

Appendix A. Test Data

Duty cycle						
Band	Frequency (MHz)	on time (ms)	on+off time (ms)	Duty cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11ax_20	5955	5.520	6.390	86.38	0.64	0.18
802.11ax_40	5965	5.520	6.360	86.79	0.62	0.18
802.11ax_80	5985	5.520	6.390	86.38	0.64	0.18
802.11ax_160	6025	5.490	5.910	92.89	0.32	0.18

RF power setting in Test SW								
Mode	CH	Frequency (MHz)		Ant-0	Ant-1	Ant-2	Ant-3	Test SW Version
802.11ax HE20	1	5955	full	5.5	5.5	-	-	QSPR Version5.0.00202
	45	6175	full	5.5	5.5	-	-	
	93	6415	full	5.5	5.5	-	-	
	97	6435	full	5.5	5.5	-	-	
	105	6475	full	5.5	5.5	-	-	
	113	6515	full	5.5	5.5	-	-	
	117	6535	full	5.5	5.5	-	-	
	149	6695	full	6	6	-	-	
	181	6855	full	5.5	5.5	-	-	
	185	6875	full	5.5	5.5	-	-	
	189	6895	full	5.5	5.5	-	-	
	209	6995	full	6.5	6.5	-	-	
	229	7095	full	6.5	6.5	-	-	
233	7115	full	-13	-13	-	-		
802.11ax HE40	3	5965	full	9	9	-	-	QSPR Version5.0.00202
	43	6165	full	9.5	9.5	-	-	
	91	6405	full	9.5	9.5	-	-	
	99	6445	full	9.5	9.5	-	-	
	107	6485	full	9.5	9.5	-	-	
	115	6525	full	9.5	9.5	-	-	
	123	6565	full	9.5	9.5	-	-	
	147	6685	full	9.5	9.5	-	-	
	179	6845	full	8.5	8.5	-	-	
	187	6885	full	9	9	-	-	
	195	6925	full	9.5	9.5	-	-	
	211	7005	full	9.5	9.5	-	-	
	227	7085	full	9.5	9.5	-	-	
802.11ax HE80	7	5985	full	11	11	-	-	QSPR Version5.0.00202
	39	6145	full	12.5	12.5	-	-	
	87	6385	full	12	12	-	-	
	103	6465	full	12.5	12.5	-	-	
	119	6545	full	12.5	12.5	-	-	
	135	6625	full	12.5	12.5	-	-	
	151	6705	full	12	12	-	-	
	167	6785	full	12	12	-	-	
	183	6865	full	12	12	-	-	
	199	6945	full	12.5	12.5	-	-	
215	7025	full	12.5	12.5	-	-		
802.11ax HE160	15	6025	full	13.5	13.5	-	-	QSPR Version5.0.00202
	47	6185	full	15	15	-	-	
	79	6345	full	14	14	-	-	
	111	6505	full	15	15	-	-	
	143	6665	full	15	15	-	-	
	175	6825	full	14	14	-	-	
	207	6985	full	15	15	-	-	

Maximum Conducted Output Power Measurement													
Band	CH	Freq. (MHz)		Measurement									
				Ant-0	Ant-1	Ant-2	Ant-3	Total	Directional	EIRP	EIRP	Limit	
				dBm/MHz	dBm/MHz	dBm/MHz	dBm/MHz	dBm/MHz	Gain(dBi)	(dBm)	(mW)	(dBm/MHz)	
802.11ax HE20	1	5955	full	4.98	5.08	-	-	8.04	7.20	15.24	33.4195	30	
	45	6175	full	5.40	5.23	-	-	8.33	7.20	15.53	35.7273	30	
	93	6415	full	5.47	5.58	-	-	8.54	7.20	15.74	37.4973	30	
	97	6435	full	5.38	5.37	-	-	8.39	7.20	15.59	36.2243	30	
	105	6475	full	5.21	5.17	-	-	8.20	7.20	15.40	34.6737	30	
	113	6515	full	4.92	5.44	-	-	8.20	7.20	15.40	34.6737	30	
	117	6535	full	4.88	5.54	-	-	8.23	7.10	15.33	34.1193	30	
