

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	0.696	0.942	73.885	1.314	1.437
802.11g	2412	1.990	2.060	96.602	0.150	0.503
802.11n HT20	2412	5.480	6.260	87.540	0.578	0.182
802.11n HT40	2422	5.460	5.720	95.455	0.202	0.183
802.11ax HE20	2412	5.520	5.740	96.167	0.170	0.181
802.11ax HE40	2422	5.500	5.780	95.156	0.216	0.182

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	
802.11b	1	2412	17.50	17.50	-	-	QSPR Version5.0.00202
802.11b	6	2437	17.50	17.50	-	-	
802.11b	11	2462	17.50	17.50	-	-	
802.11g	1	2412	16.50	16.50	-	-	
802.11g	6	2437	17.50	17.50	-	-	
802.11g	11	2462	15.50	15.50	-	-	
802.11n HT20	1	2412	16.00	16.00	-	-	
802.11n HT20	6	2437	17.50	17.50	-	-	
802.11n HT20	11	2462	15.00	15.00	-	-	
802.11n HT40	3	2422	15.50	15.50	-	-	
802.11n HT40	6	2437	17.00	17.00	-	-	
802.11n HT40	8	2447	14.50	14.50	-	-	
802.11n HT40	9	2452	12.50	12.50	-	-	
802.11ax HE20	1	2412	16.00	16.00	-	-	
802.11ax HE20	6	2437	17.50	17.50	-	-	
802.11ax HE20	11	2462	15.00	15.00	-	-	
802.11ax HE40	3	2422	15.50	15.50	-	-	
802.11ax HE40	6	2437	17.00	17.00	-	-	
802.11ax HE40	8	2447	14.50	14.50	-	-	
802.11ax HE40	9	2452	12.50	12.50	-	-	

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	13M
802.11n HT20	6	2437	13M
802.11n HT20	11	2462	13M
802.11n HT40	3	2422	27M
802.11n HT40	6	2437	27M
802.11n HT40	8	2447	27M
802.11n HT40	9	2452	27M
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	8	2447	MCS0
802.11ax HE40	9	2452	MCS0

2.4 GHz Band																	
Mode	CH	Freq. (MHz)	Avg Conducted Power (dBm)					Peak 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	Ant-0	Ant-1	Ant-2	Ant-3	SUM
802.11b	1	2412	17.41	17.05	-	-	20.24	-	-	-	-	-	30.00	30.00	-	-	30.00
802.11b	6	2437	17.38	16.77	-	-	20.10	-	-	-	-	-	30.00	30.00	-	-	30.00
802.11b	11	2462	17.13	16.96	-	-	20.06	-	-	-	-	-	30.00	30.00	-	-	30.00
802.11g	1	2412	16.57	16.39	-	-	19.49	-	-	-	-	-	30.00	30.00	-	-	30.00
802.11g	6	2437	17.50	17.09	-	-	20.31	-	-	-	-	-	30.00	30.00	-	-	30.00
802.11g	11	2462	15.25	15.21	-	-	18.24	-	-	-	-	-	30.00	30.00	-	-	30.00
802.11n HT20	1	2412	15.61	15.21	-	-	18.42	-	-	-	-	-	30.00	30.00	-	-	30.00
802.11n HT20	6	2437	16.91	16.52	-	-	19.73	-	-	-	-	-	30.00	30.00	-	-	30.00
802.11n HT20	11	2462	14.21	14.13	-	-	17.18	-	-	-	-	-	30.00	30.00	-	-	30.00
802.11n HT40	3	2422	15.11	15.12	-	-	18.13	-	-	-	-	-	30.00	30.00	-	-	30.00
802.11n HT40	6	2437	16.37	16.13	-	-	19.26	-	-	-	-	-	30.00	30.00	-	-	30.00
802.11n HT40	8	2447	14.01	13.96	-	-	17.00	-	-	-	-	-	30.00	30.00	-	-	30.00
802.11n HT40	9	2452	12.11	11.95	-	-	15.04	-	-	-	-	-	30.00	30.00	-	-	30.00
802.11ax HE20	1	2412	15.69	15.32	-	-	18.52	-	-	-	-	-	30.00	30.00	-	-	30.00
802.11ax HE20	6	2437	17.00	16.67	-	-	19.85	-	-	-	-	-	30.00	30.00	-	-	30.00
802.11ax HE20	11	2462	14.32	14.26	-	-	17.30	-	-	-	-	-	30.00	30.00	-	-	30.00
802.11ax HE40	3	2422	15.20	15.21	-	-	18.22	-	-	-	-	-	30.00	30.00	-	-	30.00
802.11ax HE40	6	2437	16.49	16.26	-	-	19.39	-	-	-	-	-	30.00	30.00	-	-	30.00
802.11ax HE40	8	2447	14.10	14.03	-	-	17.08	-	-	-	-	-	30.00	30.00	-	-	30.00
802.11ax HE40	9	2452	12.17	12.06	-	-	15.13	-	-	-	-	-	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	8087	8090	-	-	≥ 500
802.11b	2437	8083	8099	-	-	≥ 500
802.11b	2462	8091	8078	-	-	≥ 500
802.11g	2412	15130	15090	-	-	≥ 500
802.11g	2437	15130	15120	-	-	≥ 500
802.11g	2462	15130	15110	-	-	≥ 500
802.11ax HE20	2412	15050	15100	-	-	≥ 500
802.11ax HE20	2437	15130	15110	-	-	≥ 500
802.11ax HE20	2462	15140	15110	-	-	≥ 500
802.11ax HE40	2422	35120	35120	-	-	≥ 500
802.11ax HE40	2437	36380	35090	-	-	≥ 500
802.11ax HE40	2452	35170	35110	-	-	≥ 500
802.11ax HE40	2452	35140	35100	-	-	≥ 500

