

Apparatus licence fee schedule **April 2017**

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Licence fee information

Introduction

The Australian Communications and Media Authority (the ACMA) is Australia's regulator for broadcasting, the internet, radiocommunications and telecommunications. The ACMA allocates access to the radiofrequency spectrum through one of three licence types: spectrum, apparatus or class licences.

This publication describes the rationale for apparatus licence fees, and provides the necessary information for licensees to calculate their own fees. This publication is intended as a guide only. For this reason, the information should not be relied on as legal advice or regarded as a substitute for legal advice in individual cases.

About apparatus licence fees

The ACMA uses a system of apparatus licence types to apply common licence conditions to categories of radiocommunications services. Most licence types have associated licensing options suitable for specific purposes. Fees charged vary according to the licensing option. See Appendix B for detailed descriptions of licence types and options.

Apparatus licences can be either assigned or non-assigned. Assigned licences are issued where licensees require individual frequencies to be allocated. Non-assigned licences are issued when an individual frequency assignment is not required, or if a frequency can be selected from a predefined suite.

Taxes and charges

There are two types of fees applicable to apparatus licences:

- 1. administrative charges to recover the direct costs of spectrum management
- 2. annual taxes to recover the indirect costs of spectrum management and provide incentives for efficient spectrum use.

Indirect costs are those that cannot be directly attributed to individual licensees. These activities include international coordination and domestic planning and interference management.

Appendix D explains each type of administrative charge: issue, renewal and instalment, while Appendix C has a detailed description of the tax formula.

Annual tax for assigned and non-assigned licences

The annual licence tax is applied to each chargeable 'spectrum access' of an assigned licence, and each licence for non-assigned licences.

The annual tax for most assigned spectrum accesses (for licences in divisions 1 to 5) is calculated by the licence tax formula. However, most of the components of the tax formula have been calculated and the results placed in the 'annual licence tax (\$ per kHz)' tables in these divisions. Licensees should refer to the tables in the applicable division, multiply the relevant figure by the bandwidth of their spectrum access (per kHz) and apply the low-power discount if necessary.

The annual tax for some assigned spectrum accesses (for licences in divisions 5, 6, and 8) and all non-assigned licences (division 7) is set at a fixed amount.

Chargeable spectrum access

Spectrum access is the right to use of the spectrum, and requires frequency coordination before issue. Each spectrum access specifies the allowable bandwidth, frequency, geographical site and power of the transmission.

All transmit spectrum accesses are chargeable spectrum accesses. Receive spectrum accesses are only chargeable if there are no transmit spectrum accesses on the same licence.

Accredited persons

Before a spectrum access is assigned, frequency coordination is necessary to ensure that the service will neither suffer from, nor cause, interference. This frequency coordination can be performed by either the ACMA or a person accredited by the ACMA—an 'accredited person' (AP). After completing the coordination, an AP will provide their client with a frequency assignment certificate (FAC).

When provided with a FAC by an AP, the ACMA charges a lower fee for the issue of the associated licence.

Licence terms

Apparatus licences can be issued for any period up to a maximum of five years. Licences may be renewed on expiry, subject to changes in spectrum planning policy.

Minimum tax amount

The minimum tax for a spectrum access or non-assigned licence is \$39.57.

How to calculate your assigned licence fee

1. Find the applicable division

Refer to <u>Table 1: Licence reference table</u> and identify the division for your licensing option. Appendix B describes the various licensing options.

For example:

Table 1 shows that for a fixed point-to-point licence. Division 2 lists the relevant licence charges and taxes.

2. Calculate the charge

Find the administrative charge—issue, renewal or instalment—applicable to your licensing option, and multiply by the number of chargeable spectrum accesses.

For example:

- > Charges for fixed point-to-point licences are listed in Table 5.
- > A new issue will incur an administrative charge of \$505.00.
- > For a new point-to-point licence with two transmit spectrum accesses, the total administrative charge will be \$1010.00.

3. Calculate the tax

Find the 'annual licence tax (\$ per kHz)' table for your licensing option, then find the applicable spectrum/geographic location weighting (maps and coordinates for each geographic location are in Appendix F). Multiply the weighting by the bandwidth (in kHz) of each spectrum access, and apply the low-power discount if necessary. Add the total for each spectrum access of the licence, then round to the nearest dollar.

For example:

- > The annual taxes (in \$ per kHz) for point-to-point services are in Table 6.
- > For a point-to-point licence operating in a high-density area, between 403 and 520 MHz, the tax per kHz is: \$36.9655.
- > If a spectrum access has a bandwidth of 12.5 kHz, the annual tax will be: $12.5 \times 36.9655 = \$462.06875$.
- > If the licence period is different from one year, proportion the tax for the number of days of the licence period compared with 365.
- > If the spectrum access is low power, reduce the tax by 90 per cent. Low power is not applicable to point-to-point licences (refer Appendix C for details).
- > Apply the minimum fee (\$39.57) if the tax is less than the minimum.
- Add the tax for both spectrum accesses. For a point-to-point licence with two 12.5 kHz spectrum accesses in a high-density area, operating between 403 and 520 MHz, the tax will be:
 \$\frac{1}{2} \frac{1}{2} \frac{
 - \$462.06875 + \$462.06875 = \$924.1375.
- > Round the total tax amount to the nearest dollar: \$924.1375→ \$924.00.

4. Add the charge and tax

Add the total charge amount and total tax amount.

For example:

The total licence fee for a point-to-point licence with two spectrum accesses, both with 12.5 kHz bandwidth, operating between 403 and 520 MHz in high-density areas, will be:

1,010.00 + 924.00 = 1,934.00.

Taxes and charges

Where to find your division

This reference table lists the relevant charges and taxes applicable for each licensing option.

Table 1: Licence reference table

Licence type	Licensing options	Division	Page
Aeronautical	Aeronautical assigned system	1	9
Aircraft	Aircraft assigned	1	9
Amateur (non-	Advanced	7	19
assigned)	Beacon	7	19
	Foundation	7	19
	Repeater	7	19
	Standard	7	19
Broadcasting	Broadcast service	6	18
	HF domestic service	1	9
	HF overseas IBL service	1	9
	HF overseas service	1	9
	Narrowband area service	4	15
	Open narrowcasting service (LPON)	1	9
	Open narrowcasting service (HPON)	8	20
Datacasting		6	18
Defence		1	9
Defence receive		1	9
Earth	Fixed earth	8A	21
	Mobile earth	8A	21
Earth receive		8A	21
Fixed	900 MHz studio to transmitter link	1	9
	Point-to-multipoint	3	13
	Point-to-multipoint (land mobile spectrum)	4	15
	Point-to-multipoint system	4	15
	Point-to-point	2	11
	Point-to-point (5.8 GHz band)	6	18
	Point-to-point (self-coordinated) stations	6	18
	Sound outside broadcast station	7	19
	Television outside broadcast network	5	17
	Television outside broadcast station	5	17
	Television outside broadcast system	5	17
	Temporary fixed link	7	19
Fixed receive		2	11
Land mobile	Ambulatory station	1	9
	Ambulatory system	4	15
	CBRS repeater	1	9

Licence type	Licensing options	Division	Page
	Land mobile system	4	15
	PABX cordless telephone service	6	18
	Paging system	4	15
	Wireless audio system	6	18
Major coast receive		1	9
Maritime coast	Limited coast assigned system	1	9
	Limited coast marine rescue	7	19
	Limited coast non-assigned	7	19
	Major coast A or B	1	9
Maritime ship	Ship station class B or C assigned	1	9
	Ship station class B or C non-assigned	7	19
Outpost	Outpost assigned	1	9
	Outpost non-assigned	7	19
Public	PMTS Class B (870-890 MHz)	1	9
Telecommunications Service (PTS)	PMTS Class B (788–803 MHz)	6	18
00.7.00 (1.10)	PMTS Class B (935–960 MHz)	6	18
	PMTS Class B (1805–1880 MHz)	6	18
	PMTS Class B (2110–2170 MHz)	6	18
	PMTS Class B (3400 MHz–3425 MHz and 3492.5 MHz–3542.5 MHz)	6	18
	PMTS Class C	6	18
Radiodetermination	Radiodetermination	1	9
	Body scanner for aviation security screening	6	18
Scientific	Scientific assigned	1	9
	Scientific non-assigned	7	19
Space		8A	21
Space receive		8A	21

Division 1: General assigned licences

Table 2: Licence charges

Licensing option	Issue charge (GST excl.)	Renewal/ instalment charge
900 MHz studio to transmitter link	\$505	\$4
Aeronautical assigned system	\$354	\$4
Aircraft assigned	\$152	\$4
All HF broadcasting options	\$101	\$4
Ambulatory station	*\$505/\$152	\$4
CBRS repeater	\$354	\$4
Defence	\$101	\$4
Defence receive	\$101	\$4
Limited coast assigned system	\$354	\$4
Major coast A or B	\$152	\$4
Major coast receive	\$152	\$4
Narrowcasting service (LPON)	Issued by auction	\$4
Outpost assigned	\$51	\$4
PMTS Class B (870-890 MHz)**	\$404	\$4
Radiodetermination	\$354	\$4
Scientific assigned	\$606	\$4
Ship station class B or C assigned	\$101	\$4

^{*}The \$505 new issue charge will be for the initial assigned frequency. When an existing ambulatory station frequency assignment for a client is copied to another ambulatory station licence, the new issue charge will be \$152.

For the issue charge when the frequency assignment is carried out by an AP, see page 22.

^{**}The PMTS Class A licence option is no longer issued by the ACMA. Licences in the 870–890 MHz frequency range have been converted to PMTS Class B apparatus licences.

Table 3: Annual licence tax (\$ per kHz)

	Geographic location				
Spectrum location	Australia- wide	High density	Medium density	Low density	Remote density
0 to 30 MHz	1.1643	1.1643	1.1643	1.1643	1.1643
>30 to 70 MHz	2.6301	1.0273	0.5464	0.1179	0.0588
>70 to 399.9 MHz	2.6983	1.1074	0.5067	0.1136	0.0567
>399.9 to 403 MHz	2.6983	1.5111	0.6913	0.1179	0.0588
> 403 to 520 MHz	2.6983	1.9999	0.6913	0.1179	0.0000
> 520 to 960 MHz	2.6983	1.5111	0.6913	0.1179	0.0588
>960 to 2,690 MHz	2.6943	0.6047	0.2795	0.1406	0.0702
>2.69 to 5.0 GHz	2.6913	0.5000	0.2026	0.1678	0.0839
>5.0 to 8.5 GHz	2.2723	0.4201	0.1956	0.0890	0.0432
>8.5 to 14.5 GHz	1.0014	0.3605	0.0853	0.0062	0.0030
>14.5 to 31.3 GHz	1.0014	0.2666	0.0586	0.0062	0.0030
>31.3 to 51.4 GHz	0.2731	0.1454	0.0316	0.0011	0.0005
>51.4 GHz	0.0270	0.0027	0.0027	0.0003	0.0003

The minimum tax is \$39.57. For low-power discount, see Appendix C.

