

Appendix A. Test Data

Full RU

Duty cycle						
Mode	Frequency (MHz)	on time (ms)	on+off time (ms)	Duty cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11ax HE20	5180	1.290	1.293	99.768	0.010	0.010
802.11ax HE40	5190	3.915	4.080	95.956	0.179	0.255
802.11ax HE80	5210	0.990	1.075	92.093	0.358	1.010

RF power setting in Test SW								
Mode	CH	Frequency (MHz)		Ant-0	Ant-1	Ant-2	Ant-3	Test SW Version
802.11ax HE20	36	5180	Full	16	-	-	-	Terminal
	40	5200	Full	19	-	-	-	
	48	5240	Full	19	-	-	-	
	52	5260	Full	19	-	-	-	
	56	5280	Full	19	-	-	-	
	64	5320	Full	17	-	-	-	
	100	5500	Full	16	-	-	-	
	112	5560	Full	19	-	-	-	
	140	5700	Full	15	-	-	-	
	144	5720	Full	17	-	-	-	
	144	5720	Full	17	-	-	-	
	149	5745	Full	19	-	-	-	
	157	5785	Full	19	-	-	-	
	165	5825	Full	19	-	-	-	
802.11ax HE40	38	5190	Full	13	-	-	-	Terminal
	46	5230	Full	19	-	-	-	
	54	5270	Full	19	-	-	-	
	62	5310	Full	13	-	-	-	
	102	5510	Full	14	-	-	-	
	110	5550	Full	19	-	-	-	
	134	5670	Full	16	-	-	-	
	142	5710	Full	16	-	-	-	
	142	5710	Full	16	-	-	-	
	151	5755	Full	18	-	-	-	
159	5795	Full	19	-	-	-		
802.11ax HE80	42	5210	Full	13	-	-	-	Terminal
	58	5290	Full	12	-	-	-	
	106	5530	Full	11	-	-	-	
	122	5610	Full	17	-	-	-	
	138	5690	Full	15	-	-	-	
	138	5690	Full	15	-	-	-	
	155	5775	Full	15	-	-	-	

Maximum Conducted Output Power Measurement										
Mode	Date Rate or Sub-test	CH	Frequency (MHz)	RU	Average power					Limit
					Ant-0	Ant-1	Ant-2	Ant-3	Total	
					dBm	dBm	dBm	dBm	dBm	
802.11ax HE20	MCS 0	36	5180	Full	15.82	-	-	-	-	24.00
		40	5200	Full	18.87	-	-	-	-	24.00
		48	5240	Full	18.92	-	-	-	-	24.00
		52	5260	Full	18.60	-	-	-	-	24.00
		56	5280	Full	18.44	-	-	-	-	24.00
		64	5320	Full	16.26	-	-	-	-	24.00
		100	5500	Full	14.79	-	-	-	-	24.00
		112	5560	Full	17.84	-	-	-	-	24.00
		140	5700	Full	13.01	-	-	-	-	24.00
		144	5720	Full	14.06	-	-	-	-	24.00
		144	5720	Full	8.63	-	-	-	-	30.00
		149	5745	Full	18.52	-	-	-	-	30.00
		157	5785	Full	18.27	-	-	-	-	30.00
		165	5825	Full	18.18	-	-	-	-	30.00
802.11ax HE40	MCS0	38	5190	Full	12.21	-	-	-	-	24.00
		46	5230	Full	18.78	-	-	-	-	24.00
		54	5270	Full	18.50	-	-	-	-	24.00
		62	5310	Full	12.08	-	-	-	-	24.00
		102	5510	Full	12.73	-	-	-	-	24.00
		110	5550	Full	17.90	-	-	-	-	24.00
		134	5670	Full	14.71	-	-	-	-	24.00
		142	5710	Full	13.20	-	-	-	-	24.00
		142	5710	Full	3.67	-	-	-	-	30.00
		151	5755	Full	17.47	-	-	-	-	30.00
159	5795	Full	18.06	-	-	-	-	30.00		
802.11ax HE80	MCS 0	42	5210	Full	12.34	-	-	-	-	24.00
		58	5290	Full	11.17	-	-	-	-	24.00
		106	5530	Full	9.82	-	-	-	-	24.00
		122	5610	Full	15.91	-	-	-	-	24.00
		138	5690	Full	12.19	-	-	-	-	30.00
		138	5690	Full	-0.63	-	-	-	-	30.00
		155	5775	Full	14.33	-	-	-	-	30.00

