

Technical licence conditions

A1.1 Table A3 below sets out detailed TLCs for the spectrum available for future PMSE access. It also describes any restrictions that apply, whether temporal, geographic or operational.

Table A3. TLCs for spectrum available for future PMSE access

Band	Frequency (MHz)	Maximum in-band power (ERP)	BEM	Apparatus/restrictions	Airborne
1	47.55-48.8	25 W	8	On a non-interference basis to continental broadcasting.	
2	52-52.95	25 W	8	On a non-interference basis to continental broadcasting.	
3	53.75-55.75	5 W	9	On a non-interference basis to continental broadcasting. Within 55-55.75 MHz, subject to alternative use by non-PMSE on a case by case basis.	
4	60.75-62.75	5 W	9	On a non-interference basis to continental broadcasting. Use for audio distribution services is subject to non-interference to PMSE use and no protection from PMSE use.	
5	67.75-67.8375	25 W	1		
6	69.15625-69.18125	25 W	1	Two channels: 69.16250 MHz and 69.17500 MHz duplex with 82.66250 MHz and 82.67500 MHz.	
7	74.68125-74.71875	25 W	1		
8	75.2625-75.3	25 W	1		
9	75.2625-75.3	5 W	3	Airborne use until equipment reaches the end of its current life. Maximum altitude permitted 2,000 feet above ground level. These transmissions on a non-interference and unprotected basis.	Yes
10	76.80625-76.84375	25 W	1		
11	78.18375-78.25875	25 W	11	No transmissions allowed within the bands 78.18375-78.19625 MHz in West Wales and 78.51875-78.53125 MHz in the Outer Hebrides.	
12	82.65625-82.68125	25 W	1	Two channels: 82.66250 MHz and 82.67500 MHz duplex with 69.16250 MHz and 69.17500 MHz.	
13	86.66875-86.68125	25 W	1	Only in Wales and west England.	
14	86.80625-86.84375	25 W	1		

Band	Frequency (MHz)	Maximum in-band power (ERP)	BEM	Apparatus/restrictions	Airborne
15	86.80625-86.81875	5 W	3	Not available over eastern Kent (greater than 100 km from Charing Cross within the southeast quadrant). Maximum altitude 2,000 feet above ground level. Subject to review.	Yes
16	139.54375-139.55625	10 W	2	Guernsey only.	
17	139.56875-139.58125	10 W	2	Jersey only.	
18	139.64375-139.66875	10 W	2	Only in the Channel Islands.	
19	140.9875-141	25 W	1	London area only. Base transmitter sites Kent House and NTL Croydon.	
20	141-141.4875	25 W	11	141-141.0125 MHz, 141.0875-141.1125 MHz and 141.2625-141.2875 MHz only in Northern Ireland and north of a line from Troon (NS 330 280) to Dunbar (NT 710 770). Not available in the Channel Islands.	
21	141-141.4875	5 W	12	141-141.0125 MHz, 141.0875-141.1125 MHz and 141.2625-141.2875 MHz not available. Maximum altitude 2,000 feet above ground level. Not available in the Channel Islands.	Yes
22	148.5625-148.5875	10 W	5	Channel Islands only.	
23	148.7125-148.7375	10 W	5	Channel Islands only.	
24	175.15-175.35	50 mW	14	On a non-interference basis to broadcasting. May be subject to interference from continental broadcasting. Not available in Northern Ireland.	
25	175.425-175.625	50 mW	14	These frequencies may be used anywhere within the UK except in Northern Ireland on a non-interference basis to broadcasting. May be subject to interference from continental broadcasting.	
26	176.3-176.5	50 mW	14	These frequencies may be used anywhere within the UK except in Northern Ireland on a non-interference basis to broadcasting. May be subject to interference from continental broadcasting.	
27	176.5-176.7	50 mW	14	These frequencies may be used anywhere within the UK except in Northern Ireland on a non-interference basis to broadcasting. May be subject to interference from continental broadcasting.	