Before adding administrative charges, add tax for each spectrum access and round to the nearest dollar.

Table 4: Examples of annual licence tax amounts

Con a stancing		Geographic location					
Spectrum location	Bandwidth	Australia- wide	High density	Medium density	Low density	Remote density	
0 to 30 MHz	6 kHz	\$39.57	\$39.57	\$39.57	\$39.57	\$39.18	
>30 to 70 MHz	26 kHz	\$68.38	\$39.57	\$39.57	\$39.57	\$39.57	
>30 to 70 MHz	50 kHz	\$131.51	\$51.37	\$39.57	\$39.57	\$39.57	
>70 to 399.9 MHz	12.5 kHz	\$39.57	\$39.57	\$39.57	\$39.57	\$39.57	
>70 to 399.9 MHz	25 kHz	\$67.46	\$39.57	\$39.57	\$39.57	\$39.57	
>70 to 399.9 MHz	200 kHz	\$539.66	\$221.48	\$101.34	\$39.57	\$39.57	
>399.9 to 403 MHz	12.5 kHz	\$39.57	\$39.57	\$39.57	\$39.57	\$39.57	
> 403 to 520 MHz	12.5 kHz	\$39.57	\$39.57	\$39.57	\$39.57	\$39.57	
>520 to 960 MHz	25 kHz	\$67.46	\$39.57	\$39.57	\$39.57	\$39.57	
>960 to 2,690 MHz	5 MHz	\$13,471.50	\$3,023.50	\$1,397.50	\$703.00	\$351.00	
>2.69 to 5.0 GHz	1 MHz	\$2,691.30	\$500.00	\$202.60	\$167.80	\$83.90	
>5.0 to 8.5 GHz	1 MHz	\$2,272.30	\$420.10	\$195.60	\$89.00	\$43.20	
>8.5 to 14.5 GHz	1 MHz	\$1,001.40	\$360.50	\$85.30	\$39.57	\$39.57	
>8.5 to 14.5 GHz	20 MHz	\$20,028.00	\$7,210.00	\$1,706.00	\$124.00	\$60.00	

Division 2: Fixed point-to-point licences

Table 5: Licence charges

Licensing option	Issue charge (GST excl.)	Renewal/instalment charge
Point-to-point	\$505	\$4
Fixed receive	\$101	\$4

For the issue charge when the frequency assignment is carried out by an AP, see page 22.

Services with two transmit frequencies incur two tax amounts and two administrative charges (whether issue, renewal or instalment).

Table 6: Annual licence tax (\$ per kHz)

	Geographic location					
Spectrum location	Australia- wide	High density	Medium density	Low density	Remote density	
0 to 30 MHz	21.5217	21.5217	21.5217	21.5217	14.2182	
>30 to 70 MHz	48.6147	18.9880	10.1000	2.1796	0.7183	
>70 to 399.9 MHz	49.8765	20.4693	9.3668	2.0998	0.6920	
>399.9 to 403 MHz	49.8765	27.9309	12.7784	2.1796	0.7183	
>403 to 520 MHz	49.8765	36.9655	12.7784	2.1796	0	
>520 to 960 MHz	49.8765	27.9309	12.7784	2.1796	0.7183	
>960 to 2,690 MHz	1.1772	0.2642	0.1221	0.0614	0.0307	
>2.69 to 5.0 GHz	1.1759	0.2185	0.0885	0.0733	0.0367	
>5.0 to 8.5 GHz	0.9928	0.1836	0.0855	0.0389	0.0189	
>8.5 to 14.5 GHz	0.4375	0.1575	0.0373	0.0027	0.0013	
>14.5 to 31.3 GHz	0.4375	0.1165	0.0256	0.0027	0.0013	
>31.3 to 51.4 GHz	0.1193	0.0635	0.0138	0.0005	0.0002	
>51.4 GHz	0.0118	0.0012	0.0012	0.0001	0.0001	

The minimum tax is \$39.57.

Before adding administrative charges, add tax for each spectrum access and round to the nearest dollar.

Table 7: Examples of annual licence tax amounts

Geographic location						
Spectrum location	Bandwidth	Australia- wide	High density	Medium density	Low density	Remote density
0 to 30 MHz	3 kHz	\$64.57	\$64.57	\$64.57	\$64.57	\$42.65
0 to 30 MHz	6 kHz	\$129.13	\$129.13	\$129.13	\$129.13	\$85.31
>30 to 70 MHz	20 kHz	\$972.29	\$379.76	\$202.00	\$43.59	\$39.57
>70 to 399.9 MHz	12.5 kHz	\$623.46	\$255.87	\$117.09	\$39.57	\$39.57
>70 to 399.9 MHz	25 kHz	\$1,246.91	\$511.73	\$234.17	\$52.50	\$39.57
>399.9 to 403 MHz	12.5 kHz	\$623.46	\$349.14	\$159.73	\$39.57	\$39.57
>403 to 520 MHz	12.5 kHz	\$623.46	\$462.07	\$159.73	\$39.57	\$39.57
>403 to 520 MHz	25 kHz	\$1,246.91	\$924.14	\$319.46	\$54.49	\$39.57
>520 to 960 MHz	200 kHz	\$9,975.30	\$5,586.18	\$2,555.68	\$435.92	\$143.66
>960 to 2,690 MHz	2 MHz	\$2,354.40	\$528.40	\$244.20	\$122.80	\$61.40
>960 to 2,690 MHz	4 MHz	\$4,708.80	\$1,056.80	\$488.40	\$245.60	\$122.80
>960 to 2,690 MHz	14 MHz	\$16,480.80	\$3,698.80	\$1,709.40	\$859.60	\$429.80
>960 to 2,690 MHz	29 MHz	\$34,138.80	\$7,661.80	\$3,540.90	\$1,780.60	\$890.30
>2.69 to 5.0 GHz	40 MHz	\$47,036.00	\$8,740.00	\$3,540.00	\$2,932.00	\$1,468.00
>5.0 to 8.5 GHz	7 MHz	\$6,949.60	\$1,285.20	\$598.50	\$272.30	\$132.30
>5.0 to 8.5 GHz	14 MHz	\$13,899.20	\$2,570.40	\$1,197.00	\$544.60	\$264.60
>5.0 to 8.5 GHz	29.65 MHz	\$29,436.52	\$5,443.74	\$2,535.08	\$1,153.39	\$560.39
>5.0 to 8.5 GHz	40 MHz	\$39,712.00	\$7,344.00	\$3,420.00	\$1,556.00	\$756.00
>8.5 to 14.5 GHz	7 MHz	\$3,062.50	\$1,102.50	\$261.10	\$39.57	\$39.57
>8.5 to 14.5 GHz	14 MHz	\$6,125.00	\$2,205.00	\$522.20	\$39.57	\$39.57
>8.5 to 14.5 GHz	28 MHz	\$12,250.00	\$4,410.00	\$1,044.40	\$75.60	\$39.57
>8.5 to 14.5 GHz	40 MHz	\$472.00	\$48.00	\$48.00	\$39.57	\$39.57
>14.5 to 31.3 GHz	7 MHz	\$3,062.50	\$815.50	\$179.20	\$39.57	\$39.57
>14.5 to 31.3 GHz	7.5 MHz	\$3,281.25	\$873.75	\$192.00	\$39.57	\$39.57
>14.5 to 31.3 GHz	14 MHz	\$6,125.00	\$1,631.00	\$358.40	\$39.57	\$39.57
>14.5 to 31.3 GHz	20 MHz	\$8,750.00	\$2,330.00	\$512.00	\$54.00	\$39.57
>14.5 to 31.3 GHz	27.5 MHz	\$12,031.25	\$3,203.75	\$704.00	\$74.25	\$39.57
>14.5 to 31.3 GHz	28 MHz	\$12,250.00	\$3,262.00	\$716.80	\$75.60	\$39.57
>31.3 to 51.4 GHz	7 MHz	\$835.10	\$444.50	\$96.60	\$39.57	\$39.57
>31.3 to 51.4 GHz	28 MHz	\$3,340.40	\$1,778.00	\$386.40	\$39.57	\$39.57
>51.4 GHz	28 MHz	\$330.40	\$39.57	\$39.57	\$39.57	\$39.57

Division 3: Fixed point-to-multipoint licences

Table 8: Licence charges

	30	Renewal/ Instalment charge
Point-to-multipoint	\$606	\$4

For the issue charge when the frequency assignment is carried out by an AP, see page 22.

To calculate the annual licence tax for harmonised government spectrum area licences, go to Table 14.

Table 9: Annual licence tax (\$ per kHz)

	Geographic location					
Spectrum location	Australia- wide	High density	Medium density	Low density	Remote density	
0 to 30 MHz	86.0869	86.0869	86.0869	86.0869	56.1492	
>30 to 70 MHz	194.4586	75.9520	40.4000	8.7184	2.8367	
>70 to 399.9 MHz	199.5061	81.8773	37.4673	8.3992	2.7326	
>399.9 to 403 MHz	199.5061	111.7234	51.1135	8.7184	2.8367	
>403 to 520 MHz	199.5061	147.8620	51.1135	8.7184	0	
>520 to 960 MHz	199.5061	111.7234	51.1135	8.7184	2.8367	
>960 to 2,690 MHz	1.1772	0.2642	0.1221	0.0614	0.0307	
>2.69 to 5.0 GHz	1.1759	0.2185	0.0885	0.0733	0.0367	
>5.0 to 8.5 GHz	0.9928	0.1836	0.0855	0.0389	0.0189	
>8.5 to 14.5 GHz	0.4375	0.1575	0.0373	0.0027	0.0013	
>14.5 to 31.3 GHz	0.4375	0.1165	0.0256	0.0027	0.0013	
>31.3 to 51.4 GHz	0.1193	0.0635	0.0138	0.0005	0.0002	
>51.4 GHz	0.0118	0.0012	0.0012	0.0001	0.0001	

The minimum tax is \$39.57. Before adding administrative charges, add tax for each spectrum access and round to the nearest dollar.

