

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)
802.11a	5180	1.405	1.440	97.569	0.107	0.712
802.11n HT20	5180	1.310	1.345	97.398	0.115	0.763
802.11n HT40	5190	0.657	0.693	94.805	0.232	1.522
802.11ac VHT20	5180	1.325	1.355	97.786	0.097	0.755
802.11ac VHT40	5190	0.660	0.696	94.828	0.231	1.515
802.11ac VHT80	5210	0.330	0.368	89.592	0.477	3.033

RF power setting in Test SW

Mode	CH	Frequency (MHz)	Ant-0	Ant-1	Ant-2	Ant-3	Test SW Version
802.11a	36	5180	19	-	-	-	Engineering code
	40	5200	19.5	-	-	-	
	48	5240	19.5	-	-	-	
	149	5745	22	-	-	-	
	157	5785	22	-	-	-	
	165	5825	22	-	-	-	
802.11n HT20	36	5180	19	-	-	-	Engineering code
	40	5200	19.5	-	-	-	
	48	5240	19.5	-	-	-	
	149	5745	22.5	-	-	-	
	157	5785	22.5	-	-	-	
	165	5825	22	-	-	-	
802.11n HT40	38	5190	17.5	-	-	-	Engineering code
	46	5230	19.5	-	-	-	
	151	5755	21.5	-	-	-	
	159	5795	21.5	-	-	-	
802.11ac VHT20	36	5180	19	-	-	-	Engineering code
	40	5200	19.5	-	-	-	
	48	5240	19.5	-	-	-	
	149	5745	22.5	-	-	-	
	157	5785	22.5	-	-	-	
	165	5825	22	-	-	-	
802.11ac VHT40	38	5190	17.5	-	-	-	Engineering code
	46	5230	19.5	-	-	-	
	151	5755	21.5	-	-	-	
	159	5795	21.5	-	-	-	
802.11ac VHT80	42	5210	16.5	-	-	-	Engineering code
	155	5775	19.5	-	-	-	

Maximum Conducted Output Power Measurement							
Mode	CH	Frequency (MHz)	Average power				Limit
			Ant-0	Ant-1	Ant-2	Ant-3	
			dBm	dBm	dBm	dBm	
802.11a	36	5180	14.92	-	-	-	24.00
	40	5200	14.88	-	-	-	24.00
	48	5240	14.98	-	-	-	24.00
	149	5745	14.78	-	-	-	30.00
	157	5785	14.88	-	-	-	30.00
	165	5825	14.82	-	-	-	30.00
802.11n HT20	36	5180	14.68	-	-	-	24.00
	40	5200	14.84	-	-	-	24.00
	48	5240	14.86	-	-	-	24.00
	149	5745	14.88	-	-	-	30.00
	157	5785	14.85	-	-	-	30.00
	165	5825	14.61	-	-	-	30.00
802.11n HT40	38	5190	13.00	-	-	-	24.00
	46	5230	14.68	-	-	-	24.00
	151	5755	14.61	-	-	-	30.00
	159	5795	14.60	-	-	-	30.00
802.11ac VHT20	36	5180	14.73	-	-	-	24.00
	40	5200	14.91	-	-	-	24.00
	48	5240	14.89	-	-	-	24.00
	149	5745	14.94	-	-	-	30.00
	157	5785	14.98	-	-	-	30.00
	165	5825	14.70	-	-	-	30.00
802.11ac VHT40	38	5190	13.08	-	-	-	24.00
	46	5230	14.74	-	-	-	24.00
	151	5755	14.65	-	-	-	30.00
	159	5795	14.64	-	-	-	30.00
802.11ac VHT80	42	5210	11.94	-	-	-	24.00
	155	5775	12.50	-	-	-	30.00

26 dB & 99 % RF Bandwidth Measurement

Mode	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
802.11a	36	5180	16.956	-	-	-	21.690	-	-	-
	40	5200	17.063	-	-	-	25.150	-	-	-
	48	5240	17.093	-	-	-	27.920	-	-	-
802.11ac VHT20	36	5180	17.955	-	-	-	24.190	-	-	-
	40	5200	18.042	-	-	-	29.760	-	-	-
	48	5240	18.043	-	-	-	30.880	-	-	-
802.11ac VHT40	38	5190	36.286	-	-	-	41.070	-	-	-
	46	5230	36.553	-	-	-	55.960	-	-	-
802.11ac VHT80	42	5210	75.471	-	-	-	93.830	-	-	-

Band III_6 dB & 99 % RF Bandwidth Measurement

Mode	CH	Freq. (MHz)	99 % Bandwidth				6 dB Bandwidth				6dB Limit
			Ant-0	Ant-1	Ant-2	Ant-3	Ant-0	Ant-1	Ant-2	Ant-3	
			MHz	MHz	MHz	MHz	kHz	kHz	kHz	kHz	
802.11a	149	5745	20.955	-	-	-	15110	-	-	-	≥ 500 kHz
	157	5785	20.970	-	-	-	15120	-	-	-	
	165	5825	21.605	-	-	-	15130	-	-	-	
802.11ac VHT20	149	5745	24.986	-	-	-	15140	-	-	-	
	157	5785	24.870	-	-	-	15120	-	-	-	
	165	5825	22.093	-	-	-	15120	-	-	-	
802.11ac VHT40	151	5755	42.924	-	-	-	35110	-	-	-	
	159	5795	42.296	-	-	-	35100	-	-	-	
802.11ac VHT80	155	5775	76.094	-	-	-	75170	-	-	-	

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
802.11a	36	5180	4.302	-	-	-	0.107	4.409	11.000
	40	5200	4.202	-	-	-	0.107	4.309	11.000
	48	5240	4.615	-	-	-	0.107	4.722	11.000
802.11ac VHT20	36	5180	3.939	-	-	-	0.097	4.036	11.000
	40	5200	4.053	-	-	-	0.097	4.150	11.000
	48	5240	3.880	-	-	-	0.097	3.977	11.000
802.11ac VHT40	38	5190	-0.818	-	-	-	0.231	-0.587	11.000
	46	5230	0.895	-	-	-	0.231	1.126	11.000
802.11ac VHT80	42	5210	-5.489	-	-	-	0.477	-5.011	11.000

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

Band III_ Power Spectral Density Measurement

Band III_ Power Spectral Density Measurement													
Mode	CH	Frequency (MHz)	Measurement								Duty Factor	Limit	PASS/FAIL
			Ant-0		Ant-1		Ant-2		Ant-3				
			dBm/100 kHz	dBm/500 kHz	dBm/100 kHz	dBm/500 kHz	dBm/100 kHz	dBm/500 kHz	dBm/100 kHz	dBm/500 kHz			
802.11a	149	5745	-4.925	2.171	-	-	-	-	-	-	0.107	30.00	PASS
	157	5785	-5.251	1.845	-	-	-	-	-	-	0.107	30.00	PASS
	165	5825	-5.132	1.965	-	-	-	-	-	-	0.107	30.00	PASS
802.11ac VHT20	149	5745	-5.018	2.069	-	-	-	-	-	-	0.097	30.00	PASS
	157	5785	-4.778	2.309	-	-	-	-	-	-	0.097	30.00	PASS
	165	5825	-5.269	1.818	-	-	-	-	-	-	0.097	30.00	PASS
802.11ac VHT40	151	5755	-8.814	-1.593	-	-	-	-	-	-	0.231	30.00	PASS
	159	5795	-8.687	-1.467	-	-	-	-	-	-	0.231	30.00	PASS
802.11ac VHT80	155	5775	-13.251	-5.784	-	-	-	-	-	-	0.477	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)