Output Power Measurement Limit of FPMI2458-DP4RPSMA Antenna

Frequency Band (MHz)	Per Chain Max Antenna Gain (dBi)				CDD & Beam Forming Directional Gain (dBi)	Limit of SISO (dBm)				Limit of MIMO (dBm)
	Ant 0	Ant 1	Ant 2	Ant 3		Ant 0	Ant 1	Ant 2	Ant 3	Ant 0+1+2+3
5150 ~ 5250	5.79	5.57	5.89	5.05	11.60	30.00	30.00	30.00	30.00	24.40
5150 ~ 5250 30°elevation angle	5.10	2.27	4.94	4.06	N/A	N/A	N/A	N/A	N/A	N/A
5725 ~ 5850	5.24	5.09	6.73	5.62	11.71	30.00	30.00	29.27	30.00	24.29

Product	US WI-FI AP 4X4 OD ext. antenna	Temperature	25°C
Test Engineer	Johnson Liao	Relative Humidity	50 ~ 58%
Test Site	SR2	Test Date	2016/08/21
Test Item	Output Power	Antenna Model No.	FPMI2458-DP4RPSMA

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Max EIRP of 30° Elevation Angle (dBm)	EIRP Limit of 30° Elevation Angle (dBm)	Result
Ant 0									
11a	6	36	5180	15.78	15.78	≤ 30.00	20.88	≤ 21.00	Pass
11a	6	44	5220	15.46	15.46	≤ 30.00	20.56	≤ 21.00	Pass
11a	6	48	5240	15.58	15.58	≤ 30.00	20.68	≤ 21.00	Pass
11a	6	149	5745	22.67	22.67	≤ 30.00	--	--	Pass
11a	6	157	5785	22.42	22.42	≤ 30.00	--	--	Pass
11a	6	165	5825	22.02	22.02	≤ 30.00	--	--	Pass
11n-HT20	6.5	36	5180	15.58	15.58	≤ 30.00	20.68	≤ 21.00	Pass
11n-HT20	6.5	44	5220	15.74	15.74	≤ 30.00	20.84	≤ 21.00	Pass
11n-HT20	6.5	48	5240	15.34	15.34	≤ 30.00	20.44	≤ 21.00	Pass
11n-HT20	6.5	149	5745	22.46	22.46	≤ 30.00	--	--	Pass
11n-HT20	6.5	157	5785	22.21	22.21	≤ 30.00	--	--	Pass
11n-HT20	6.5	165	5825	21.80	21.80	≤ 30.00	--	--	Pass
11n-HT40	13.5	38	5190	15.57	15.57	≤ 30.00	20.67	≤ 21.00	Pass
11n-HT40	13.5	46	5230	15.49	15.49	≤ 30.00	20.59	≤ 21.00	Pass
11n-HT40	13.5	151	5755	22.48	22.48	≤ 30.00	--	--	Pass
11n-HT40	13.5	159	5795	22.19	22.19	≤ 30.00	--	--	Pass
11ac-VHT20	6.5	36	5180	15.56	15.56	≤ 30.00	20.66	≤ 21.00	Pass
11ac-VHT20	6.5	44	5220	15.24	15.24	≤ 30.00	20.34	≤ 21.00	Pass
11ac-VHT20	6.5	48	5240	15.35	15.35	≤ 30.00	20.45	≤ 21.00	Pass
11ac-VHT20	6.5	149	5745	22.51	22.51	≤ 30.00	--	--	Pass
11ac-VHT20	6.5	157	5785	22.22	22.22	≤ 30.00	--	--	Pass
11ac-VHT20	6.5	165	5825	21.83	21.83	≤ 30.00	--	--	Pass

Note: Max EIRP of 30° Elevation Angle (dBm) = Total Average Power (dBm) + 30° Elevation Angle Gain (dBi).

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Max EIRP of 30° Elevation Angle (dBm)	EIRP Limit of 30° Elevation Angle (dBm)	Result
Ant 0									
11ac-VHT40	13.5	38	5190	15.57	15.57	≤ 30.00	20.67	≤ 21.00	Pass
11ac-VHT40	13.5	46	5230	15.49	15.49	≤ 30.00	20.59	≤ 21.00	Pass
11ac-VHT40	13.5	151	5755	22.49	22.49	≤ 30.00	--	--	Pass
11ac-VHT40	13.5	159	5795	22.19	22.19	≤ 30.00	--	--	Pass
11ac-VHT80	29.3	42	5210	15.62	15.62	≤ 30.00	20.72	≤ 21.00	Pass
11ac-VHT80	29.3	155	5775	22.17	22.17	≤ 30.00	--	--	Pass

Note: Max EIRP of 30° Elevation Angle (dBm) = Total Average Power (dBm) + 30° Elevation Angle Gain (dBi).

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Max EIRP of 30° Elevation Angle (dBm)	EIRP Limit of 30° Elevation Angle (dBm)	Result
Ant 1									
11a	6	36	5180	18.24	18.24	≤ 30.00	20.51	≤ 21.00	Pass
11a	6	44	5220	18.42	18.42	≤ 30.00	20.69	≤ 21.00	Pass
11a	6	48	5240	18.04	18.04	≤ 30.00	20.31	≤ 21.00	Pass
11a	6	149	5745	22.76	22.76	≤ 30.00	--	--	Pass
11a	6	157	5785	22.32	22.32	≤ 30.00	--	--	Pass
11a	6	165	5825	21.68	21.68	≤ 30.00	--	--	Pass
11n-HT20	6.5	36	5180	17.98	17.98	≤ 30.00	20.25	≤ 21.00	Pass
11n-HT20	6.5	44	5220	18.15	18.15	≤ 30.00	20.42	≤ 21.00	Pass
11n-HT20	6.5	48	5240	18.22	18.22	≤ 30.00	20.49	≤ 21.00	Pass
11n-HT20	6.5	149	5745	22.51	22.51	≤ 30.00	--	--	Pass
11n-HT20	6.5	157	5785	22.09	22.09	≤ 30.00	--	--	Pass
11n-HT20	6.5	165	5825	21.47	21.47	≤ 30.00	--	--	Pass
11n-HT40	13.5	38	5190	18.16	18.16	≤ 30.00	20.43	≤ 21.00	Pass
11n-HT40	13.5	46	5230	18.33	18.33	≤ 30.00	20.60	≤ 21.00	Pass
11n-HT40	13.5	151	5755	22.44	22.44	≤ 30.00	--	--	Pass
11n-HT40	13.5	159	5795	22.00	22.00	≤ 30.00	--	--	Pass
11ac-VHT20	6.5	36	5180	17.98	17.98	≤ 30.00	20.25	≤ 21.00	Pass
11ac-VHT20	6.5	44	5220	18.16	18.16	≤ 30.00	20.43	≤ 21.00	Pass
11ac-VHT20	6.5	48	5240	18.25	18.25	≤ 30.00	20.52	≤ 21.00	Pass
11ac-VHT20	6.5	149	5745	22.50	22.50	≤ 30.00	--	--	Pass
11ac-VHT20	6.5	157	5785	22.10	22.10	≤ 30.00	--	--	Pass
11ac-VHT20	6.5	165	5825	21.45	21.45	≤ 30.00	--	--	Pass
11ac-VHT40	13.5	38	5190	18.15	18.15	≤ 30.00	20.42	≤ 21.00	Pass
11ac-VHT40	13.5	46	5230	18.35	18.35	≤ 30.00	20.62	≤ 21.00	Pass
11ac-VHT40	13.5	151	5755	22.47	22.47	≤ 30.00	--	--	Pass
11ac-VHT40	13.5	159	5795	22.02	22.02	≤ 30.00	--	--	Pass
11ac-VHT80	29.3	42	5210	18.41	18.41	≤ 30.00	20.68	≤ 21.00	Pass
11ac-VHT80	29.3	155	5775	21.91	21.91	≤ 30.00	--	--	Pass

Note: Max EIRP of 30° Elevation Angle (dBm) = Total Average Power (dBm) + 30° Elevation Angle Gain (dBi).

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Max EIRP of 30° Elevation Angle (dBm)	EIRP Limit of 30° Elevation Angle (dBm)	Result
Ant 2									
11a	6	36	5180	15.32	15.32	≤ 30.00	20.26	≤ 21.00	Pass
11a	6	44	5220	15.49	15.49	≤ 30.00	20.43	≤ 21.00	Pass
11a	6	48	5240	15.52	15.52	≤ 30.00	20.46	≤ 21.00	Pass
11a	6	149	5745	22.78	22.78	≤ 29.27	--	--	Pass
11a	6	157	5785	22.48	22.48	≤ 29.27	--	--	Pass
11a	6	165	5825	21.92	21.92	≤ 29.27	--	--	Pass
11n-HT20	6.5	36	5180	15.60	15.60	≤ 30.00	20.54	≤ 21.00	Pass
11n-HT20	6.5	44	5220	15.26	15.26	≤ 30.00	20.20	≤ 21.00	Pass
11n-HT20	6.5	48	5240	15.29	15.29	≤ 30.00	20.23	≤ 21.00	Pass
11n-HT20	6.5	149	5745	22.51	22.51	≤ 29.27	--	--	Pass
11n-HT20	6.5	157	5785	22.22	22.22	≤ 29.27	--	--	Pass
11n-HT20	6.5	165	5825	21.66	21.66	≤ 29.27	--	--	Pass
11n-HT40	13.5	38	5190	15.75	15.75	≤ 30.00	20.69	≤ 21.00	Pass
11n-HT40	13.5	46	5230	15.42	15.42	≤ 30.00	20.36	≤ 21.00	Pass
11n-HT40	13.5	151	5755	22.65	22.65	≤ 29.27	--	--	Pass
11n-HT40	13.5	159	5795	22.31	22.31	≤ 29.27	--	--	Pass
11ac-VHT20	6.5	36	5180	15.62	15.62	≤ 30.00	20.56	≤ 21.00	Pass
11ac-VHT20	6.5	44	5220	15.77	15.77	≤ 30.00	20.71	≤ 21.00	Pass
11ac-VHT20	6.5	48	5240	15.81	15.81	≤ 30.00	20.75	≤ 21.00	Pass
11ac-VHT20	6.5	149	5745	22.59	22.59	≤ 29.27	--	--	Pass
11ac-VHT20	6.5	157	5785	22.26	22.26	≤ 29.27	--	--	Pass
11ac-VHT20	6.5	165	5825	21.68	21.68	≤ 29.27	--	--	Pass
11ac-VHT40	13.5	38	5190	15.78	15.78	≤ 30.00	20.72	≤ 21.00	Pass
11ac-VHT40	13.5	46	5230	15.41	15.41	≤ 30.00	20.35	≤ 21.00	Pass
11ac-VHT40	13.5	151	5755	22.61	22.61	≤ 29.27	--	--	Pass
11ac-VHT40	13.5	159	5795	22.34	22.34	≤ 29.27	--	--	Pass
11ac-VHT80	29.3	42	5210	15.64	15.64	≤ 30.00	20.58	≤ 21.00	Pass
11ac-VHT80	29.3	155	5775	22.27	22.27	≤ 29.27	--	--	Pass

Note: Max EIRP of 30° Elevation Angle (dBm) = Total Average Power (dBm) + 30° Elevation Angle Gain (dBi).

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Max EIRP of 30° Elevation Angle (dBm)	EIRP Limit of 30° Elevation Angle (dBm)	Result
Ant 3									
11a	6	36	5180	16.66	16.66	≤ 30.00	20.72	≤ 21.00	Pass
11a	6	44	5220	16.37	16.37	≤ 30.00	20.43	≤ 21.00	Pass
11a	6	48	5240	16.61	16.61	≤ 30.00	20.67	≤ 21.00	Pass
11a	6	149	5745	22.57	22.57	≤ 30.00	--	--	Pass
11a	6	157	5785	22.22	22.22	≤ 30.00	--	--	Pass
11a	6	165	5825	21.66	21.66	≤ 30.00	--	--	Pass
11n-HT20	6.5	36	5180	16.43	16.43	≤ 30.00	20.49	≤ 21.00	Pass
11n-HT20	6.5	44	5220	16.63	16.63	≤ 30.00	20.69	≤ 21.00	Pass
11n-HT20	6.5	48	5240	16.37	16.37	≤ 30.00	20.43	≤ 21.00	Pass
11n-HT20	6.5	149	5745	22.33	22.33	≤ 30.00	--	--	Pass
11n-HT20	6.5	157	5785	21.99	21.99	≤ 30.00	--	--	Pass
11n-HT20	6.5	165	5825	21.45	21.45	≤ 30.00	--	--	Pass
11n-HT40	13.5	38	5190	16.61	16.61	≤ 30.00	20.67	≤ 21.00	Pass
11n-HT40	13.5	46	5230	16.38	16.38	≤ 30.00	20.44	≤ 21.00	Pass
11n-HT40	13.5	151	5755	22.34	22.34	≤ 30.00	--	--	Pass
11n-HT40	13.5	159	5795	21.96	21.96	≤ 30.00	--	--	Pass
11ac-VHT20	6.5	36	5180	16.45	16.45	≤ 30.00	20.51	≤ 21.00	Pass
11ac-VHT20	6.5	44	5220	16.61	16.61	≤ 30.00	20.67	≤ 21.00	Pass
11ac-VHT20	6.5	48	5240	16.38	16.38	≤ 30.00	20.44	≤ 21.00	Pass
11ac-VHT20	6.5	149	5745	22.36	22.36	≤ 30.00	--	--	Pass
11ac-VHT20	6.5	157	5785	21.98	21.98	≤ 30.00	--	--	Pass
11ac-VHT20	6.5	165	5825	21.45	21.45	≤ 30.00	--	--	Pass
11ac-VHT40	13.5	38	5190	16.63	16.63	≤ 30.00	20.69	≤ 21.00	Pass
11ac-VHT40	13.5	46	5230	16.37	16.37	≤ 30.00	20.43	≤ 21.00	Pass
11ac-VHT40	13.5	151	5755	22.33	22.33	≤ 30.00	--	--	Pass
11ac-VHT40	13.5	159	5795	21.98	21.98	≤ 30.00	--	--	Pass
11ac-VHT80	29.3	42	5210	16.60	16.60	≤ 30.00	20.66	≤ 21.00	Pass
11ac-VHT80	29.3	155	5775	21.95	21.95	≤ 30.00	--	--	Pass

Note: Max EIRP of 30° Elevation Angle (dBm) = Total Average Power (dBm) + 30° Elevation Angle Gain (dBi).

