

Appendix A. Test Data

Duty cycle						
Band	Frequency (MHz)	on time (ms)	on+off time (ms)	Duty cycle (%)	Duty Factor (dB)	1/T Minimun VBW (kHz)
802.11a	5180	1.446	1.537	94.079	0.265	0.692
802.11n HT20	5180	1.348	1.439	93.676	0.284	0.742

Maximum Conducted Output Power Measurement					
Band	Data Rate or Sub-test	CH	Frequency (MHz)	Average power	Limit
				Ant-0	
				dBm	dBm
802.11a	6M	36	5180	15.48	24.00
		40	5200	19.55	24.00
		48	5240	19.46	24.00
		52	5260	21.28	24.00
		56	5280	21.24	24.00
		60	5300	21.26	24.00
		64	5320	16.08	24.00
		100	5500	13.48	24.00
		104	5520	18.59	24.00
		112	5560	19.96	24.00
		136	5680	19.16	24.00
		140	5700	14.92	24.00
		149	5745	19.84	30.00
		157	5785	20.21	30.00
802.11n HT20	6.5M	36	5180	16.08	24.00
		40	5200	18.93	24.00
		48	5240	18.51	24.00
		52	5260	21.26	24.00
		56	5280	21.35	24.00
		60	5200	21.32	24.00
		64	5320	16.21	24.00
		100	5500	13.89	24.00
		104	5520	17.36	24.00
		112	5560	20.98	24.00
		134	5680	18.09	24.00
		140	5700	14.13	24.00
		149	5745	19.90	30.00
		157	5785	20.18	30.00
165	5825	19.83	30.00		

26 dB & 99 % RF Bandwidth Measurement				
Band	CH	Freq. (MHz)	99 % Bandwidth	26 dB Bandwidth
			Ant-0	Ant-0
			MHz	MHz
802.11a	36	5180	17.014	21.300
	40	5200	20.434	41.670
	48	5240	17.965	33.190
	52	5260	30.736	44.010
	56	5280	31.078	46.900
	64	5320	17.018	21.150
	100	5500	17.143	21.170
	112	5560	29.710	43.070
	140	5700	17.053	21.270
802.11n HT20	36	5180	18.030	21.530
	40	5200	22.537	42.930
	48	5240	18.488	37.700
	52	5260	31.509	46.240
	56	5280	32.744	45.480
	64	5320	18.072	21.510
	100	5500	18.054	21.510
	112	5560	31.675	46.860
	140	5700	18.145	21.440

Band III_6 dB & 99 % RF Bandwidth Measurement					
Band	CH	Freq. (MHz)	99 % Bandwidth	6 dB Bandwidth	6dB Limit For FCC
			Ant-0	Ant-0	
			MHz	kHz	
802.11a	149	5745	29.680	15130	≥ 500 kHz
	157	5785	30.417	15100	
	165	5825	29.402	15400	
802.11n HT20	149	5745	31.441	15140	
	157	5785	31.531	15130	
	165	5825	31.148	15130	

Power Spectral Density Measurement						
Band	CH	Frequency (MHz)	Measurement	Duty Factor	Calculated	Limit
			Ant-0		Total	
			dBm/MHz	dB	dBm/MHz	dBm/MHz
802.11a	36	5180	3.881	0.265	4.146	11.000
	40	5200	8.025	0.265	8.290	11.000
	48	5240	7.983	0.265	8.248	11.000
	52	5260	9.926	0.265	10.192	11.000
	56	5280	10.025	0.265	10.290	11.000
	64	5320	4.294	0.265	4.559	11.000
	100	5500	2.335	0.265	2.600	11.000
	112	5560	9.056	0.265	9.321	11.000
	140	5700	3.659	0.265	3.924	11.000
802.11n HT20	36	5180	4.386	0.284	4.670	11.000
	40	5200	7.151	0.284	7.435	11.000
	48	5240	6.851	0.284	7.135	11.000
	52	5260	9.896	0.284	10.180	11.000
	56	5280	9.876	0.284	10.160	11.000
	64	5320	4.017	0.284	4.300	11.000
	100	5500	2.395	0.284	2.679	11.000
	112	5560	9.675	0.284	9.959	11.000
	140	5700	2.330	0.284	2.614	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	CH	Frequency (MHz)	Measurement		Duty Factor	Calculated	Limit	PASS/FAIL
			Ant-0			Total		
			dBm/100 kHz	dBm/500 kHz	dB	dBm/500 kHz	dBm/500 kHz	
802.11a	149	5745	-0.096	7.159	0.265	7.424	30.00	PASS
	157	5785	0.102	7.357	0.265	7.622	30.00	PASS
	165	5825	-0.314	6.941	0.265	7.206	30.00	PASS
802.11n HT20	149	5745	-0.836	6.437	0.284	6.721	30.00	PASS
	157	5785	-0.441	6.832	0.284	7.116	30.00	PASS
	165	5825	-0.866	6.408	0.284	6.692	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)