	149	6695	full	5.42	5.49	-	-	8.47	7.10	15.57	36.0579	30	
	181	6855	full	5.46	6.33	-	-	8.93	7.10	16.03	40.0867	30	
	185	6875	full	5.71	5.88	-	-	8.81	7.10	15.91	38.9942	30	
	189	6895	full	5.47	6.11	-	-	8.81	7.10	15.91	38.9942	30	
	209	6995	full	5.62	6.54	-	-	9.11	7.10	16.21	41.7830	30	
	229	7095	full	7.18	5.93	-	-	9.61	7.10	16.71	46.8813	30	
802.11ax HE40	233	7115	full	-12.73	-13.09	-	-	-9.90	7.10	-2.80	0.5248	30	
	3	5965	full	9.44	8.89	-	-	12.18	7.20	19.38	86.6962	30	
	43	6165	full	8.64	8.57	-	-	11.62	7.20	18.82	76.2079	30	
	91	6405	full	9.35	9.13	-	-	12.25	7.20	19.45	88.1049	30	
	99	6445	full	8.60	8.84	-	-	11.73	7.20	18.93	78.1628	30	
	107	6485	full	8.60	9.07	-	-	11.85	7.20	19.05	80.3526	30	
	115	6525	full	8.62	9.08	-	-	11.87	7.20	19.07	80.7235	30	
	123	6565	full	8.75	8.65	-	-	11.71	7.10	18.81	76.0326	30	
	147	6685	full	9.08	8.81	-	-	11.96	7.10	19.06	80.5378	30	
	179	6845	full	9.06	8.74	-	-	11.91	7.10	19.01	79.6159	30	
	187	6885	full	9.28	8.93	-	-	12.12	7.10	19.22	83.5603	30	
	195	6925	full	9.15	9.60	-	-	12.39	7.10	19.49	88.9201	30	
	211	7005	full	8.73	9.10	-	-	11.93	7.10	19.03	79.9834	30	
802.11ax HE80	227	7085	full	9.56	8.51	-	-	12.08	7.10	19.18	82.7942	30	
	7	5985	full	11.72	11.33	-	-	14.54	7.20	21.74	149.2794	30	
	39	6145	full	11.75	11.55	-	-	14.66	7.20	21.86	153.4617	30	
	87	6385	full	12.08	11.82	-	-	14.96	7.20	22.16	164.4372	30	
	103	6465	full	11.76	12.09	-	-	14.94	7.20	22.14	163.6817	30	
	119	6545	full	11.62	12.17	-	-	14.91	7.20	22.11	162.5549	30	
	135	6625	full	12.25	11.62	-	-	14.96	7.10	22.06	160.6941	30	
	151	6705	full	12.02	11.51	-	-	14.78	7.10	21.88	154.1700	30	
	167	6785	full	12.19	11.18	-	-	14.72	7.10	21.82	152.0548	30	
	183	6865	full	12.51	12.16	-	-	15.35	7.10	22.45	175.7924	30	
	199	6945	full	12.13	12.45	-	-	15.30	7.10	22.40	173.7801	30	
	215	7025	full	12.68	11.73	-	-	15.24	7.10	22.34	171.3957	30	
802.11ax HE160	15	6025	full	14.32	14.15	-	-	17.25	7.20	24.45	278.6121	30	
	47	6185	full	14.34	14.21	-	-	17.29	7.20	24.49	281.1901	30	
	79	6345	full	14.42	13.82	-	-	17.14	7.20	24.34	271.6439	30	
	111	6505	full	14.15	14.66	-	-	17.42	7.20	24.62	289.7344	30	
	143	6665	full	14.89	14.12	-	-	17.53	7.10	24.63	290.4023	30	
	175	6825	full	14.56	14.43	-	-	17.51	7.10	24.61	289.0680	30	
	207	6985	full	14.40	14.83	-	-	17.63	7.10	24.73	297.1666	30	

26 dB & 99 % RF Bandwidth Measurement										
Band	CH	Freq. (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	1	5955	19.169	19.197	-	-	21.100	21.480	-	-