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Ant 2 Average Power (dBm)	Ant 3 Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Max EIRP of 30° Elevation Angle (dBm)	EIRP Limit of 30° Elevation Angle (dBm)	Result
Ant 0+1+2+3												
11a	6	36	5180	9.83	9.92	10.02	9.79	15.91	≤ 24.40	20.14	≤ 21.00	Pass
11a	6	44	5220	9.85	10.09	10.13	10.01	16.04	≤ 24.40	20.26	≤ 21.00	Pass
11a	6	48	5240	10.13	10.14	10.27	10.31	16.23	≤ 24.40	20.47	≤ 21.00	Pass
11a	6	149	5745	18.27	17.92	18.34	17.84	24.12	≤ 24.29	--	--	Pass
11a	6	157	5785	17.98	17.54	18.01	17.48	23.78	≤ 24.29	--	--	Pass
11a	6	165	5825	17.99	17.48	17.92	17.42	23.73	≤ 24.29	--	--	Pass
11n-HT20	27	36	5180	9.87	10.02	9.71	10.01	15.92	≤ 24.40	20.13	≤ 21.00	Pass
11n-HT20	27	44	5220	10.13	10.27	10.33	10.12	16.23	≤ 24.40	20.46	≤ 21.00	Pass
11n-HT20	27	48	5240	9.88	9.86	9.87	9.89	15.90	≤ 24.40	20.12	≤ 21.00	Pass
11n-HT20	27	149	5745	18.04	17.75	18.13	17.69	23.93	≤ 24.29	--	--	Pass
11n-HT20	27	157	5785	18.30	17.83	18.27	17.85	24.09	≤ 24.29	--	--	Pass
11n-HT20	27	165	5825	18.25	17.80	18.21	17.83	24.05	≤ 24.29	--	--	Pass
11n-HT40	54	38	5190	10.08	10.27	10.19	10.12	16.19	≤ 24.40	20.40	≤ 21.00	Pass
11n-HT40	54	46	5230	10.01	9.87	9.80	9.77	15.88	≤ 24.40	20.12	≤ 21.00	Pass
11n-HT40	54	151	5755	17.89	17.82	18.12	17.75	23.92	≤ 24.29	--	--	Pass
11n-HT40	54	159	5795	18.21	17.78	18.19	17.86	24.03	≤ 24.29	--	--	Pass
11ac-VHT20	27	36	5180	9.88	9.98	9.93	9.99	15.97	≤ 24.40	20.19	≤ 21.00	Pass
11ac-VHT20	27	44	5220	10.13	10.36	10.33	10.09	16.25	≤ 24.40	20.47	≤ 21.00	Pass
11ac-VHT20	27	48	5240	9.90	9.87	9.85	9.91	15.90	≤ 24.40	20.13	≤ 21.00	Pass
11ac-VHT20	27	149	5745	18.07	17.80	18.11	17.71	23.95	≤ 24.29	--	--	Pass
11ac-VHT20	27	157	5785	18.32	17.85	18.27	17.88	24.11	≤ 24.29	--	--	Pass
11ac-VHT20	27	165	5825	18.24	17.80	18.23	17.86	24.06	≤ 24.29	--	--	Pass
11ac-VHT40	54	38	5190	10.07	10.27	10.22	10.10	16.19	≤ 24.40	20.40	≤ 21.00	Pass
11ac-VHT40	54	46	5230	9.99	9.87	9.80	9.78	15.88	≤ 24.40	20.11	≤ 21.00	Pass
11ac-VHT40	54	151	5755	17.87	17.82	18.16	17.78	23.93	≤ 24.29	--	--	Pass
11ac-VHT40	54	159	5795	18.22	17.78	18.17	17.89	24.04	≤ 24.29	--	--	Pass
11ac-VHT80	117.2	42	5210	10.28	10.08	10.17	10.23	16.21	≤ 24.40	20.45	≤ 21.00	Pass
11ac-VHT80	117.2	155	5775	18.15	17.74	18.24	17.73	23.99	≤ 24.29	--	--	Pass

Note 1: The Total Average Power (dBm) = $10*\log\{10^{(\text{Ant 0 Average Power }/10)} +10^{(\text{Ant 1 Average Power }/10)} +10^{(\text{Ant 2 Average Power }/10)} +10^{(\text{Ant 3 Average Power }/10)}\}$.

Note 2: Max EIRP of 30° Elevation Angle (dBm) = $10*\log\{10^{(\text{Ant 0 Average Power + Ant 0 30° Elevation Angle Gain})/10} + 10^{(\text{Ant 1 Average Power + Ant 1 30° Elevation Angle})/10} + 10^{(\text{Ant 2 Average Power + Ant 2 30° Elevation Angle})/10} + 10^{(\text{Ant 3 Average Power + Ant 3 30° Elevation Angle})/10}\}$.

For 802.11ac-VHT 80 + 80 Test Data

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Ant 2 Average Power (dBm)	Ant 3 Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Max EIRP of 30° Elevation Angle (dBm)	EIRP Limit of 30° Elevation Angle (dBm)	Result
11ac-VHT	117.2	42	5210	13.79	13.68	--	--	16.75	≤ 27.82	20.67	≤ 21.00	Pass
80+80	117.2	155	5775	--	--	11.07	10.83	13.96	≤ 26.80	--	--	Pass

Note 1: The Total Average Power (dBm) = $10*\log\{10^{(\text{Ant 0 Average Power}/10)} + 10^{(\text{Ant 1 Average Power}/10)}\}$.

Note 2: The Total Average Power (dBm) = $10*\log\{10^{(\text{Ant 2 Average Power}/10)} + 10^{(\text{Ant 3 Average Power}/10)}\}$.

Note 3: Max EIRP of 30° Elevation Angle (dBm) = $10*\log\{10^{(\text{Ant 0 Average Power + Ant 0 30° Elevation Angle Gain})/10} + 10^{(\text{Ant 1 Average Power + Ant 1 30° Elevation Angle Gain})/10}\}$.

Output Power Measurement Limit of FPMI2458-DP2RPSMA Antenna

Frequency Band (MHz)	Per Chain Max Antenna Gain (dBi)				CDD & Beam Forming Directional Gain (dBi)	Limit of SISO (dBm)				Limit of MIMO (dBm)
	Ant 0	Ant 1	Ant 2	Ant 3		Ant 0	Ant 1	Ant 2	Ant 3	Ant 0+1+2+3
5150 ~ 5250	5.79	5.57	--	--	8.69	30.00	30.00	--	--	27.31
	--	--	5.79	5.57	8.69	--	--	30.00	30.00	27.31
5150 ~ 5250 30°elevation angle	5.10	2.27	--	--	N/A	N/A	N/A	N/A	N/A	N/A
	--	--	5.10	2.27	N/A	N/A	N/A	N/A	N/A	N/A
5725 ~ 5850	5.24	5.09	--	--	8.18	30.00	30.00	--	--	27.82
	--	--	5.24	5.09	8.18	--	--	30.00	30.00	27.82

Product	US WI-FI AP 4X4 OD ext. antenna	Temperature	25°C
Test Engineer	Johnson Liao	Relative Humidity	50 ~ 58%
Test Site	SR2	Test Date	2016/08/21
Test Item	Output Power	Antenna Model No.	FPMI2458-DP2RPSMA

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Max EIRP of 30° Elevation Angle (dBm)	EIRP Limit of 30° Elevation Angle (dBm)	Result
Ant 0									
11a	6	36	5180	15.54	15.54	≤ 30.00	20.64	≤ 21.00	Pass
11a	6	44	5220	15.75	15.75	≤ 30.00	20.85	≤ 21.00	Pass
11a	6	48	5240	15.48	15.48	≤ 30.00	20.58	≤ 21.00	Pass
11a	6	149	5745	22.67	22.67	≤ 30.00	--	--	Pass
11a	6	157	5785	22.42	22.42	≤ 30.00	--	--	Pass
11a	6	165	5825	22.02	22.02	≤ 30.00	--	--	Pass
11n-HT20	6.5	36	5180	15.72	15.72	≤ 30.00	20.82	≤ 21.00	Pass
11n-HT20	6.5	44	5220	15.50	15.50	≤ 30.00	20.60	≤ 21.00	Pass
11n-HT20	6.5	48	5240	15.65	15.65	≤ 30.00	20.75	≤ 21.00	Pass
11n-HT20	6.5	149	5745	22.46	22.46	≤ 30.00	--	--	Pass
11n-HT20	6.5	157	5785	22.21	22.21	≤ 30.00	--	--	Pass
11n-HT20	6.5	165	5825	21.80	21.80	≤ 30.00	--	--	Pass
11n-HT40	13.5	38	5190	15.49	15.49	≤ 30.00	20.59	≤ 21.00	Pass
11n-HT40	13.5	46	5230	15.33	15.33	≤ 30.00	20.43	≤ 21.00	Pass
11n-HT40	13.5	151	5755	22.48	22.48	≤ 30.00	--	--	Pass
11n-HT40	13.5	159	5795	22.19	22.19	≤ 30.00	--	--	Pass
11ac-VHT20	6.5	36	5180	15.71	15.71	≤ 30.00	20.81	≤ 21.00	Pass
11ac-VHT20	6.5	44	5220	15.49	15.49	≤ 30.00	20.59	≤ 21.00	Pass
11ac-VHT20	6.5	48	5240	15.34	15.34	≤ 30.00	20.44	≤ 21.00	Pass
11ac-VHT20	6.5	149	5745	22.51	22.51	≤ 30.00	--	--	Pass
11ac-VHT20	6.5	157	5785	22.22	22.22	≤ 30.00	--	--	Pass
11ac-VHT20	6.5	165	5825	21.83	21.83	≤ 30.00	--	--	Pass

Note: Max EIRP of 30° Elevation Angle (dBm) = Total Average Power (dBm) + 30° Elevation Angle Gain (dBi).

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Max EIRP of 30° Elevation Angle (dBm)	EIRP Limit of 30° Elevation Angle (dBm)	Result
Ant 0									
11ac-VHT40	13.5	38	5190	15.47	15.47	≤ 30.00	20.57	≤ 21.00	Pass
11ac-VHT40	13.5	46	5230	15.32	15.32	≤ 30.00	20.42	≤ 21.00	Pass
11ac-VHT40	13.5	151	5755	22.49	22.49	≤ 30.00	--	--	Pass
11ac-VHT40	13.5	159	5795	22.19	22.19	≤ 30.00	--	--	Pass
11ac-VHT80	29.3	42	5210	15.72	15.72	≤ 30.00	20.82	≤ 21.00	Pass
11ac-VHT80	29.3	155	5775	22.17	22.17	≤ 30.00	--	--	Pass

Note: Max EIRP of 30° Elevation Angle (dBm) = Total Average Power (dBm) + 30° Elevation Angle Gain (dBi).

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Max EIRP of 30° Elevation Angle (dBm)	EIRP Limit of 30° Elevation Angle (dBm)	Result
Ant 1									
11a	6	36	5180	18.38	18.38	≤ 30.00	20.65	≤ 21.00	Pass
11a	6	44	5220	18.25	18.25	≤ 30.00	20.52	≤ 21.00	Pass
11a	6	48	5240	18.24	18.24	≤ 30.00	20.51	≤ 21.00	Pass
11a	6	149	5745	22.76	22.76	≤ 30.00	--	--	Pass
11a	6	157	5785	22.32	22.32	≤ 30.00	--	--	Pass
11a	6	165	5825	21.68	21.68	≤ 30.00	--	--	Pass
11n-HT20	6.5	36	5180	18.11	18.11	≤ 30.00	20.38	≤ 21.00	Pass
11n-HT20	6.5	44	5220	18.02	18.02	≤ 30.00	20.29	≤ 21.00	Pass
11n-HT20	6.5	48	5240	18.20	18.20	≤ 30.00	20.47	≤ 21.00	Pass
11n-HT20	6.5	149	5745	22.51	22.51	≤ 30.00	--	--	Pass
11n-HT20	6.5	157	5785	22.09	22.09	≤ 30.00	--	--	Pass
11n-HT20	6.5	165	5825	21.47	21.47	≤ 30.00	--	--	Pass
11n-HT40	13.5	38	5190	18.28	18.28	≤ 30.00	20.55	≤ 21.00	Pass
11n-HT40	13.5	46	5230	18.27	18.27	≤ 30.00	20.54	≤ 21.00	Pass
11n-HT40	13.5	151	5755	22.44	22.44	≤ 30.00	--	--	Pass
11n-HT40	13.5	159	5795	22.00	22.00	≤ 30.00	--	--	Pass
11ac-VHT20	6.5	36	5180	18.10	18.10	≤ 30.00	20.37	≤ 21.00	Pass
11ac-VHT20	6.5	44	5220	18.05	18.05	≤ 30.00	20.32	≤ 21.00	Pass
11ac-VHT20	6.5	48	5240	18.20	18.20	≤ 30.00	20.47	≤ 21.00	Pass
11ac-VHT20	6.5	149	5745	22.50	22.50	≤ 30.00	--	--	Pass
11ac-VHT20	6.5	157	5785	22.10	22.10	≤ 30.00	--	--	Pass
11ac-VHT20	6.5	165	5825	21.45	21.45	≤ 30.00	--	--	Pass
11ac-VHT40	13.5	38	5190	18.32	18.32	≤ 30.00	20.59	≤ 21.00	Pass
11ac-VHT40	13.5	46	5230	18.26	18.26	≤ 30.00	20.53	≤ 21.00	Pass
11ac-VHT40	13.5	151	5755	22.47	22.47	≤ 30.00	--	--	Pass
11ac-VHT40	13.5	159	5795	22.02	22.02	≤ 30.00	--	--	Pass
11ac-VHT80	29.3	42	5210	18.31	18.31	≤ 30.00	20.58	≤ 21.00	Pass
11ac-VHT80	29.3	155	5775	21.91	21.91	≤ 30.00	--	--	Pass

Note: Max EIRP of 30° Elevation Angle (dBm) = Total Average Power (dBm) + 30° Elevation Angle Gain (dBi).

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Max EIRP of 30° Elevation Angle (dBm)	EIRP Limit of 30° Elevation Angle (dBm)	Result
Ant 2									
11a	6	36	5180	15.45	15.45	≤ 30.00	20.55	≤ 21.00	Pass
11a	6	44	5220	15.23	15.23	≤ 30.00	20.33	≤ 21.00	Pass
11a	6	48	5240	15.38	15.38	≤ 30.00	20.48	≤ 21.00	Pass
11a	6	149	5745	22.78	22.78	≤ 30.00	--	--	Pass
11a	6	157	5785	22.48	22.48	≤ 30.00	--	--	Pass
11a	6	165	5825	21.92	21.92	≤ 30.00	--	--	Pass
11n-HT20	6.5	36	5180	15.22	15.22	≤ 30.00	20.32	≤ 21.00	Pass
11n-HT20	6.5	44	5220	15.60	15.60	≤ 30.00	20.70	≤ 21.00	Pass
11n-HT20	6.5	48	5240	15.65	15.65	≤ 30.00	20.75	≤ 21.00	Pass
11n-HT20	6.5	149	5745	22.51	22.51	≤ 30.00	--	--	Pass
11n-HT20	6.5	157	5785	22.22	22.22	≤ 30.00	--	--	Pass
11n-HT20	6.5	165	5825	21.66	21.66	≤ 30.00	--	--	Pass
11n-HT40	13.5	38	5190	15.39	15.39	≤ 30.00	20.49	≤ 21.00	Pass
11n-HT40	13.5	46	5230	15.47	15.47	≤ 30.00	20.57	≤ 21.00	Pass
11n-HT40	13.5	151	5755	22.65	22.65	≤ 30.00	--	--	Pass
11n-HT40	13.5	159	5795	22.31	22.31	≤ 30.00	--	--	Pass
11ac-VHT20	6.5	36	5180	15.69	15.69	≤ 30.00	20.79	≤ 21.00	Pass
11ac-VHT20	6.5	44	5220	15.44	15.44	≤ 30.00	20.54	≤ 21.00	Pass
11ac-VHT20	6.5	48	5240	15.32	15.32	≤ 30.00	20.42	≤ 21.00	Pass
11ac-VHT20	6.5	149	5745	22.59	22.59	≤ 30.00	--	--	Pass
11ac-VHT20	6.5	157	5785	22.26	22.26	≤ 30.00	--	--	Pass
11ac-VHT20	6.5	165	5825	21.68	21.68	≤ 30.00	--	--	Pass
11ac-VHT40	13.5	38	5190	15.61	15.61	≤ 30.00	20.71	≤ 21.00	Pass
11ac-VHT40	13.5	46	5230	15.44	15.44	≤ 30.00	20.54	≤ 21.00	Pass
11ac-VHT40	13.5	151	5755	22.61	22.61	≤ 30.00	--	--	Pass
11ac-VHT40	13.5	159	5795	22.34	22.34	≤ 30.00	--	--	Pass
11ac-VHT80	29.3	42	5210	15.42	15.42	≤ 30.00	20.52	≤ 21.00	Pass
11ac-VHT80	29.3	155	5775	22.27	22.27	≤ 30.00	--	--	Pass

Note: Max EIRP of 30° Elevation Angle (dBm) = Total Average Power (dBm) + 30° Elevation Angle Gain (dBi).