99 % Occupied BW					
Mode	Freq. (MHz)	99 % Occupied BW (MHz)			
		Ant-0	Ant-1	Ant-2	Ant-3
802.11b	2412	12.864	12.988	-	-
802.11b	2437	12.931	13.128	-	-
802.11b	2462	12.953	13.022	-	-
802.11g	2412	16.282	16.283	-	-
802.11g	2437	16.313	16.327	-	-
802.11g	2462	16.286	16.298	-	-
802.11ax HE20	2412	18.779	18.809	-	-
802.11ax HE20	2437	18.791	18.835	-	-
802.11ax HE20	2462	18.790	18.824	-	-
802.11ax HE40	2422	37.486	37.541	-	-
802.11ax HE40	2437	37.677	37.688	-	-
802.11ax HE40	2452	37.727	37.595	-	-
802.11ax HE40	2452	37.651	37.516	-	-

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	-4.44	-3.06	-	-	-0.69	8.00	8.00	-	-	7.67
802.11b	2437	-5.20	-1.44	-	-	0.09	8.00	8.00	-	-	7.67
802.11b	2462	-3.03	-6.21	-	-	-1.32	8.00	8.00	-	-	7.67
802.11g	2412	-8.12	-9.31	-	-	-5.66	8.00	8.00	-	-	7.67
802.11g	2437	-8.22	-8.33	-	-	-5.26	8.00	8.00	-	-	7.67
802.11g	2462	-10.55	-10.11	-	-	-7.31	8.00	8.00	-	-	7.67
802.11ax HE20	2412	-9.05	-7.78	-	-	-5.36	8.00	8.00	-	-	7.67
802.11ax HE20	2437	-7.24	-7.20	-	-	-4.21	8.00	8.00	-	-	7.67
802.11ax HE20	2462	-10.09	-10.08	-	-	-7.07	8.00	8.00	-	-	7.67
802.11ax HE40	2422	-11.33	-11.04	-	-	-8.17	8.00	8.00	-	-	7.67
802.11ax HE40	2437	-10.17	-10.59	-	-	-7.36	8.00	8.00	-	-	7.67
802.11ax HE40	2452	-11.84	-11.98	-	-	-8.90	8.00	8.00	-	-	7.67
802.11ax HE40	2452	-14.24	-14.73	-	-	-11.47	8.00	8.00	-	-	7.67

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	
802.11n HT20	1	2412	16.00	16.00	-	-	QSPR Version5.0.00202
802.11n HT20	6	2437	17.50	17.50	-	-	
802.11n HT20	11	2462	15.00	15.00	-	-	
802.11n HT40	3	2422	15.50	15.50	-	-	
802.11n HT40	6	2437	17.00	17.00	-	-	
802.11n HT40	8	2447	14.50	14.50	-	-	
802.11n HT40	9	2452	12.50	12.50	-	-	
802.11ax HE20	1	2412	16.00	16.00	-	-	
802.11ax HE20	6	2437	17.50	17.50	-	-	
802.11ax HE20	11	2462	15.00	15.00	-	-	
802.11ax HE40	3	2422	15.50	15.50	-	-	
802.11ax HE40	6	2437	17.00	17.00	-	-	
802.11ax HE40	8	2447	14.50	14.50	-	-	
802.11ax HE40	9	2452	12.50	12.50	-	-	

2.4 GHz Band																		
Mode	CH	Freq. (MHz)	Avg Conducted Power (dBm)					Peak 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	Ant-0	Ant-1	Ant-2	Ant-3	SUM	
802.11n HT20	1	2412	15.30	15.04	-	-	18.18	-	-	-	-	-	30.00	30.00	-	-	29.67	
802.11n HT20	6	2437	16.72	16.60	-	-	19.67	-	-	-	-	-	30.00	30.00	-	-	29.67	
802.11n HT20	11	2462	14.02	14.00	-	-	17.02	-	-	-	-	-	30.00	30.00	-	-	29.67	
802.11n HT40	3	2422	14.87	14.86	-	-	17.88	-	-	-	-	-	30.00	30.00	-	-	29.67	
802.11n HT40	6	2437	16.17	16.02	-	-	19.11	-	-	-	-	-	30.00	30.00	-	-	29.67	
802.11n HT40	8	2447	13.85	13.73	-	-	16.80	-	-	-	-	-	30.00	30.00	-	-	29.67	
802.11n HT40	9	2452	12.01	11.81	-	-	14.92	-	-	-	-	-	30.00	30.00	-	-	29.67	
802.11ax HE20	1	2412	15.49	15.19	-	-	18.35	-	-	-	-	-	30.00	30.00	-	-	29.67	
802.11ax HE20	6	2437	16.77	16.53	-	-	19.66	-	-	-	-	-	30.00	30.00	-	-	29.67	
802.11ax HE20	11	2462	14.09	14.08	-	-	17.10	-	-	-	-	-	30.00	30.00	-	-	29.67	
802.11ax HE40	3	2422	15.00	15.02	-	-	18.02	-	-	-	-	-	30.00	30.00	-	-	29.67	
802.11ax HE40	6	2437	16.21	16.13	-	-	19.18	-	-	-	-	-	30.00	30.00	-	-	29.67	
802.11ax HE40	8	2447	13.85	13.81	-	-	16.84	-	-	-	-	-	30.00	30.00	-	-	29.67	
802.11ax HE40	9	2452	11.95	11.79	-	-	14.88	-	-	-	-	-	30.00	30.00	-	-	29.67	