	45	6175	19.176	19.140	-	-	22.150	21.720	-	-
	93	6415	19.156	19.145	-	-	22.220	21.850	-	-
	97	6435	19.168	19.222	-	-	22.090	20.890	-	-
	105	6475	19.145	19.152	-	-	21.730	21.080	-	-
	113	6515	19.163	19.174	-	-	21.670	21.730	-	-
	117	6535	19.139	19.150	-	-	21.780	21.450	-	-
	149	6695	19.133	19.177	-	-	21.440	21.670	-	-
	181	6855	19.193	19.160	-	-	22.250	21.490	-	-
	185	6875	19.159	19.156	-	-	21.750	21.340	-	-
	189	6895	19.156	19.171	-	-	21.240	21.960	-	-
	209	6995	19.169	19.175	-	-	21.850	21.300	-	-
802.11ax HE40	229	7095	19.135	19.091	-	-	21.190	21.800	-	-
	233	7115	19.167	19.167	-	-	21.870	22.050	-	-
	3	5965	37.657	37.657	-	-	40.430	40.530	-	-
	43	6165	37.615	37.671	-	-	40.490	40.730	-	-
	91	6405	37.768	37.708	-	-	40.170	40.350	-	-
	99	6445	37.747	37.715	-	-	40.100	40.280	-	-
	107	6485	37.682	37.718	-	-	40.570	39.880	-	-
	115	6525	37.599	37.670	-	-	40.630	40.290	-	-
	123	6565	37.690	37.739	-	-	40.670	40.320	-	-
	147	6685	37.606	37.613	-	-	40.470	40.370	-	-
	179	6845	37.723	37.720	-	-	41.120	40.510	-	-
	187	6885	37.649	37.667	-	-	40.780	40.530	-	-
802.11ax HE80	195	6925	37.687	37.638	-	-	40.160	40.550	-	-
	211	7005	37.662	37.658	-	-	39.870	40.520	-	-
	227	7085	37.746	37.644	-	-	40.540	40.500	-	-
	7	5985	77.023	76.975	-	-	82.730	82.430	-	-
	39	6145	77.181	77.155	-	-	82.740	82.740	-	-
	87	6385	77.191	77.103	-	-	82.890	82.700	-	-
	103	6465	77.110	77.255	-	-	82.160	83.300	-	-
	119	6545	77.283	77.073	-	-	82.780	82.430	-	-
	135	6625	77.098	77.084	-	-	82.430	82.690	-	-
	151	6705	77.180	77.185	-	-	81.800	82.620	-	-
	167	6785	77.103	77.049	-	-	82.260	82.780	-	-
	183	6865	77.020	77.228	-	-	82.430	82.980	-	-
802.11ax HE160	199	6945	77.159	77.092	-	-	82.400	82.830	-	-
	215	7025	77.256	77.094	-	-	82.720	82.430	-	-
	15	6025	154.270	154.350	-	-	164.600	163.800	-	-
	47	6185	154.690	154.460	-	-	163.200	163.900	-	-
	79	6345	154.720	154.810	-	-	164.000	164.700	-	-
	111	6505	154.540	154.920	-	-	165.000	165.000	-	-
	143	6665	154.710	154.650	-	-	164.700	164.400	-	-
	175	6825	154.610	154.280	-	-	164.500	163.800	-	-
	207	6985	154.260	155.090	-	-	165.100	165.200	-	-

Power Spectral Density Measurement												
Band	CH	Freq. (MHz)		Measurement								Limit (dBm/MHz)
				Ant-0 dBm/MHz	Ant-1 dBm/MHz	Ant-2 dBm/MHz	Ant-3 dBm/MHz	Duty Factor (dB)	Total Corr'd PSD(dBm/MHz)	Directional Gain(dBi)	EIRP PSD (dBm/MHz)	
802.11ax HE20	1	5955	full	-7.320	-7.108	-	-	0.64	-3.562	8.17	4.608	5.00