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Max EIRP of 30° Elevation Angle (dBm)	EIRP Limit of 30° Elevation Angle (dBm)	Result
Ant 3									
11a	6	36	5180	18.03	18.03	≤ 30.00	20.30	≤ 21.00	Pass
11a	6	44	5220	18.26	18.26	≤ 30.00	20.53	≤ 21.00	Pass
11a	6	48	5240	18.25	18.25	≤ 30.00	20.52	≤ 21.00	Pass
11a	6	149	5745	22.57	22.57	≤ 30.00	--	--	Pass
11a	6	157	5785	22.22	22.22	≤ 30.00	--	--	Pass
11a	6	165	5825	21.66	21.66	≤ 30.00	--	--	Pass
11n-HT20	6.5	36	5180	18.32	18.32	≤ 30.00	20.59	≤ 21.00	Pass
11n-HT20	6.5	44	5220	18.51	18.51	≤ 30.00	20.78	≤ 21.00	Pass
11n-HT20	6.5	48	5240	18.53	18.53	≤ 30.00	20.80	≤ 21.00	Pass
11n-HT20	6.5	149	5745	22.33	22.33	≤ 30.00	--	--	Pass
11n-HT20	6.5	157	5785	21.99	21.99	≤ 30.00	--	--	Pass
11n-HT20	6.5	165	5825	21.45	21.45	≤ 30.00	--	--	Pass
11n-HT40	13.5	38	5190	18.09	18.09	≤ 30.00	20.36	≤ 21.00	Pass
11n-HT40	13.5	46	5230	18.25	18.25	≤ 30.00	20.52	≤ 21.00	Pass
11n-HT40	13.5	151	5755	22.34	22.34	≤ 30.00	--	--	Pass
11n-HT40	13.5	159	5795	21.96	21.96	≤ 30.00	--	--	Pass
11ac-VHT20	6.5	36	5180	18.05	18.05	≤ 30.00	20.32	≤ 21.00	Pass
11ac-VHT20	6.5	44	5220	18.04	18.04	≤ 30.00	20.31	≤ 21.00	Pass
11ac-VHT20	6.5	48	5240	18.05	18.05	≤ 30.00	20.32	≤ 21.00	Pass
11ac-VHT20	6.5	149	5745	22.36	22.36	≤ 30.00	--	--	Pass
11ac-VHT20	6.5	157	5785	21.98	21.98	≤ 30.00	--	--	Pass
11ac-VHT20	6.5	165	5825	21.45	21.45	≤ 30.00	--	--	Pass
11ac-VHT40	13.5	38	5190	18.21	18.21	≤ 30.00	20.48	≤ 21.00	Pass
11ac-VHT40	13.5	46	5230	18.24	18.24	≤ 30.00	20.51	≤ 21.00	Pass
11ac-VHT40	13.5	151	5755	22.33	22.33	≤ 30.00	--	--	Pass
11ac-VHT40	13.5	159	5795	21.98	21.98	≤ 30.00	--	--	Pass
11ac-VHT80	29.3	42	5210	18.03	18.03	≤ 30.00	20.30	≤ 21.00	Pass
11ac-VHT80	29.3	155	5775	21.95	21.95	≤ 30.00	--	--	Pass

Note: Max EIRP of 30° Elevation Angle (dBm) = Total Average Power (dBm) + 30° Elevation Angle Gain (dBi).

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Ant 2 Average Power (dBm)	Ant 3 Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Max EIRP of 30° Elevation Angle (dBm)	EIRP Limit of 30° Elevation Angle (dBm)	Result
Ant 0+1+2+3												
11a	6	36	5180	13.72	13.71	--	--	16.73	≤ 27.31	20.64	≤ 21.00	Pass
11a	6	44	5220	13.56	13.44	--	--	16.51	≤ 27.31	20.44	≤ 21.00	Pass
11a	6	48	5240	13.79	13.54	--	--	16.68	≤ 27.31	20.63	≤ 21.00	Pass
11a	6	149	5745	23.08	23.05	--	--	26.08	≤ 27.82	--	--	Pass
11a	6	157	5785	24.63	24.55	--	--	27.60	≤ 27.82	--	--	Pass
11a	6	165	5825	22.29	22.02	--	--	25.17	≤ 27.82	--	--	Pass
11a	6	36	5180	--	--	13.87	13.76	16.83	≤ 27.31	20.75	≤ 21.00	Pass
11a	6	44	5220	--	--	13.57	13.47	16.53	≤ 27.31	20.46	≤ 21.00	Pass
11a	6	48	5240	--	--	13.65	13.61	16.64	≤ 27.31	20.56	≤ 21.00	Pass
11a	6	149	5745	--	--	23.13	22.83	25.99	≤ 27.82	--	--	Pass
11a	6	157	5785	--	--	24.87	24.35	27.63	≤ 27.82	--	--	Pass
11a	6	165	5825	--	--	22.17	21.97	25.08	≤ 27.82	--	--	Pass
11n-HT20	27	36	5180	14.12	14.03	--	--	17.09	≤ 27.31	21.01	≤ 21.00	Pass
11n-HT20	27	44	5220	13.69	13.31	--	--	16.51	≤ 27.31	20.49	≤ 21.00	Pass
11n-HT20	27	48	5240	13.75	13.52	--	--	16.65	≤ 27.31	20.59	≤ 21.00	Pass
11n-HT20	27	149	5745	22.31	21.88	--	--	25.11	≤ 27.82	--	--	Pass
11n-HT20	27	157	5785	21.82	21.52	--	--	24.68	≤ 27.82	--	--	Pass
11n-HT20	27	165	5825	21.67	21.17	--	--	24.44	≤ 27.82	--	--	Pass
11n-HT20	27	36	5180	--	--	13.74	13.89	16.83	≤ 27.31	20.71	≤ 21.00	Pass
11n-HT20	27	44	5220	--	--	13.02	13.17	16.11	≤ 27.31	19.99	≤ 21.00	Pass
11n-HT20	27	48	5240	--	--	13.01	13.18	16.11	≤ 27.31	19.99	≤ 21.00	Pass
11n-HT20	27	149	5745	--	--	22.14	21.78	22.14	≤ 27.82	--	--	Pass
11n-HT20	27	157	5785	--	--	21.57	21.22	21.57	≤ 27.82	--	--	Pass
11n-HT20	27	165	5825	--	--	20.71	20.71	20.71	≤ 27.82	--	--	Pass
11n-HT40	54	38	5190	13.99	13.49	--	--	16.76	≤ 27.31	20.75	≤ 21.00	Pass
11n-HT40	54	46	5230	13.70	13.41	--	--	16.57	≤ 27.31	20.52	≤ 21.00	Pass
11n-HT40	54	151	5755	22.39	21.94	--	--	25.18	≤ 27.82	--	--	Pass
11n-HT40	54	159	5795	22.11	21.72	--	--	24.93	≤ 27.82	--	--	Pass

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Ant 2 Average Power (dBm)	Ant 3 Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Max EIRP of 30° Elevation Angle (dBm)	EIRP Limit of 30° Elevation Angle (dBm)	Result
Ant 0+1+2+3												
11n-HT40	54	38	5190	--	--	13.18	13.39	16.30	≤ 27.31	20.17	≤ 21.00	Pass
11n-HT40	54	46	5230	--	--	13.13	13.20	16.18	≤ 27.31	20.08	≤ 21.00	Pass
11n-HT40	54	151	5755	--	--	22.28	21.94	25.12	≤ 27.82	--	--	Pass
11n-HT40	54	159	5795	--	--	21.68	21.42	24.56	≤ 27.82	--	--	Pass
11ac-VHT20	27	36	5180	13.90	13.72	--	--	16.82	≤ 27.31	20.76	≤ 21.00	Pass
11ac-VHT20	27	44	5220	13.62	13.44	--	--	16.54	≤ 27.31	20.48	≤ 21.00	Pass
11ac-VHT20	27	48	5240	13.68	13.54	--	--	16.62	≤ 27.31	20.55	≤ 21.00	Pass
11ac-VHT20	27	149	5745	22.41	22.01	--	--	25.22	≤ 27.82	--	--	Pass
11ac-VHT20	27	157	5785	22.07	21.69	--	--	24.89	≤ 27.82	--	--	Pass
11ac-VHT20	27	165	5825	21.78	21.36	--	--	24.59	≤ 27.82	--	--	Pass
11ac-VHT20	27	36	5180	--	--	13.74	13.59	16.68	≤ 27.31	20.61	≤ 21.00	Pass
11ac-VHT20	27	44	5220	--	--	13.37	13.39	16.39	≤ 27.31	20.30	≤ 21.00	Pass
11ac-VHT20	27	48	5240	--	--	13.43	13.41	16.43	≤ 27.31	20.35	≤ 21.00	Pass
11ac-VHT20	27	149	5745	--	--	22.22	21.94	25.09	≤ 27.82	--	--	Pass
11ac-VHT20	27	157	5785	--	--	21.75	21.37	24.57	≤ 27.82	--	--	Pass
11ac-VHT20	27	165	5825	--	--	20.99	21.00	24.01	≤ 27.82	--	--	Pass
11ac-VHT40	54	38	5190	14.01	13.47	--	--	16.76	≤ 27.31	20.75	≤ 21.00	Pass
11ac-VHT40	54	46	5230	13.72	13.37	--	--	16.56	≤ 27.31	20.53	≤ 21.00	Pass
11ac-VHT40	54	151	5755	21.93	21.88	--	--	24.92	≤ 27.82	--	--	Pass
11ac-VHT40	54	159	5795	22.10	21.65	--	--	24.89	≤ 27.82	--	--	Pass
11ac-VHT40	54	38	5190	--	--	13.50	13.66	16.59	≤ 27.31	20.48	≤ 21.00	Pass
11ac-VHT40	54	46	5230	--	--	13.36	13.40	16.39	≤ 27.31	20.30	≤ 21.00	Pass
11ac-VHT40	54	151	5755	--	--	22.31	21.93	25.13	≤ 27.82	--	--	Pass
11ac-VHT40	54	159	5795	--	--	21.63	21.41	24.53	≤ 27.82	--	--	Pass
11ac-VHT80	117.2	42	5210	13.70	13.23	--	--	16.48	≤ 27.31	20.47	≤ 21.00	Pass
11ac-VHT80	117.2	155	5775	21.97	21.51	--	--	24.76	≤ 27.82	--	--	Pass
11ac-VHT80	117.2	42	5210	--	--	13.64	13.31	16.49	≤ 27.31	20.45	≤ 21.00	Pass
11ac-VHT80	117.2	155	5775	--	--	21.74	21.38	24.57	≤ 27.82	--	--	Pass

Note 1: The Total Average Power (dBm) = $10*\log\{10^{(\text{Ant 0 Average Power }/10)} + 10^{(\text{Ant 1 Average Power }/10)}\}$.

Note 2: The Total Average Power (dBm) = $10*\log\{10^{(\text{Ant 2 Average Power }/10)} + 10^{(\text{Ant 3 Average Power }/10)}\}$.

Note 3: Max EIRP of 30° Elevation Angle (dBm) = $10*\log\{10^{(\text{Ant 0 Average Power + Ant 0 30° Elevation Angle Gain})/10} + 10^{(\text{Ant 1 Average Power + Ant 1 30° Elevation Angle Gain})/10}\}$.

Note 4: Max EIRP of 30° Elevation Angle (dBm) = $10*\log\{10^{(\text{Ant 2 Average Power + Ant 2 30° Elevation Angle Gain})/10} + 10^{(\text{Ant 3 Average Power + Ant 3 30° Elevation Angle Gain})/10}\}$.

For 802.11ac-VHT 80 + 80 Test Data

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Ant 2 Average Power (dBm)	Ant 3 Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Max EIRP of 30° Elevation Angle (dBm)	EIRP Limit of 30° Elevation Angle (dBm)	Result
11ac-VHT	117.2	42	5210	13.79	13.68	--	--	16.75	≤ 27.31	20.67	≤ 21.00	Pass
80+80	117.2	155	5775	--	--	11.07	10.83	13.96	≤ 27.82	--	--	Pass

Note 1: The Total Average Power (dBm) = $10*\log\{10^{(\text{Ant 0 Average Power}/10)} + 10^{(\text{Ant 1 Average Power}/10)}\}$.

Note 2: The Total Average Power (dBm) = $10*\log\{10^{(\text{Ant 2 Average Power}/10)} + 10^{(\text{Ant 3 Average Power}/10)}\}$.

Note 3: Max EIRP of 30° Elevation Angle (dBm) = $10*\log\{10^{(\text{Ant 0 Average Power + Ant 0 30° Elevation Angle Gain})/10} + 10^{(\text{Ant 1 Average Power + Ant 1 30° Elevation Angle Gain})/10}\}$.

Output Power Measurement Limit of Galtronics Omni Antenna

Frequency Band (MHz)	Per Chain Max Antenna Gain (dBi)				CDD & Beam Forming Directional Gain (dBi)	Limit of SISO (dBm)				Limit of MIMO (dBm)
	Ant 0	Ant 1	Ant 2	Ant 3		Ant 0	Ant 1	Ant 2	Ant 3	Ant 0+1+2+3
5150 ~ 5250	6.68	6.53	6.68	6.53	12.63	29.32	29.47	29.32	29.47	23.37
5150 ~ 5250 30°elevation angle	-1.32	-1.53	-1.32	-1.53	N/A	N/A	N/A	N/A	N/A	N/A
5725 ~ 5850	6.78	6.55	6.78	6.55	12.69	29.22	29.45	29.22	29.45	23.31

Product	US WI-FI AP 4X4 OD ext. antenna	Temperature	25°C
Test Engineer	Johnson Liao	Relative Humidity	50 ~ 58%
Test Site	SR2	Test Date	2016/08/28
Test Item	Output Power	Antenna Model No.	Galtronics Omni

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Max EIRP of 30° Elevation Angle (dBm)	EIRP Limit of 30° Elevation Angle (dBm)	Result
Ant 0									
11a	6	36	5180	21.72	21.72	≤ 29.32	20.40	≤ 21.00	Pass
11a	6	44	5220	22.11	22.11	≤ 29.32	20.79	≤ 21.00	Pass
11a	6	48	5240	21.85	21.85	≤ 29.32	20.53	≤ 21.00	Pass
11a	6	149	5745	23.28	23.28	≤ 29.22	--	--	Pass
11a	6	157	5785	22.89	22.89	≤ 29.22	--	--	Pass
11a	6	165	5825	22.63	22.63	≤ 29.22	--	--	Pass
11n-HT20	6.5	36	5180	21.91	21.91	≤ 29.32	20.59	≤ 21.00	Pass
11n-HT20	6.5	44	5220	22.17	22.17	≤ 29.32	20.85	≤ 21.00	Pass
11n-HT20	6.5	48	5240	22.00	22.00	≤ 29.32	20.68	≤ 21.00	Pass
11n-HT20	6.5	149	5745	23.02	23.02	≤ 29.22	--	--	Pass
11n-HT20	6.5	157	5785	22.67	22.67	≤ 29.22	--	--	Pass
11n-HT20	6.5	165	5825	22.35	22.35	≤ 29.22	--	--	Pass
11n-HT40	13.5	38	5190	22.17	22.17	≤ 29.32	20.85	≤ 21.00	Pass
11n-HT40	13.5	46	5230	21.98	21.98	≤ 29.32	20.66	≤ 21.00	Pass
11n-HT40	13.5	151	5755	22.93	22.93	≤ 29.22	--	--	Pass
11n-HT40	13.5	159	5795	22.61	22.61	≤ 29.22	--	--	Pass
11ac-VHT20	6.5	36	5180	21.89	21.89	≤ 29.32	20.57	≤ 21.00	Pass
11ac-VHT20	6.5	44	5220	22.17	22.17	≤ 29.32	20.85	≤ 21.00	Pass
11ac-VHT20	6.5	48	5240	22.01	22.01	≤ 29.32	20.69	≤ 21.00	Pass
11ac-VHT20	6.5	149	5745	22.96	22.96	≤ 29.22	--	--	Pass
11ac-VHT20	6.5	157	5785	22.63	22.63	≤ 29.22	--	--	Pass
11ac-VHT20	6.5	165	5825	22.36	22.36	≤ 29.22	--	--	Pass

Note: Max EIRP of 30° Elevation Angle (dBm) = Total Average Power (dBm) + 30° Elevation Angle Gain (dBi).

