frequency within 1 MHz of 1785 MHz. (c) The transmitter must only be operated indoors on a frequency below 1790 MHz.
31	Indoor wireless audio transmitters	520–694	100 mW (~60.95 mW ERP)	(a) The transmitter must only be operated indoors. (b) The transmitter must comply with either: (i) ETSI Standard EN 301 357; or (ii) ETSI Standard EN 300 422.
Medical telemetry and telecommand transmitters				
32	Biomedical telemetry transmitters	174–230	10 μW	

	Column 1 **Class of transmitter**	*Column 2* **Permitted operating frequency band (MHz) (lower limit exclusive, upper limit inclusive)**	*Column 3* **Maximum EIRP**	*Column 4* **Limitations**
33	Medical implant communications system transmitters (see Note 2)	402–405	See limitation (a)	(a) The maximum EIRP is 25 µW outside the body. (b) The transmitter must comply with either: (i) ETSI Standard EN 301 839; or (ii) FCC Rules Title 47 Part 95 Sections 627 and 635.
34	Medical implant communications systems transmitters (see Note 2)	(a) 401–402 (b) 405–406	See limitation (a)	(a) The maximum EIRP is 25 µW outside the body. (b) The transmitter must comply with ETSI Standard EN 302 537.
35	Biomedical telemetry transmitters	520–668	11 mW	Transmission in a broadcasting services bands channel must not originate in the coverage area of a broadcasting station or datacasting service station (including a repeater or translator station) operating in the same channel.
General telemetry and telecommand transmitters				
36	Telecommand or telemetry transmitters	472.0125–472.1125	100 mW	
37	Telecommand or telemetry transmitters	(a) 0.07–0.119 (b) 0.135–0.160	10 mW	
38	Telecommand or telemetry transmitters	0.119–0.135	1.5 W	

	Column 1 **Class of transmitter**	*Column 2* **Permitted operating frequency band (MHz) (lower limit exclusive, upper limit inclusive)**	*Column 3* **Maximum EIRP**	*Column 4* **Limitations**
39	Telecommand or telemetry transmitters	0.160–0.190	See limitation	The transmitter must comply with FCC Rules Title 47 Part 15 Section 217.
40	Telecommand or telemetry transmitters	(a) 2400–2450 (b) 5725–5795 (c) 5815–5875	1 W	
41	Telecommand or telemetry transmitters	5795–5815	2 W	
Radiofrequency Identification (RFID) tags and associated transmitters				
42	Radiofrequency identification transmitters	(a) 1.77–2.17 (b) 2.93–3.58 (c) 7.2–10.01	100 pW	
43	Radiofrequency identification transmitters	(a) 13.553–13.567 (b) 918–926 (c) 2400–2450 (d) 5725–5795 (e) 5815–5875 (f) 24000–24250	1 W	
44	Radiofrequency identification transmitters	5795–5815	2 W	
45	Radiofrequency identification transmitters	920–926	4 W	(a) The transmitter must comply with the instrument known as ISO/IEC 18000-6c. (b) Emissions in the band below 917.75 MHz must be no greater than –37 dBm EIRP. (c) Emissions above 926 MHz must be no greater than –33 dBm EIRP. (d) The transmitter

	Column 1 **Class of transmitter**	*Column 2* **Permitted operating frequency band (MHz) (lower limit exclusive, upper limit inclusive)**	*Column 3* **Maximum EIRP**	*Column 4* **Limitations**
				must not be used unless more than 1 W EIRP is necessary to achieve satisfactory system performance.
46	Radiofrequency identification transmitters	(a) 22000–23480 (b) 24100–26500	630 mW	(a) The transmitter must only be operated indoors. (b) The transmitter must not be operated within a nominated distance of a specified Australian radio-astronomy site.
Transmitters used underground in tunnels, mines or caves				
47	Transmitters used for underground communications	(a) 31–32 (b) 33–34 (c) 35–36 (d) 37–38 (e) 42–43 (f) 44–45 (g) 70.24375–74.8 (h) 75.2–77.29375 (i) 77.49375–84.69375 (j) 149.25–149.9 (k) 150.05–151.39375 (l) 152.49375–156 (m) 157.45–160.6 (n) 160.975–161.475 (o) 162.05–173.29375 (p) 403–406 (q) 406.1–420 (r) 450–500.99375 (s) 504.99375–510.99375	See limitation	The maximum EIRP is 3.5 nW, at an above-ground opening associated with the underground communications.

