























Product	AC220m Wi-Fi module OD US			Temperature	25°C			
Test Engineer	Peter Xu			Relative Humidity	54%			
Test Site	SR2			Test Date	2018/03/22			
Test Item	Power Spectral Density (Directional Antenna)							

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	AVG PSD (dBm/10kHz)	Duty Cycle (%)	Constant Factor	Total AVG PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
<b>Ant 0</b>									
11b	1Mbps	1	2412	-2.48	98.56	-5.23	-7.71	≤ 6.30	Pass
11b	1Mbps	6	2437	-0.28	98.56	-5.23	-5.51	≤ 6.30	Pass
11b	1Mbps	11	2462	-1.56	98.56	-5.23	-6.79	≤ 6.30	Pass
11g	6Mbps	1	2412	-9.99	95.58	-5.23	-15.02	≤ 6.30	Pass
11g	6Mbps	6	2437	-4.87	95.58	-5.23	-9.90	≤ 6.30	Pass
11g	6Mbps	11	2462	-11.59	95.58	-5.23	-16.62	≤ 6.30	Pass
11n-HT20	MCS0	1	2412	-9.94	97.83	-5.23	-15.07	≤ 6.30	Pass
11n-HT20	MCS0	6	2437	-4.33	97.83	-5.23	-9.46	≤ 6.30	Pass
11n-HT20	MCS0	11	2462	-11.84	97.83	-5.23	-16.97	≤ 6.30	Pass
11n-HT40	MCS0	3	2422	-14.82	94.96	-5.23	-19.83	≤ 6.30	Pass
11n-HT40	MCS0	6	2437	-13.15	94.96	-5.23	-18.16	≤ 6.30	Pass
11n-HT40	MCS0	9	2452	-16.25	94.96	-5.23	-21.26	≤ 6.30	Pass
<b>Ant 1</b>									
11b	1Mbps	1	2412	1.11	98.56	-5.23	-4.12	≤ 5.50	Pass
11b	1Mbps	6	2437	-3.30	98.56	-5.23	-8.53	≤ 5.50	Pass
11b	1Mbps	11	2462	-1.29	98.56	-5.23	-6.52	≤ 5.50	Pass
11g	6Mbps	1	2412	-10.06	95.58	-5.23	-15.09	≤ 5.50	Pass
11g	6Mbps	6	2437	-5.83	95.58	-5.23	-10.86	≤ 5.50	Pass
11g	6Mbps	11	2462	-11.76	95.58	-5.23	-16.79	≤ 5.50	Pass
11n-HT20	MCS0	1	2412	-10.61	97.83	-5.23	-15.74	≤ 5.50	Pass
11n-HT20	MCS0	6	2437	-5.01	97.83	-5.23	-10.14	≤ 5.50	Pass
11n-HT20	MCS0	11	2462	-11.57	97.83	-5.23	-16.70	≤ 5.50	Pass
11n-HT40	MCS0	3	2422	-14.59	94.96	-5.23	-19.60	≤ 5.50	Pass
11n-HT40	MCS0	6	2437	-13.60	94.96	-5.23	-18.61	≤ 5.50	Pass
11n-HT40	MCS0	9	2452	-15.74	94.96	-5.23	-20.75	≤ 5.50	Pass

Note 1: When EUT duty cycle < 98%, Total AVG PSD = AVG PSD +  $10 \log(1/\text{duty cycle}) + \text{Constant Factor}$ .

Note 2: When EUT duty cycle > 98%, Total AVG PSD = AVG PSD + Constant Factor.

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Ant 0 AVGPSD (dBm / 10kHz)	Ant 1 AVGPSD (dBm / 10kHz)	Duty Cycle (%)	Constant Factor (dB)	Total AVGPSD (dBm / 10kHz)	Limit (dBm / 3kHz)	Result
Ant 0 + 1 (CDD Mode)										
11b	1Mbps	1	2412	-1.77	-1.86	98.56	-5.23	-4.03	≤ 2.49	Pass
11b	1Mbps	6	2437	-1.18	-3.01	98.56	-5.23	-4.22	≤ 2.49	Pass
11b	1Mbps	11	2462	-3.43	-2.39	98.56	-5.23	-5.10	≤ 2.49	Pass
11g	6Mbps	1	2412	-12.67	-12.29	95.58	-5.23	-14.50	≤ 2.49	Pass
11g	6Mbps	6	2437	-5.58	-6.06	95.58	-5.23	-7.84	≤ 2.49	Pass
11g	6Mbps	11	2462	-12.72	-12.63	95.58	-5.23	-14.70	≤ 2.49	Pass
11n-HT20	MCS0	1	2412	-13.06	-12.76	97.83	-5.23	-15.03	≤ 2.49	Pass
11n-HT20	MCS0	6	2437	-5.68	-6.04	97.83	-5.23	-7.98	≤ 2.49	Pass
11n-HT20	MCS0	11	2462	-14.15	-13.40	97.83	-5.23	-15.88	≤ 2.49	Pass
11n-HT40	MCS0	3	2422	-17.13	-16.10	94.96	-5.23	-18.58	≤ 2.49	Pass
11n-HT40	MCS0	6	2437	-14.76	-14.20	94.96	-5.23	-16.47	≤ 2.49	Pass
11n-HT40	MCS0	9	2452	-18.36	-17.30	94.96	-5.23	-19.79	≤ 2.49	Pass
Ant 0 + 1 (Beam-Forming Mode)										
11n-HT20	MCS0	1	2412	-10.43	-10.18	97.83	-5.23	-12.43	≤ 2.88	Pass
11n-HT20	MCS0	6	2437	-8.68	-8.26	97.83	-5.23	-10.59	≤ 2.88	Pass
11n-HT20	MCS0	11	2462	-12.79	-12.57	97.83	-5.23	-14.80	≤ 2.88	Pass
11n-HT40	MCS0	3	2422	-14.04	-13.27	94.96	-5.23	-15.63	≤ 2.88	Pass
11n-HT40	MCS0	6	2437	-11.53	-11.22	94.96	-5.23	-13.37	≤ 2.88	Pass
11n-HT40	MCS0	9	2452	-15.11	-15.56	94.96	-5.23	-17.32	≤ 2.88	Pass

Note 1: When EUT duty cycle < 98%, Total AVGPSD =  $10^{\log\{10^{(\text{Ant 0 AVGPSD}/10)} + 10^{(\text{Ant 1 AVGPSD}/10)}\}} + 10^{\log(1/\text{duty cycle})}$ .

Note 2: When EUT duty cycle > 98%, Total AVGPSD =  $10^{\log\{10^{(\text{Ant 0 AVGPSD}/10)} + 10^{(\text{Ant 1 AVGPSD}/10)}\}}$ .





