 Table 10:
 Examples of annual licence tax amounts

		Geographic location					
Spectrum location	Bandwidth	Australia- wide	High density	Medium density	Low density	Remote density	
0 to 30 MHz	3 kHz	\$258.26	\$258.26	\$258.26	\$258.26	\$168.45	
0 to 30 MHz	6 kHz	\$516.52	\$516.52	\$516.52	\$516.52	\$336.90	
0 to 30 MHz	25 kHz	\$2,152.17	\$2,152.17	\$2,152.17	\$2,152.17	\$1,403.73	
>30 to 70 MHz	25 kHz	\$4,861.47	\$1,898.80	\$1,010.00	\$217.96	\$70.92	
>70 to 399.9 MHz	12.5 kHz	\$2,493.83	\$1,023.47	\$468.34	\$104.99	\$39.57	
>70 to 399.9 MHz	25 kHz	\$4,987.65	\$2,046.93	\$936.68	\$209.98	\$68.32	
>399.9 to 403 MHz	12.5 kHz	\$2,493.83	\$1,396.54	\$638.92	\$108.98	\$39.57	
>403 to 520 MHz	25 kHz	\$4,987.65	\$3,696.55	\$1,277.84	\$217.96	\$39.57	
>520 to 960 MHz	1.82 MHz	\$363,101.10	\$203,336.59	\$93,026.57	\$15,867.49	\$5,162.79	
>960 to 2,690 MHz	2 MHz	\$2,354.40	\$528.40	\$244.20	\$122.80	\$61.40	
>2.69 to 5.0 GHz	307 kHz	\$361.00	\$67.08	\$39.57	\$39.57	\$39.57	

Division 4: Assigned licences in high demand frequency bands

Table 11: Licence charges

Licensing option	Issue charge (GST excl.)	Renewal/ instalment charge
Narrowband area service	Note 1	\$4
Point-to-multipoint system	\$606	\$4
Point-to-multipoint (land mobile spectrum)	\$606	\$4
Ambulatory system	\$505	\$4
Land mobile system (0–30 MHz)	\$606	\$4
Land mobile system (>30 MHz)	\$606	\$4
Paging system (interior)	\$303	\$4
Paging system (exterior)	\$354	\$4

For the issue charge when the frequency assignment is carried out by an AP, see page 22.

Note 1:

The issue charge is \$606 for operation in the frequency band 70-960 MHz. Otherwise, an issue charge of \$404 is applied.

Table 12: Annual licence tax (\$ per kHz)

	Geographic	raphic location					
Spectrum location	Australia- wide	High density	Medium density	Low density	Remote density		
0 to 30 MHz	86.0869	86.0869	86.0869	86.0869	86.0869		
>30 to 70 MHz	194.4586	75.9520	40.4000	8.7184	4.3492		
>70 to 399.9 MHz	199.5061	81.8773	37.4673	8.3992	4.1896		
>399.9 to 403 MHz	199.5061	111.7234	51.1135	8.7184	4.3492		
>403 to 520 MHz	199.5061	147.8620	51.1135	8.7184	0.0000		
>520 to 960 MHz	199.5061	111.7234	51.1135	8.7184	4.3492		

The minimum tax is \$39.57. For low-power discount, see Appendix C.

Before adding administrative charges, add tax for each spectrum access and round to the nearest dollar.

Table 13: Examples of annual licence tax amounts

		Geographic location					
Spectrum location	Bandwidth	Australia- wide	High density	Medium density	Low density	Remote density	
0 to 30 MHz	3 kHz	\$258.26	\$258.26	\$258.26	\$258.26	\$258.26	
0 to 30 MHz	6 kHz	\$516.52	\$516.52	\$516.52	\$516.52	\$516.52	
>30 to 70 MHz	25 kHz	\$4,861.47	\$1,898.80	\$1,010.00	\$217.96	\$108.73	
>70 to 399.9 MHz	12.5 kHz	\$2,493.83	\$1,023.47	\$468.34	\$104.99	\$52.37	
>70 to 399.9 MHz	25 kHz	\$4,987.65	\$2,046.93	\$936.68	\$209.98	\$104.74	
>399.9 to 403 MHz	12.5 kHz	\$2,493.83	\$1,396.54	\$638.92	\$108.98	\$54.37	
>403 to 520 MHz	25 kHz	\$4,987.65	\$3,696.55	\$1,277.84	\$217.96	\$39.57	
>520 to 960 MHz	12.5 kHz	\$2,493.83	\$1,396.54	\$638.92	\$108.98	\$54.37	

Table 14: Harmonised government spectrum area licences

State or territory of the licence	Annual licence tax 2017 (\$ per MHz)
Australian Capital Territory	964
New South Wales	109,411
Northern Territory	2,551
Queensland	79,879
South Australia	14,561
Tasmania	366
Victoria	93,023
Western Australia	17,044

Division 5: Television outside broadcast licences

Table 15: Licence charges

Licensing option	Issue charge (GST excl.)	Renewal/ instalment charge
Television outside broadcast station	\$303	\$4
Television outside broadcast network (per licence)	\$24	\$4
Television outside broadcast system	\$303	\$4

For the issue charge when the frequency assignment is carried out by an AP, see page 22.

Table 16: Annual licence tax television outside broadcast station (\$ per kHz)

	Geographic	nic location					
Spectrum location	Australia- wide	High density	Medium density	Low density	Remote density		
>960 to 2,690 MHz	1.3822	0.3102	0.1434	0.0721	0.0360		
>2.69 to 5.0 GHz	1.3807	0.2565	0.1040	0.0861	0.0431		
>5.0 to 8.5 GHz	1.1657	0.2155	0.1004	0.0457	0.0221		
>8.5 to 14.5 GHz	0.5137	0.1849	0.0437	0.0032	0.0015		
>14.5 to 31.3 GHz	0.5137	0.1368	0.0300	0.0032	0.0015		
>31.3 to 51.4 GHz	0.1401	0.0746	0.0162	0.0006	0.0003		
Above 51.4 GHz	0.0138	0.0014	0.0014	0.0001	0.0001		

The minimum tax is \$39.57.

Before adding administrative charges, add tax for each spectrum access then round to the nearest dollar.

Table 17: Annual licence tax for television outside broadcast system or network

	Geographic	Seographic location					
Licensing option	Australia- wide	High density	Medium density	Low density	Remote density		
Television outside broadcast network (per licence)	\$397,820						
Television outside broadcast system	\$42,626	\$7,882	\$3,669	\$1,671	\$837		

Division 6: Assigned licences subject to a fixed tax

Table 18: Licence charges and annual tax

Licensing option	Issue charge (GST excl.)	Renewal/ instalment charge	Annual licence tax
Broadcast service	\$202/hr	\$4	\$39.57 per transmitter
Datacasting	Auction	\$4	\$39.57 per transmitter
PABX cordless telephone service (per licence)	\$253	\$4	\$39.57
Point-to-point (5.8 GHz band)	\$152	\$4	\$39.57 per pair of spectrum accesses
Point-to-point (self-coordinated) stations	\$152	\$4	\$226 per pair of spectrum accesses
PMTS Class B (935–960 MHz) (paired)	\$404	\$4	\$3,227,539/MHz
PMTS Class B (788–803 MHz) (paired)	\$404	\$4	\$0.07/MHz/pop
PMTS Class B (1805–1880 MHz) (paired)	\$404	\$4	\$0.01/MHz/pop
PMTS Class B (2110–2170 MHz) (paired)	\$404	\$4	\$0.06/MHz/pop
PMTS Class B (3400–3425 MHz and 3492.5–3542.5 MHz)	\$404	\$4	\$0.0038/MHz/pop
PMTS Class C	\$51	\$4	\$39.57
Body scanner for aviation security screening			
- High density area	\$354 (Note)	\$4	\$36,000 for each airport
- Medium density area	\$354 (Note)	\$4	\$7,918 for each airport
- Low density area	\$354 (Note)	\$4	\$842 for each airport
Wireless Audio System	\$505	\$4	\$39.57 (per licence)

Note: Issue charge is applicable for each airport.

- > The \$202 hourly rate is subject to a minimum charge of \$101.
- > Before adding administrative charges, add tax for each spectrum access and round to the nearest dollar.

For information on calculating the population relating to PMTS Class B licences, please see Appendix G.

Division 7: Non-assigned licence fees

Table 19: Non-assigned licences

Licensing option	Issue charge/ Renewal charge (GST excl.)	Tax amount	Fees upon issue (GST excl.)	Fees upon renewal (GST excl.)
All amateur licensing options	\$29.00/\$4	\$48.55	\$78.00	\$53.00
Limited coast marine rescue	\$14.00/\$4	\$39.57	\$54.00	\$44.00
Limited coast non-assigned	\$14.00/\$4	\$39.57	\$54.00	\$44.00
Outpost non-assigned	\$7.00/\$4	\$39.57	\$47.00	\$44.00
Scientific non-assigned	\$14.00/\$4	\$39.57	\$54.00	\$44.00
Ship station class B non-assigned	\$18.00/\$4	\$39.57	\$58.00	\$44.00
Ship station class C non-assigned	\$16.00/\$4	\$39.57	\$56.00	\$44.00
Sound outside broadcast	\$14.00/\$4	\$39.57	\$54.00	\$44.00
Temporary fixed link	\$14.00/\$4	\$2,204.34	\$2,218.00	n/a

Division 8: Narrowcasting service (HPON) licence

High power open narrowcasting service (HPON) licences are auctioned according to the specifications of licence area plans (LAPs).

Table 20: Licence charges

I ICANSING ONTION		Renewal/ instalment charge
High power open narrowcasting service (HPONS)	By auction*	\$4

^{*}A separate entry fee of \$837 applies.

Table 21: Annual licence tax

Location	HPONS tax
Sydney	\$39,346
Melbourne	\$39,346
Brisbane	\$14,281
Adelaide	\$14,281
Perth	\$14,281
Perth city	\$14,281
Newcastle	\$3,643
Canberra	\$3,643
Wollongong	\$3,643
Gold Coast	\$3,643
Gosford	\$3,643
Penrith	\$3,643
Hobart	\$1,605
Geelong	\$1,605
Nambour	\$1,605
Townsville	\$1,605
Cairns	\$1,605
Elsewhere	\$946

The minimum tax is \$946.

If the LAP for the licence provides that:

- > the maximum effective radiated power for the relevant station is not more than 100 watts, or
- > the maximum cymomotive force for the relevant station is not more than 100 volts,
- > the coverage radius for the service is not more than 15 kilometres from the nominal location of the transmitter within the meaning given by the licence area plan,

then the annual amount for the licence is half the amount stated in the table above, subject to the minimum tax of \$946.

Division 8A: Space system licences

Table 22: Licence charges

Licensing option	Issue charge (GST excl.)	Renewal/ instalment charge
Earth receive	\$152	\$4
Fixed earth	\$303	\$4
Mobile earth	\$202	\$4
Space	\$101	\$4
Space receive	\$101	\$4

For the issue charge when the frequency assignment is carried out by an AP, see page 22.

