



Temperature	24.5°C	Humidity	57%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11a CH 140 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 27, 2013	Test Mode	Mode 4 (Ant.5 PCB antenna / 5.74dBi)

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11391.04	35.62	54.00	-18.38	27.10	5.09	38.68	35.25	Average	100	9	HORIZONTAL
2	11409.00	47.99	74.00	-26.01	39.44	5.10	38.70	35.25	Peak	100	9	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11399.88	40.83	54.00	-13.17	32.28	5.10	38.70	35.25	Average	111	339	VERTICAL
2	11400.32	54.00	74.00	-20.00	45.45	5.10	38.70	35.25	Peak	111	339	VERTICAL



Temperature	24.5°C	Humidity	57%
Test Engineer	Jim Huang	Configurations	IEEE 802.11a CH 144 / Chain 1 + Chain 2 + Chain 3
Test Date	Aug. 21, 2013	Test Mode	Mode 4 (Ant.5 PCB antenna / 5.74dBi)

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	PoI/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11439.78	38.97	54.00	-15.03	30.41	5.10	38.73	35.27	Average	100	100	HORIZONTAL
2	11441.54	51.29	74.00	-22.71	42.73	5.10	38.73	35.27	Peak	100	100	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	PoI/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11435.93	57.16	74.00	-16.84	48.59	5.10	38.73	35.26	Peak	100	245	VERTICAL
2	11436.06	43.36	54.00	-10.64	34.79	5.10	38.73	35.26	Average	100	245	VERTICAL

Note:

The amplitude of spurious emissions that are attenuated by more than 20dB below the permissible value has no need to be reported.

Emission level (dBuV/m) = 20 log Emission level (uV/m).

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

4.7. Band Edge Emissions Measurement

4.7.1. Limit

For transmitters operating in the 5.15-5.35 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed a -27dBm peak limit or average 54dBuV/m and peak 74dBuV/m limits. For transmitters operating in the 5.470-5.725 GHz band: all emissions outside of the 5.470-5.725 GHz band shall not exceed a -27dBm peak limit or average 54dBuV/m and peak 74dBuV/m limits. In addition, In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

Frequencies (MHz)	Field Strength (micorvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

4.7.2. Measuring Instruments and Setting

Please refer to section 5 of equipments list in this report. The following table is the setting of the spectrum analyzer.

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	100 MHz
RBW / VBW (Emission in restricted band)	1 MHz / 3MHz for Peak, 1 MHz / 10Hz for Average
RBW / VBW (Emission in non-restricted band)	1 MHz / 3MHz for Peak

4.7.3. Test Procedures

- The test procedure is the same as section 4.6.3, only the frequency range investigated is limited to 100MHz around bandedges.

4.7.4. Test Setup Layout

This test setup layout is the same as that shown in section 4.6.4.

4.7.5. Test Deviation

There is no deviation with the original standard.

4.7.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

4.7.7. Test Result of Band Edge and Fundamental Emissions

Temperature	24.5°C	Humidity	57%
Test Engineer	Serway Li	Configurations	IEEE 802.11ac MCS0/Nss1 20MHz CH 36, 40, 48 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 24, 2013	Test Mode	Mode 1 (Ant.1 Dipole antenna / 1dBi)

Channel 36

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5093.20	53.84	54.00	-0.16	13.83	6.10	33.91	0.00	Average	192	74	VERTICAL
2	5094.00	63.77	74.00	-10.23	23.76	6.10	33.91	0.00	Peak	192	74	VERTICAL
3	5173.60	114.70			74.51	6.15	34.04	0.00	Peak	192	74	VERTICAL
4	5178.40	103.78			63.55	6.15	34.08	0.00	Average	192	74	VERTICAL

Item 3, 4 are the fundamental frequency at 5180 MHz.

Channel 40

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5118.00	65.40	74.00	-8.60	25.35	6.11	33.94	0.00	Peak	133	77	VERTICAL
2	5118.40	53.84	54.00	-0.16	13.79	6.11	33.94	0.00	Average	133	77	VERTICAL
3	5193.20	112.75			72.51	6.16	34.08	0.00	Peak	133	77	VERTICAL
4	5198.40	102.29			62.02	6.16	34.11	0.00	Average	133	77	VERTICAL

Item 3, 4 are the fundamental frequency at 5200 MHz.