	45	6175	full	-6.842	-7.118	-	-	0.64	-3.328	8.17	4.842	5.00
	93	6415	full	-7.199	-6.994	-	-	0.64	-3.445	8.17	4.725	5.00
	97	6435	full	-7.002	-7.031	-	-	0.64	-3.366	8.17	4.804	5.00
	105	6475	full	-7.159	-6.947	-	-	0.64	-3.401	8.17	4.769	5.00
	113	6515	full	-7.147	-7.074	-	-	0.64	-3.460	8.17	4.710	5.00
	117	6535	full	-7.369	-6.881	-	-	0.64	-3.468	8.17	4.702	5.00
	149	6695	full	-7.119	-7.061	-	-	0.64	-3.440	8.17	4.730	5.00
	181	6855	full	-7.482	-6.716	-	-	0.64	-3.432	8.17	4.738	5.00
	185	6875	full	-7.291	-6.924	-	-	0.64	-3.453	8.17	4.717	5.00
	189	6895	full	-7.198	-6.858	-	-	0.64	-3.374	7.98	4.606	5.00
	209	6995	full	-7.457	-6.530	-	-	0.64	-3.319	7.98	4.661	5.00
	229	7095	full	-5.842	-8.147	-	-	0.64	-3.193	7.98	4.787	5.00
	233	7115	full	-24.357	-25.314	-	-	0.64	-21.159	7.98	-13.179	5.00
802.11ax HE40	3	5965	full	-6.724	-7.260	-	-	0.62	-3.353	8.17	4.817	5.00
	43	6165	full	-6.799	-7.323	-	-	0.62	-3.423	8.17	4.747	5.00
	91	6405	full	-6.838	-7.244	-	-	0.62	-3.406	8.17	4.764	5.00
	99	6445	full	-7.177	-7.314	-	-	0.62	-3.615	8.17	4.555	5.00
	107	6485	full	-7.133	-7.001	-	-	0.62	-3.436	8.17	4.734	5.00
	115	6525	full	-7.800	-6.583	-	-	0.62	-3.519	8.17	4.651	5.00
	123	6565	full	-7.082	-7.261	-	-	0.62	-3.540	8.17	4.630	5.00
	147	6685	full	-6.817	-7.098	-	-	0.62	-3.325	8.17	4.845	5.00
	179	6845	full	-6.979	-7.214	-	-	0.62	-3.465	8.17	4.705	5.00
	187	6885	full	-6.890	-7.132	-	-	0.62	-3.379	8.17	4.791	5.00
	195	6925	full	-7.134	-6.726	-	-	0.62	-3.295	7.98	4.685	5.00
	211	7005	full	-7.486	-6.514	-	-	0.62	-3.343	7.98	4.637	5.00
	227	7085	full	-6.667	-7.253	-	-	0.62	-3.320	7.98	4.660	5.00
	237	7125	full	-6.817	-7.098	-	-	0.62	-3.325	8.17	4.845	5.00
802.11ax HE80	7	5985	full	-6.927	-7.112	-	-	0.64	-3.368	8.17	4.802	5.00
	39	6145	full	-6.877	-7.233	-	-	0.64	-3.401	8.17	4.769	5.00
	87	6385	full	-6.892	-7.191	-	-	0.64	-3.389	8.17	4.781	5.00
	103	6465	full	-7.136	-7.196	-	-	0.64	-3.516	8.17	4.654	5.00
	119	6545	full	-7.454	-6.688	-	-	0.64	-3.404	8.17	4.766	5.00
	135	6625	full	-7.047	-7.158	-	-	0.64	-3.452	8.17	4.718	5.00
	151	6705	full	-6.786	-7.247	-	-	0.64	-3.360	8.17	4.810	5.00
	167	6785	full	-6.842	-7.559	-	-	0.64	-3.535	8.17	4.635	5.00
	183	6865	full	-6.814	-7.108	-	-	0.64	-3.308	8.17	4.862	5.00
	199	6945	full	-7.193	-6.736	-	-	0.64	-3.308	7.98	4.672	5.00
	215	7025	full	-6.499	-7.479	-	-	0.64	-3.31	7.98	4.669	5.00
	231	7105	full	-6.518	-6.979	-	-	0.32	-3.412	8.17	4.758	5.00