Band	Frequency (MHz)	Maximum in-band power (ERP)	BEM	Apparatus/restrictions	Airborne
28	176.7-176.9	50 mW	14	These frequencies may be used anywhere within the UK on a non-interference basis to broadcasting. May be subject to interference from continental broadcasting.	
29	176.9-177.1	50 mW	14	These frequencies may be used anywhere within the UK except in Northern Ireland on a non-interference basis to broadcasting. May be subject to interference from continental broadcasting.	
30	181.69375-181.80625	25 W	1	On a non-interference basis to broadcasting.	
31	184.5-185.2	50 mW	14	On a non-interference basis to broadcasting.	
32	189.69375-189.80625	25 W	1	On a non-interference basis to broadcasting.	
33	191.6-191.8	1 W	6	Links on a non-interference basis to broadcasting. Emissions must be vertically polarised.	
34	191.8-192	50 mW	14	On a non-interference basis to broadcasting. May be subject to interference from continental broadcasting.	
35	192-193.2	50 mW	14	May be subject to interference from continental broadcasting.	
36	199.6-200.2	1 W	6	Maximum ERP of 100 mW in southeast England and the Channel Islands. Transmissions must be vertically polarised. On a non-interference basis to/from broadcasting.	
37	200.2-201.2	50 mW	14	On a non-interference basis to broadcasting. May be subject to interference from continental broadcasting.	
38	207.6-210.2	50 mW	14	On a non-interference basis to broadcasting. May be subject to interference from continental broadcasting.	

Band	Frequency (MHz)	Maximum in-band power (ERP)	BEM	Apparatus/restrictions	Airborne
39	425.3125-425.5625	25 W	7	Five contiguous 50 kHz channels are available, centred on 425.3375 MHz, 425.3875 MHz, 425.4375 MHz, 425.4875 MHz and 425.5375 MHz. For use in Bristol, Bournemouth, Dorchester, Newport (Isle of Wight), Portsmouth, Southampton and Weymouth only. A maximum of two channels may be used at each location. On a non-interference basis to MOD use within 50 km of Aberporth (SN 247 518) and Hebrides (NF 781 406).	
40	427.7625-428.0125	25 W	10	Not available within 50 km of Aberporth (SN 247 518).	
41	442.2625-442.5125	25 W	10	442.36875-442.38125 MHz not available within 30 km of Northolt (TQ 099 846).	
42	446.425-446.5125	5 W (25 W: see restrictions)	13	5 W available throughout the UK. 25 W within M25. On a non-interference basis to 12.5 kHz base station of Babcock Support Services Ltd (SU 622 660) at 446.45 MHz.	
43	446.5125-447.5125	25 W	10	446.60625-446.61875 MHz not available within 30 km of TQ 295 794, SO 915 223, TA 005 845 and SS 215 500. 446.7125-446.7375 MHz not available within 30 km of SD 385 365. Preemptible by the MOD on two weeks' notice.	
44	454.9875-455.4625	25 W	1		
45	454.9875-455.4625	5 W	13	Airborne use restricted to a maximum height of 2,000 feet above ground level.	Yes
46	457.25-457.475	25 W	1	Power commensurate with minimum operational requirements.	
47	457.25-457.475	100 mW	4	Power commensurate with minimum operational requirements. Airborne use restricted to a maximum height of 2,000 feet above ground level.	Yes
48	461.23125-461.25625	25 W	1	Power commensurate with minimum operational requirements.	
49	461.23125-461.25625	5 W	3	Power commensurate with the minimum operational requirements. Airborne use restricted to a maximum height of 2,000 feet above ground level.	Yes
50	462.75-463	25 W	1	Power commensurate with minimum operational requirements.	

Band	Frequency (MHz)	Maximum in-band power (ERP)	BEM	Apparatus/restrictions	Airborne
51	462.75-463	100 mW	4	Power commensurate with minimum operational requirements. Airborne use restricted to a maximum height of 2,000 feet above ground level.	Yes
52	467.2625-469.875	25 W	10	On a non-interference basis to broadcasting in channel 21. Power commensurate with minimum operational requirements. 467.5125-467.5875 MHz not available within 16 km of the coast.	
53	467.2625-469.875	100 mW	4	On a non-interference basis to broadcasting in channel 21. Power commensurate with minimum operational requirements. Airborne use restricted to a maximum height of 2,000 feet above ground level. 467.5125-467.5875 MHz on a non-interference basis to the marine service and not available within 16 km of the coast.	Yes
54	470-550	5 W	3	On a non-interference basis to broadcasting. 542-550 MHz not available in the Cardiff area.	
55	550-582	5 W	3	On a non-interference basis to broadcasting. Available on a temporary basis until the end of DSO in 2012.	
56	582-590	25 W	1	On a non-interference basis to broadcasting. Available on a temporary basis until the end of DSO in 2012.	
57	590-598	50 mW	14	Available on a temporary basis on 12 months' notice or until the end of DSO in 2012, whichever is the sooner.	
58	598-606	5 W	3	On a non-interference basis to broadcasting. Available on a temporary basis until the end of DSO in 2012.	
59	606-614	50 mW	14	Before 21 September 2011: on a non-interference basis to radioastronomy. Use allowed except in agreed protection zones as set out on JFMG's website. ¹ From: 21 September 2011: available UK-wide on a non-interference basis to broadcasting in adjacent band. Refer to the JFMG website for further details.	