26 dB & 99 % RF Bandwidth Measurement										
Mode	CH	Frequency (MHz)	99 % Bandwidth				26 dB Bandwidth			
			Ant-0	Ant-1	Ant-2	Ant-3	Ant-0	Ant-1	Ant-2	Ant-3
			MHz	MHz	MHz	MHz	MHz	MHz	MHz	MHz
802.11ax HE20	36	5180	18.843	-	-	-	20.560	-	-	-
	40	5200	18.891	-	-	-	27.910	-	-	-
	48	5240	18.937	-	-	-	27.100	-	-	-
	52	5260	18.893	-	-	-	30.590	-	-	-
	56	5280	18.883	-	-	-	20.600	-	-	-
	64	5320	18.822	-	-	-	20.740	-	-	-
	100	5500	18.820	-	-	-	20.580	-	-	-
	112	5560	18.915	-	-	-	24.320	-	-	-
	140	5700	18.806	-	-	-	20.440	-	-	-
802.11ax HE40	144	5720	14.405	-	-	-	15.220	-	-	-
	38	5190	37.580	-	-	-	40.830	-	-	-
	46	5230	37.760	-	-	-	53.920	-	-	-
	54	5270	37.707	-	-	-	48.360	-	-	-
	62	5310	37.626	-	-	-	40.810	-	-	-
	102	5510	37.534	-	-	-	40.670	-	-	-
	110	5550	37.766	-	-	-	44.330	-	-	-
	134	5670	37.685	-	-	-	40.610	-	-	-
802.11ax HE80	142	5710	33.713	-	-	-	35.250	-	-	-
	42	5210	77.713	-	-	-	81.580	-	-	-
	58	5290	77.751	-	-	-	81.410	-	-	-
	106	5530	77.827	-	-	-	81.630	-	-	-
	122	5610	77.824	-	-	-	81.560	-	-	-
	138	5690	73.629	-	-	-	75.950	-	-	-

Band III_6 dB & 99 % RF Bandwidth Measurement											
Mode	CH	Frequency (MHz)	99 % Bandwidth				6 dB Bandwidth				6dB Limit For FCC kHz
			Ant-0	Ant-1	Ant-2	Ant-3	Ant-0	Ant-1	Ant-2	Ant-3	
			MHz	MHz	MHz	MHz	kHz	kHz	kHz	kHz	
802.11ax HE20	144	5720	4.546	-	-	-	4257	-	-	-	≥ 500 kHz
	149	5745	18.969	-	-	-	18300	-	-	-	
	157	5785	18.958	-	-	-	18130	-	-	-	
	165	5825	18.955	-	-	-	18260	-	-	-	
802.11ax HE40	142	5710	4.106	-	-	-	3889	-	-	-	
	151	5755	37.781	-	-	-	36460	-	-	-	
	159	5795	37.785	-	-	-	36560	-	-	-	
802.11ax HE80	138	5690	4.236	-	-	-	4085	-	-	-	
	155	5775	77.490	-	-	-	78010	-	-	-	

