

Appendix A: Test Data

Duty cycle						
Mode	Frequency (MHz)	On time (ms)	On+off time (ms)	Duty cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11b	2412	8.445	8.460	99.823	0.008	0.010
802.11g	2412	1.410	1.440	97.917	0.091	0.709
802.11n HT20	2412	1.325	1.360	97.426	0.113	0.755
802.11n HT40	2422	0.657	0.711	92.405	0.343	1.522
802.11ax HE20	2412	0.353	0.397	88.819	0.515	2.835
802.11ax HE40	2422	0.232	0.290	80.000	0.969	4.310
802.11be EHT20	2412	0.363	0.409	88.764	0.518	2.752
802.11be EHT40	2422	0.240	0.287	83.624	0.777	4.167

2.4 GHz Band							Test SW Version
Mode	CH	Freq. (MHz)	RF power setting in Test SW				
			Ant-0	Ant-1	Ant-2	Ant-3	
802.11b	1	2412	16.00	16.00	16.00	16.00	QATool_Dbg
802.11b	6	2437	16.50	16.50	16.50	16.50	
802.11b	11	2462	15.50	15.50	15.50	15.50	
802.11g	1	2412	15.50	15.50	15.50	15.50	
802.11g	6	2437	18.50	18.50	18.50	18.50	
802.11g	11	2462	15.50	15.50	15.50	15.50	
802.11n HT20	1	2412	15.00	15.00	15.00	15.00	
802.11n HT20	6	2437	18.00	18.00	18.00	18.00	
802.11n HT20	11	2462	16.00	16.00	16.00	16.00	
802.11n HT40	3	2422	14.50	14.50	14.50	14.50	
802.11n HT40	6	2437	15.50	15.50	15.50	15.50	
802.11n HT40	9	2452	14.50	14.50	14.50	14.50	
802.11ax HE20	1	2412	15.00	15.00	15.00	15.00	
802.11ax HE20	6	2437	18.00	18.00	18.00	18.00	
802.11ax HE20	11	2462	16.00	16.00	16.00	16.00	
802.11ax HE40	3	2422	14.50	14.50	14.50	14.50	
802.11ax HE40	6	2437	15.50	15.50	15.50	15.50	
802.11ax HE40	9	2452	14.50	14.50	14.50	14.50	
802.11be EHT20	1	2412	15.00	15.00	15.00	15.00	
802.11be EHT20	6	2437	18.00	18.00	18.00	18.00	
802.11be EHT20	11	2462	16.00	16.00	16.00	16.00	
802.11be EHT40	3	2422	14.50	14.50	14.50	14.50	
802.11be EHT40	6	2437	15.50	15.50	15.50	15.50	
802.11be EHT40	9	2452	14.50	14.50	14.50	14.50	

2.4 GHz Band Config			
Mode	Channel	Freq. (MHz)	Data Rate
802.11b	1	2412	1M
802.11b	6	2437	1M
802.11b	11	2462	1M
802.11g	1	2412	6M
802.11g	6	2437	6M
802.11g	11	2462	6M
802.11n HT20	1	2412	26M
802.11n HT20	6	2437	26M
802.11n HT20	11	2462	26M
802.11n HT40	3	2422	54M
802.11n HT40	6	2437	54M
802.11n HT40	9	2452	54M
802.11ax HE20	1	2412	MCS0
802.11ax HE20	6	2437	MCS0
802.11ax HE20	11	2462	MCS0
802.11ax HE40	3	2422	MCS0
802.11ax HE40	6	2437	MCS0
802.11ax HE40	9	2452	MCS0
802.11be EHT20	1	2412	MCS0
802.11be EHT20	6	2437	MCS0
802.11be EHT20	11	2462	MCS0
802.11be EHT40	3	2422	MCS0
802.11be EHT40	6	2437	MCS0
802.11be EHT40	9	2452	MCS0