¹ www.jfmg.co.uk/JfmgEcom/Wireless/Public/MicrophoneSh600.aspx.

Band	Frequency (MHz)	Maximum in-band power (ERP)	BEM	Apparatus/restrictions	Airborne
60	614-790	5 W	3	On a non-interference basis to broadcasting. 758-766 MHz not available in the Manchester area.	
61	790-854	5 W	3	On a non-interference basis to broadcasting. Available on a temporary basis until at least 1 July 2012 and in London, northeast England and Northern Ireland until at least 1 October 2012.	
62	854-856	25 W	1	On a non-interference basis to broadcasting in channels 68, 64 and 60. Available on a temporary basis until at least 1 July 2012 and in London, northeast England and Northern Ireland until at least 1 October 2012.	
63	854-856	50 mW	14	On a non-interference basis to broadcasting in channels 68, 64 and 60. Available on a temporary basis until at least 1 July 2012 and in London, northeast England and Northern Ireland until at least 1 October 2012.	Yes
64	856-858.75	5 W	20	On a non-interference basis to broadcasting and in-band military services. All primary transmissions to be contained within the band. For audio links, directional antennas to be used with a maximum gain of 7 dB. Available on a temporary basis until at least 1 July 2012 and in London, northeast England and Northern Ireland until at least 1 October 2012.	
65	858.75-859.75	50 mW	14	On a non-interference basis to broadcasting and in-band military services. All primary transmissions to be contained within the band. Band available on a temporary basis until at least 1 July 2012 and in London, northeast England and Northern Ireland until at least 1 October 2012.	
66	859.75-862	25 W	8	On a non-interference basis to broadcasting in channels 68, 64 and 60. Available on a temporary basis until at least 1 July 2012 and in London, northeast England and Northern Ireland until at least 1 October 2012.	
67	1517-1525	20 dBW	18	Antenna restrictions apply: 1517.25 MHz (horizontal polarisation), 1517.75 MHz (vertical polarisation). 1518-1525 MHz available until further notice by agreement with us.	

Band	Frequency (MHz)	Maximum in-band power (ERP)	BEM	Apparatus/restrictions	Airborne
68	1785-1800	50 mW	19	Not available in Northern Ireland. 1790-1798 MHz on a secondary basis to Home Office links.	
69	2025-2070	20 dBW	15	Not available within 5 km of Bude (SS 255 116) and Menwith Hill (SE 205 594).	
70	2025-2070	13 dBW	15	Not available for airborne use (i) in the airspace volume described by $\pm 1^\circ$ of elevation from the geostationary arc (for elevation of 4° or more) of an earth station within 5 km radius of Bude (SS 255 116) and Menwith Hill (SE 205 594) or (ii) within 5 km of Bude (SS 255 116) and Menwith Hill (SE 205 594). No protection from, or interference to, tactical radio relay.	Yes
71	2070-2110	20 dBW	15	Not available within 5 km of Bude (SS 255 116) and Menwith Hill (SE 205 594).	
72	2070-2110	13 dBW	15	Not available for airborne use (i) in the airspace volume described by $\pm 1^\circ$ of elevation from the geostationary arc (for elevation of 4° or more) of an earth station within 5 km radius of Bude (SS 255 116) and Menwith Hill (SE 205 594) or (ii) within 5 km of Bude (SS 255 116) and Menwith Hill (SE 205 594).	Yes
73	2200-2290	20 dBW	15	Not available within an exclusion zone of 8 km radius of Oakhanger (SU 815 345) and Harrogate (SE 203 577). 16 km coordination zone around Oakhanger (SU 815 345). Subject to non-interference basis to space science services.	
74	2200-2290	13 dBW	15	Not available for airborne use (i) in the airspace volume described by $\pm 1^\circ$ of elevation from the geostationary arc (for elevation of 4° or more) of an earth station within 5 km radius of Bude (SS 255 116) and Menwith Hill (SE 205 594), (ii) within 5 km of Bude (SS 255 116) and Menwith Hill (SE 205 594), (iii) within an exclusion zone of 64 km/1,000 feet above ground level around Aberporth (SN 247 518), Hebrides (NF 781 406) and St Kilda (NF 094 987) or (iv) within 48 km or an exclusion zone of 64 km/1,000 feet above ground level of Oakhanger (SU 815 345).	Yes
75	2290-2300	0 dBW	15		