Table 23: Annual licence tax (\$ per kHz)

	Geographic location				
Spectrum location	Australia- wide	High density	Medium density	Low density	Remote density
0 to 30 MHz	1.1643	1.1643	1.1643	1.1643	1.1643
>30 to 70 MHz	2.6301	1.0273	0.5464	0.1179	0.0588
>70 to 399.9 MHz	2.6983	1.1074	0.5067	0.1136	0.0567
>399.9 to 403 MHz	2.6983	1.5111	0.6913	0.1179	0.0588
> 403 to 520 MHz	2.6983	1.9999	0.6913	0.1179	0.0000
> 520 to 960 MHz	2.6983	1.5111	0.6913	0.1179	0.0588
>960 to 2,690 MHz	2.6943	0.6047	0.2795	0.1406	0.0702
>2.69 to 5.0 GHz	2.6913	0.5000	0.2026	0.1678	0.0839
>5.0 to 8.5 GHz	2.2723	0.4201	0.1956	0.0890	0.0432
>8.5–17.3	1.0014	0.3605	0.0853	0.0062	0.0030
>17.3–31.3	0.7010	0.1866	0.0293	0.0031	0.0000
>31.3 to 51.4 GHz	0.1912	0.1018	0.0158	0.0006	0.0000
>51.4 GHz	0.0270	0.0027	0.0027	0.0003	0.0003

The minimum tax is \$39.57. For low-power discount, see Appendix C.

Before adding administrative charges, add tax for each spectrum access and round to the nearest dollar.

Space licences—the tax is reduced by 75 per cent where CDMA technology is used for a space licence in the 2483.5–2500 MHz band or a space receive licence in the 1610–1626.5 MHz band.

Division 9: Other charges

Table 24: Issue a licence with a frequency assignment certificate (FAC)

Type of FAC	Service	Charge (GST excl.)
	Amateur beacon or repeater station	\$29
Paper-based	Group of two or more applications lodged at the same time on a no interference/no protection basis for a temporary event or military manoeuvres	\$296
	Other	\$152.00
Electronic (internet)	Amateur beacon or repeater station	\$29.00
Electronic (internet)	Other	\$101.00

Table 25: Varying a licence condition

Service	Charge (GST excl.)
Amateur beacon or repeater station	\$29.00
Assigned or non-assigned licence where the ACMA does not perform technical co-ordination	\$51.00
Licence variation without FAC where the ACMA performs technical co-ordination	The applicable charge for first issue of the licence
Licence variation accompanied by paper FAC that takes more than 15 minutes to consider	\$152.00
Licence variation with FAC lodged on-line that takes more than 15 minutes to consider	\$101.00
Low Power Open Narrowcasting Service (LPON)	\$101.00

Table 26: Licensing hourly rate

	Charge (GST excl.)
Standard hourly rate for radiocommunications licensing activities	\$202.00
Minimum charge	\$101.00

Table 27: Transfer of a licence

	Charge (GST excl.)
Consideration or transfer of a licence or group of licences where the licences are contained in one application	\$51.00

Table 28: Documents

Service	Charge (GST incl.)
Issue licence with changes to licensee details	\$53.90
Issue of duplicate instrument	\$53.90

Table 29: Providing a list of services within a specified frequency range

Service	Charge (GST incl.)
Within a specified radius of a specified geographic location (an adjacent services listing)	\$108.90
In a specified state or territory (a frequency scan report)	\$108.90

Table 30: Accreditation application

	Charge (GST excl.)
Assessing an application for an accreditation of a particular kind	\$488.00

Note 1: Radiocommunications Register of Licences.

Note 2: Radiocommunications Digital Elevation Model.

Appendixes

Appendix A— Changes to the fee schedule

In December 2016 the ACMA made the Radiocommunications (Transmitter Licence Tax) Amendment Determination 2016 (No. 1) and the Radiocommunications (Receiver Licence Tax) Amendment Determination 2016 (No. 1) to:

- set new taxes for satellite services (shown in Division 8A) following a review based on opportunity cost pricing principles
- increase annual apparatus licence taxes to account for inflation
- set taxes for early access arrangements in the 700 MHz band.

The new taxes in the 2017 apparatus licence fee schedule apply to licences issued on or after 5 April 2017.

Tax reform for satellite apparatus licences

Following the review of taxes for satellite services the ACMA decided to implement the following reforms:

- Reducing taxes between 17.3 GHz and 51.4 GHz to better reflect excess supply conditions. These tax reductions are expected to encourage more satellite investment in Australia that will better utilise spectrum between 17.3 GHz and 51.4 GHz, and generate economic benefits for Australia.
- Removing the fixed annual tax of \$279/MHz for non-geostationary orbit (NGSO) space and space receive licences operating in frequencies greater than 8.5 GHz. Abolishing this tax will simplify the tax regime and make treatment of NGSO systems consistent with geostationary orbit (GSO) systems.
- Introducing a tax incentive for earth stations that are co-located (that is, located within the specific radial distances specified in the Determination) and co-frequency (that is, share the same or overlapping frequencies). The ACMA intends for this incentive to encourage earth stations to co-locate and use the same or similar frequencies which the ACMA expects will free up spectrum for other terrestrial services.

Adjustments for inflation

The Determinations also amended the taxing regime for radiocommunications transmitter and receiver licences to adjust almost all taxes by a one per cent increase based on the increase in the CPI over the year to June 2016. In real terms, there should be no effect on businesses, as the nominal dollar increases merely preserve the value of the licence taxes (and therefore the incentives toward efficient use of spectrum) against erosion by inflation.

The only exception to this CPI increase is that the ACMA has decided to continue the freeze, in dollar amounts, of taxes levied on point-to-point and point-to-multipoint licences operating in frequencies below 960 MHz in remote density areas (RDAs) at their 2008 levels.

Set taxes for early access arrangements in the 700 MHz band

The ACMA is auctioning spectrum in the 700 MHz band (733–748 MHz paired with 788–803 MHz) in 2017. The ACMA will allow winning bidders to apply for 'early access' apparatus licences to access the spectrum before their spectrum licences commence. The taxes for these early access arrangements in the 700 MHz band are an annual licence tax rate of 0.07/MHz (paired)/pop for operation of a transmitter in the frequency range 788–803 MHz (see Division 6).

Updated charges

The ACMA also made new charges in the Radiocommunications (Charges) Determination 2017, which apply from 1 April 2017.

Appendix B— Licence types and licensing options

Aeronautical

An aeronautical licence is issued to authorise a station that:

- > is not fixed to an aircraft
- is operated on aeronautical frequencies
- is operated for purposes relating to aircraft, airport or aerodrome operations
- may be a mobile station on board the aircraft or on the ground in communication with aircraft.

An aeronautical licence is necessary to authorise the operation of stations providing:

- > air traffic control services
- aerodrome radio information services
- private company radiocommunications
- other airport or aerodrome services.

Aeronautical licensing options:

aeronautical assigned system.

Aircraft

An aircraft licence is issued to authorise a station fixed on board:

- > aircraft
- recreational aircraft (for example, ultralights, trikes, hang gliders, paragliders, gyrocopters, gliders, sailplanes and balloons).

A separate aircraft licence is only issued for a station not covered by the Radiocommunications (Aircraft and Aeronautical Mobile Stations) Class Licence 2006.

Aircraft licensing option:

> aircraft assigned.

Amateur

An amateur licence is issued to authorise a station that:

- is operated for the purposes of self-training in radiocommunications, intercommunication using radiocommunications, and technical investigation into radiocommunications by persons who do so solely with a personal aim and who have no pecuniary interest in the outcome of the operations of the station
- > is operated on amateur frequencies or amateur frequency bands
- > may participate in the amateur-satellite service.

Amateur licensing options:

- > advanced
- beacon
- foundation
- repeater
- standard.

Broadcasting

A broadcasting licence is issued to authorise transmitters delivering, by means other than by satellite, television or radio programs to persons having commonly available equipment to receive the service. Such licences may also authorise engineering tests for stations intended to be used to broadcast television or radio programs.

Broadcasting services must comply with both the Radiocommunications Act 1992 and the Broadcasting Services Act 1992.

Broadcasting licensing options:

- > broadcast service
- HF domestic service
- > HF overseas (IBL) service
- HF overseas service
- narrowband area service
- narrowcasting service (LPON)
- narrowcasting service (HPON).

A broadcast service licence authorises transmissions by a holder of a national, commercial or community broadcasting licence under the Broadcasting Services Act.

A narrowcasting service licence is issued for narrowcasting services operating in broadcasting services bands. Radio narrowcasting services can be either high power open narrowcasting services (HPONs) or low-power open narrowcasting services (LPONs).

A narrowband area service licence is issued for narrowcasting services operating outside broadcasting services bands.

HF broadcasting licences authorise broadcasting transmissions in the frequency range 2.3 MHz to 26.1 MHz.

An HF domestic service licence is issued for services serving Australia and its territories. An HF overseas service licence is issued for a national broadcaster (ABC or SBS) broadcasting to overseas locations. HF overseas (IBL) service licences are issued to other broadcasters broadcasting to overseas locations.

Datacasting

A datacasting licence is issued to authorise transmitters operated for the purpose of delivering a datacasting service by means other than satellite. See the Broadcasting Services Act for more details.

Defence

A defence station must operate principally for the purposes of defence. The station must either operate within bands designated to be used principally for the purposes of defence; or be used for a service intended to be used principally for the purpose of defence under the Australian Radiofrequency Spectrum Plan.

Defence receive

A defence receive station must operate principally for the purposes of defence and not be capable of transmitting messages of any kind. The station must either operate within bands designated to be used principally for the purposes of defence, or be used for a service intended to be used principally for the purpose of defence under the Australian Radiofrequency Spectrum Plan.

Earth

An earth licence is issued to authorise operation of a terrestrial transmitter that is communicating with a satellite.

If a terrestrial transmitter is communicating with a satellite and the operation of the associated receiver on the satellite is authorised by a space receive licence, operation of the transmitter is authorised by a class licence.

In all other cases, the operation of terrestrial transmitters to communicate with satellites must be authorised by an earth licence.

Earth licensing options:

- > fixed earth
- > mobile earth.

Earth receive

An earth receive licence is issued to authorise operation of a terrestrial receiver that is communicating with a satellite.

If a terrestrial receiver is communicating with a satellite and the operation of the associated transmitter on the satellite is authorised by a space licence, operation of the receiver is generally authorised by a class licence.

If operation of the associated transmitter on the satellite is not authorised by a space licence, operation of the terrestrial receiver may be authorised by an earth receive licence.