Power Spectral Density Measurement									
Mode	CH	Frequency (MHz)	Measurement				Duty Factor	Calculated	Limit
			Ant-0	Ant-1	Ant-2	Ant-3		Total	
			dBm/MHz	dBm/MHz	dBm/MHz	dBm/MHz	dB	dBm/MHz	dBm/MHz
802.11ax HE20	36	5180	4.243	-	-	-	0.010	4.253	11.000
	40	5200	6.999	-	-	-	0.010	7.009	11.000
	48	5240	7.158	-	-	-	0.010	7.169	11.000
	52	5260	6.979	-	-	-	0.010	6.990	11.000
	56	5280	7.082	-	-	-	0.010	7.093	11.000
	64	5320	4.450	-	-	-	0.010	4.460	11.000
	100	5500	3.110	-	-	-	0.010	3.120	11.000
	112	5560	6.364	-	-	-	0.010	6.374	11.000
	140	5700	1.416	-	-	-	0.010	1.426	11.000
	144	5720	4.020	-	-	-	0.010	4.030	11.000
802.11ax HE40	38	5190	-2.666	-	-	-	0.179	-2.487	11.000
	46	5230	3.932	-	-	-	0.179	4.111	11.000
	54	5270	4.214	-	-	-	0.179	4.394	11.000
	62	5310	-2.782	-	-	-	0.179	-2.603	11.000
	102	5510	-1.980	-	-	-	0.179	-1.801	11.000
	110	5550	3.438	-	-	-	0.179	3.618	11.000
	134	5670	-0.130	-	-	-	0.179	0.049	11.000
	142	5710	-0.557	-	-	-	0.179	-0.378	11.000
802.11ax HE80	42	5210	-5.708	-	-	-	0.358	-5.350	11.000
	58	5290	-6.616	-	-	-	0.358	-6.258	11.000
	106	5530	-7.878	-	-	-	0.358	-7.520	11.000
	122	5610	-1.834	-	-	-	0.358	-1.476	11.000
	138	5690	-4.691	-	-	-	0.358	-4.333	11.000

Note: Power Density = measured result + 10 log (1/duty cycle) + Conversion ratio = measured result + duty factory.

Band III_ Power Spectral Density Measurement

Mode	CH	Frequency (MHz)	Measurement								Duty Factor	Calculated	Limit	PASS/FAIL
			Ant-0		Ant-1		Ant-2		Ant-3			Total		
			dBm/100 kHz	dBm/500 kHz	dBm/100 kHz	dBm/500 kHz	dBm/100 kHz	dBm/500 kHz	dBm/100 kHz	dBm/500 kHz		dB	dBm/500 kHz	
802.11ax HE20	144	5720	-6.318	0.682	-	-	-	-	-	-	0.010	0.682	30.00	PASS
	149	5745	-2.934	4.066	-	-	-	-	-	-	0.010	4.066	30.00	PASS
	157	5785	-3.052	3.947	-	-	-	-	-	-	0.010	3.947	30.00	PASS
	165	5825	-3.430	3.570	-	-	-	-	-	-	0.010	3.570	30.00	PASS
802.11ax HE40	142	5710	-10.864	-3.695	-	-	-	-	-	-	0.179	-3.695	30.00	PASS
	151	5755	-6.708	0.461	-	-	-	-	-	-	0.179	0.461	30.00	PASS
	159	5795	-6.445	0.724	-	-	-	-	-	-	0.179	0.724	30.00	PASS
802.11ax HE80	138	5690	-15.194	-7.846	-	-	-	-	-	-	0.358	-7.846	30.00	PASS
	155	5775	-13.312	-5.964	-	-	-	-	-	-	0.358	-5.964	30.00	PASS

Note: Power Density = measured result + 10 log (1/duty cycle) + Conversion ratio = measured result + duty factory.
 Conversion ratio = 10*Log(500 k/100 k)

Partial RU

Duty cycle								
Mode	Frequency (MHz)	RU	RU Number	on time (ms)	on+off time (ms)	Duty cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11ax HE20	5180	26	0	1.368	1.371	99.781	0.010	0.010
802.11ax HE40	5190	26	0	1.370	1.425	96.140	0.171	0.730
802.11ax HE80	5210	26	0	1.370	1.425	96.140	0.171	0.730