2.4 GHz Band												
Mode	CH	Freq. (MHz)	Avg Conducted Power (dBm)					Conducted Power Limit (dBm)				
			Ant-0	Ant-1	Ant-2	Ant-3	SUM	Ant-0	Ant-1	Ant-2	Ant-3	SUM
802.11b	1	2412	19.22	18.96	19.00	18.65	24.98	30.00	30.00	30.00	30.00	30.00
802.11b	6	2437	20.73	19.72	19.82	19.42	25.97	30.00	30.00	30.00	30.00	30.00
802.11b	11	2462	19.53	18.52	18.67	18.14	24.76	30.00	30.00	30.00	30.00	30.00
802.11g	1	2412	16.89	16.68	16.69	16.45	22.70	30.00	30.00	30.00	30.00	30.00
802.11g	6	2437	20.30	19.48	19.58	19.27	25.70	30.00	30.00	30.00	30.00	30.00
802.11g	11	2462	17.50	16.72	16.82	16.35	22.89	30.00	30.00	30.00	30.00	30.00
802.11n HT20	1	2412	16.45	16.26	16.06	15.92	22.20	30.00	30.00	30.00	30.00	30.00
802.11n HT20	6	2437	19.79	18.83	19.00	18.59	25.10	30.00	30.00	30.00	30.00	30.00
802.11n HT20	11	2462	17.78	16.91	17.00	16.62	23.12	30.00	30.00	30.00	30.00	30.00
802.11n HT40	3	2422	15.88	15.64	15.71	15.34	21.67	30.00	30.00	30.00	30.00	30.00
802.11n HT40	6	2437	17.62	16.76	16.72	16.41	22.93	30.00	30.00	30.00	30.00	30.00
802.11n HT40	9	2452	16.56	15.67	15.58	15.29	21.83	30.00	30.00	30.00	30.00	30.00
802.11ax HE20	1	2412	16.47	16.27	16.12	15.94	22.23	30.00	30.00	30.00	30.00	30.00
802.11ax HE20	6	2437	19.83	18.90	19.01	18.62	25.14	30.00	30.00	30.00	30.00	30.00
802.11ax HE20	11	2462	17.86	16.98	17.04	16.66	23.18	30.00	30.00	30.00	30.00	30.00
802.11ax HE40	3	2422	15.96	15.67	15.72	15.41	21.71	30.00	30.00	30.00	30.00	30.00
802.11ax HE40	6	2437	17.71	16.83	16.74	16.49	22.99	30.00	30.00	30.00	30.00	30.00
802.11ax HE40	9	2452	16.61	15.75	15.65	15.31	21.88	30.00	30.00	30.00	30.00	30.00
802.11be EHT20	1	2412	16.53	16.29	16.23	15.96	22.28	30.00	30.00	30.00	30.00	30.00
802.11be EHT20	6	2437	19.91	18.98	19.05	18.74	25.21	30.00	30.00	30.00	30.00	30.00
802.11be EHT20	11	2462	17.93	17.09	17.13	16.73	23.26	30.00	30.00	30.00	30.00	30.00
802.11be EHT40	3	2422	15.99	15.76	15.75	15.47	21.76	30.00	30.00	30.00	30.00	30.00
802.11be EHT40	6	2437	17.80	16.92	16.82	16.60	23.08	30.00	30.00	30.00	30.00	30.00
802.11be EHT40	9	2452	16.69	15.80	15.74	15.42	21.96	30.00	30.00	30.00	30.00	30.00

6 dB Bandwidth						
Mode	Freq. (MHz)	6 dB Bandwidth (kHz)				6 dB Bandwidth Min.Limit (kHz)
		Ant-0	Ant-1	Ant-2	Ant-3	
802.11b	2412	8083	8085	8087	8088	≥ 500
802.11b	2437	9038	8096	8094	8100	≥ 500
802.11b	2462	8077	8084	8086	8081	≥ 500
802.11g	2412	15940	16090	16330	16340	≥ 500
802.11g	2437	15690	16290	16330	16330	≥ 500
802.11g	2462	15780	16070	16320	16330	≥ 500
802.11be EHT20	2412	18540	18590	18720	18650	≥ 500
802.11be EHT20	2437	18570	18540	18570	18540	≥ 500
802.11be EHT20	2462	18550	18580	18530	18560	≥ 500
802.11be EHT40	2422	37320	36550	36040	36020	≥ 500
802.11be EHT40	2437	36600	35790	36750	35580	≥ 500
802.11be EHT40	2452	35390	35880	35880	36260	≥ 500

99 % Occupied BW					
Mode	Freq. (MHz)	99 % Occupied BW (MHz)			
		Ant-0	Ant-1	Ant-2	Ant-3
802.11b	2412	12.688	12.756	12.691	12.634
802.11b	2437	13.506	12.932	12.881	12.745
802.11b	2462	13.008	12.817	12.790	12.629
802.11g	2412	16.446	16.454	16.431	16.403
802.11g	2437	22.900	20.976	20.697	18.986
802.11g	2462	16.553	16.486	16.477	16.442
802.11be EHT20	2412	18.799	18.821	18.811	18.808
802.11be EHT20	2437	19.514	19.149	19.136	19.023
802.11be EHT20	2462	18.882	18.874	18.850	18.855
802.11be EHT40	2422	37.651	37.717	37.833	37.663
802.11be EHT40	2437	37.924	37.840	37.808	37.749
802.11be EHT40	2452	37.728	37.650	37.745	37.798