Band	Frequency (MHz)	Maximum in-band power (ERP)	BEM	Apparatus/restrictions	Airborne
76	2390-2410	40 dBW	16	Not available within an exclusion zone of 5 km radius around Bude (SS 205 126), Menwith Hill (SE 209 561), Manorbier (SS 074 967) and Hebrides (NF 781 406).	
77	2410-2450	40 dBW	16	Not available within an exclusion zone of 5 km radius around Bude (SS 205 126), Menwith Hill (SE 209 561), Aberporth (SN 247 518), Shoeburyness (TQ 949 857), Eskmeals (SD 070 930), Pendine Sands (SN 252 087), Fort Halstead (TQ 497 600), Farnborough (SU 850 544), Hurn (SZ 083 982), Chertsey (TQ 497 166) and Copehill Down (Salisbury Plain) (SU 065 455).	
78	2410-2450	20 dBW	16	Not available for airborne use (i) in the airspace volume described by $\pm 1^\circ$ of elevation from the geostationary arc (for elevation of 4° or more) of an earth station within 5 km radius of Bude (SS 255 116) and Menwith Hill (SE 205 594), (ii) within 5 km of Bude (SS 255 116), Menwith Hill (SE 205 594), Copehill Down (Salisbury Plain) (SU 065 455), Eskmeals (SD 070 930), Pendine Sands (SN 252 087), Fort Halstead (TQ 497 600), Farnborough (SU 850 544), Hurn (SZ 083 982) and Chertsey (TQ 497 166) or (iii) within an exclusion zone of 64 km/1,000 feet above ground level from Aberporth (SN 247 518) and Shoeburyness (TQ 949 857).	Yes
79	2450-2470	40 dBW	16	Not available within a 5 km radius of Bude (SS 205 126) and Menwith Hill (SE 209 561). Maximum power for digital links is 20 dBW.	
80	2450-2470	23 dBW (13 dBW: see restrictions)	16	Maximum power for digital links is 20 dBW. Not available for airborne use within 5 km of Bude (SS 255 116) and Menwith Hill (SE 205 594) and in the airspace volume described by $\pm 1^\circ$ of elevation from the geostationary arc (for elevation of 4° or more) of an earth station within 5 km radius of these two sites. Airborne use restricted to a maximum height of 5,000 feet above ground level. Airborne use not to exceed 13 dBW when directed toward and within 150 km of Belgium, France, Ireland or the Netherlands.	Yes