	247	7185	full	-6.642	-7.249	-	-	0.32	-3.604	8.17	4.566	5.00
	263	7265	full	-6.777	-7.144	-	-	0.32	-3.626	8.17	4.544	5.00
802.11ax HE160	111	6505	full	-7.090	-6.745	-	-	0.32	-3.584	8.17	4.586	5.00
	143	6665	full	-6.563	-7.323	-	-	0.32	-3.596	8.17	4.574	5.00
	175	6825	full	-6.890	-6.568	-	-	0.32	-3.396	8.17	4.774	5.00
	207	6985	full	-6.832	-6.663	-	-	0.32	-3.416	7.98	4.564	5.00
	239	7145	full	-6.817	-7.098	-	-	0.62	-3.325	8.17	4.845	5.00

Beamforming on

RF power setting in Test SW

Mode	CH	Frequency (MHz)		Ant-0	Ant-1	Ant-2	Ant-3	Test SW Version
802.11ax HE20	1	5955	full	5.5	5.5	-	-	QSPR Version5.0.00202
	45	6175	full	5.5	5.5	-	-	
	93	6415	full	5.5	5.5	-	-	
	97	6435	full	5.5	5.5	-	-	
	105	6475	full	5.5	5.5	-	-	
	113	6515	full	5.5	5.5	-	-	
	117	6535	full	5.5	5.5	-	-	
	149	6695	full	6	6	-	-	
	181	6855	full	5.5	5.5	-	-	
	185	6875	full	5.5	5.5	-	-	
	189	6895	full	5.5	5.5	-	-	
	209	6995	full	6.5	6.5	-	-	
	229	7095	full	6.5	6.5	-	-	
	233	7115	full	-13	-13	-	-	
802.11ax HE40	3	5965	full	9	9	-	-	QSPR Version5.0.00202
	43	6165	full	9.5	9.5	-	-	
	91	6405	full	9.5	9.5	-	-	
	99	6445	full	9.5	9.5	-	-	
	107	6485	full	9.5	9.5	-	-	
	115	6525	full	9.5	9.5	-	-	
	123	6565	full	9.5	9.5	-	-	
	147	6685	full	9.5	9.5	-	-	
	179	6845	full	8.5	8.5	-	-	
	187	6885	full	9	9	-	-	
	195	6925	full	9.5	9.5	-	-	
	211	7005	full	9.5	9.5	-	-	
	227	7085	full	9.5	9.5	-	-	
802.11ax HE80	7	5985	full	11	11	-	-	QSPR Version5.0.00202
	39	6145	full	12.5	12.5	-	-	
	87	6385	full	12	12	-	-	
	103	6465	full	12.5	12.5	-	-	
	119	6545	full	12.5	12.5	-	-	
	135	6625	full	12.5	12.5	-	-	
	151	6705	full	12	12	-	-	
	167	6785	full	12	12	-	-	
	183	6865	full	12	12	-	-	
	199	6945	full	12.5	12.5	-	-	
802.11ax HE160	215	7025	full	12.5	12.5	-	-	QSPR Version5.0.00202
	15	6025	full	13.5	13.5	-	-	
	47	6185	full	15	15	-	-	
	79	6345	full	14	14	-	-	
	111	6505	full	15	15	-	-	
	143	6665	full	15	15	-	-	
	175	6825	full	14	14	-	-	QSPR Version5.0.00202
	207	6985	full	15	15	-	-	

Maximum Conducted Output Power Measurement												
Band	CH	Freq. (MHz)		Measurement								Limit (dBm/MHz)
				Ant-0	Ant-1	Ant-2	Ant-3	Total	Directional	EIRP	EIRP	
				dBm/MHz	dBm/MHz	dBm/MHz	dBm/MHz	dBm/MHz	Gain(dBi)	(dBm)	(mW)	
802.11ax HE20	1	5955	full	4.93	4.93	-	-	7.94	8.17	16.11	40.8319	30
	45	6175	full	5.36	5.21	-	-	8.30	8.17	16.47	44.3609	30
	93	6415	full	5.29	5.53	-	-	8.42	8.17	16.59	45.6037	30
	97	6435	full	5.31	5.28	-	-	8.31	8.17	16.48	44.4631	30