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Max EIRP of 30° Elevation Angle (dBm)	EIRP Limit of 30° Elevation Angle (dBm)	Result
Ant 0									
11ac-VHT40	13.5	38	5190	21.75	21.75	≤ 29.32	20.43	≤ 21.00	Pass
11ac-VHT40	13.5	46	5230	21.96	21.96	≤ 29.32	20.64	≤ 21.00	Pass
11ac-VHT40	13.5	151	5755	22.96	22.96	≤ 29.22	--	--	Pass
11ac-VHT40	13.5	159	5795	22.61	22.61	≤ 29.22	--	--	Pass
11ac-VHT80	29.3	42	5210	22.18	22.18	≤ 29.32	20.86	≤ 21.00	Pass
11ac-VHT80	29.3	155	5775	22.55	22.55	≤ 29.22	--	--	Pass

Note: Max EIRP of 30° Elevation Angle (dBm) = Total Average Power (dBm) + 30° Elevation Angle Gain (dBi).

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Max EIRP of 30° Elevation Angle (dBm)	EIRP Limit of 30° Elevation Angle (dBm)	Result
Ant 1									
11a	6	36	5180	22.12	22.12	≤ 29.47	20.59	≤ 21.00	Pass
11a	6	44	5220	22.26	22.26	≤ 29.47	20.73	≤ 21.00	Pass
11a	6	48	5240	21.95	21.95	≤ 29.47	20.42	≤ 21.00	Pass
11a	6	149	5745	22.63	22.63	≤ 29.45	--	--	Pass
11a	6	157	5785	22.35	22.35	≤ 29.45	--	--	Pass
11a	6	165	5825	21.61	21.61	≤ 29.45	--	--	Pass
11n-HT20	6.5	36	5180	22.36	22.36	≤ 29.47	20.83	≤ 21.00	Pass
11n-HT20	6.5	44	5220	22.03	22.03	≤ 29.47	20.50	≤ 21.00	Pass
11n-HT20	6.5	48	5240	22.23	22.23	≤ 29.47	20.70	≤ 21.00	Pass
11n-HT20	6.5	149	5745	22.43	22.43	≤ 29.45	--	--	Pass
11n-HT20	6.5	157	5785	22.13	22.13	≤ 29.45	--	--	Pass
11n-HT20	6.5	165	5825	21.41	21.41	≤ 29.45	--	--	Pass
11n-HT40	13.5	38	5190	22.12	22.12	≤ 29.47	20.59	≤ 21.00	Pass
11n-HT40	13.5	46	5230	22.29	22.29	≤ 29.47	20.76	≤ 21.00	Pass
11n-HT40	13.5	151	5755	22.33	22.33	≤ 29.45	--	--	Pass
11n-HT40	13.5	159	5795	22.65	22.65	≤ 29.45	--	--	Pass
11ac-VHT20	6.5	36	5180	22.39	22.39	≤ 29.47	20.86	≤ 21.00	Pass
11ac-VHT20	6.5	44	5220	22.08	22.08	≤ 29.47	20.55	≤ 21.00	Pass
11ac-VHT20	6.5	48	5240	22.26	22.26	≤ 29.47	20.73	≤ 21.00	Pass
11ac-VHT20	6.5	149	5745	22.46	22.46	≤ 29.45	--	--	Pass
11ac-VHT20	6.5	157	5785	22.16	22.16	≤ 29.45	--	--	Pass
11ac-VHT20	6.5	165	5825	21.43	21.43	≤ 29.45	--	--	Pass
11ac-VHT40	13.5	38	5190	22.14	22.14	≤ 29.47	20.61	≤ 21.00	Pass
11ac-VHT40	13.5	46	5230	22.31	22.31	≤ 29.47	20.78	≤ 21.00	Pass
11ac-VHT40	13.5	151	5755	22.36	22.36	≤ 29.45	--	--	Pass
11ac-VHT40	13.5	159	5795	22.07	22.07	≤ 29.45	--	--	Pass
11ac-VHT80	29.3	42	5210	21.99	21.99	≤ 29.47	20.46	≤ 21.00	Pass
11ac-VHT80	29.3	155	5775	21.99	21.99	≤ 29.45	--	--	Pass

Note: Max EIRP of 30° Elevation Angle (dBm) = Total Average Power (dBm) + 30° Elevation Angle Gain (dBi).

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Max EIRP of 30° Elevation Angle (dBm)	EIRP Limit of 30° Elevation Angle (dBm)	Result
Ant 2									
11a	6	36	5180	22.19	22.19	≤ 29.32	20.87	≤ 21.00	Pass
11a	6	44	5220	21.79	21.79	≤ 29.32	20.47	≤ 21.00	Pass
11a	6	48	5240	21.98	21.98	≤ 29.32	20.66	≤ 21.00	Pass
11a	6	149	5745	23.06	23.06	≤ 29.22	--	--	Pass
11a	6	157	5785	22.41	22.41	≤ 29.22	--	--	Pass
11a	6	165	5825	21.73	21.73	≤ 29.22	--	--	Pass
11n-HT20	6.5	36	5180	21.99	21.99	≤ 29.32	20.67	≤ 21.00	Pass
11n-HT20	6.5	44	5220	22.11	22.11	≤ 29.32	20.79	≤ 21.00	Pass
11n-HT20	6.5	48	5240	21.76	21.76	≤ 29.32	20.44	≤ 21.00	Pass
11n-HT20	6.5	149	5745	22.85	22.85	≤ 29.22	--	--	Pass
11n-HT20	6.5	157	5785	22.22	22.22	≤ 29.22	--	--	Pass
11n-HT20	6.5	165	5825	21.51	21.51	≤ 29.22	--	--	Pass
11n-HT40	13.5	38	5190	22.19	22.19	≤ 29.32	20.87	≤ 21.00	Pass
11n-HT40	13.5	46	5230	22.08	22.08	≤ 29.32	20.76	≤ 21.00	Pass
11n-HT40	13.5	151	5755	22.94	22.94	≤ 29.22	--	--	Pass
11n-HT40	13.5	159	5795	22.25	22.25	≤ 29.22	--	--	Pass
11ac-VHT20	6.5	36	5180	21.95	21.95	≤ 29.32	20.63	≤ 21.00	Pass
11ac-VHT20	6.5	44	5220	22.13	22.13	≤ 29.32	20.81	≤ 21.00	Pass
11ac-VHT20	6.5	48	5240	21.78	21.78	≤ 29.32	20.46	≤ 21.00	Pass
11ac-VHT20	6.5	149	5745	22.83	22.83	≤ 29.22	--	--	Pass
11ac-VHT20	6.5	157	5785	22.19	22.19	≤ 29.22	--	--	Pass
11ac-VHT20	6.5	165	5825	21.49	21.49	≤ 29.22	--	--	Pass
11ac-VHT40	13.5	38	5190	22.16	22.16	≤ 29.32	20.84	≤ 21.00	Pass
11ac-VHT40	13.5	46	5230	22.09	22.09	≤ 29.32	20.77	≤ 21.00	Pass
11ac-VHT40	13.5	151	5755	22.92	22.92	≤ 29.22	--	--	Pass
11ac-VHT40	13.5	159	5795	22.25	22.25	≤ 29.22	--	--	Pass
11ac-VHT80	29.3	42	5210	21.78	21.78	≤ 29.32	20.46	≤ 21.00	Pass
11ac-VHT80	29.3	155	5775	22.36	22.36	≤ 29.22	--	--	Pass

Note: Max EIRP of 30° Elevation Angle (dBm) = Total Average Power (dBm) + 30° Elevation Angle Gain (dBi).

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Max EIRP of 30° Elevation Angle (dBm)	EIRP Limit of 30° Elevation Angle (dBm)	Result
Ant 3									
11a	6	36	5180	22.34	22.34	≤ 29.47	20.81	≤ 21.00	Pass
11a	6	44	5220	22.06	22.06	≤ 29.47	20.53	≤ 21.00	Pass
11a	6	48	5240	22.04	22.04	≤ 29.47	20.51	≤ 21.00	Pass
11a	6	149	5745	22.33	22.33	≤ 29.45	--	--	Pass
11a	6	157	5785	21.93	21.93	≤ 29.45	--	--	Pass
11a	6	165	5825	21.32	21.32	≤ 29.45	--	--	Pass
11n-HT20	6.5	36	5180	22.09	22.09	≤ 29.47	20.56	≤ 21.00	Pass
11n-HT20	6.5	44	5220	22.28	22.28	≤ 29.47	20.75	≤ 21.00	Pass
11n-HT20	6.5	48	5240	22.29	22.29	≤ 29.47	20.76	≤ 21.00	Pass
11n-HT20	6.5	149	5745	22.07	22.07	≤ 29.45	--	--	Pass
11n-HT20	6.5	157	5785	21.72	21.72	≤ 29.45	--	--	Pass
11n-HT20	6.5	165	5825	21.09	21.09	≤ 29.45	--	--	Pass
11n-HT40	13.5	38	5190	22.31	22.31	≤ 29.47	20.78	≤ 21.00	Pass
11n-HT40	13.5	46	5230	22.03	22.03	≤ 29.47	20.50	≤ 21.00	Pass
11n-HT40	13.5	151	5755	22.17	22.17	≤ 29.45	--	--	Pass
11n-HT40	13.5	159	5795	21.82	21.82	≤ 29.45	--	--	Pass
11ac-VHT20	6.5	36	5180	22.08	22.08	≤ 29.47	20.55	≤ 21.00	Pass
11ac-VHT20	6.5	44	5220	22.31	22.31	≤ 29.47	20.78	≤ 21.00	Pass
11ac-VHT20	6.5	48	5240	22.31	22.31	≤ 29.47	20.78	≤ 21.00	Pass
11ac-VHT20	6.5	149	5745	22.12	22.12	≤ 29.45	--	--	Pass
11ac-VHT20	6.5	157	5785	21.73	21.73	≤ 29.45	--	--	Pass
11ac-VHT20	6.5	165	5825	21.08	21.08	≤ 29.45	--	--	Pass
11ac-VHT40	13.5	38	5190	22.34	22.34	≤ 29.47	20.81	≤ 21.00	Pass
11ac-VHT40	13.5	46	5230	22.03	22.03	≤ 29.47	20.50	≤ 21.00	Pass
11ac-VHT40	13.5	151	5755	22.21	22.21	≤ 29.45	--	--	Pass
11ac-VHT40	13.5	159	5795	21.82	21.82	≤ 29.45	--	--	Pass
11ac-VHT80	29.3	42	5210	22.17	22.17	≤ 29.47	20.64	≤ 21.00	Pass
11ac-VHT80	29.3	155	5775	21.72	21.72	≤ 29.45	--	--	Pass

Note: Max EIRP of 30° Elevation Angle (dBm) = Total Average Power (dBm) + 30° Elevation Angle Gain (dBi).

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Ant 2 Average Power (dBm)	Ant 3 Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Max EIRP of 30° Elevation Angle (dBm)	EIRP Limit of 30° Elevation Angle (dBm)	Result
Ant 0+1+2+3												
11a	6	36	5180	16.77	16.19	16.23	15.88	22.30	≤ 23.37	20.88	≤ 21.00	Pass
11a	6	44	5220	16.62	15.69	15.81	15.63	21.98	≤ 23.37	20.56	≤ 21.00	Pass
11a	6	48	5240	16.72	16.42	16.11	15.66	22.27	≤ 23.37	20.85	≤ 21.00	Pass
11a	6	149	5745	16.79	16.71	16.60	16.22	22.61	≤ 23.31	--	--	Pass
11a	6	157	5785	16.95	16.85	16.96	16.34	22.80	≤ 23.31	--	--	Pass
11a	6	165	5825	17.18	16.37	16.42	16.16	22.57	≤ 23.31	--	--	Pass
11n-HT20	27	36	5180	16.46	15.91	16.04	15.78	22.08	≤ 23.37	20.66	≤ 21.00	Pass
11n-HT20	27	44	5220	16.32	15.55	15.72	15.54	21.82	≤ 23.37	20.40	≤ 21.00	Pass
11n-HT20	27	48	5240	16.47	16.19	15.93	15.58	22.08	≤ 23.37	20.66	≤ 21.00	Pass
11n-HT20	27	149	5745	17.06	16.94	16.81	16.52	22.86	≤ 23.31	--	--	Pass
11n-HT20	27	157	5785	16.71	16.63	16.71	16.12	22.57	≤ 23.31	--	--	Pass
11n-HT20	27	165	5825	17.41	16.63	16.71	16.51	22.85	≤ 23.31	--	--	Pass
11n-HT40	54	38	5190	16.53	15.88	15.88	15.69	22.03	≤ 23.37	20.61	≤ 21.00	Pass
11n-HT40	54	46	5230	16.41	15.73	15.65	15.38	21.83	≤ 23.37	20.41	≤ 21.00	Pass
11n-HT40	54	151	5755	16.75	16.48	16.77	16.01	22.53	≤ 23.31	--	--	Pass
11n-HT40	54	159	5795	16.92	16.62	16.65	16.15	22.61	≤ 23.31	--	--	Pass
11ac-VHT20	27	36	5180	16.48	15.95	16.09	15.81	22.11	≤ 23.37	20.69	≤ 21.00	Pass
11ac-VHT20	27	44	5220	16.32	15.57	15.79	15.56	21.84	≤ 23.37	20.42	≤ 21.00	Pass
11ac-VHT20	27	48	5240	16.46	16.21	15.96	15.62	22.09	≤ 23.37	20.67	≤ 21.00	Pass
11ac-VHT20	27	149	5745	17.05	16.94	17.31	16.46	22.97	≤ 23.31	--	--	Pass
11ac-VHT20	27	157	5785	16.72	16.57	16.84	16.05	22.58	≤ 23.31	--	--	Pass
11ac-VHT20	27	165	5825	17.46	16.72	16.87	16.66	22.96	≤ 23.31	--	--	Pass
11ac-VHT40	54	38	5190	16.53	16.01	16.16	15.75	22.14	≤ 23.37	20.72	≤ 21.00	Pass
11ac-VHT40	54	46	5230	16.40	15.84	15.76	15.55	21.92	≤ 23.37	20.50	≤ 21.00	Pass
11ac-VHT40	54	151	5755	16.28	16.64	16.91	16.16	22.53	≤ 23.31	--	--	Pass
11ac-VHT40	54	159	5795	17.11	16.56	16.75	16.33	22.72	≤ 23.31	--	--	Pass
11ac-VHT80	117.2	42	5210	16.45	15.81	15.95	15.56	21.98	≤ 23.37	20.56	≤ 21.00	Pass
11ac-VHT80	117.2	155	5775	16.89	16.62	16.91	16.16	22.68	≤ 23.31	--	--	Pass

Note 1: The Total Average Power (dBm) = $10*\log\{10^{(\text{Ant 0 Average Power }/10)} +10^{(\text{Ant 1 Average Power }/10)} +10^{(\text{Ant 2 Average Power }/10)} +10^{(\text{Ant 3 Average Power }/10)}\}$.