Band	Frequency (MHz)	Maximum in-band power (ERP)	BEM	Apparatus/restrictions	Airborne
81	2470-2490	40 dBW	16	Not available within a 5 km radius of Bude (SS 205 126) and Menwith Hill (SE 209 561). Maximum power for digital links is 20 dBW.	
82	2470-2490	23 dBW	16	Not available for airborne use within 5 km of Bude (SS 255 116) and Menwith Hill (SE 205 594) and in the airspace volume described by $\pm 1^\circ$ of elevation from the geostationary arc (for elevation of 4° or more) of an earth station within 5 km radius of these two sites. Maximum power for digital links is 20 dBW. Airborne use restricted to a maximum height of 5,000 feet above ground level.	Yes
83	2490-2500	40 dBW	16	Not available within a 5 km radius of Bude (SS 205 126) and Menwith Hill (SE 209 561). Maximum power for digital links is 20 dBW.	
84	2500-2690	0 dBW	15	Subject to award (on three months notice. Unavailable at the point where we invite applications for the 2.6 GHz band award)	
85	3400-3420	13 dBW	16	Not available within 5 km of Bude (SS 255 116) and Menwith Hill (SE 205 594). Occasional interference may be encountered during operation near Boscombe Down, Defford, Malvern, Portland and Skipness.	
86	3400-3420	13 dBW	16	Not available for airborne use within 48 km of Bude (SS 255 116) and Menwith Hill (SE 205 594) plus an additional 64 km for each 1,000 feet of altitude around these two sites. Occasional interference may be encountered during operation near Boscombe Down, Defford, Malvern, Portland and Skipness.	Yes
87	3420-3440	30 dBW	15	Not available within 5 km of Bude (SS 255 116) and Menwith Hill (SE 205 594). Occasional interference may be encountered during operations near Boscombe Down, Defford, Malvern, Portland and Skipness.	
88	3420-3440	30 dBW	15	Not available for airborne use within 48 km of Bude (SS 255 116) and Menwith Hill (SE 205 594) plus an additional 64 km for each 1,000 feet of altitude around these two sites. Occasional interference may be encountered during operation near Boscombe Down, Defford Malvern, Portland and Skipness.	Yes

Band	Frequency (MHz)	Maximum in-band power (ERP)	BEM	Apparatus/restrictions	Airborne
89	3500-3520	40 dBW	16	Not available within 5 km of Bude (SS 255 116) and Menwith Hill (SE 205 594). Occasional interference may be encountered during operations near Boscombe Down, Defford, Malvern, Portland and Skipness.	
90	3500-3520	40 dBW	16	Not available for airborne use within 48 km of Bude (SS 255 116) and Menwith Hill (SE 205 594) plus an additional 64 km for each 1,000 feet of altitude around these two sites. Occasional interference may be encountered during operations near: Boscombe Down, Defford, Malvern, Portland and Skipness.	Yes
91	3520-3560	40 dBW	16	Not available except within 5 km of Bude (SS 255 116) and Menwith Hill (SE 205 594). Occasional interference may be encountered during operation near Boscombe Down, Defford, Malvern, Portland and Skipness.	
92	3520-3560	40 dBW	16	Not available for airborne use within 48 km of Bude (SS 255 116) and Menwith Hill (SE 205 594) plus an additional 64 km for each 1,000 feet of altitude around these two sites. Occasional interference may be encountered during operation near Boscombe Down, Defford, Malvern, Portland and Skipness.	Yes
93	3560-3580	40 dBW	16	Not available within 5 km of Bude (SS 255 116) and Menwith Hill (SE 205 594). Occasional interference may be encountered during operations near Boscombe Down, Defford, Malvern, Portland and Skipness.	
94	3560-3580	40 dBW	16	Not available for airborne use within 48 km of Bude (SS 255 116) and Menwith Hill (SE 205 594) plus an additional 64 km for each 1,000 feet of altitude around these two sites. Occasional interference may be encountered during operations near Boscombe Down, Defford, Malvern, Portland and Skipness.	Yes
95	5472-5588	40 dBW	16	Not available within 35 km of Aberporth (SN 247 518) and Benbecula (NF 800 400).	
96	5682.5-5702.5	40 dBW	16	Not available within 35 km of Aberporth (SN 247 518) and Benbecula (NF 800 400).	