Fixed

A fixed licence is issued for stations that:

- are located principally:
 - at fixed points specified in the station's transmitter licence; or
 - in an area specified in the licence; and
- are operated principally for communications with stations located:
 - at one or more other fixed points specified in the licence; or
 - > in an area specified in the licence; and

- > if permitted by the station's transmitter licence, may communicate with:
 - an aircraft station, but not on an aeronautical frequency
 - a ship station, but not on a maritime frequency >
 - a land mobile station, but not on a land mobile frequency.

Fixed licensing options:

- > 900 MHz studio to transmitter link
- point-to-multipoint
- point-to-multipoint (land mobile spectrum)
- point-to-multipoint system
- point-to-point
- point-to-point (5.8 GHz band)
- point-to-point (self-coordinated) stations
- > sound outside broadcast station
- > television outside broadcast network
- television outside broadcast station
- television outside broadcast system
- temporary fixed link.

A point-to-point licence authorises communications between two fixed stations. Each transmitter must be separately licensed.

Point-to-point (5.8GHz band) and point-to-point (self-coordinated) stations are licensed as a pair.

A point-to-multipoint licence authorises communications between a base station and more than one remote station within an area specified on the licence. It may also authorise the operation of remote control stations and supplementary base stations.

Point-to-multipoint licences in land mobile segments of the 400 MHz band attract a land mobile fee.

A point-to-multipoint system is a network of point-to-multipoint stations operating within a specified coverage area.

A 900 MHz studio to transmitter link is a point-to-point station within the frequency range greater than 820 MHz and less than 960 MHz that transmits sound broadcasting programs from a studio to a broadcasting transmitter site.

Sound outside broadcast and television outside broadcast licences authorise temporary fixed links established to provide radio or television broadcasting coverage of an event remotely located from a broadcasting studio.

A temporary fixed link licence authorises a fixed link that may be deployed anywhere in Australia for a period of up to 14 days on available channels in the 13, 15 or 22 GHz bands. Frequency coordination is necessary before every deployment.

Fixed receive

A fixed receive licence is issued for fixed stations:

- > that are used only for receiving messages
- > that are not capable of transmitting messages of any kind
- for which the ACMA or an AP undertakes coordination procedures to minimise interference to reception.

Although receivers at fixed stations do not have to be licensed, it is the only means by which they can be protected from interference.

Land mobile

A land mobile licence is issued for a radiocommunications service that:

- > comprises one or more land stations or land mobile stations
- is used for communications between:
 - land stations and land mobile stations; or
 - land mobile stations; or
 - land mobile stations through another land station; or
 - > land stations through another land station; and
- may communicate with:
 - an aircraft station, but not on an aeronautical frequency; or
 - a maritime ship station, but not on a maritime frequency.

Land mobile licensing options:

- > land mobile system
- ambulatory station
- ambulatory system
- > citizen band radio service (CBRS) repeater
- PABX cordless telephone service
- paging system
- wireless audio system
- harmonised government spectrum area (HGSA).

A land mobile system licence authorises communications between base stations and land mobile stations. Individual licences are not issued for mobile stations, remote control stations of one watt or less, standby base stations and supplementary base stations within the operating range of the main base station. All of these are considered to be part of a land mobile system.

Networks consisting only of mobiles may be licensed under the ambulatory system licensing option, or individual mobiles may be licensed under the ambulatory station option.

A CBRS repeater is a fixed station established for the reception and automatic retransmission of citizen band (CB) radio signals.

Wireless PABX services using CT3 technology in the 857-861 MHz band are licensed under the PABX cordless telephone service option. Handsets are authorised under a class licence.

A paging system licence facilitates the operation of portable receiving devices used to contact or convey messages to individuals.

A wireless audio system consists of more than one wireless audio transmitter that uses assigned frequencies in the 520-694 MHz frequency range, has an emission bandwidth greater than 100 kHz and operates at a power not exceeding 250 mW EIRP. Wireless audio transmitters that do not meet these specifications are authorised under the Radiocommunications (Low Interference Potential Devices) Class Licence 2000.

A HGSA Licence can be issued to a suitable representative of a state or territory, which authorises the use of land mobile stations throughout the relevant state or territory in one or more segments of the HGS in the 400 MHz band.

Major coast receive

The major coast receive licence is issued for stations:

- > that are used on land principally for receiving messages transmitted by maritime ship stations
- > that are not capable of transmitting messages of any kind
- > that may be used for receiving messages transmitted by aircraft stations, land mobile stations and outpost stations
- > for which the ACMA or an AP undertakes coordination procedures to minimise interference to reception.

Maritime coast

A maritime coast licence is issued for stations that:

- > are operated on land principally for transmitting messages to, and receiving messages from, maritime ship stations
- > may communicate with land mobile stations, remotely located land stations and stations on an aircraft that are not aircraft stations
- > are operated on maritime frequencies.

Maritime coast licensing options:

- > limited coast:
 - limited coast assigned system
 - > limited coast marine rescue
 - limited coast non-assigned
 - major coast A >
 - major coast B. >

Major coast A stations are operated on maritime frequencies to provide a range of radiocommunications, including weather broadcasts, navigation warnings and telephone calls with vessels at sea.

Major coast B stations, in addition to services allowed in major coast A, may be used to transmit or receive public correspondence to ships, land mobile stations, remotely located land stations and stations on an aircraft that are not aircraft stations.

Limited coast stations are used to provide a range of safety-related radiocommunications facilities to vessels for purposes including maritime search and rescue, maritime recreational activities, port operations, professional fishing and other commercial maritime activities.

Limited coast marine rescue stations are used to provide a comprehensive emergency radiocommunications service to all vessels.

Maritime ship

A maritime ship licence is issued for a station that:

- > is operated on board a ship for communicating with:
 - > maritime coast stations; or
 - > on-board communication stations associated with the maritime ship station, whether or not those stations are operated on board ships
- > may include equipment that is in a survival craft of the ship
- > may include a mobile earth station on board the ship
- > operates on maritime frequencies
- > operates on maritime mobile-satellite frequencies or radiodetermination frequencies.

Maritime ship licensing options:

- > ship station class B assigned
- > ship station class B non-assigned
- > ship station class C assigned
- > ship station class C non-assigned.

The operation of 27 MHz and VHF marine equipment is authorised under the Radiocommunications (Maritime Ship Station 27 MHz and VHF) Class Licence 2001. Ship station class B licences are needed for marine MF/HF equipment. Ships subject to the *Navigation Act 1912* need ship station class C licences.

Outpost

An outpost licence is issued to authorise a station that operates in the MF or HF bands and is principally established:

- > to provide radiocommunications in a remote locality at which a connection to a telecommunications network operated by a carrier or carriage service provider is not provided
- if a connection to a telecommunications network operated by a carrier or carriage service provider is provided at the remote locality where the station is situated—to provide radiocommunications in the locality for the purposes of an emergency that involves:
 - > prejudice to the security or defence of Australia
 - > a serious threat to the environment

- > risk of injury to, or death of, persons
- > risk of damage to, or substantial loss of, property.

Outpost licensing options:

- > outpost assigned
- > outpost non-assigned.

The Royal Flying Doctor Service is the only organisation holding outpost assigned licences. Outpost non-assigned licences authorise licensees to communicate with these assigned stations.

Public telecommunications service

A public telecommunications service (PTS) licence is:

- (a) issued for a service that consists of one or more stations that are operated the provision of a public mobile telecommunications service
- (b) that authorises the operation of one or more stations, where:
 - (i) the licensed stations communicate with mobile stations
 - (ii) the mobile stations are ordinarily used for or in relation to the supply of a public mobile telecommunications service, but when used in conjunction with the licensed stations, do not involve the use of the mobile stations for or in relation to the supply of a public mobile telecommunications service.

PTS licensing option:

- > PMTS class B—a service that consists of two or more land stations that are operated under a PTS licence.
- > PMTS Class C—a service that consists of one or more stations that:
 - (a) are located on an aircraft
 - (b) are operated under a PTS licence
 - (c) are operated on a frequency, or frequencies, specified in a PTS licence.

Radiodetermination

A radiodetermination licence is issued for a station that uses the propagation properties of radio waves:

- > to determine the position, velocity or other characteristics of an object
- > to obtain information relating to those characteristics.

Use of radiodetermination frequencies by aircraft and maritime ship stations is authorised by the relevant aircraft and maritime ship licence. A separate radiodetermination licence is not required. This licence type is not appropriate for the demonstration or testing of equipment.

Body scanner licence is a radiodetermination licence that authorises the operation of one or more stations that are body scanners at an Australian international airport for the purpose of aviation security screening. Body scanner means a scanner that is capable of detecting metallic and non-metallic items on a person by using millimetrewave radio frequency technology.

Scientific

A scientific licence is issued for a station that is established only for the purpose of:

- > research into radiocommunications
- > investigation of radiocommunications
- > instruction in radiocommunications
- > demonstration of equipment
- > testing of equipment
- > radio propagation path testing.

A scientific licence is appropriate where radiocommunications equipment is only used for a purpose listed above and cannot be more appropriately licensed for long-term operation by another licence type.

Scientific licensing options:

- > scientific assigned
- > scientific non-assigned.

Space

A space licence is issued to authorise operation of a transmitter on a satellite. If a space licence authorises operation of a transmitter on a satellite, the operation of terrestrial receivers associated with the transmitter on the satellite are generally authorised by a class licence.

Space receive

A space receive licence is issued to authorise operation of a receiver on a satellite.

If a space receive licence authorises operation of a receiver on a satellite, the operation of terrestrial transmitters associated with the receiver on the satellite are generally authorised by a class licence.

Appendix C— Assigned licence tax formula

It is not necessary for licensees to use the tax formula to calculate their annual tax, as the 'annual licence tax (\$ per kHz)' tables in the divisions display the results of the formula for each licence type at every spectrum/geographic location, and include the normalisation factor. This means that licensees only need to refer to the tables in the applicable division, multiply the relevant figure by the bandwidth of their spectrum access (per kHz) and apply the low-power discount if necessary.

However, an explanation of the licence tax formula is provided below in the interests of transparency.

The annual tax is calculated by multiplying the factors listed below:

	Normalisation factor
	Bandwidth
x	Power
	Location weighting
	Adjustment factor
=	Annual tax

Normalisation factor (0.269834589464584)

The constant converts the relative spectrum values provided by the rest of the formula to an actual dollar figure. It is updated by CPI adjustments every year to keep licence taxes constant in real terms.

Bandwidth

Taxes also vary depending on the bandwidth within which a service is licensed to operate—see Appendix F for the applicable definition of bandwidth.

Power

The power factor allows a reduced tax for low-power spectrum accesses, which deny spectrum to other users over a small area. Spectrum accesses that are not low power have a power factor of one.

Low-power spectrum accesses permit the operation of one or more devices, each with a radiated power level of 8.3 watts EIRP or less, and designed for operation within a

radius of two kilometres.¹ These types of services pay one-tenth of the annual tax that would otherwise apply (subject to the minimum tax of \$39.57).