Federal Register of Legislative Instruments F2015L01438

	Column 1 **Class of transmitter**	*Column 2* **Permitted operating frequency band (MHz) (lower limit exclusive, upper limit inclusive)**	*Column 3* **Maximum EIRP**	*Column 4* **Limitations**
		(t) 514.99375–520		
48	Transmitters used for underground communications	(a) 0.5265–1.605 (b) 87.5–108 (c) 174–230 (d) 520–694	See limitation (a)	(a) The maximum EIRP is 10 μW, for emissions from an above-ground opening associated with the underground environment. (b) The transmitter must be used primarily for the augmentation of an above-ground broadcasting service in underground tunnels.
Transmitters for alarm applications				
49	Personal alarm transmitters	27.5–27.51	100 μW	
50	Transmitters used with personal alarm transmitters	27.5–27.51	500 mW	Each transmission must not exceed 4 seconds over a 60 second period.
51	Alarm transmitters (including security and personal safety transmitters)	303.6–304.05	1 mW	(a) The maximum EIRP is 100 μW unless the transmitter is manually activated with a limited activation period no greater than 10 seconds. (b) The average EIRP must not exceed 100 μW in any 10 second period.
52	Home detention monitoring equipment transmitters	314.075–314.325	200 μW	In a 10 second period, a single transmission must not exceed 10 milliseconds.

	Column 1 **Class of transmitter**	*Column 2* **Permitted operating frequency band (MHz) (lower limit exclusive, upper limit inclusive)**	*Column 3* **Maximum EIRP**	*Column 4* **Limitations**
53	Alarm transmitters	344.8–345.2	1 mW	The average EIRP must not exceed 100 μW: (a) if the length of a pulse train does not exceed 0.1 seconds – in the length of one complete pulse train; (b) if the length of a pulse train exceeds 0.1 seconds – in 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 – in the 0.1 second period during which the EIRP is at its maximum value.
Frequency hopping, WiFi and RLAN transmitters				
54	Frequency hopping transmitters	915–928	1 W	A minimum of 20 hopping frequencies must be used.
55	Frequency hopping transmitters	2400–2483.5	500 mW	Either: (a) the transmitter must meet the requirements of ETSI EN 300 328; or (b) a minimum of 15 hopping frequencies must be used.
56	Frequency hopping transmitters	2400–2483.5	4 W	A minimum of 75 hopping frequencies must be used.
57	Frequency hopping transmitters	5725–5850	4 W	A minimum of 75 hopping

	Column 1 **Class of transmitter**	*Column 2* **Permitted operating frequency band (MHz) (lower limit exclusive, upper limit inclusive)**	*Column 3* **Maximum EIRP**	*Column 4* **Limitations**
				frequencies must be used.
58	Digital modulation transmitters	915–928	1 W	(a) The radiated peak power spectral density in any 3 kHz must not exceed 25 mW per 3 kHz. (b) The minimum 6 dB bandwidth must be at least 500 kHz.
59	Digital modulation transmitters	2400–2483.5	4 W	(a) The radiated peak power spectral density in any 3 kHz must not exceed 25 mW per 3 kHz. (b) The minimum 6 dB bandwidth must be at least 500 kHz.
60	Digital modulation transmitters	5725–5850	4 W	(a) The radiated peak power spectral density in any 3 kHz must not exceed 25 mW per 3 kHz. (b) The minimum 6 dB bandwidth must be at least 500 kHz.
61	Radio Local Area Network transmitters	5150–5250	200 mW (averaged over the entire transmission burst)	(a) The transmitter must only be used indoors. (b) The power spectral density of a transmitter with a bandwidth greater than or equal to 1 MHz must not exceed 10 mW EIRP per MHz. (c) The power spectral density of a transmitter with a bandwidth less than

	Column 1 **Class of transmitter**	*Column 2* **Permitted operating frequency band (MHz) (lower limit exclusive, upper limit inclusive)**	*Column 3* **Maximum EIRP**	*Column 4* **Limitations**
				1 MHz must not exceed 40 μW EIRP per 4 kHz.
62	Radio Local Area Network transmitters	5250–5350	200 mW (averaged over the entire transmission burst)	(a) The transmitter must only be used indoors. (b) The power spectral density of a transmitter with a bandwidth greater than or equal to 1 MHz must not exceed 10 mW EIRP per MHz. (c) The power spectral density of a transmitter with a bandwidth less than 1 MHz must not exceed 40 μW EIRP per 4 kHz. (d) The transmitter must use Dynamic Frequency Selection (DFS). (e) If the maximum EIRP is greater than 100 mW, the transmitter must use Transmit Power Control (TPC).
63	Radio Local Area Network transmitters	(a) 5470–5600 (b) 5650–5725	1 W (averaged over the entire transmission burst)	(a) The maximum radiated mean power density must not exceed 50 mW/MHz EIRP in any 1 MHz band. (b) The transmitter must use Dynamic Frequency Selection (DFS). (c) If the maximum EIRP is greater than 500 mW, the