RF power setting in Test SW									
Mode	CH	Frequency (MHz)	RU	RU Number	Ant-0	Ant-1	Ant-2	Ant-3	Test SW Version
802.11ax HE20	36	5180	26	0	7	-	-	-	Terminal
	40	5200	26	0	11	-	-	-	
	48	5240	26	8	10	-	-	-	
	52	5260	26	0	10	-	-	-	
	56	5280	26	0	10	-	-	-	
	64	5320	26	8	8	-	-	-	
	100	5500	26	0	7	-	-	-	
	112	5560	26	0	10	-	-	-	
	140	5700	26	8	11	-	-	-	
	144	5720	26	8	18	-	-	-	
	149	5745	26	0	10	-	-	-	
	157	5785	26	0	10	-	-	-	
	165	5825	26	8	10	-	-	-	
802.11ax HE40	38	5190	26	0	2	-	-	-	Terminal
	46	5230	26	17	8	-	-	-	
	54	5270	26	0	8	-	-	-	
	62	5310	26	17	2	-	-	-	
	102	5510	26	0	3	-	-	-	
	110	5550	26	0	8	-	-	-	
	134	5670	26	17	5	-	-	-	
	142	5710	26	0	5	-	-	-	
	151	5755	26	0	7	-	-	-	
	159	5795	26	17	8	-	-	-	
802.11ax HE80	42	5210	26	0	-2	-	-	-	Terminal
	58	5290	26	0	-4	-	-	-	
	106	5530	26	0	-4	-	-	-	
	122	5610	26	36	2	-	-	-	
	138	5690	26	0	0	-	-	-	
	155	5775	26	0	0	-	-	-	

Maximum Conducted Output Power Measurement											
Mode	Date Rate or Sub-test	CH	Frequency (MHz)	RU	RU Number	Average power					Limit
						Ant-0	Ant-1	Ant-2	Ant-3	Total	
						dBm	dBm	dBm	dBm	dBm	dBm
802.11ax HE20	MCS 0	36	5180	26	0	6.00	-	-	-	-	24.00
		40	5200	26	0	10.03	-	-	-	-	24.00
		48	5240	26	8	9.25	-	-	-	-	24.00
		52	5260	26	0	9.23	-	-	-	-	24.00
		56	5280	26	0	9.21	-	-	-	-	24.00
		64	5320	26	8	6.88	-	-	-	-	24.00
		100	5500	26	0	5.24	-	-	-	-	24.00
		112	5560	26	0	8.70	-	-	-	-	24.00
		140	5700	26	8	8.54	-	-	-	-	24.00
		144	5720	26	0	6.07	-	-	-	-	24.00
		149	5745	26	0	9.03	-	-	-	-	30.00
		157	5785	26	0	8.90	-	-	-	-	30.00
802.11ax HE40	MCS0	38	5190	26	0	-0.0005	-	-	-	-	24.00
		46	5230	26	17	6.63	-	-	-	-	24.00
		54	5270	26	0	6.46	-	-	-	-	24.00
		62	5310	26	17	-0.11	-	-	-	-	24.00
		102	5510	26	0	0.58	-	-	-	-	24.00
		110	5550	26	0	5.94	-	-	-	-	24.00
		134	5670	26	17	2.01	-	-	-	-	24.00
		142	5710	26	0	2.25	-	-	-	-	24.00
		151	5755	26	0	5.04	-	-	-	-	30.00
802.11ax HE80	MCS 0	42	5210	26	0	-2.70	-	-	-	-	24.00
		58	5290	26	0	-4.56	-	-	-	-	24.00
		106	5530	26	0	-5.35	-	-	-	-	24.00
		122	5610	26	36	1.41	-	-	-	-	24.00
		138	5690	26	0	-0.95	-	-	-	-	24.00
		155	5775	26	0	-0.78	-	-	-	-	30.00