Band	Frequency (MHz)	Maximum in-band power (ERP)	BEM	Apparatus/restrictions	Airborne
97	5682.5-5702.5	23 dBW	16	Not available within 35 km of Aberporth (SN 247 518) and Benbecula (NF 800 400). Airborne use restricted to a maximum height of 2,500 feet above ground level. On a non-interference basis to the MOD.	Yes
98	5705-5725	40 dBW	16	Not available within 35 km of Aberporth (SN 247 518).	
99	5732.5-5752.5	40 dBW	16	Not available within 35 km of Aberporth (SN 247 518). On a non-protected basis from the fixed wireless access service.	
100	5770-5790	40 dBW	16	Power commensurate with minimum operational requirements. Not available within 35 km of Aberporth (SN 247 518). On a non-interference basis to the MOD. On a non-protected basis from the fixed wireless access service.	
101	5770-5790	23 dBW	16	Power commensurate with minimum operational requirements. Airborne use restricted to a maximum height of 2,500 feet above ground level. Not available within 35 km of Aberporth (SN 247 518). On a non-interference basis to the MOD. On a non-protected basis from the fixed wireless access service.	Yes
102	5795-5815	40 dBW	16	Power commensurate with minimum operational requirements. Not available within 35 km of Aberporth (SN 247 518) and Benbecula (NF 800 400). On a non-interference basis to the MOD.	
103	5795-5815	23 dBW	16	Power commensurate with the minimum operational requirements. Airborne use restricted to a maximum height of 2,500 feet above ground level. Not available within 35 km of Aberporth (SN 247 518) and Benbecula (NF 800 400). On a non-interference basis to the MOD.	Yes
104	5850-5925	40 dBW	16	Not available within 35 km of Aberporth (SN 247 518) and Hebrides (NF 800 400).	
105	5850-5925	13 dBW	16	Not available within 35 km of Aberporth (SN 247 518) and Hebrides (NF 800 400). Airborne use restricted to a maximum height of 2,500 feet above ground level.	Yes
106	7110-7250	40 dBW	16	Power commensurate with minimum operational requirements.	

Band	Frequency (MHz)	Maximum in-band power (ERP)	BEM	Apparatus/restrictions	Airborne
107	7110-7250	30 dBW	16	Power commensurate with minimum operational requirements. Airborne use: minimum height 500 feet above ground structures and buildings; maximum height 2,500 feet above ground level.	Yes
108	7300-7425	40 dBW	16	7386-7425 MHz requires advance coordination.	
109	8460-8500	40 dBW	16	Not available within 5 km of Fort Halstead (TQ 497 600), Aberporth (SN 247 518), Lark Hill (SU 14 1445), the Hebrides range (NF 093 001 AND NF 781 406), the Firth of Clyde and Northern Ireland.	
110	10300-10360	40 dBW	16	Not available within 20 km of Marham (TF 720 090), Waddington (SK 980 960), Pendine (SN 260 079), Shoeburyness (TQ 961 877), Larkhill (SU 104 482), West Freugh (NX 212 554), Hebrides (NF 779 404), Aberporth (SN 242 523) Kirkudbright (NX 724 469) and Eskmeals (SD 080 927). Operations must not exceed -10 dBW/MHz at Ascot, Bath, Newbury, Salisbury and Wincanton.	
111	10300-10360	40 dBW	16	Not available within 20 km of Marham (TF 720 090), Waddington (SK 980 960), Pendine (SN 260 079), Shoeburyness (TQ 961 877), Larkhill (SU 104 482), West Freugh (NX 212 554), Hebrides (NF 779 404), Aberporth (SN 242 523), Kirkudbright (NX 724 469) and Eskmeals (SD 080 927). Airborne use at a maximum height of 1,000 feet above ground level and not within 64 km of the above sites. Operations must not exceed 3 dBW at Ascot, Bath, Epsom, Goodwood, Kempton Park, Newbury, Salisbury, Sandown Park, Wincanton and Windsor.	Yes
112	12200-12225	40 dBW	17	On a non-interference basis to DTH satellite television.	
113	12225-12250	40 dBW	17		
114	12250-12275	40 dBW	17	On a non-interference basis to Belgian DTH satellite television. Maximum power when DTH satellite television to Belgium is operational of 10 dBW ERP toward Belgium when within 150 km of Belgian coastline.	
115	12275-12325	40 dBW	17		

Band	Frequency (MHz)	Maximum in-band power (ERP)	BEM	Apparatus/restrictions	Airborne
116	12325-12375	40 dBW	17	On a non-interference basis to Belgian DTH satellite television. Maximum power when DTH satellite television to Belgium is operational of 10 dBW ERP toward Belgium when within 150 km of Belgian coastline.	
117	12375-12400	40 dBW	17		
118	12400-12425	40 dBW	17	On a non-interference basis to Belgian DTH satellite television. Maximum power when DTH satellite television to Belgium is operational of 10 dBW ERP toward Belgium when within 150 km of Belgian coastline.	
119	12425-12450	40 dBW	17		
120	12450-12475	40 dBW	17	On a non-interference basis to Belgian DTH satellite television. Maximum power when DTH satellite television to Belgium is operational of 10 dBW ERP toward Belgium when within 150 km of Belgian coastline.	
121	12475-12500	40 dBW	17		
122	24250-24500	40 dBW	17		
123	48000-48400	30 dBW	16	Until further notice by agreement with us.	