The low-power factor does not apply to point-to-point, point-to-multipoint above 960 MHz, point-to-multipoint system, television outside broadcast, or licences that attract a fixed fee. For these licensing options, there is weak correlation between the power level and the area over which spectrum is denied to other users.

Location weighting

There are 65 spectrum and geographic location combinations, which have each been assigned a location weighting. The location combinations reflect the density of services and demand for spectrum at different frequencies and geographic areas. Higher taxes in locations of higher density and demand encourage efficient spectrum use. See maps in Appendix F for precise area boundaries.

Table 31: Location weighting

	Geographic location				
Spectrum location	Australia- wide	High density	Medium density	Low density	Remote density
30 MHz and below	4.3150	4.3150	4.3150	4.3150	4.3150
>30 to 70 MHz	9.7470	3.8070	2.0250	0.4370	0.2180
>70 to 399.9 MHz	10.0000	4.1040	1.8780	0.4210	0.2100
>399.9 to 403 MHz	10.0000	5.6000	2.5620	0.4370	0.2180
>403 to 520 MHz	10.0000	7.4114	2.5620	0.4370	0.2180
>520 to 960 MHz	10.0000	5.6000	2.5620	0.4370	0.2180
>960 to 2,690 MHz	9.9850	2.2410	1.0360	0.5210	0.2600
>2,690 to 5,000 MHz	9.9740	1.8530	0.7510	0.6220	0.3110
>5.0 to 8.5 GHz	8.4210	1.5570	0.7250	0.3300	0.1600
>8.5 to 14.5 GHz	3.7110	1.3360	0.3160	0.0230	0.0110
>14.5 to 31.3 GHz	3.7110	0.9880	0.2170	0.0230	0.0110
>31.3 to 51.4 GHz	1.0120	0.5390	0.1170	0.0040	0.0020
Above 51.4 GHz	0.1000	0.0100	0.0100	0.0010	0.0010

¹ Local terrain clutter may reduce practicably achievable ranges to substantially less than a two-kilometre radius. Frequency re-use distances applicable to low power spectrum accesses are such that ranges will ultimately be interference limited to a maximum of approximately two kilometres.

Adjustment factor

There are five adjustment factors that modify the tax levels of some licensing options. This introduces the flexibility to vary taxes according to parameters that are not included in the tax formula.

Table 32: Adjustment factor

Division	Licensing option	Frequency/Note s	Adjustment factor
Division 1	Most licensing options		1
Division 2	Fixed point-to-point	Below 960 MHz (Note 1)	18.484115
		Above 960 MHz (Note 2)	0.436933
Division 3	Fixed point-to-multipoint	Below 960 MHz (Note 1)	73.93646
		Above 960 MHz (Note 2)	0.436933
Division 4	Licences in high demand frequency bands	(Note 3)	73.93646
	All services in the 403 to 520 MHz band except fixed television outside broadcast station (remote density areas)	If remote density area (Note 4)	0
Division 5	Television outside broadcast station (all geographic locations except high density areas)		0.513008
Division 5	Television outside broadcast station (high density areas)	(Note 5)	0.387624906495399

Note 1:

Previously, fixed services in bands below 960 MHz were charged a lower tax than land mobile services in Division 4, even if they occupied the same bands, albeit in different segments. This was because the original adjustment factors were set in 1995 when demand for fixed segments was lower. However, segments allocated for fixed services had become so congested that some licensees had been prepared to pay the much higher land mobile rate for access to adjacent land mobile spectrum. This meant that the OC of fixed channels was at least as high as the land mobile tax. Accordingly, the ACMA increased taxes for fixed point-to-point and point-to-multipoint licences below 960 MHz towards equivalence with land mobile taxes.

The licence type factor for point-to-point licences in bands below 960 MHz was set at a lower level than for point-to-multipoint licences as they involved relatively efficient use of spectrum by virtue of the directionality of their transmissions.

Note 2:

The factor for both fixed point-to-point and point-to-multipoint licences above 960 MHz was similar and was set below one as these services involved relatively efficient use of spectrum.

Note 3:

Taxes for services operating in high demand bands below 960 MHz (such as narrowband area service, point-to-multipoint system, point-to-multipoint land mobile spectrum and most land mobile licensing options) were given a high adjustment factor.

This adjustment factor reflects the introduction of OC principles in the remote density areas of the 400 MHz band. These licences in remote density areas remain subject to the minimum annual tax (\$39.57).

Note 5:

This adjustment factor ensures that the second increment towards opportunity cost in the high-density areas of the 400 MHz band implemented in this update does not apply to television outside broadcast station services.

Appendix D— Administrative charges

There are three kinds of administrative charges:

- 1. issue
- 2. renewal
- 3. instalment charges.

Charges apply per spectrum access for assigned licences, and per licence for nonassigned licences.

Issue charge

For assigned licences, there is an issue charge for each spectrum access, which covers the direct costs incurred by the ACMA in issuing the licence (the major cost of which is the frequency assignment task).

The issue charge is also payable when the ACMA carries out the assessment for a spectrum access, but does not issue it. This may occur when there is no suitable frequency available at the site nominated by the applicant.

An AP may also perform the frequency assignment task and provide a client with a frequency assignment certificate. The ACMA will then issue a licence. This incurs a smaller issue charge (see Division 9).

Most non-assigned licences attract a standard issue charge.

Renewal charge

For assigned licences, a renewal charge of \$4 is payable for each chargeable spectrum access. If a renewal request for an assigned licence is not received by 60 days after the expiry of the old licence, the frequency assignment and call sign become available for assignment to other services. Applications are required for a new issue of the licence, and the issue of a new licence depends on whether the frequency is still available. A new issue charge will be payable.

The renewal charge for non-assigned licences is \$4 per licence. If a renewal request for a non-assigned licence is not received by 60 days after the expiry of the old licence, applications for a new issue of the licence are required and new issue charges will be payable.

Instalment charge

Where a licence is taken out for more than a year, a licensee can choose to pay the tax by annual instalment. Instalments for assigned licences will incur a charge of \$4 per chargeable spectrum access; for non-assigned licences, the instalment charge is \$4 per licence.

If payment is not received by the instalment date, the licensee will become liable for penalty interest on the unpaid tax amount. If payment is not received within 60 days of the instalment date, the licensee loses the right to pay by instalments, and will become liable to pay all remaining instalments plus the penalty interest.

A multi-year licence holder can elect to pay the full licence fee upfront. If the licensee initially elects to pay by instalment, but later chooses to pay the balance owing for the remaining licence period as a lump sum, he or she will be exempt from any further instalment charges.

Appendix E— Exemptions, concessions and refunds

Exemptions

Provision for exemptions is made under regulation 5 of the Radiocommunications Taxes Collection Regulations and under the Radiocommunications (Charges) Determination 2017.

Licence fee exemptions provide relief from the payment of the annual licence tax and administrative charges to licensees who fulfil the prescribed requirements. Licence fee exemptions apply to:

- > diplomatic and consular missions
- > bodies, the principal purpose of which is to provide surf life-saving and remote area ambulance services
- > bodies, the principal purpose of which is to provide emergency services or services for the safe-guarding of human life—including rural fire fighting, search and rescue and coast guard services—where the body is staffed principally by volunteers and is exempt from paying income tax.

Concessions

Provision for concessions is made under the Radiocommunications (Transmitter Licence Tax) Determination 2015. Licence fee concessions only apply to:

- > the Royal Flying Doctor Service
- > the narrowcasting service licensing option of the broadcasting licence type, where the person proposes to operate the station solely to provide open narrowcasting television services for community and educational non-profit purposes.

The amount charged for licences fulfilling one of these criteria is 28.5 per cent of the annual licence tax.

Applying for an exemption or concession

An applicant is required to attach a completed application for licence fee exemption or concession form to each licence application, as the exemption does not apply to the client but to individual licences.

If the request for exemption or concession covers a number of licences at the same time, then it is not necessary to submit separate requests for each licence. One form can cover multiple licences in the one application. The ACMA will assess each licence to confirm that it accords with the requirements for exemption or concession.

On licence renewal, the exemption or concession will continue so long as the licensee provides written confirmation that their circumstances have not changed.

Refunds on surrender of licence

When a licensee surrenders a licence before the expiry date, they may be entitled to a pro-rata refund of the tax paid for the licence. However, refunds of less than \$30 are not payable.

Refundable amount = $\underline{\text{Licence tax paid x no. of days remaining until expiry}}$ Licence term (days)

Appendix F— Bandwidth definition and maps

Applicable definition of bandwidth

The word 'bandwidth' used in the transmitter or receiver licence tax determination is interpreted so that spectrum is priced on the amount of bandwidth denied to other services.

As a guide:

- > Where only one channel spacing is specified by a relevant frequency band plan or by relevant administrative arrangements (Note 1), the greater (Note 2) of:
 - that channel spacing; or
 - the necessary bandwidth (Note 3) of the emission.
- Where two or more channel spacing (for example, a maximum channel spacing and subdivisions of it) are specified by a relevant frequency band plan or by relevant administrative arrangements (Note 1):
 - in the case of the necessary bandwidth of the emission not exceeding the maximum specified channel spacing, the smallest specified channel spacing that is greater than, or equal to, that necessary bandwidth; or
 - in any other case, the necessary bandwidth of the emission.
 - For example: if a relevant frequency band plan or administrative arrangement specified a channel spacing of 28 MHz, 14 MHz or 7 MHz, and the necessary bandwidth of the emission was 10 MHz, the channel bandwidth of the emission would be 14 MHz. If instead, the necessary bandwidth was 30 MHz, that is, exceeding the maximum channel spacing, the channel bandwidth would be 30 MHz.
- Where no such relevant frequency band plan or administrative arrangements exist:
 - in the case of equipment designed or intended for operation on one or more channel spacings, the smallest channel spacing that is greater than, or equal to, the necessary bandwidth of the emission; or
 - in any other case, the necessary bandwidth of the emission.

Note 1: That is, 'relevant' in the sense that the plan or arrangements are applicable to the original assignment of the frequency authorised by the licence. Where a transition period is allowed for the introduction of a new frequency band plan, the old band plan may apply to the original assignment of the frequency that the licence authorises. (A frequency band plan may be prepared by the ACMA under section 32 of the Radiocommunications Act 1992.)

Note 2: Use of necessary bandwidth greater than the channel spacing specified in the relevant frequency band plan would generally not be allowed. However, it may be allowed by section 104 of the Radiocommunications Act 1992 in limited situations.