Maximum Power Spectral Density Measurement											
Mode	Freq. (MHz)	Measurement (dBm/3 kHz)					Max.Limit (dBm/ 3 kHz)				
		Ant-0	Ant-1	Ant-2	Ant-3	SUM	Ant-0	Ant-1	Ant-2	Ant-3	SUM
802.11b	2412	-2.41	-2.70	-2.93	-3.31	3.20	8.00	8.00	8.00	8.00	4.53
802.11b	2437	-1.15	-1.83	-1.81	-2.09	4.31	8.00	8.00	8.00	8.00	4.53
802.11b	2462	-0.92	-1.82	-2.05	-2.65	4.21	8.00	8.00	8.00	8.00	4.53
802.11g	2412	-6.27	-6.48	-6.55	-6.88	-0.52	8.00	8.00	8.00	8.00	4.53
802.11g	2437	-2.51	-2.94	-3.15	-3.33	3.05	8.00	8.00	8.00	8.00	4.53
802.11g	2462	-5.06	-5.79	-6.09	-6.21	0.26	8.00	8.00	8.00	8.00	4.53
802.11be EHT20	2412	-7.40	-7.83	-8.15	-7.96	-1.81	8.00	8.00	8.00	8.00	4.53
802.11be EHT20	2437	-4.34	-3.68	-4.90	-4.91	1.59	8.00	8.00	8.00	8.00	4.53
802.11be EHT20	2462	-5.29	-6.21	-6.51	-6.86	-0.16	8.00	8.00	8.00	8.00	4.53
802.11be EHT40	2422	-10.83	-11.26	-10.83	-11.88	-5.16	8.00	8.00	8.00	8.00	4.53
802.11be EHT40	2437	-9.66	-9.86	-10.33	-10.55	-4.06	8.00	8.00	8.00	8.00	4.53
802.11be EHT40	2452	-10.71	-10.36	-10.71	-11.47	-4.77	8.00	8.00	8.00	8.00	4.53

Beamforming on

2.4 GHz Band							
Mode	CH	Freq. (MHz)	RF power setting in Test SW				Test SW Version
			Ant-0	Ant-1	Ant-2	Ant-3	
802.11ax HE20	1	2412	8.50	8.50	8.50	8.50	QATool_Dbg
802.11ax HE20	6	2437	11.50	11.50	11.50	11.50	
802.11ax HE20	11	2462	9.50	9.50	9.50	9.50	
802.11ax HE40	3	2422	8.00	8.00	8.00	8.00	
802.11ax HE40	6	2437	9.00	9.00	9.00	9.00	
802.11ax HE40	9	2452	8.00	8.00	8.00	8.00	
802.11be EHT20	1	2412	8.50	8.50	8.50	8.50	
802.11be EHT20	6	2437	11.50	11.50	11.50	11.50	
802.11be EHT20	11	2462	9.50	9.50	9.50	9.50	
802.11be EHT40	3	2422	8.00	8.00	8.00	8.00	
802.11be EHT40	6	2437	9.00	9.00	9.00	9.00	
802.11be EHT40	9	2452	8.00	8.00	8.00	8.00	

2.4 GHz Band												
Mode	CH	Freq. (MHz)	Avg Conducted Power (dBm)					Conducted Power Limit (dBm)				
			Ant-0	Ant-1	Ant-2	Ant-3	SUM	Ant-0	Ant-1	Ant-2	Ant-3	SUM
802.11ax HE20	1	2412	10.15	10.06	9.34	9.87	15.89	30.00	30.00	30.00	30.00	26.53
802.11ax HE20	6	2437	13.63	13.28	12.60	12.63	19.08	30.00	30.00	30.00	30.00	26.53
802.11ax HE20	11	2462	11.43	11.20	10.73	10.34	16.97	30.00	30.00	30.00	30.00	26.53
802.11ax HE40	3	2422	9.92	9.83	9.13	9.62	15.66	30.00	30.00	30.00	30.00	26.53
802.11ax HE40	6	2437	11.43	11.10	10.55	10.61	16.96	30.00	30.00	30.00	30.00	26.53
802.11ax HE40	9	2452	10.26	10.01	9.57	9.23	15.81	30.00	30.00	30.00	30.00	26.53
802.11be EHT20	1	2412	10.25	10.18	9.43	9.93	15.98	30.00	30.00	30.00	30.00	26.53
802.11be EHT20	6	2437	13.71	13.40	12.76	12.75	19.19	30.00	30.00	30.00	30.00	26.53
802.11be EHT20	11	2462	11.50	11.28	10.82	10.41	17.04	30.00	30.00	30.00	30.00	26.53
802.11be EHT40	3	2422	10.04	9.89	9.20	9.64	15.72	30.00	30.00	30.00	30.00	26.53
802.11be EHT40	6	2437	11.56	11.18	10.57	10.63	17.02	30.00	30.00	30.00	30.00	26.53
802.11be EHT40	9	2452	10.38	10.16	9.60	9.36	15.91	30.00	30.00	30.00	30.00	26.53