Channel 48

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5127.80	45.24	54.00	-8.76	5.14	6.12	33.98	0.00	Average	114	137	VERTICAL
2	5142.80	57.04	74.00	-16.96	16.93	6.13	33.98	0.00	Peak	114	137	VERTICAL
3	5238.20	109.54			69.18	6.18	34.18	0.00	Average	114	137	VERTICAL
4	5238.20	120.17			79.81	6.18	34.18	0.00	Peak	114	137	VERTICAL
5	5353.60	45.91	54.00	-8.09	5.23	6.26	34.42	0.00	Average	114	137	VERTICAL
6	5359.00	58.28	74.00	-15.72	17.60	6.26	34.42	0.00	Peak	114	137	VERTICAL

Item 3, 4 are the fundamental frequency at 5240 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Jim Huang	Configurations	IEEE 802.11ac MCS0/Nss3 20MHz CH 36, 40, 48 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 18, 2013	Test Mode	Mode 1 (Ant.1 Dipole antenna / 1dBi)

Channel 36

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5106.41	53.57	54.00	-0.43	16.57	3.42	33.58	0.00	Average	130	312	VERTICAL
2	5106.41	64.52	74.00	-9.48	27.52	3.42	33.58	0.00	Peak	130	312	VERTICAL
3	5186.41	103.65			66.48	3.44	33.73	0.00	Average	130	312	VERTICAL
4	5186.73	116.60			79.43	3.44	33.73	0.00	Peak	130	312	VERTICAL

Item 3, 4 are the fundamental frequency at 5180 MHz.

Channel 40

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5126.28	53.69	54.00	-0.31	16.62	3.43	33.64	0.00	Average	160	122	VERTICAL
2	5126.60	64.82	74.00	-9.18	27.75	3.43	33.64	0.00	Peak	160	122	VERTICAL
3	5199.36	115.82			78.61	3.45	33.76	0.00	Peak	160	122	VERTICAL
4	5206.41	102.49			65.28	3.45	33.76	0.00	Average	160	122	VERTICAL

Item 3, 4 are the fundamental frequency at 5200 MHz.

Channel 48

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5150.00	41.93	54.00	-12.07	4.83	3.43	33.67	0.00	Average	144	271	VERTICAL
2	5150.00	52.51	74.00	-21.49	15.41	3.43	33.67	0.00	Peak	144	271	VERTICAL
3	5239.36	116.87			79.59	3.46	33.82	0.00	Peak	144	271	VERTICAL
4	5242.24	104.34			67.06	3.46	33.82	0.00	Average	144	271	VERTICAL

Item 3, 4 are the fundamental frequency at 5240 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Serway Li	Configurations	IEEE 802.11ac MCS0/Nss1 20MHz CH 52, 60, 64 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 24, 2013	Test Mode	Mode 1 (Ant.1 Dipole antenna / 1dBi)

Channel 52

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5142.80	46.37	54.00	-7.63	6.26	6.13	33.98	0.00 Average	134	137	VERTICAL
2	5148.20	58.78	74.00	-15.22	18.64	6.13	34.01	0.00 Peak	134	137	VERTICAL
3	5258.80	108.54			68.11	6.21	34.22	0.00 Average	134	137	VERTICAL
4	5258.80	119.85			79.42	6.21	34.22	0.00 Peak	134	137	VERTICAL
5	5350.00	46.80	54.00	-7.20	6.12	6.26	34.42	0.00 Average	134	137	VERTICAL
6	5353.00	57.56	74.00	-16.44	16.88	6.26	34.42	0.00 Peak	134	137	VERTICAL

Item 3, 4 are the fundamental frequency at 5260 MHz.

Channel 60

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5298.40	104.38			63.83	6.23	34.32	0.00 Average	189	137	VERTICAL
2	5298.40	115.31			74.76	6.23	34.32	0.00 Peak	189	137	VERTICAL
3	5378.40	53.93	54.00	-0.07	13.19	6.28	34.46	0.00 Average	189	137	VERTICAL
4	5388.40	64.33	74.00	-9.67	23.56	6.28	34.49	0.00 Peak	189	137	VERTICAL

Item 1, 2 are the fundamental frequency at 5300 MHz.

Channel 64

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5318.00	114.38			73.78	6.24	34.36	0.00 Peak	187	137	VERTICAL
2	5318.40	102.94			62.34	6.24	34.36	0.00 Average	187	137	VERTICAL
3	5398.40	64.75	74.00	-9.25	23.97	6.29	34.49	0.00 Peak	187	137	VERTICAL
4	5398.80	53.89	54.00	-0.11	13.11	6.29	34.49	0.00 Average	187	137	VERTICAL

Item 1, 2 are the fundamental frequency at 5320 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Jim Huang	Configurations	IEEE 802.11ac MCS0/Nss3 20MHz CH 52, 60, 64 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 18, 2013	Test Mode	Mode 1 (Ant.1 Dipole antenna / 1dBi)

Channel 52

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5266.41	118.10			80.76	3.46	33.88	0.00	Peak	168	122	VERTICAL
2	5266.73	104.57			67.23	3.46	33.88	0.00	Average	168	122	VERTICAL
3	5350.00	42.18	54.00	-11.82	4.66	3.49	34.03	0.00	Average	168	122	VERTICAL
4	5350.00	53.48	74.00	-20.52	15.96	3.49	34.03	0.00	Peak	168	122	VERTICAL

Item 1, 2 are the fundamental frequency at 5260 MHz.