Note 3: The term 'necessary bandwidth' (referred to in the above definition) is defined in accordance with Article s1.152 of the International Telecommunication Union (ITU) Radio Regulations as 'the width of the frequency band which is just sufficient to ensure the transmission of information at the rate and with the quality required under specified conditions' for a given class of emission.

Geographic area maps

The following pages show maps and coordinates for each area.

High density:

Sydney/Wollongong Melbourne/Geelong Brisbane/Gold Coast

Medium density

Perth Adelaide Newcastle

Low density

East Australia low-density area
Western Australia low-density area
Tasmania low-density area
Darwin low-density area

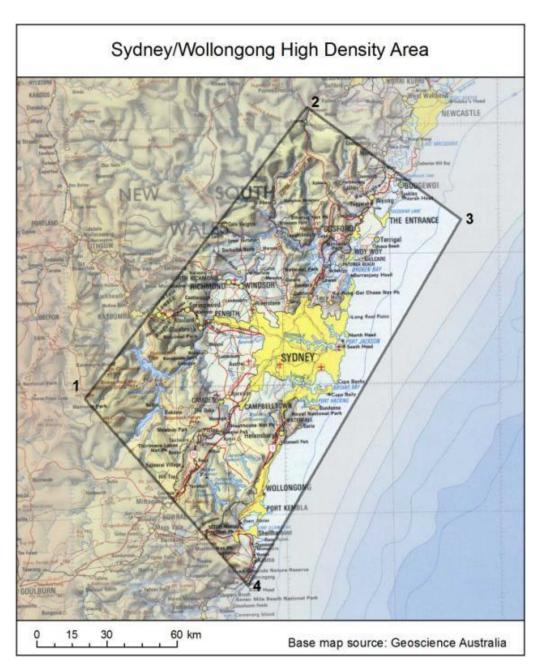
Remote density

Elsewhere

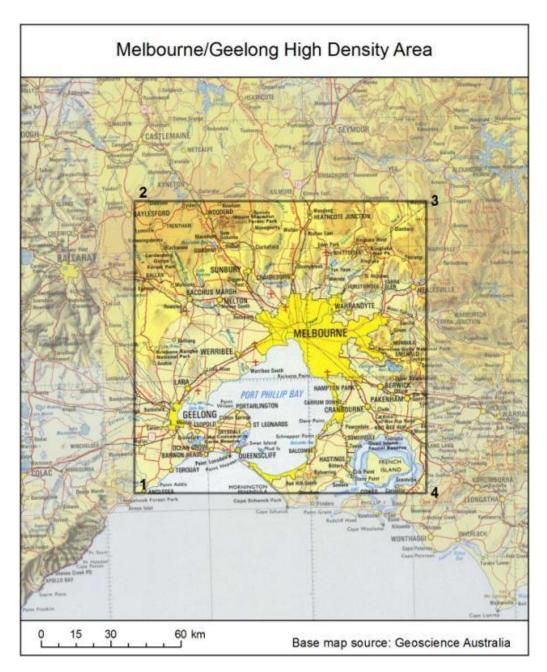
Australia-wide

An assigned apparatus licence authorising Australia-wide operation:

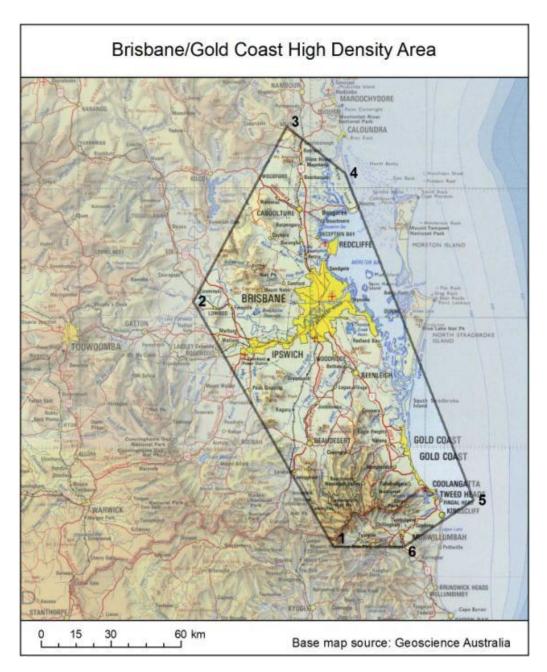
- authorises operation on a transitory basis at any place in Australia, but normally only authorises operation in an external territory of Australia where frequency coordination is undertaken for that territory
- > does not normally authorise exclusive use of a frequency
 - frequencies assigned for Australia-wide use are normally assigned on a shared basis with other licensees because of the shortage of available spectrum
- > only authorises the operation of one station, system or service
 - under present licensing arrangements, each separate station, system or service will require a separate licence (for example, an Australia-wide land mobile licence authorising a land mobile system would not authorise simultaneous operation in Adelaide and Perth, as this would constitute two separate land mobile systems, with the licence for each system attracting the relevant tax for a medium-density geographic area)
 - in the case of a system of hand-held equipment authorised by a Land Mobile (Ambulatory System) Licence, operations between groups of units at multiple locations throughout Australia is permitted
- > generally requires that operation is on a 'no interference, no protection' basis
 - > this condition is normally specified on an Australia-wide licence, given that Australia-wide frequency coordination is likely to be impracticable
- > requires frequency coordination of stations for each operational location, where it authorises the operation of land stations (including those for land mobile systems)
 - for other than short-term use, it is necessary to undertake frequency coordination at each operational location to minimise interference to radiocommunications
- > does not guarantee that the licensee will be able to operate at any site in particular.



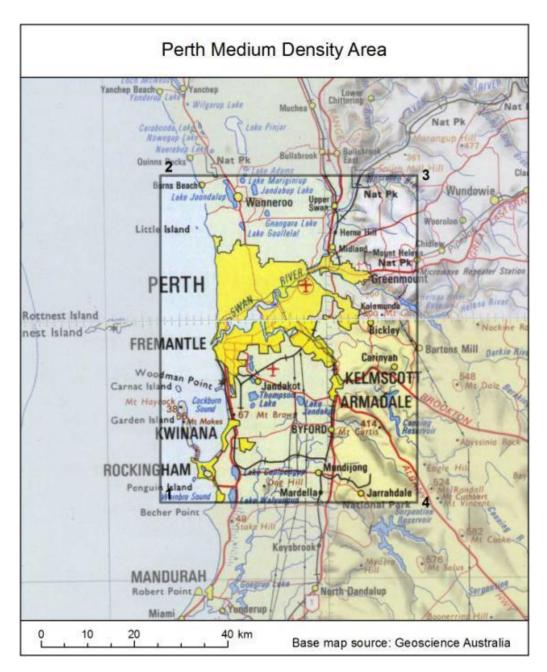
Point number	Zone	Easting	Northing
1	56	230000	6230000
2	56	325000	6355000
3	56	391000	6307000
4	56	300000	6150000



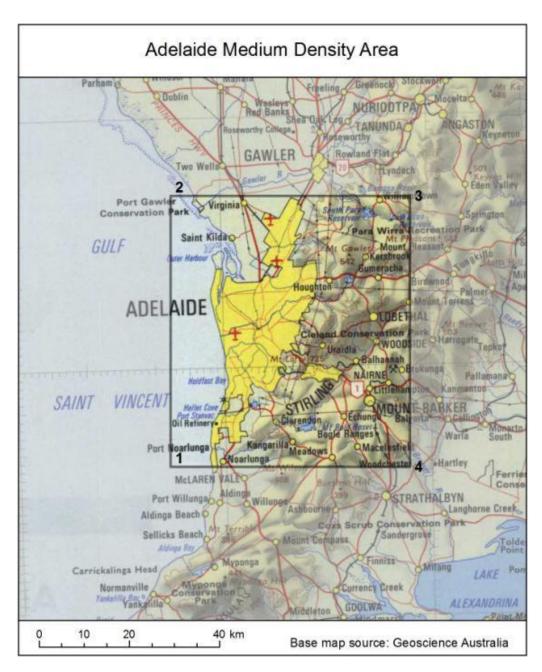
Point number	Zone	Easting	Northing
1	55	250000	5743000
2	55	250000	5868000
3	55	375000	5868000
4	55	375000	5743000



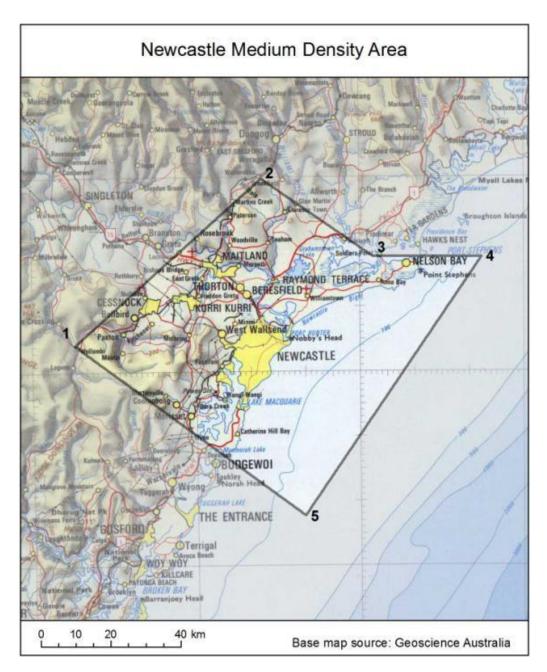
Point number	Zone	Easting	Northing
1	56	510000	6860000
2	56	450000	6965000
3	56	490000	7040000
4	56	515000	7020000
5	56	570000	6880000
6	56	540000	6860000



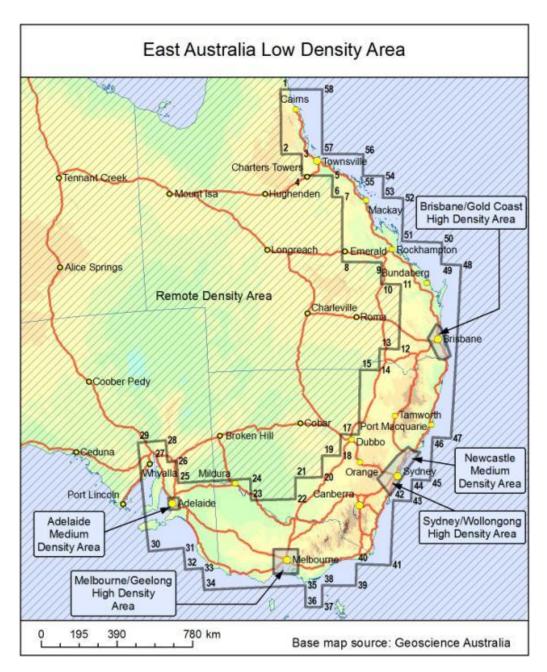
Point number	Zone	Easting	Northing
1	50	370000	6420000
2	50	370000	6490000
3	50	425000	6490000
4	50	425000	6420000