	105	6475	full	5.03	5.12	-	-	8.09	8.17	16.26	42.2669	30
	113	6515	full	4.86	5.30	-	-	8.10	8.17	16.27	42.3643	30
	117	6535	full	4.80	5.45	-	-	8.15	8.17	16.32	42.8549	30
	149	6695	full	5.39	5.44	-	-	8.43	8.17	16.60	45.7088	30
	181	6855	full	5.29	6.13	-	-	8.74	8.17	16.91	49.0908	30
	185	6875	full	5.67	5.74	-	-	8.72	8.17	16.89	48.8652	30
	189	6895	full	5.44	5.99	-	-	8.73	7.98	16.71	46.8813	30
	209	6995	full	5.54	6.46	-	-	9.03	7.98	17.01	50.2343	30
802.11ax HE40	229	7095	full	7.11	5.76	-	-	9.50	7.98	17.48	55.9758	30
	233	7115	full	-12.83	-13.16	-	-	-9.98	7.98	-2.00	0.6310	30
	3	5965	full	9.34	8.83	-	-	12.10	8.17	20.27	106.4143	30
	43	6165	full	8.51	8.46	-	-	11.50	8.17	19.67	92.6830	30
	91	6405	full	9.20	9.05	-	-	12.14	8.17	20.31	107.3989	30
	99	6445	full	8.54	8.71	-	-	11.64	8.17	19.81	95.7194	30
	107	6485	full	8.52	9.02	-	-	11.79	8.17	19.96	99.0832	30
	115	6525	full	8.52	8.89	-	-	11.72	8.17	19.89	97.4990	30
	123	6565	full	8.68	8.58	-	-	11.64	8.17	19.81	95.7194	30
	147	6685	full	8.97	8.65	-	-	11.82	8.17	19.99	99.7700	30
	179	6845	full	8.91	8.61	-	-	11.77	8.17	19.94	98.6279	30
	187	6885	full	9.12	8.90	-	-	12.02	8.17	20.19	104.4720	30
802.11ax HE80	195	6925	full	9.09	9.51	-	-	12.32	7.98	20.30	107.1519	30
	211	7005	full	8.63	8.97	-	-	11.81	7.98	19.79	95.2796	30
	227	7085	full	9.43	8.43	-	-	11.97	7.98	19.95	98.8553	30
	7	5985	full	11.71	11.20	-	-	14.47	8.17	22.64	183.6538	30
	39	6145	full	11.58	11.43	-	-	14.52	8.17	22.69	185.7804	30
	87	6385	full	11.88	11.81	-	-	14.86	8.17	23.03	200.9093	30
	103	6465	full	11.56	11.95	-	-	14.77	8.17	22.94	196.7886	30
	119	6545	full	11.47	12.14	-	-	14.83	8.17	23.00	199.5262	30
	135	6625	full	12.17	11.55	-	-	14.88	8.17	23.05	201.8366	30
	151	6705	full	11.90	11.35	-	-	14.64	8.17	22.81	190.9853	30
	167	6785	full	12.08	11.08	-	-	14.62	8.17	22.79	190.1078	30
	183	6865	full	12.36	12.09	-	-	15.24	8.17	23.41	219.2805	30
802.11ax HE160	199	6945	full	12.04	12.36	-	-	15.21	7.98	23.19	208.4491	30
	215	7025	full	12.51	11.55	-	-	15.07	7.98	23.05	201.8366	30
	15	6025	full	14.28	14.05	-	-	17.18	8.17	25.35	342.7678	30
	47	6185	full	14.15	14.03	-	-	17.10	8.17	25.27	336.5116	30
	79	6345	full	14.23	13.70	-	-	16.98	8.17	25.15	327.3407	30
	111	6505	full	14.13	14.47	-	-	17.31	8.17	25.48	353.1832	30
	143	6665	full	14.71	13.99	-	-	17.38	8.17	25.55	358.9219	30
	175	6825	full	14.36	14.39	-	-	17.39	8.17	25.56	359.7493	30
	207	6985	full	14.35	14.82	-	-	17.60	7.98	25.58	361.4099	30