	Column 1 **Class of transmitter**	*Column 2* **Permitted operating frequency band (MHz) (lower limit exclusive, upper limit inclusive)**	*Column 3* **Maximum EIRP**	*Column 4* **Limitations**
				transmitter must use Transmit Power Control (TPC).
64	Data communications transmitters used outdoors	59000–63000	150 W	(a) The transmitter must not be operated on board an aircraft. (b) The maximum transmitter power must not exceed 20 mW. (c) The transmitter must not cause spurious emissions outside the band at or greater than –30 dBm/MHz. (d) The transmitter must only be used outdoors.
65	Data communications transmitters used indoors	57000–66000	20 W	(a) The average power density of any emission must not exceed 9 uW/cm^2 at a distance of 3 metres. (b) The peak power density of any emission must not exceed 18 uW/cm^2 at a distance of 3 metres. (c) The transmitter must not cause spurious emissions outside the band at or greater than –30dBm/MHz. (d) The transmitter must only be used in a building or enclosed structure.

	Column 1	*Column 2*	*Column 3*	*Column 4*
	Class of transmitter	**Permitted operating frequency band (MHz) (lower limit exclusive, upper limit inclusive)**	**Maximum EIRP**	**Limitations**
Radiodetermination – sensors using radar for measurement				
66	Radiodetermination transmitters	24000–24250	1 W	
67	Radiodetermination transmitters	60000–61000	20 mW	
68	Radiodetermination transmitters operated in radiofrequency-shielded enclosures	(a) 5250–7000 (b) 8500–10600 (c) 24050–26500 (d) 75000–85000	75 nW	(a) The maximum EIRP applies outside the shielded room enclosure. (b) The transmitter must meet the requirements of ETSI Standard EN 302 372.
69	Radiodetermination transmitters	76000–77000	25 W	
70	Radiodetermination transmitters	77000–81000	See limitations	(a) The transmitter must meet the requirements of ETSI Standard EN 302 264. (b) The transmitter must not be operated within a nominated distance of a specified Australian radio-astronomy site.
71	Radiodetermination transmitters	75000–85000	See limitations	(a) The transmitter must be operated in a position such that emissions are directed towards: (i) the ground; or (ii) the floor or a wall of a building or similar structure. (b) The transmitter must comply with ETSI Standard EN 302 729.

	Column 1 **Class of transmitter**	*Column 2* **Permitted operating frequency band (MHz) (lower limit exclusive, upper limit inclusive)**	*Column 3* **Maximum EIRP**	*Column 4* **Limitations**
				(c) The transmitter must not be operated within a nominated distance of a specified Australian radio-astronomy site.
Other applications				
72	In-store pricing system transmitters	0.0366–0.0402	4.8 W	The transmitter must only be used indoors.
73	In-store DAB repeater transmitters	174–230	10 μW	(a) The maximum EIRP applies to emissions measured outside the building. (b) The transmitter must only be used for the augmentation of co-channel DAB broadcasting services operating in the area.
74	Aquatic animal tracking transmitters	48–49	10 mW	
75	Video sender transmitters	529–694	12 μW	
76	Ultra-wideband short-range vehicle radar system transmitters	22000–26500	See limitations	(a) The transmitter must meet the requirements of ETSI Standard EN 302 288. (b) The transmitter must not be operated within a nominated distance of a specified Australian radio-astronomy site.
77	Infrared transmitters	187.5 THz – 420 THz	125 mW (output power)	

	Column 1 **Class of transmitter**	*Column 2* **Permitted operating frequency band (MHz) (lower limit exclusive, upper limit inclusive)**	*Column 3* **Maximum EIRP**	*Column 4* **Limitations**
78	Ultra-wideband transmitters	(a) 3400–4800 (b) 6000–8500	See limitations	(a) The transmitter must comply with either: (i) ETSI Standard EN 302 500; or (ii) ETSI Standard EN 302 065. (b) The transmitter must not be operated on board any aircraft or from any fixed outdoor location. (c) The transmitter must not be operated in the 3425-3575 MHz band before 14 December 2015. (d) The transmitter must not be operated within a nominated distance of a specified Australian radio-astronomy site. (e) The transmitter must not be operated in the 8400–8500 MHz band within the nominated distance of a specified SRS earth station.
79	In-ground ultra-wideband transmitters	4200–4800	–62 dBm/MHz	(a) The transmitter must comply with Part 2 of ETSI Standard EN 302 065. (b) The transmitter must not be operated within a nominated distance

	Column 1	*Column 2*	*Column 3*	*Column 4*
	Class of transmitter	**Permitted operating frequency band (MHz) (lower limit exclusive, upper limit inclusive)**	**Maximum EIRP**	**Limitations**
				of a specified Australian radio-astronomy site.

Note 1 A transmitter that complies with the field strength limit of 2400/F(kHz) μV/M at a distance of 300 metres, contained in FCC Rules Title 47 (Telecommunications) Part 15 Section 209 (Radiated emission limits; general requirements), will meet the requirement not to exceed the maximum EIRP specified in items 3, 4, 5, 6 and 7.