Point number	Zone	Easting	Northing
1	54	260000	6102250
2	54	260000	6162250
3	54	313000	6162250
4	54	313000	6102250

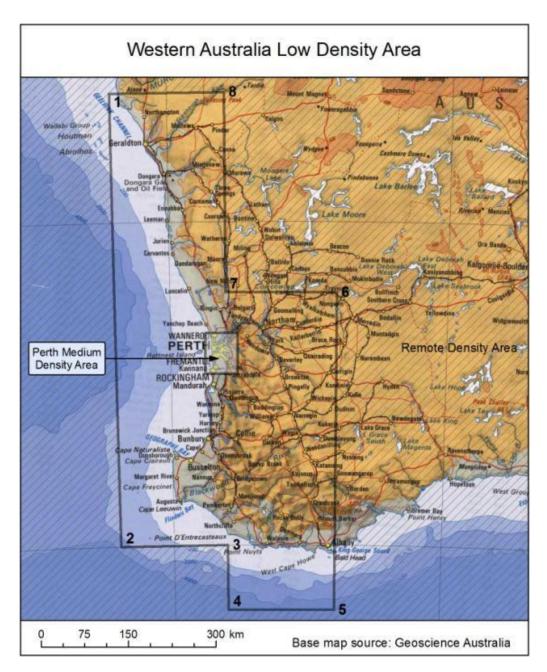


Point number	Zone	Easting	Northing
1	56	325000	6355000
2	56	378000	6403000
3	56	410000	6381000
4	56	441000	6381000
5	56	391000	6307000

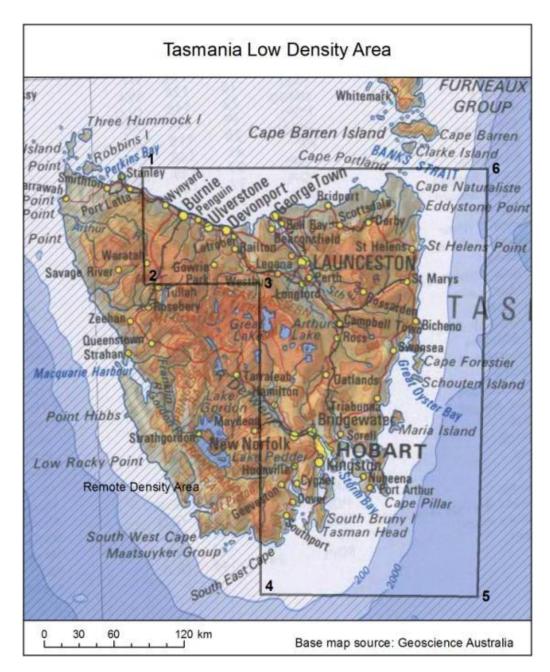


Point number	Zone	Easting	Northing
1	55	285979	8230029
2	55	289466	7897969
3	55	394745	7898866
4	55	395390	7788199
5	55	552303	7788433
6	55	551965	7677763
7	55	603933	7677519
8	55	601715	7345403
9	56	194772	7342512
10	56	197180	7231690
11	56	298153	7233553

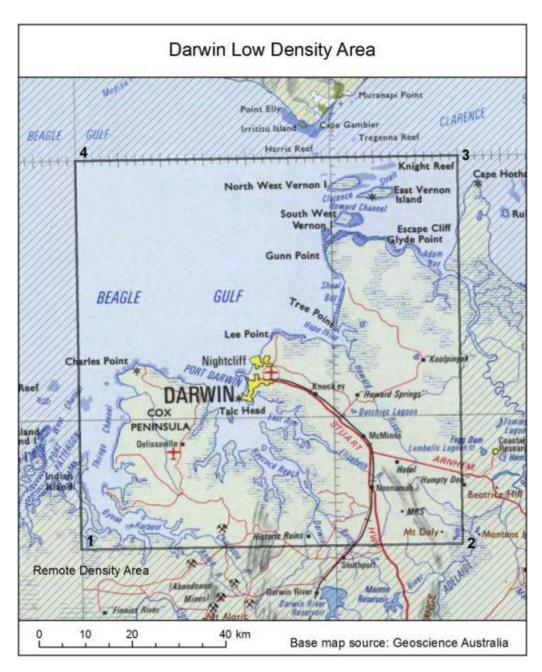
Point number	Zone	Easting	Northing
12	56	303332	6901175
13	56	204955	6899158
14	56	207728	6788292
15	55	694822	6790354
16	55	688928	6457804
17	55	594458	6459115
18	55	593418	6348256
19	55	500000	6348700
20	55	500000	6237831
21	55	361472	6236817
22	55	363117	6125916
23	54	682517	6125116
24	54	684711	6236028
25	54	315289	6236028
26	54	313152	6346924
27	54	266429	6345924
28	54	263828	6456821
29	53	688928	6457804
30	53	677963	5903244
31	54	322037	5903244
32	54	324396	5792283
33	54	412201	5793699
34	54	413407	5682733
35	55	413407	5682733
36	55	414639	5571749
37	55	500000	5572227
38	55	500000	5683208
39	55	673192	5681306
40	55	675604	5792283
41	56	324396	5792283
42	56	317483	6125116
43	56	408746	6126487
44	56	407650	6237380
45	56	500000	6237831
46	56	500000	6459552
47	56	594458	6459115
48	56	601715	7345403
49	56	500000	7345764
50	56	500000	7456471
51	56	295007	7455073
52	56	292110	7676544
53	56	188106	7674916
54	56	186073	7785698
55	55	709244	7787262
56	55	710534	7897969
57	55	500000	7899165
58	55	500000	8231059



Point number	Zone	Easting	Northing
1	50	204955	6899158
2	50	226201	6122830
3	50	408746	6126487
4	50	409871	6015575
5	50	590129	6015575
6	50	595369	6559624
7	50	404620	6559624
8	50	401674	6902384



Point number	Zone	Easting	Northing
1	55	373275	5493447
2	55	374996	6393531
3	55	473608	5394569
4	55	474609	5128061
5	55	660350	5126166
6	55	668969	5492606



Point number	Zone	Easting	Northing
1	52	662841	8590035
2	52	744293	8589447
3	52	744992	8672441
4	52	663306	8672997

Appendix G— Estimating population—Use of the hierarchical cell identification scheme (HCIS)

The Radiocommunications (Transmitter Licence Tax) Determination 2015 (the Tax Determination) sets out the assigned apparatus licences that are subject to an annual apparatus licence tax. An annual apparatus licence tax is payable by holders of Public Mobile Telecommunications Service Class B (PMTS Class B) licences as specified in the Tax Determination. This appendix describes the methodology for determining the population of geographic areas for the purpose of the Tax Determination, where the ACMA uses the HCIS framework to define the geographic area.

The ACMA is using the HCIS framework to determine the population of an area for the purposes of calculating the tax payable for PMTS Class B licences. HCIS identifiers are used to describe the relevant geographic area applicable to a licence.

The HCIS is a naming convention developed by the ACMA that applies unique labels to each five minute of arc square cell (ASMG cell) in the Australian Spectrum Map Grid 2012 (ASMG), derived from the cell's position in a hierarchically-arranged grouping of cells. The hierarchy has four levels—the smallest level being HCIS Level 1 for the five minute of arc square cells (approximately 9 km x 9 km) and the largest being HCIS Level 4 (approximately 330 km x 330 km).²

To determine the population of a geographic area, the ACMA has published, for licensees, the Hierarchical cell identification scheme (HCIS)—List of population data (Population document).3 The Population document identifies each ASMG cell and ASMG block (a grouping of ASMG cells) by its HCIS identifier and lists the corresponding population.

The population figures listed in the Population document have been calculated by reference to the population estimates and dispersion reported in the 2011 Census.⁴

The first step in calculating the total population of the HCIS area is to identify the geographic area specified in the PMTS Class B licence by reference to the HCIS identifiers for the HCIS cells and HCIS blocks that constitute the geographic area. It is strongly recommended that the licensee review Part 7A of the Tax Determination to consider the appropriate geographic area to be included in the calculation of the tax. It is noted that the minimum geographic area is based on the HCIS Level 2 block.

The licensee must then use the Population document to calculate the total population applicable to the licence by determining the sum of the population of the HCIS blocks.

² Further information about the ASMG and the HCIS scheme is provided at www.acma.gov.au/Industry/Spectrum/Radiocomms-licensing/Spectrum-licences/spectrum_23.

³ The Population document is available on the ACMA website at www.acma.gov.au/theACMA/About/Making-payments/Apparatus-licence-fees/apparatus-licence-fees-acma.

⁴ The census is the Census of Population and Housing conducted by the Australian Bureau of Statistics (ABS). The 2011 Census data can be accessed on the ABS website at www.abs.gov.au.

Using the HCIS to Placemark Converter

To further assist licensees, the ACMA has also developed an electronic database, the HCIS to Placemark Converter.

The HCIS to Placemark Converter⁵ converts the HCIS identifiers specified in the licence to a placemark on the ASMG. The placemark is generated using the HCIS to KML converter. The HCIS to Placemark Converter will display the geographic area for a licensee, represented as a map (placemark), which is identified in the licence by reference to the HCIS identifiers for the area.

The population estimate for the placemark generated using the converter is available by viewing the description of the 'Geographic area for HCIS description' feature in the displayed placemark. The population estimate displayed using the placemark converter is based on the population data in the Population document. The population determined using the Population document and the population displayed using the placemark converter will be the same for a geographic area. Licensees can use the placemark converter to verify population calculations made using the Population document.

Geographic Information System (GIS) software is used to identify the location of an ASMG cell or ASMG block within the ASMG by using a 'point-in-polygon' guery.

ASMG boundary data, including HCIS labels, is available on the ACMA website in Shapefile format for use with GIS software:

- GDA94 datum (ZIP archive)
- AGD66 datum (ZIP archive).

Please note that an application capable of displaying placemarks (also known as KML files) will be required to use the ACMA's HCIS to Placemark Converter database. The HCIS to Placemark Converter webpage also contains instructions on how to use the converter.

⁵ The HCIS to Placemark Converter is an electronic database published by the ACMA, which allows the conversion of HCIS identifiers to geographic locations (placemarks) on the ASMG.

Appendix H— Contact information

For licensing enquiries, contact the ACMA on:

Telephone: 1300 850 115 Website: www.acma.gov.au Email: info@acma.gov.au

Mail:

Canberra office PO Box 78 Belconnen ACT 2616

Melbourne office PO Box 13112 Law Courts Melbourne Vic 8010

Sydney office PO Box Q500 Queen Victoria Building NSW 1230