Note 2: Max EIRP of 30° Elevation Angle (dBm) = $10*\log\{10^{(\text{Ant 0 Average Power + Ant 0 30° Elevation Angle Gain})/10} + 10^{(\text{Ant 1 Average Power + Ant 1 30° Elevation Angle Gain})/10} + 10^{(\text{Ant 2 Average Power + Ant 2 30° Elevation Angle Gain})/10} + 10^{(\text{Ant 3 Average Power + Ant 3 30° Elevation Angle Gain})/10}\}$.

For 802.11ac-VHT 80 + 80 Test Data

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Ant 2 Average Power (dBm)	Ant 3 Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Max EIRP of 30° Elevation Angle (dBm)	EIRP Limit of 30° Elevation Angle (dBm)	Result
11ac-VHT	117.2	42	5210	19.16	18.81	--	--	22.00	≤ 29.38	20.58	≤ 21.00	Pass
80+80	117.2	155	5775	--	--	16.19	15.80	19.01	≤ 29.32	--	--	Pass

Note 1: The Total Average Power (dBm) = $10*\log\{10^{(\text{Ant 0 Average Power}/10)} + 10^{(\text{Ant 1 Average Power}/10)}\}$.

Note 2: The Total Average Power (dBm) = $10*\log\{10^{(\text{Ant 2 Average Power}/10)} + 10^{(\text{Ant 3 Average Power}/10)}\}$.

Note 3: Max EIRP of 30° Elevation Angle (dBm) = $10*\log\{10^{(\text{Ant 0 Average Power + Ant 0 30° Elevation Angle Gain})/10} + 10^{(\text{Ant 1 Average Power + Ant 1 30° Elevation Angle Gain})/10}\}$.

Output Power Measurement Limit of Galtronics Directional Antenna

Frequency Band (MHz)	Per Chain Max Antenna Gain (dBi)				CDD & Beam Forming Directional Gain (dBi)	Limit of SISO (dBm)				Limit of MIMO (dBm)
	Ant 0	Ant 1	Ant 2	Ant 3		Ant 0	Ant 1	Ant 2	Ant 3	Ant 0+1+2+3
5150 ~ 5250	8.39	8.16	8.39	8.16	14.30	27.61	27.84	27.61	27.84	21.70
5150 ~ 5250 30°elevation angle	-1.54	-2.86	-1.54	-2.86	N/A	N/A	N/A	N/A	N/A	N/A
5725 ~ 5850	8.92	8.82	8.92	8.82	14.89	27.08	27.18	27.08	27.18	21.11

Product	US WI-FI AP 4X4 OD ext. antenna	Temperature	25°C
Test Engineer	Johnson Liao	Relative Humidity	50 ~ 58%
Test Site	SR2	Test Date	2016/09/01
Test Item	Output Power	Antenna Model No.	Galtronics Directional

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Max EIRP of 30° Elevation Angle (dBm)	EIRP Limit of 30° Elevation Angle (dBm)	Result
Ant 0									
11a	6	36	5180	22.37	22.37	≤ 27.61	20.83	≤ 21.00	Pass
11a	6	44	5220	22.25	22.25	≤ 27.61	20.71	≤ 21.00	Pass
11a	6	48	5240	21.98	21.98	≤ 27.61	20.44	≤ 21.00	Pass
11a	6	149	5745	22.68	22.68	≤ 27.08	--	--	Pass
11a	6	157	5785	22.32	22.32	≤ 27.08	--	--	Pass
11a	6	165	5825	22.01	22.01	≤ 27.08	--	--	Pass
11n-HT20	6.5	36	5180	22.10	22.10	≤ 27.61	20.56	≤ 21.00	Pass
11n-HT20	6.5	44	5220	22.00	22.00	≤ 27.61	20.46	≤ 21.00	Pass
11n-HT20	6.5	48	5240	22.21	22.21	≤ 27.61	20.67	≤ 21.00	Pass
11n-HT20	6.5	149	5745	22.40	22.40	≤ 27.08	--	--	Pass
11n-HT20	6.5	157	5785	22.04	22.04	≤ 27.08	--	--	Pass
11n-HT20	6.5	165	5825	21.72	21.72	≤ 27.08	--	--	Pass
11n-HT40	13.5	38	5190	22.35	22.35	≤ 27.61	20.81	≤ 21.00	Pass
11n-HT40	13.5	46	5230	22.07	22.07	≤ 27.61	20.53	≤ 21.00	Pass
11n-HT40	13.5	151	5755	22.30	22.30	≤ 27.08	--	--	Pass
11n-HT40	13.5	159	5795	21.97	21.97	≤ 27.08	--	--	Pass
11ac-VHT20	6.5	36	5180	22.08	22.08	≤ 27.61	20.54	≤ 21.00	Pass
11ac-VHT20	6.5	44	5220	21.98	21.98	≤ 27.61	20.44	≤ 21.00	Pass
11ac-VHT20	6.5	48	5240	22.21	22.21	≤ 27.61	20.67	≤ 21.00	Pass
11ac-VHT20	6.5	149	5745	22.16	22.16	≤ 27.08	--	--	Pass
11ac-VHT20	6.5	157	5785	21.88	21.88	≤ 27.08	--	--	Pass
11ac-VHT20	6.5	165	5825	21.51	21.51	≤ 27.08	--	--	Pass

Note: Max EIRP of 30° Elevation Angle (dBm) = Total Average Power (dBm) + 30° Elevation Angle (dBi).

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Max EIRP of 30° Elevation Angle (dBm)	EIRP Limit of 30° Elevation Angle (dBm)	Result
Ant 0									
11ac-VHT40	13.5	38	5190	22.18	22.18	≤ 27.61	20.64	≤ 21.00	Pass
11ac-VHT40	13.5	46	5230	22.43	22.43	≤ 27.61	20.89	≤ 21.00	Pass
11ac-VHT40	13.5	151	5755	22.12	22.12	≤ 27.08	--	--	Pass
11ac-VHT40	13.5	159	5795	21.90	21.90	≤ 27.08	--	--	Pass
11ac-VHT80	29.3	42	5210	22.15	22.15	≤ 27.61	20.61	≤ 21.00	Pass
11ac-VHT80	29.3	155	5775	21.77	21.77	≤ 27.08	--	--	Pass

Note: Max EIRP of 30° Elevation Angle (dBm) = Total Average Power (dBm) + 30° Elevation Angle (dBi).

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Max EIRP of 30° Elevation Angle (dBm)	EIRP Limit of 30° Elevation Angle (dBm)	Result
Ant 1									
11a	6	36	5180	23.65	23.65	≤ 27.84	20.79	≤ 21.00	Pass
11a	6	44	5220	23.30	23.30	≤ 27.84	20.44	≤ 21.00	Pass
11a	6	48	5240	23.47	23.47	≤ 27.84	20.61	≤ 21.00	Pass
11a	6	149	5745	22.05	22.05	≤ 27.18	--	--	Pass
11a	6	157	5785	21.84	21.84	≤ 27.18	--	--	Pass
11a	6	165	5825	21.39	21.39	≤ 27.18	--	--	Pass
11n-HT20	6.5	36	5180	22.40	22.40	≤ 27.84	20.86	≤ 21.00	Pass
11n-HT20	6.5	44	5220	22.04	22.04	≤ 27.84	20.50	≤ 21.00	Pass
11n-HT20	6.5	48	5240	22.23	22.23	≤ 27.84	20.69	≤ 21.00	Pass
11n-HT20	6.5	149	5745	21.83	21.83	≤ 27.18	--	--	Pass
11n-HT20	6.5	157	5785	21.59	21.59	≤ 27.18	--	--	Pass
11n-HT20	6.5	165	5825	21.15	21.15	≤ 27.18	--	--	Pass
11n-HT40	13.5	38	5190	23.63	23.63	≤ 27.84	20.77	≤ 21.00	Pass
11n-HT40	13.5	46	5230	23.29	23.29	≤ 27.84	20.43	≤ 21.00	Pass
11n-HT40	13.5	151	5755	21.86	21.86	≤ 27.18	--	--	Pass
11n-HT40	13.5	159	5795	21.68	21.68	≤ 27.18	--	--	Pass
11ac-VHT20	6.5	36	5180	23.57	23.57	≤ 27.84	20.71	≤ 21.00	Pass
11ac-VHT20	6.5	44	5220	23.71	23.71	≤ 27.84	20.85	≤ 21.00	Pass
11ac-VHT20	6.5	48	5240	22.39	22.39	≤ 27.84	20.85	≤ 21.00	Pass
11ac-VHT20	6.5	149	5745	21.98	21.98	≤ 27.18	--	--	Pass
11ac-VHT20	6.5	157	5785	21.72	21.72	≤ 27.18	--	--	Pass
11ac-VHT20	6.5	165	5825	21.28	21.28	≤ 27.18	--	--	Pass
11ac-VHT40	13.5	38	5190	23.26	23.26	≤ 27.84	20.40	≤ 21.00	Pass
11ac-VHT40	13.5	46	5230	23.42	23.42	≤ 27.84	20.56	≤ 21.00	Pass
11ac-VHT40	13.5	151	5755	21.77	21.77	≤ 27.18	--	--	Pass
11ac-VHT40	13.5	159	5795	21.57	21.57	≤ 27.18	--	--	Pass
11ac-VHT80	29.3	42	5210	23.48	23.48	≤ 27.84	20.62	≤ 21.00	Pass
11ac-VHT80	29.3	155	5775	21.45	21.45	≤ 27.18	--	--	Pass

Note: Max EIRP of 30° Elevation Angle (dBm) = Total Average Power (dBm) + 30° Elevation Angle Gain (dBi).

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Max EIRP of 30° Elevation Angle (dBm)	EIRP Limit of 30° Elevation Angle (dBm)	Result
Ant 2									
11a	6	36	5180	22.03	22.03	≤ 27.61	20.49	≤ 21.00	Pass
11a	6	44	5220	21.96	21.96	≤ 27.61	20.42	≤ 21.00	Pass
11a	6	48	5240	22.17	22.17	≤ 27.61	20.63	≤ 21.00	Pass
11a	6	149	5745	22.38	22.38	≤ 27.08	--	--	Pass
11a	6	157	5785	21.81	21.81	≤ 27.08	--	--	Pass
11a	6	165	5825	20.94	20.94	≤ 27.08	--	--	Pass
11n-HT20	6.5	36	5180	22.15	22.15	≤ 27.61	20.61	≤ 21.00	Pass
11n-HT20	6.5	44	5220	22.05	22.05	≤ 27.61	20.51	≤ 21.00	Pass
11n-HT20	6.5	48	5240	21.99	21.99	≤ 27.61	20.45	≤ 21.00	Pass
11n-HT20	6.5	149	5745	21.38	21.38	≤ 27.08	--	--	Pass
11n-HT20	6.5	157	5785	21.13	21.13	≤ 27.08	--	--	Pass
11n-HT20	6.5	165	5825	20.36	20.36	≤ 27.08	--	--	Pass
11n-HT40	13.5	38	5190	22.23	22.23	≤ 27.61	20.69	≤ 21.00	Pass
11n-HT40	13.5	46	5230	22.17	22.17	≤ 27.61	20.63	≤ 21.00	Pass
11n-HT40	13.5	151	5755	22.17	22.17	≤ 27.08	--	--	Pass
11n-HT40	13.5	159	5795	21.51	21.51	≤ 27.08	--	--	Pass
11ac-VHT20	6.5	36	5180	22.38	22.38	≤ 27.61	20.84	≤ 21.00	Pass
11ac-VHT20	6.5	44	5220	22.10	22.10	≤ 27.61	20.56	≤ 21.00	Pass
11ac-VHT20	6.5	48	5240	22.40	22.40	≤ 27.61	20.86	≤ 21.00	Pass
11ac-VHT20	6.5	149	5745	22.12	22.12	≤ 27.08	--	--	Pass
11ac-VHT20	6.5	157	5785	21.54	21.54	≤ 27.08	--	--	Pass
11ac-VHT20	6.5	165	5825	20.66	20.66	≤ 27.08	--	--	Pass
11ac-VHT40	13.5	38	5190	22.25	22.25	≤ 27.61	20.71	≤ 21.00	Pass
11ac-VHT40	13.5	46	5230	22.17	22.17	≤ 27.61	20.63	≤ 21.00	Pass
11ac-VHT40	13.5	151	5755	22.20	22.20	≤ 27.08	--	--	Pass
11ac-VHT40	13.5	159	5795	21.57	21.57	≤ 27.08	--	--	Pass
11ac-VHT80	29.3	42	5210	22.37	22.37	≤ 27.61	20.83	≤ 21.00	Pass
11ac-VHT80	29.3	155	5775	21.68	21.68	≤ 27.08	--	--	Pass

Note: Max EIRP of 30° Elevation Angle (dBm) = Total Average Power (dBm) + 30° Elevation Angle Gain (dBi).