Note 2 The systems and associated medical implant communications systems transmitters mentioned in items 33 and 34 are devices that require marketing approval from the Therapeutic Goods Administration.

Schedule 2 International instruments that apply to a transmitter

(paragraph 5 (3)(b))

1 Using this table

In this table:

(a) a reference to a number in column 1 is a reference to an item in the table in Schedule 1, and to all the transmitters that are operated in accordance with that item;

(b) a reference to a number in column 2 is a reference to the number given to an instrument by the entity that produced the instrument.

Table—Instruments that apply to a transmitter

	Column 1	*Column 2*	*Column 3*	*Column 4*
	Transmitter	**Instrument that applies to the transmitter**	**Name of the instrument**	**Entity that produced the instrument**
1	30	EN 300 422	*Electromagnetic compatibility and radio spectrum Matters (ERM); Wireless microphones operating in the 25MHz to 3GHz frequency range*	ETSI
2	31	EN 301 357	*Electromagnetic compatibility and radio spectrum Matters (ERM); Cordless audio devices in the range 25 MHz to 2 000 MHz*	ETSI
3	31	EN 300 422	*Electromagnetic compatibility and radio spectrum Matters (ERM); Wireless microphones operating in the 25MHz to 3GHz frequency range*	ETSI
4	33	EN 301 839	*Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Ultra Low Power Active Medical Implants (ULP-AMI) and Peripherals (ULP-AMI-P) operating in the frequency range 402 MHz to 405 MHz;*	ETSI
5	34	EN 302 537	*Electromagnetic compatibility and Radio spectrum Matters (ERM);* *Short Range Devices (SRD); Ultra Low Power Medical Data Service Systems operating in the*	ETSI

	Column 1 Transmitter	*Column 2* Instrument that applies to the transmitter	*Column 3* Name of the instrument	*Column 4* Entity that produced the instrument
			frequency range 401 MHz to 402 MHz and 405 MHz to 406 MHz;	
6	55	EN 300 328	*Electromagnetic compatibility and radio spectrum Matters (ERM); Wideband transmission systems; Data transmission equipment operating in the 2,4 GHz ISM band and using wide band modulation techniques*	ETSI
7	68	EN 302 372	*Electromagnetic compatibility and radio spectrum matters (ERM); Short Range Devices (SRD); Equipment for Detection and Movement; Tanks Level Probing Radar (TLPR) operating in the frequency bands 5,8 GHz, 10 GHz, 25 GHz, 61 GHz and 77 GHz*	ETSI
8	70	EN 302 264	*Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Road Transport and Traffic Telematics (RTTT); Short Range Radar equipment operating in the 77 GHz to 81 GHz band*	ETSI
9	71	EN 302 729	*Electromagnetic compatibility and radio spectrum Matters (ERM); 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*	ETSI
10	76	EN 302 288	*Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD);Road Transport and Traffic Telematics (RTTT); Short range radar equipment operating in the 24 GHz range*	ETSI
11	78	EN 302 065	*Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices*	ETSI

	Column 1	*Column 2*	*Column 3*	*Column 4*
	Transmitter	**Instrument that applies to the transmitter**	**Name of the instrument**	**Entity that produced the instrument**
			(SRD) using Ultra Wide Band technology (UWB)	
12	78	EN 302 500	*Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD) using Ultra WideBand (UWB) technology; Location Tracking equipment operating in the frequency range from 6 GHz to 9 GHz*	ETSI
13	79	EN 302 065	*Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD) using Ultra Wide Band technology (UWB)*	ETSI
14	45	ISO/IEC 18000-6c:2013	*Information Technology – Radio frequency identification for item management – Part 6: Parameters for air interface communications at 860 MHz to 960 MHz General*	International Organization for Standardisation (ISO)
15	39	Code of Federal Regulations Title 47 §15.217	*Part 15, Section 217 Operation in the band 160-190 kHz*	FCC
16	33	Code of Federal Regulations Title 47 §95.627	*Part 95, Section 627 MedRadio transmitters in the 401-406 MHz band*	FCC
17	33	Code of Federal Regulations Title 47 §95.635	*Part 95, Section 635 Unwanted radiation*	FCC

Note 1 An entry in column 3 is the title of an instrument, and is included for information only.

Note 2 An entry in column 4 is the name of the entity that produced the instrument, and is included for information only.

Note 3 Copies of instruments produced by ETSI are available from the ETSI website: http://www.etsi.org.

Note 4 Copies of instruments produced by the International Organization for Standardisation are available from the following website: http://www.saiglobal.com.

Note 5 Copies of the FCC rules and regulations are available from the following website: http://www.ecfr.gov.