Power Spectral Density Measurement											
Mode	CH	Frequency (MHz)	RU	RU Number	Measurement				Duty Factor	Calculated	Limit
					Ant-0	Ant-1	Ant-2	Ant-3		Total	
					dBm/MHz	dBm/MHz	dBm/MHz	dBm/MHz	dB	dBm/MHz	dBm/MHz
802.11ax HE20	36	5180	26	0	3.409	-	-	-	0.010	3.419	11.000
	40	5200	26	0	6.925	-	-	-	0.010	6.935	11.000
	48	5240	26	8	6.624	-	-	-	0.010	6.634	11.000
	52	5260	26	0	6.821	-	-	-	0.010	6.831	11.000
	56	5280	26	0	6.651	-	-	-	0.010	6.661	11.000
	64	5320	26	8	3.956	-	-	-	0.010	3.966	11.000
	100	5500	26	0	2.707	-	-	-	0.010	2.717	11.000
	112	5560	26	0	6.155	-	-	-	0.010	6.165	11.000
	140	5700	26	8	0.765	-	-	-	0.010	0.775	11.000
	144	5720	26	0	3.592	-	-	-	0.010	3.602	11.000
802.11ax HE40	38	5190	26	0	-2.717	-	-	-	0.171	-2.546	11.000
	46	5230	26	17	3.820	-	-	-	0.171	3.991	11.000
	54	5270	26	0	3.508	-	-	-	0.171	3.679	11.000
	62	5310	26	17	-3.442	-	-	-	0.171	-3.271	11.000
	102	5510	26	0	-2.530	-	-	-	0.171	-2.359	11.000
	110	5550	26	0	2.978	-	-	-	0.171	3.149	11.000
	134	5670	26	17	-1.031	-	-	-	0.171	-0.860	11.000
	142	5710	26	0	-0.747	-	-	-	0.171	-0.576	11.000
802.11ax HE80	42	5210	26	0	-5.743	-	-	-	0.171	-5.572	11.000
	58	5290	26	0	-7.286	-	-	-	0.171	-7.115	11.000
	106	5530	26	0	-8.261	-	-	-	0.171	-8.090	11.000
	122	5610	26	36	-2.033	-	-	-	0.171	-1.862	11.000
	138	5690	26	0	-4.753	-	-	-	0.171	-4.582	11.000

Note: Power Density = measured result + 10 log (1/duty cycle) + Conversion ratio = measured result + duty factory.

Band III_ Power Spectral Density Measurement															
Mode	CH	Frequency (MHz)	RU	RU Number	Measurement								Calculated	Limit	PASS/FAIL
					Ant-0		Ant-1		Ant-2		Ant-3		Total		
					dBm/100 kHz	dBm/500 kHz	dBm/100 kHz	dBm/500 kHz	dBm/100 kHz	dBm/500 kHz	dBm/100 kHz	dBm/500 kHz	dBm/500 kHz	dBm/500 kHz	
802.11ax HE20	149	5745	26	0	-3.221	3.778	-	-	-	-	-	-	3.778	30.00	PASS
	157	5785	26	0	-3.486	3.513	-	-	-	-	-	-	3.513	30.00	PASS
	165	5825	26	8	-3.751	3.248	-	-	-	-	-	-	3.248	30.00	PASS
802.11ax HE40	151	5755	26	0	-7.149	0.012	-	-	-	-	-	-	0.012	30.00	PASS
	159	5795	26	17	-7.114	0.047	-	-	-	-	-	-	0.047	30.00	PASS
802.11ax HE80	155	5775	26	0	-13.447	-6.286	-	-	-	-	-	-	-6.286	30.00	PASS
				36	-13.841	-6.680	-	-	-	-	-	-	-6.680	30.00	PASS

Note: Power Density = measured result + 10 log (1/duty cycle) + Conversion ratio = measured result + duty factory.
 Conversion ration = 10*Log(500 k/100 k)