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Max EIRP of 30° Elevation Angle (dBm)	EIRP Limit of 30° Elevation Angle (dBm)	Result
Ant 3									
11a	6	36	5180	23.49	23.49	≤ 27.84	20.63	≤ 21.00	Pass
11a	6	44	5220	23.70	23.70	≤ 27.84	20.84	≤ 21.00	Pass
11a	6	48	5240	23.71	23.71	≤ 27.84	20.85	≤ 21.00	Pass
11a	6	149	5745	21.61	21.61	≤ 27.18	--	--	Pass
11a	6	157	5785	21.07	21.07	≤ 27.18	--	--	Pass
11a	6	165	5825	20.57	20.57	≤ 27.18	--	--	Pass
11n-HT20	6.5	36	5180	22.04	22.04	≤ 27.84	20.50	≤ 21.00	Pass
11n-HT20	6.5	44	5220	22.28	22.28	≤ 27.84	20.74	≤ 21.00	Pass
11n-HT20	6.5	48	5240	22.29	22.29	≤ 27.84	20.75	≤ 21.00	Pass
11n-HT20	6.5	149	5745	21.63	21.63	≤ 27.18	--	--	Pass
11n-HT20	6.5	157	5785	21.02	21.02	≤ 27.18	--	--	Pass
11n-HT20	6.5	165	5825	20.53	20.53	≤ 27.18	--	--	Pass
11n-HT40	13.5	38	5190	23.23	23.23	≤ 27.84	20.37	≤ 21.00	Pass
11n-HT40	13.5	46	5230	23.51	23.51	≤ 27.84	20.65	≤ 21.00	Pass
11n-HT40	13.5	151	5755	21.70	21.70	≤ 27.18	--	--	Pass
11n-HT40	13.5	159	5795	21.18	21.18	≤ 27.18	--	--	Pass
11ac-VHT20	6.5	36	5180	23.23	23.23	≤ 27.84	20.37	≤ 21.00	Pass
11ac-VHT20	6.5	44	5220	23.44	23.44	≤ 27.84	20.58	≤ 21.00	Pass
11ac-VHT20	6.5	48	5240	21.96	21.96	≤ 27.84	20.42	≤ 21.00	Pass
11ac-VHT20	6.5	149	5745	21.68	21.68	≤ 27.18	--	--	Pass
11ac-VHT20	6.5	157	5785	21.08	21.08	≤ 27.18	--	--	Pass
11ac-VHT20	6.5	165	5825	20.60	20.60	≤ 27.18	--	--	Pass
11ac-VHT40	13.5	38	5190	23.38	23.38	≤ 27.84	20.52	≤ 21.00	Pass
11ac-VHT40	13.5	46	5230	23.52	23.52	≤ 27.84	20.66	≤ 21.00	Pass
11ac-VHT40	13.5	151	5755	21.68	21.68	≤ 27.18	--	--	Pass
11ac-VHT40	13.5	159	5795	21.16	21.16	≤ 27.18	--	--	Pass
11ac-VHT80	29.3	42	5210	22.96	22.96	≤ 27.84	20.10	≤ 21.00	Pass
11ac-VHT80	29.3	155	5775	21.12	21.12	≤ 27.18	--	--	Pass

Note: Max EIRP of 30° Elevation Angle (dBm) = Total Average Power (dBm) + 30° Elevation Angle Gain (dBi).

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Ant 2 Average Power (dBm)	Ant 3 Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Max EIRP of 30° Elevation Angle (dBm)	EIRP Limit of 30° Elevation Angle (dBm)	Result
Ant 0+1+2+3												
11a	6	36	5180	13.70	13.54	13.45	13.39	19.54	≤ 21.70	17.40	≤ 21.00	Pass
11a	6	44	5220	13.68	13.19	13.23	13.09	19.32	≤ 21.70	17.20	≤ 21.00	Pass
11a	6	48	5240	13.83	13.30	13.50	13.20	19.48	≤ 21.70	17.37	≤ 21.00	Pass
11a	6	149	5745	15.01	14.61	14.97	14.53	20.81	≤ 21.11	--	--	Pass
11a	6	157	5785	15.17	14.93	15.03	14.41	20.91	≤ 21.11	--	--	Pass
11a	6	165	5825	15.38	14.70	14.42	14.32	20.75	≤ 21.11	--	--	Pass
11n-HT20	27	36	5180	14.32	13.86	13.98	13.80	20.02	≤ 21.70	18.48	≤ 21.00	Pass
11n-HT20	27	44	5220	14.67	14.12	14.19	13.93	20.26	≤ 21.70	18.72	≤ 21.00	Pass
11n-HT20	27	48	5240	14.32	14.06	13.79	13.51	19.95	≤ 21.70	18.41	≤ 21.00	Pass
11n-HT20	27	149	5745	14.76	14.41	14.80	14.24	20.58	≤ 21.11	--	--	Pass
11n-HT20	27	157	5785	14.93	14.76	14.86	14.18	20.71	≤ 21.11	--	--	Pass
11n-HT20	27	165	5825	15.15	14.52	14.18	14.12	20.53	≤ 21.11	--	--	Pass
11n-HT40	54	38	5190	15.55	14.81	14.87	14.75	21.03	≤ 21.70	18.91	≤ 21.00	Pass
11n-HT40	54	46	5230	15.89	15.18	15.04	15.00	21.31	≤ 21.70	19.19	≤ 21.00	Pass
11n-HT40	54	151	5755	15.31	15.01	15.31	14.62	21.09	≤ 21.11	--	--	Pass
11n-HT40	54	159	5795	15.53	15.21	15.21	14.61	21.17	≤ 21.11	--	--	Pass
11ac-VHT20	27	36	5180	14.37	13.93	14.04	13.56	20.01	≤ 21.70	17.89	≤ 21.00	Pass
11ac-VHT20	27	44	5220	14.71	14.08	14.12	13.81	20.21	≤ 21.70	18.10	≤ 21.00	Pass
11ac-VHT20	27	48	5240	14.35	14.02	13.80	13.31	19.91	≤ 21.70	18.37	≤ 21.00	Pass
11ac-VHT20	27	149	5745	15.32	15.13	15.43	14.72	21.18	≤ 21.11	--	--	Pass
11ac-VHT20	27	157	5785	14.97	14.81	14.93	14.15	20.75	≤ 21.11	--	--	Pass
11ac-VHT20	27	165	5825	15.62	15.12	14.88	14.54	21.08	≤ 21.11	--	--	Pass
11ac-VHT40	54	38	5190	15.67	15.00	14.99	14.76	21.14	≤ 21.70	19.02	≤ 21.00	Pass
11ac-VHT40	54	46	5230	16.00	15.27	15.23	14.94	21.40	≤ 21.70	19.29	≤ 21.00	Pass
11ac-VHT40	54	151	5755	15.42	14.97	15.32	14.68	21.13	≤ 21.11	--	--	Pass
11ac-VHT40	54	159	5795	15.08	14.77	14.76	14.15	20.72	≤ 21.11	--	--	Pass
11ac-VHT80	117.2	42	5210	15.52	14.91	14.98	14.63	21.04	≤ 21.70	18.93	≤ 21.00	Pass
11ac-VHT80	117.2	155	5775	14.92	14.46	14.76	14.16	20.61	≤ 21.11	--	--	Pass

Note 1: The Total Average Power (dBm) = $10*\log\{10^{(\text{Ant 0 Average Power }/10)} +10^{(\text{Ant 1 Average Power }/10)} +10^{(\text{Ant 2 Average Power }/10)} +10^{(\text{Ant 3 Average Power }/10)}\}$.

Note 2: Max EIRP of 30° Elevation Angle (dBm) = 10*log{$10^{(\text{Ant 0 Average Power + Ant 0 30° Elevation Angle Gain})/10}$ +$10^{(\text{Ant 1 Average Power + Ant 1 30° Elevation Angle Gain})/10}$ +$10^{(\text{Ant 2 Average Power + Ant 2 30° Elevation Angle Gain})/10}$ +$10^{(\text{Ant 3 Average Power + Ant 3 30° Elevation Angle Gain})/10}$}.

For 802.11ac-VHT 80 + 80 Test Data

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Ant 2 Average Power (dBm)	Ant 3 Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Max EIRP of 30° Elevation Angle (dBm)	EIRP Limit of 30° Elevation Angle (dBm)	Result
11ac-VHT	117.2	42	5210	18.75	18.12	--	--	21.46	≤ 27.72	19.35	≤ 21.00	Pass
80+80	117.2	155	5775	--	--	15.75	15.29	18.54	≤ 27.13	--	--	Pass

Note 1: The Total Average Power (dBm) = 10*log{$10^{(\text{Ant 0 Average Power }/10)}$ +$10^{(\text{Ant 1 Average Power }/10)}$}.

Note 2: The Total Average Power (dBm) = 10*log{$10^{(\text{Ant 2 Average Power }/10)}$ +$10^{(\text{Ant 3 Average Power }/10)}$}.

Note 3: Max EIRP of 30° Elevation Angle (dBm) = 10*log{$10^{(\text{Ant 0 Average Power + Ant 0 30° Elevation Angle Gain})/10}$ +$10^{(\text{Ant 1 Average Power + Ant 1 30° Elevation Angle Gain})/10}$}.

Output Power Measurement Limit of Sector-Antenna 1356.17.0011

Frequency Band (MHz)	Per Chain Max Antenna Gain (dBi)				CDD & Beam Forming Directional Gain (dBi)	Limit of SISO (dBm)				Limit of MIMO (dBm)
	Ant 0	Ant 1	Ant 2	Ant 3		Ant 0	Ant 1	Ant 2	Ant 3	Ant 0+1+2+3
5150 ~ 5250	16.00	16.00	16.00	16.00	N/A	20.00	20.00	20.00	20.00	20.00
5150 ~ 5250 30°elevation angle	-1.22	-1.22	-1.22	-1.22	N/A	N/A	N/A	N/A	N/A	N/A
5725 ~ 5850	17.00	17.00	17.00	17.00	N/A	19.00	19.00	19.00	19.00	19.00

Product	US WI-FI AP 4X4 OD ext. antenna	Temperature	25°C
Test Engineer	Johnson Liao	Relative Humidity	50 ~ 58%
Test Site	SR2	Test Date	2016/09/03
Test Item	Output Power	Antenna Model No.	Sector-Antenna 1356.17.0011

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Max EIRP of 30° Elevation Angle (dBm)	EIRP Limit of 30° Elevation Angle (dBm)	Result
Ant 0									
11a	6	36	5180	15.53	15.53	≤ 20.00	14.31	≤ 21.00	Pass
11a	6	44	5220	19.36	19.36	≤ 20.00	18.14	≤ 21.00	Pass
11a	6	48	5240	19.51	19.51	≤ 20.00	18.29	≤ 21.00	Pass
11a	6	149	5745	18.47	18.47	≤ 19.00	--	--	Pass
11a	6	157	5785	18.27	18.27	≤ 19.00	--	--	Pass
11a	6	165	5825	18.41	18.41	≤ 19.00	--	--	Pass
11n-HT20	6.5	36	5180	15.28	15.28	≤ 20.00	14.06	≤ 21.00	Pass
11n-HT20	6.5	44	5220	19.54	19.54	≤ 20.00	18.32	≤ 21.00	Pass
11n-HT20	6.5	48	5240	19.30	19.30	≤ 20.00	18.08	≤ 21.00	Pass
11n-HT20	6.5	149	5745	18.61	18.61	≤ 19.00	--	--	Pass
11n-HT20	6.5	157	5785	18.37	18.37	≤ 19.00	--	--	Pass
11n-HT20	6.5	165	5825	18.42	18.42	≤ 19.00	--	--	Pass
11n-HT40	13.5	38	5190	11.32	11.32	≤ 20.00	10.10	≤ 21.00	Pass
11n-HT40	13.5	46	5230	19.56	19.56	≤ 20.00	18.34	≤ 21.00	Pass
11n-HT40	13.5	151	5755	13.42	13.42	≤ 19.00	--	--	Pass
11n-HT40	13.5	159	5795	10.62	10.62	≤ 19.00	--	--	Pass
11ac-VHT20	6.5	36	5180	17.12	17.12	≤ 20.00	15.90	≤ 21.00	Pass
11ac-VHT20	6.5	44	5220	19.45	19.45	≤ 20.00	18.23	≤ 21.00	Pass
11ac-VHT20	6.5	48	5240	16.62	16.62	≤ 20.00	15.40	≤ 21.00	Pass
11ac-VHT20	6.5	149	5745	18.64	18.64	≤ 19.00	--	--	Pass
11ac-VHT20	6.5	157	5785	18.40	18.40	≤ 19.00	--	--	Pass
11ac-VHT20	6.5	165	5825	18.47	18.47	≤ 19.00	--	--	Pass

Note: Max EIRP of 30° Elevation Angle (dBm) = Total Average Power (dBm) + 30° Elevation Angle Gain (dBi).

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Max EIRP of 30° Elevation Angle (dBm)	EIRP Limit of 30° Elevation Angle (dBm)	Result
Ant 0									
11ac-VHT40	13.5	38	5190	13.35	13.35	≤ 20.00	12.13	≤ 21.00	Pass
11ac-VHT40	13.5	46	5230	19.65	19.65	≤ 20.00	18.43	≤ 21.00	Pass
11ac-VHT40	13.5	151	5755	18.62	18.62	≤ 19.00	--	--	Pass
11ac-VHT40	13.5	159	5795	18.37	18.37	≤ 19.00	--	--	Pass
11ac-VHT80	29.3	42	5210	12.23	12.23	≤ 20.00	11.01	≤ 21.00	Pass
11ac-VHT80	29.3	155	5775	18.28	18.28	≤ 19.00	--	--	Pass

Note: Max EIRP of 30° Elevation Angle (dBm) = Total Average Power (dBm) + 30° Elevation Angle Gain (dBi).

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Max EIRP of 30° Elevation Angle (dBm)	EIRP Limit of 30° Elevation Angle (dBm)	Result
Ant 1									
11a	6	36	5180	17.46	17.46	≤ 20.00	16.24	≤ 21.00	Pass
11a	6	44	5220	19.62	19.62	≤ 20.00	18.40	≤ 21.00	Pass
11a	6	48	5240	19.64	19.64	≤ 20.00	18.42	≤ 21.00	Pass
11a	6	149	5745	18.42	18.42	≤ 19.00	--	--	Pass
11a	6	157	5785	18.68	18.68	≤ 19.00	--	--	Pass
11a	6	165	5825	18.56	18.56	≤ 19.00	--	--	Pass
11n-HT20	6.5	36	5180	17.23	17.23	≤ 20.00	16.01	≤ 21.00	Pass
11n-HT20	6.5	44	5220	19.39	19.39	≤ 20.00	18.17	≤ 21.00	Pass
11n-HT20	6.5	48	5240	19.39	19.39	≤ 20.00	18.17	≤ 21.00	Pass
11n-HT20	6.5	149	5745	18.70	18.70	≤ 19.00	--	--	Pass
11n-HT20	6.5	157	5785	18.55	18.55	≤ 19.00	--	--	Pass
11n-HT20	6.5	165	5825	18.37	18.37	≤ 19.00	--	--	Pass
11n-HT40	13.5	38	5190	15.26	15.26	≤ 20.00	14.04	≤ 21.00	Pass
11n-HT40	13.5	46	5230	19.60	19.60	≤ 20.00	18.38	≤ 21.00	Pass
11n-HT40	13.5	151	5755	18.24	18.24	≤ 19.00	--	--	Pass
11n-HT40	13.5	159	5795	18.53	18.53	≤ 19.00	--	--	Pass
11ac-VHT20	6.5	36	5180	18.23	18.23	≤ 20.00	17.01	≤ 21.00	Pass
11ac-VHT20	6.5	44	5220	19.37	19.37	≤ 20.00	18.15	≤ 21.00	Pass
11ac-VHT20	6.5	48	5240	19.45	19.45	≤ 20.00	18.23	≤ 21.00	Pass
11ac-VHT20	6.5	149	5745	18.71	18.71	≤ 19.00	--	--	Pass
11ac-VHT20	6.5	157	5785	18.61	18.61	≤ 19.00	--	--	Pass
11ac-VHT20	6.5	165	5825	18.36	18.36	≤ 19.00	--	--	Pass
11ac-VHT40	13.5	38	5190	15.25	15.25	≤ 20.00	14.03	≤ 21.00	Pass
11ac-VHT40	13.5	46	5230	19.58	19.58	≤ 20.00	18.36	≤ 21.00	Pass
11ac-VHT40	13.5	151	5755	18.23	18.23	≤ 19.00	--	--	Pass
11ac-VHT40	13.5	159	5795	18.56	18.56	≤ 19.00	--	--	Pass
11ac-VHT80	29.3	42	5210	14.74	14.74	≤ 20.00	13.52	≤ 21.00	Pass
11ac-VHT80	29.3	155	5775	18.39	18.39	≤ 19.00	--	--	Pass

Note: Max EIRP of 30° Elevation Angle (dBm) = Total Average Power (dBm) + 30° Elevation Angle Gain (dBi).