A1.1 Table A4 below sets out the BEMs referenced in column four of table A3 above.

Table A4: BEMs for spectrum available for future PMSE access

BEM	Δf from band edge (kHz unless otherwise stated)	Maximum PSD for out of band emissions (dBm/4 kHz unless otherwise stated)
1	0-2	$9.03 - (15 \times \Delta f)$
	2-14	$-19.30 - (0.833 \times \Delta f)$
	14-31.25	-30.97
2	0-2	$5.05 - (15 \times \Delta f)$
	2-14	$-23.28 - (0.833 \times \Delta f)$
	14-31.25	-34.95
3	0-2	$2.04 - (15 \times \Delta f)$
	2-14	$-26.29 - (0.833 \times \Delta f)$
	14-31.25	-37.96

BEM	Δf from band edge (kHz unless otherwise stated)	Maximum PSD for out of band emissions (dBm/4 kHz unless otherwise stated)
4	0-2	$-13.45 - (14.25 \times \Delta f)$
	2-31.25	-41.95^2
5	0-4.5	$2.04 - (6.667 \times \Delta f)$
	4.5-29.5	$-26.16 - (0.4 \times \Delta f)$
	29.5-62.5	-37.96
6	0-100	$-46.99 - (0.2 \times \Delta f)$
	100-900	$-65.74 - (0.0125 \times \Delta f)$
7	0-25	$-26.99 - (0.8 \times \Delta f)$
	25-975	$-46.73 - (0.01 \times \Delta f)$
8	0-2	$9.03 - (15 \times \Delta f)$
	2-31.25	$-20.56 - (0.204 \times \Delta f)$
9	0-2	$2.04 - (15 \times \Delta f)$
	2-31.25	$-27.55 - (0.204 \times \Delta f)$
10	0-2	$9.03 - (15 \times \Delta f)$
	2-3.847	$-19.30 - (0.834 \times \Delta f)$
	3.847-25	$-20.97 - (0.4 \times \Delta f)$
	25-31.25	-30.97
11	0-2	$9.03 - (15 \times \Delta f)$
	2-5.667	$-19.26 - (0.855 \times \Delta f)$
	5.667-18.75	$-21.09 - (0.527 \times \Delta f)$
	18.75-31.25	-30.97
12	0-2	$2.04 - (15 \times \Delta f)$
	2-5.667	$-26.25 - (0.855 \times \Delta f)$
	5.667-18.75	$-28.08 - (0.527 \times \Delta f)$
	18.75-31.25	-37.96
13	0-2	$2.04 - (15 \times \Delta f)$
	2-14	$-26.29 - (0.833 \times \Delta f)$

² Limited to -41.95 dBm/4 kHz due to limit in standard that states out-of-band emissions do not need to be below -37 dBm (in 12.5 kHz).

BEM	Δf from band edge (kHz unless otherwise stated)	Maximum PSD for out of band emissions (dBm/4 kHz unless otherwise stated)
	14-31.25	-37.96
14	0-250	$-13 - (0.2 \times \Delta f)$
	250-900	$-59.15 - (0.0154 \times \Delta f)$
15	0-10 MHz	-41.2 dBW/10 MHz
	10-20 MHz	-47.2 dBW/10 MHz
16	0-20 MHz	-41.2 dBW/20 MHz
	20-40 MHz	-47.2 dBW/20 MHz
17	0-25 MHz	-41.2 dBW/25 MHz
	25-50 MHz	-47.2 dBW/25 MHz
18	0-75	$20 - (0.22 \times \Delta f)$
	75-200	4
	200-550	$15.43 - (0.06 \times \Delta f)$
	550-1000	-16
19	0-300	$-44.8 - (0.067 \times \Delta f)$
	300-700	-64.8
20	100-900	$-40 - (0.2 \times \Delta f)$
	0-100	$-58.75 - (0.0125 \times \Delta f)$