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Max EIRP of 30° Elevation Angle (dBm)	EIRP Limit of 30° Elevation Angle (dBm)	Result
Ant 2									
11a	6	36	5180	19.52	19.52	≤ 20.00	18.30	≤ 21.00	Pass
11a	6	44	5220	19.12	19.12	≤ 20.00	17.90	≤ 21.00	Pass
11a	6	48	5240	19.23	19.23	≤ 20.00	18.01	≤ 21.00	Pass
11a	6	149	5745	18.31	18.31	≤ 19.00	--	--	Pass
11a	6	157	5785	18.29	18.29	≤ 19.00	--	--	Pass
11a	6	165	5825	18.42	18.42	≤ 19.00	--	--	Pass
11n-HT20	6.5	36	5180	19.25	19.25	≤ 20.00	18.03	≤ 21.00	Pass
11n-HT20	6.5	44	5220	19.42	19.42	≤ 20.00	18.20	≤ 21.00	Pass
11n-HT20	6.5	48	5240	19.51	19.51	≤ 20.00	18.29	≤ 21.00	Pass
11n-HT20	6.5	149	5745	18.54	18.54	≤ 19.00	--	--	Pass
11n-HT20	6.5	157	5785	18.54	18.54	≤ 19.00	--	--	Pass
11n-HT20	6.5	165	5825	18.67	18.67	≤ 19.00	--	--	Pass
11n-HT40	13.5	38	5190	15.74	15.74	≤ 20.00	14.52	≤ 21.00	Pass
11n-HT40	13.5	46	5230	19.54	19.54	≤ 20.00	18.32	≤ 21.00	Pass
11n-HT40	13.5	151	5755	18.60	18.60	≤ 19.00	--	--	Pass
11n-HT40	13.5	159	5795	18.58	18.58	≤ 19.00	--	--	Pass
11ac-VHT20	6.5	36	5180	19.23	19.23	≤ 20.00	18.01	≤ 21.00	Pass
11ac-VHT20	6.5	44	5220	19.36	19.36	≤ 20.00	18.14	≤ 21.00	Pass
11ac-VHT20	6.5	48	5240	19.50	19.50	≤ 20.00	18.28	≤ 21.00	Pass
11ac-VHT20	6.5	149	5745	18.50	18.50	≤ 19.00	--	--	Pass
11ac-VHT20	6.5	157	5785	18.55	18.55	≤ 19.00	--	--	Pass
11ac-VHT20	6.5	165	5825	18.68	18.68	≤ 19.00	--	--	Pass
11ac-VHT40	13.5	38	5190	15.74	15.74	≤ 20.00	14.52	≤ 21.00	Pass
11ac-VHT40	13.5	46	5230	19.54	19.54	≤ 20.00	18.32	≤ 21.00	Pass
11ac-VHT40	13.5	151	5755	18.62	18.62	≤ 19.00	--	--	Pass
11ac-VHT40	13.5	159	5795	18.55	18.55	≤ 19.00	--	--	Pass
11ac-VHT80	29.3	42	5210	14.75	14.75	≤ 20.00	13.53	≤ 21.00	Pass
11ac-VHT80	29.3	155	5775	18.55	18.55	≤ 19.00	--	--	Pass

Note: Max EIRP of 30° Elevation Angle (dBm) = Total Average Power (dBm) + 30° Elevation Angle Gain (dBi).

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Max EIRP of 30° Elevation Angle (dBm)	EIRP Limit of 30° Elevation Angle (dBm)	Result
Ant 3									
11a	6	36	5180	19.45	19.45	≤ 20.00	18.23	≤ 21.00	Pass
11a	6	44	5220	19.16	19.16	≤ 20.00	17.94	≤ 21.00	Pass
11a	6	48	5240	19.45	19.45	≤ 20.00	18.23	≤ 21.00	Pass
11a	6	149	5745	18.34	18.34	≤ 19.00	--	--	Pass
11a	6	157	5785	18.42	18.42	≤ 19.00	--	--	Pass
11a	6	165	5825	18.47	18.47	≤ 19.00	--	--	Pass
11n-HT20	6.5	36	5180	19.22	19.22	≤ 20.00	18.00	≤ 21.00	Pass
11n-HT20	6.5	44	5220	19.43	19.43	≤ 20.00	18.21	≤ 21.00	Pass
11n-HT20	6.5	48	5240	19.21	19.21	≤ 20.00	17.99	≤ 21.00	Pass
11n-HT20	6.5	149	5745	18.56	18.56	≤ 19.00	--	--	Pass
11n-HT20	6.5	157	5785	18.21	18.21	≤ 19.00	--	--	Pass
11n-HT20	6.5	165	5825	18.68	18.68	≤ 19.00	--	--	Pass
11n-HT40	13.5	38	5190	15.71	15.71	≤ 20.00	14.49	≤ 21.00	Pass
11n-HT40	13.5	46	5230	19.44	19.44	≤ 20.00	18.22	≤ 21.00	Pass
11n-HT40	13.5	151	5755	18.62	18.62	≤ 30.00	--	--	Pass
11n-HT40	13.5	159	5795	18.31	18.31	≤ 30.00	--	--	Pass
11ac-VHT20	6.5	36	5180	19.21	19.21	≤ 20.00	17.99	≤ 21.00	Pass
11ac-VHT20	6.5	44	5220	19.42	19.42	≤ 20.00	18.20	≤ 21.00	Pass
11ac-VHT20	6.5	48	5240	19.21	19.21	≤ 20.00	17.99	≤ 21.00	Pass
11ac-VHT20	6.5	149	5745	18.59	18.59	≤ 19.00	--	--	Pass
11ac-VHT20	6.5	157	5785	18.21	18.21	≤ 19.00	--	--	Pass
11ac-VHT20	6.5	165	5825	18.66	18.66	≤ 19.00	--	--	Pass
11ac-VHT40	13.5	38	5190	16.72	16.72	≤ 20.00	15.50	≤ 21.00	Pass
11ac-VHT40	13.5	46	5230	19.43	19.43	≤ 20.00	18.21	≤ 21.00	Pass
11ac-VHT40	13.5	151	5755	18.62	18.62	≤ 19.00	--	--	Pass
11ac-VHT40	13.5	159	5795	18.32	18.32	≤ 19.00	--	--	Pass
11ac-VHT80	29.3	42	5210	15.12	15.12	≤ 20.00	13.90	≤ 21.00	Pass
11ac-VHT80	29.3	155	5775	18.60	18.60	≤ 19.00	--	--	Pass

Note: Max EIRP of 30° Elevation Angle (dBm) = Total Average Power (dBm) + 30° Elevation Angle Gain (dBi).

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Ant 2 Average Power (dBm)	Ant 3 Average Power (dBm)	Max Average Power (dBm)	Average Power Limit (dBm)	Max EIRP of 30° Elevation Angle (dBm)	EIRP Limit of 30° Elevation Angle (dBm)	Result
Ant 0+1+2+3												
11a	6	36	5180	19.32	18.57	18.89	18.28	19.32	≤ 20.00	18.10	≤ 21.00	Pass
11a	6	44	5220	19.57	18.99	19.06	18.85	19.57	≤ 20.00	18.35	≤ 21.00	Pass
11a	6	48	5240	19.28	18.92	18.79	18.39	19.28	≤ 20.00	18.06	≤ 21.00	Pass
11a	6	149	5745	18.58	18.05	18.57	18.08	18.58	≤ 19.00	--	--	Pass
11a	6	157	5785	18.46	17.98	18.29	17.81	18.46	≤ 19.00	--	--	Pass
11a	6	165	5825	18.38	17.62	17.63	17.39	18.38	≤ 19.00	--	--	Pass
11n-HT20	27	36	5180	18.49	18.05	18.46	18.12	18.49	≤ 20.00	17.27	≤ 21.00	Pass
11n-HT20	27	44	5220	19.39	18.56	18.91	18.85	19.39	≤ 20.00	18.17	≤ 21.00	Pass
11n-HT20	27	48	5240	19.58	19.18	18.89	18.64	19.58	≤ 20.00	18.36	≤ 21.00	Pass
11n-HT20	27	149	5745	18.36	17.89	18.37	17.81	18.36	≤ 19.00	--	--	Pass
11n-HT20	27	157	5785	18.32	17.58	18.08	17.85	18.32	≤ 19.00	--	--	Pass
11n-HT20	27	165	5825	18.17	17.22	17.43	17.28	18.17	≤ 19.00	--	--	Pass
11n-HT40	54	38	5190	14.93	14.23	14.68	14.07	14.93	≤ 20.00	13.71	≤ 21.00	Pass
11n-HT40	54	46	5230	19.31	18.31	18.57	18.12	19.31	≤ 20.00	18.09	≤ 21.00	Pass
11n-HT40	54	151	5755	18.55	18.12	18.68	17.83	18.55	≤ 19.00	--	--	Pass
11n-HT40	54	159	5795	18.42	17.81	18.13	17.54	18.42	≤ 19.00	--	--	Pass
11ac-VHT20	27	36	5180	19.03	18.45	18.73	18.57	19.03	≤ 20.00	17.81	≤ 21.00	Pass
11ac-VHT20	27	44	5220	19.33	18.71	18.83	18.86	19.33	≤ 20.00	18.11	≤ 21.00	Pass
11ac-VHT20	27	48	5240	19.54	19.37	18.93	18.75	19.54	≤ 20.00	18.32	≤ 21.00	Pass
11ac-VHT20	27	149	5745	18.38	18.07	18.38	18.12	18.38	≤ 19.00	--	--	Pass
11ac-VHT20	27	157	5785	18.35	17.91	18.12	17.98	18.35	≤ 19.00	--	--	Pass
11ac-VHT20	27	165	5825	18.16	17.39	17.39	17.55	18.16	≤ 19.00	--	--	Pass
11ac-VHT40	54	38	5190	14.42	13.71	14.26	13.54	14.42	≤ 20.00	13.20	≤ 21.00	Pass
11ac-VHT40	54	46	5230	19.25	18.41	18.69	18.24	19.25	≤ 20.00	18.03	≤ 21.00	Pass
11ac-VHT40	54	151	5755	18.51	18.03	18.62	17.71	18.51	≤ 27.06	--	--	Pass
11ac-VHT40	54	159	5795	18.36	17.91	18.02	17.51	18.36	≤ 27.06	--	--	Pass
11ac-VHT80	117.2	42	5210	14.89	14.05	14.48	13.89	14.89	≤ 20.00	13.67	≤ 21.00	Pass
11ac-VHT80	117.2	155	5775	18.21	17.41	17.98	17.44	18.21	≤ 27.06	--	--	Pass

Note 1: The result of the Max Average Power has been selected the max Average Power from each antenna.

Note 2: Max EIRP of 30° Elevation Angle (dBm) = Max Average Power (dBm) + 30° Elevation Angle Gain (dBi).

For 802.11ac-VHT 80 + 80 Test Data

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Ant 2 Average Power (dBm)	Ant 3 Average Power (dBm)	Max Average Power (dBm)	Average Power Limit (dBm)	Max EIRP of 30° Elevation Angle (dBm)	EIRP Limit of 30° Elevation Angle (dBm)	Result
11ac-VHT	117.2	42	5210	19.21	18.91	--	--	19.21	≤ 20.00	17.99	≤ 21.00	Pass
80+80	117.2	155	5775	--	--	16.62	16.16	16.62	≤ 19.00	--	--	Pass

Note 1: The result of the Max Average Power has been selected the max Average Power from each antenna.

Note 2: Max EIRP of 30° Elevation Angle (dBm) = Max Average Power (dBm) + 30° Elevation Angle Gain (dBi).

Output Power Measurement Limit of Directional Antenna 1356.17.0077

Frequency Band (MHz)	Per Chain Max Antenna Gain (dBi)				CDD & Beam Forming Directional Gain (dBi)	Limit of SISO (dBm)				Limit of MIMO (dBm)
	Ant 0	Ant 1	Ant 2	Ant 3		Ant 0	Ant 1	Ant 2	Ant 3	Ant 0+1+2+3
5150 ~ 5250	14.00	14.00	14.00	14.00	N/A	22.00	22.00	22.00	22.00	22.00
5150 ~ 5250 30°elevation angle	1.52	1.52	1.52	1.52	N/A	N/A	N/A	N/A	N/A	N/A
5725 ~ 5850	14.00	14.00	14.00	14.00	N/A	22.00	22.00	22.00	22.00	22.00

Product	US WI-FI AP 4X4 OD ext. antenna	Temperature	25°C
Test Engineer	Johnson Liao	Relative Humidity	50 ~ 58%
Test Site	SR2	Test Date	2016/09/03
Test Item	Output Power	Antenna Model No.	Directional Antenna 1356.17.0077

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Max EIRP of 30° Elevation Angle (dBm)	EIRP Limit of 30° Elevation Angle (dBm)	Result
Ant 0									
11a	6	36	5180	19.13	19.13	≤ 22.00	20.65	≤ 21.00	Pass
11a	6	44	5220	18.92	18.92	≤ 22.00	20.44	≤ 21.00	Pass
11a	6	48	5240	19.03	19.03	≤ 22.00	20.55	≤ 21.00	Pass
11a	6	149	5745	21.26	21.26	≤ 22.00	--	--	Pass
11a	6	157	5785	21.45	21.45	≤ 22.00	--	--	Pass
11a	6	165	5825	21.48	21.48	≤ 22.00	--	--	Pass
11n-HT20	6.5	36	5180	18.86	18.86	≤ 22.00	20.38	≤ 21.00	Pass
11n-HT20	6.5	44	5220	19.15	19.15	≤ 22.00	20.67	≤ 21.00	Pass
11n-HT20	6.5	48	5240	18.78	18.78	≤ 22.00	20.30	≤ 21.00	Pass
11n-HT20	6.5	149	5745	21.53	21.53	≤ 22.00	--	--	Pass
11n-HT20	6.5	157	5785	21.22	21.22	≤ 22.00	--	--	Pass
11n-HT20	6.5	165	5825	21.26	21.26	≤ 22.00	--	--	Pass
11n-HT40	13.5	38	5190	19.03	19.03	≤ 22.00	20.55	≤ 21.00	Pass
11n-HT40	13.5	46	5230	18.83	18.83	≤ 22.00	20.35	≤ 21.00	Pass
11n-HT40	13.5	151	5755	21.43	21.43	≤ 22.00	--	--	Pass
11n-HT40	13.5	159	5795	21.14	21.14	≤ 22.00	--	--	Pass
11ac-VHT20	6.5	36	5180	18.88	18.88	≤ 22.00	20.40	≤ 21.00	Pass
11ac-VHT20	6.5	44	5220	19.16	19.16	≤ 22.00	20.68	≤ 21.00	Pass
11ac-VHT20	6.5	48	5240	18.78	18.78	≤ 22.00	20.30	≤ 21.00	Pass
11ac-VHT20	6.5	149	5745	21.51	21.51	≤ 22.00	--	--	Pass
11ac-VHT20	6.5	157	5785	21.20	21.20	≤ 22.00	--	--	Pass
11ac-VHT20	6.5	165	5825	21.23	21.23	≤ 22.00	--	--	Pass

Note: Max EIRP of 30° Elevation Angle (dBm) = Total Average Power (dBm) + 30° Elevation Angle Gain (dBi).

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Max EIRP of 30° Elevation Angle (dBm)	EIRP Limit of 30° Elevation Angle (dBm)	Result
Ant 0									
11ac-VHT40	13.5	38	5190	19.02	19.02	≤ 22.00	20.54	≤ 21.00	Pass
11ac-VHT40	13.5	46	5230	18.83	18.83	≤ 22.00	20.35	≤ 21.00	Pass
11ac-VHT40	13.5	151	5755	21.42	21.42	≤ 22.00	--	--	Pass
11ac-VHT40	13.5	159	5795	21.11	21.11	≤ 22.00	--	--	Pass
11ac-VHT80	29.3	42	5210	18.71	18.71	≤ 22.00	20.23	≤ 21.00	Pass
11ac-VHT80	29.3	155	5775	21.18	21.18	≤ 22.00	--	--	Pass

Note: Max EIRP of 30° Elevation Angle (dBm) = Total Average Power (dBm) + 30° Elevation Angle Gain (dBi).

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Max EIRP of 30° Elevation Angle (dBm)	EIRP Limit of 30° Elevation Angle (dBm)	Result
Ant 1									
11a	6	36	5180	19.15	19.15	≤ 22.00	20.67	≤ 21.00	Pass
11a	6	44	5220	18.83	18.83	≤ 22.00	20.35	≤ 21.00	Pass
11a	6	48	5240	19.01	19.01	≤ 22.00	20.53	≤ 21.00	Pass
11a	6	149	5745	21.47	21.47	≤ 22.00	--	--	Pass
11a	6	157	5785	21.27	21.27	≤ 22.00	--	--	Pass
11a	6	165	5825	21.36	21.36	≤ 22.00	--	--	Pass
11n-HT20	6.5	36	5180	18.89	18.89	≤ 22.00	20.41	≤ 21.00	Pass
11n-HT20	6.5	44	5220	19.04	19.04	≤ 22.00	20.56	≤ 21.00	Pass
11n-HT20	6.5	48	5240	19.18	19.18	≤ 22.00	20.70	≤ 21.00	Pass
11n-HT20	6.5	149	5745	21.26	21.26	≤ 22.00	--	--	Pass
11n-HT20	6.5	157	5785	21.61	21.61	≤ 22.00	--	--	Pass
11n-HT20	6.5	165	5825	21.12	21.12	≤ 22.00	--	--	Pass
11n-HT40	13.5	38	5190	18.84	18.84	≤ 22.00	20.36	≤ 21.00	Pass
11n-HT40	13.5	46	5230	19.23	19.23	≤ 22.00	20.75	≤ 21.00	Pass
11n-HT40	13.5	151	5755	21.37	21.37	≤ 22.00	--	--	Pass
11n-HT40	13.5	159	5795	21.16	21.16	≤ 22.00	--	--	Pass
11ac-VHT20	6.5	36	5180	18.91	18.91	≤ 22.00	20.43	≤ 21.00	Pass
11ac-VHT20	6.5	44	5220	19.06	19.06	≤ 22.00	20.58	≤ 21.00	Pass
11ac-VHT20	6.5	48	5240	19.19	19.19	≤ 22.00	20.71	≤ 21.00	Pass
11ac-VHT20	6.5	149	5745	21.23	21.23	≤ 22.00	--	--	Pass
11ac-VHT20	6.5	157	5785	21.61	21.61	≤ 22.00	--	--	Pass
11ac-VHT20	6.5	165	5825	21.12	21.12	≤ 22.00	--	--	Pass
11ac-VHT40	13.5	38	5190	18.92	18.92	≤ 22.00	20.44	≤ 21.00	Pass
11ac-VHT40	13.5	46	5230	19.23	19.23	≤ 22.00	20.75	≤ 21.00	Pass
11ac-VHT40	13.5	151	5755	21.36	21.36	≤ 22.00	--	--	Pass
11ac-VHT40	13.5	159	5795	21.16	21.16	≤ 22.00	--	--	Pass
11ac-VHT80	29.3	42	5210	18.92	18.92	≤ 22.00	20.44	≤ 21.00	Pass
11ac-VHT80	29.3	155	5775	21.42	21.42	≤ 22.00	--	--	Pass

Note: Max EIRP of 30° Elevation Angle (dBm) = Total Average Power (dBm) + 30° Elevation Angle Gain (dBi).

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Max EIRP of 30° Elevation Angle (dBm)	EIRP Limit of 30° Elevation Angle (dBm)	Result
Ant 2									
11a	6	36	5180	19.14	19.14	≤ 22.00	20.66	≤ 21.00	Pass
11a	6	44	5220	19.26	19.26	≤ 22.00	20.78	≤ 21.00	Pass
11a	6	48	5240	18.93	18.93	≤ 22.00	20.45	≤ 21.00	Pass
11a	6	149	5745	21.45	21.45	≤ 22.00	--	--	Pass
11a	6	157	5785	21.42	21.42	≤ 22.00	--	--	Pass
11a	6	165	5825	21.53	21.53	≤ 22.00	--	--	Pass
11n-HT20	6.5	36	5180	18.81	18.81	≤ 22.00	20.33	≤ 21.00	Pass
11n-HT20	6.5	44	5220	19.06	19.06	≤ 22.00	20.58	≤ 21.00	Pass
11n-HT20	6.5	48	5240	19.08	19.08	≤ 22.00	20.60	≤ 21.00	Pass
11n-HT20	6.5	149	5745	21.29	21.29	≤ 22.00	--	--	Pass
11n-HT20	6.5	157	5785	21.28	21.28	≤ 22.00	--	--	Pass
11n-HT20	6.5	165	5825	21.42	21.42	≤ 22.00	--	--	Pass
11n-HT40	13.5	38	5190	19.11	19.11	≤ 22.00	20.63	≤ 21.00	Pass
11n-HT40	13.5	46	5230	18.84	18.84	≤ 22.00	20.36	≤ 21.00	Pass
11n-HT40	13.5	151	5755	21.30	21.30	≤ 22.00	--	--	Pass
11n-HT40	13.5	159	5795	21.17	21.17	≤ 22.00	--	--	Pass
11ac-VHT20	6.5	36	5180	18.87	18.87	≤ 22.00	21.37	≤ 21.00	Pass
11ac-VHT20	6.5	44	5220	19.15	19.15	≤ 22.00	21.65	≤ 21.00	Pass
11ac-VHT20	6.5	48	5240	19.16	19.16	≤ 22.00	21.66	≤ 21.00	Pass
11ac-VHT20	6.5	149	5745	21.33	21.33	≤ 22.00	--	--	Pass
11ac-VHT20	6.5	157	5785	21.26	21.26	≤ 22.00	--	--	Pass
11ac-VHT20	6.5	165	5825	21.45	21.45	≤ 22.00	--	--	Pass
11ac-VHT40	13.5	38	5190	19.06	19.06	≤ 22.00	20.58	≤ 21.00	Pass
11ac-VHT40	13.5	46	5230	18.83	18.83	≤ 22.00	20.35	≤ 21.00	Pass
11ac-VHT40	13.5	151	5755	21.29	21.29	≤ 22.00	--	--	Pass
11ac-VHT40	13.5	159	5795	21.19	21.19	≤ 22.00	--	--	Pass
11ac-VHT80	29.3	42	5210	18.92	18.92	≤ 22.00	20.44	≤ 21.00	Pass
11ac-VHT80	29.3	155	5775	21.31	21.31	≤ 22.00	--	--	Pass

Note: Max EIRP of 30° Elevation Angle (dBm) = Total Average Power (dBm) + 30° Elevation Angle Gain (dBi).

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Max EIRP of 30° Elevation Angle (dBm)	EIRP Limit of 30° Elevation Angle (dBm)	Result
Ant 3									
11a	6	36	5180	18.86	18.86	≤ 22.00	20.38	≤ 21.00	Pass
11a	6	44	5220	19.07	19.07	≤ 22.00	20.59	≤ 21.00	Pass
11a	6	48	5240	19.15	19.15	≤ 22.00	20.67	≤ 21.00	Pass
11a	6	149	5745	21.45	21.45	≤ 22.00	--	--	Pass
11a	6	157	5785	21.15	21.15	≤ 22.00	--	--	Pass
11a	6	165	5825	21.51	21.51	≤ 22.00	--	--	Pass
11n-HT20	6.5	36	5180	19.14	19.14	≤ 22.00	20.66	≤ 21.00	Pass
11n-HT20	6.5	44	5220	18.81	18.81	≤ 22.00	20.33	≤ 21.00	Pass
11n-HT20	6.5	48	5240	18.92	18.92	≤ 22.00	20.44	≤ 21.00	Pass
11n-HT20	6.5	149	5745	21.19	21.19	≤ 22.00	--	--	Pass
11n-HT20	6.5	157	5785	21.36	21.36	≤ 22.00	--	--	Pass
11n-HT20	6.5	165	5825	21.29	21.29	≤ 22.00	--	--	Pass
11n-HT40	13.5	38	5190	18.81	18.81	≤ 22.00	20.33	≤ 21.00	Pass
11n-HT40	13.5	46	5230	18.97	18.97	≤ 22.00	20.49	≤ 21.00	Pass
11n-HT40	13.5	151	5755	21.14	21.14	≤ 22.00	--	--	Pass
11n-HT40	13.5	159	5795	21.42	21.42	≤ 22.00	--	--	Pass
11ac-VHT20	6.5	36	5180	19.14	19.14	≤ 22.00	20.66	≤ 21.00	Pass
11ac-VHT20	6.5	44	5220	18.83	18.83	≤ 22.00	20.35	≤ 21.00	Pass
11ac-VHT20	6.5	48	5240	18.89	18.89	≤ 22.00	20.41	≤ 21.00	Pass
11ac-VHT20	6.5	149	5745	21.19	21.19	≤ 22.00	--	--	Pass
11ac-VHT20	6.5	157	5785	21.38	21.38	≤ 22.00	--	--	Pass
11ac-VHT20	6.5	165	5825	21.26	21.26	≤ 22.00	--	--	Pass
11ac-VHT40	13.5	38	5190	18.79	18.79	≤ 22.00	20.31	≤ 21.00	Pass
11ac-VHT40	13.5	46	5230	18.93	18.93	≤ 22.00	20.45	≤ 21.00	Pass
11ac-VHT40	13.5	151	5755	21.38	21.38	≤ 22.00	--	--	Pass
11ac-VHT40	13.5	159	5795	21.67	21.67	≤ 22.00	--	--	Pass
11ac-VHT80	29.3	42	5210	19.03	19.03	≤ 22.00	20.55	≤ 21.00	Pass
11ac-VHT80	29.3	155	5775	20.82	20.82	≤ 22.00	--	--	Pass

Note: Max EIRP of 30° Elevation Angle (dBm) = Total Average Power (dBm) + 30° Elevation Angle Gain (dBi).

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Ant 2 Average Power (dBm)	Ant 3 Average Power (dBm)	Max Average Power (dBm)	Average Power Limit (dBm)	Max EIRP of 30° Elevation Angle (dBm)	EIRP Limit of 30° Elevation Angle (dBm)	Result
Ant 0+1+2+3												
11a	6	36	5180	19.02	18.61	18.57	18.31	19.02	≤ 22.00	20.54	≤ 21.00	Pass
11a	6	44	5220	18.88	18.33	18.28	18.02	18.88	≤ 22.00	20.40	≤ 21.00	Pass
11a	6	48	5240	18.95	18.63	18.45	17.94	18.95	≤ 22.00	20.47	≤ 21.00	Pass
11a	6	149	5745	21.52	21.33	21.58	21.02	21.58	≤ 22.00	--	--	Pass
11a	6	157	5785	21.34	20.96	21.06	20.65	21.34	≤ 22.00	--	--	Pass
11a	6	165	5825	21.34	20.98	20.63	20.71	21.34	≤ 22.00	--	--	Pass
11n-HT20	27	36	5180	18.81	18.37	18.33	18.02	18.81	≤ 22.00	20.33	≤ 21.00	Pass
11n-HT20	27	44	5220	19.06	18.64	18.48	18.37	19.06	≤ 22.00	20.58	≤ 21.00	Pass
11n-HT20	27	48	5240	19.13	18.84	18.69	18.36	19.13	≤ 22.00	20.65	≤ 21.00	Pass
11n-HT20	27	149	5745	21.34	21.08	21.48	20.79	21.48	≤ 22.00	--	--	Pass
11n-HT20	27	157	5785	21.53	21.22	21.35	21.04	21.53	≤ 22.00	--	--	Pass
11n-HT20	27	165	5825	21.63	21.19	20.98	21.07	21.63	≤ 22.00	--	--	Pass
11n-HT40	54	38	5190	19.01	18.48	18.39	18.33	19.01	≤ 22.00	20.53	≤ 21.00	Pass
11n-HT40	54	46	5230	18.81	18.25	18.22	18.02	18.81	≤ 22.00	20.33	≤ 21.00	Pass
11n-HT40	54	151	5755	21.32	21.10	21.31	20.72	21.32	≤ 22.00	--	--	Pass
11n-HT40	54	159	5795	21.13	20.79	20.68	20.48	21.13	≤ 22.00	--	--	Pass
11ac-VHT20	27	36	5180	18.81	18.37	18.35	18.12	18.81	≤ 22.00	20.33	≤ 21.00	Pass
11ac-VHT20	27	44	5220	19.08	18.66	18.55	18.41	19.08	≤ 22.00	20.60	≤ 21.00	Pass
11ac-VHT20	27	48	5240	19.13	18.85	18.73	18.36	19.13	≤ 22.00	20.65	≤ 21.00	Pass
11ac-VHT20	27	149	5745	21.33	21.07	21.43	20.79	21.43	≤ 22.00	--	--	Pass
11ac-VHT20	27	157	5785	21.54	21.21	21.34	21.04	21.54	≤ 22.00	--	--	Pass
11ac-VHT20	27	165	5825	21.63	21.19	20.98	21.09	21.63	≤ 22.00	--	--	Pass
11ac-VHT40	54	38	5190	18.98	18.47	18.41	18.33	18.98	≤ 22.00	20.50	≤ 21.00	Pass
11ac-VHT40	54	46	5230	18.83	18.23	18.22	18.03	18.83	≤ 22.00	20.35	≤ 21.00	Pass
11ac-VHT40	54	151	5755	21.33	21.07	21.36	20.71	21.36	≤ 22.00	--	--	Pass
11ac-VHT40	54	159	5795	21.11	20.82	20.65	20.47	21.11	≤ 22.00	--	--	Pass
11ac-VHT80	117.2	42	5210	18.91	18.43	18.26	18.11	18.91	≤ 22.00	20.43	≤ 21.00	Pass
11ac-VHT80	117.2	155	5775	21.55	21.14	21.25	20.84	21.55	≤ 22.00	--	--	Pass

Note 1: The result of the Max Average Power has been selected the max Average Power from each antenna.

Note 2: Max EIRP of 30° Elevation Angle (dBm) = Max Average Power (dBm) + 30° Elevation Angle Gain (dBi).

For 802.11ac-VHT 80 + 80 Test Data

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Ant 2 Average Power (dBm)	Ant 3 Average Power (dBm)	Max Average Power (dBm)	Average Power Limit (dBm)	Max EIRP of 30° Elevation Angle (dBm)	EIRP Limit of 30° Elevation Angle (dBm)	Result
11ac-VHT	117.2	42	5210	17.91	17.58	--	--	17.91	≤ 22.00	19.43	≤ 21.00	Pass
80+80	117.2	155	5775	--	--	14.03	14.48	14.48	≤ 22.00	--	--	Pass

Note 1: The result of the Max Average Power has been selected the max Average Power from each antenna.

Note 2: Max EIRP of 30° Elevation Angle (dBm) = Max Average Power (dBm) + 30° Elevation Angle Gain (dBi).

The End