Channel 60

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5306.41	116.23			78.81	3.48	33.94	0.00	Peak	139	312	VERTICAL
2	5306.73	103.16			65.74	3.48	33.94	0.00	Average	139	312	VERTICAL
3	5382.37	53.83	54.00	-0.17	16.24	3.50	34.09	0.00	Average	139	312	VERTICAL
4	5382.37	64.37	74.00	-9.63	26.78	3.50	34.09	0.00	Peak	139	312	VERTICAL

Item 1, 2 are the fundamental frequency at 5300 MHz.

Channel 64

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5322.24	102.89			65.44	3.48	33.97	0.00	Average	137	313	VERTICAL
2	5326.41	115.63			78.17	3.49	33.97	0.00	Peak	137	313	VERTICAL
3	5406.09	65.10	74.00	-8.90	27.47	3.51	34.12	0.00	Peak	137	313	VERTICAL
4	5406.41	53.71	54.00	-0.29	16.08	3.51	34.12	0.00	Average	137	313	VERTICAL

Item 1, 2 are the fundamental frequency at 5320 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Serway Li	Configurations	IEEE 802.11ac MCS0/Nss1 20MHz CH 100, 140 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 24, 2013	Test Mode	Mode 1 (Ant.1 Dipole antenna / 1dBi)

Channel 100

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5418.00	53.96	54.00	-0.04	13.09	6.31	34.56	0.00	Average	122	133	VERTICAL
2	5418.00	66.06	74.00	-7.94	25.19	6.31	34.56	0.00	Peak	122	133	VERTICAL
3	5468.00	58.92	74.00	-15.08	17.91	6.34	34.67	0.00	Peak	122	133	VERTICAL
4	5468.40	45.14	54.00	-8.86	4.13	6.34	34.67	0.00	Average	122	133	VERTICAL
5	5498.40	103.57			62.51	6.36	34.70	0.00	Average	122	133	VERTICAL
6	5498.40	114.52			73.46	6.36	34.70	0.00	Peak	122	133	VERTICAL

Item 5, 6 are the fundamental frequency at 5500 MHz.

Channel 140

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5698.40	103.82			62.53	6.43	34.86	0.00	Average	127	50	VERTICAL
2	5698.80	114.46			73.17	6.43	34.86	0.00	Peak	127	50	VERTICAL
3	5725.00	66.48	74.00	-7.52	25.14	6.45	34.89	0.00	Peak	127	50	VERTICAL
4	5778.60	53.87	54.00	-0.13	12.48	6.46	34.93	0.00	Average	127	50	VERTICAL

Item 1, 2 are the fundamental frequency at 5700 MHz.



Temperature	24.5°C	Humidity	57%
Test Engineer	Jim Huang	Configurations	IEEE 802.11ac MCS0/Nss3 20MHz CH 100, 140 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 18, 2013	Test Mode	Mode 1 (Ant.1 Dipole antenna / 1dBi)

Channel 100

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	PoI/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5426.35	53.59	54.00	-0.41	15.92	3.52	34.15	0.00	Average	124	274	VERTICAL
2	5426.35	66.23	74.00	-7.77	28.56	3.52	34.15	0.00	Peak	124	274	VERTICAL
3	5468.40	72.09	74.00	-1.91	34.33	3.52	34.24	0.00	Peak	124	274	VERTICAL
4	5470.00	51.46	54.00	-2.54	13.70	3.52	34.24	0.00	Average	124	274	VERTICAL
5	5506.41	102.38			64.56	3.54	34.28	0.00	Average	124	274	VERTICAL
6	5506.41	115.95			78.13	3.54	34.28	0.00	Peak	124	274	VERTICAL

Item 5, 6 are the fundamental frequency at 5500 MHz.

Channel 140

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	PoI/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5695.19	114.86			76.93	3.59	34.34	0.00	Peak	136	180	VERTICAL
2	5706.41	100.87			62.93	3.60	34.34	0.00	Average	136	180	VERTICAL
3	5725.00	53.65	54.00	-0.35	15.71	3.60	34.34	0.00	Average	136	180	VERTICAL
4	5725.00	69.74	74.00	-4.26	31.80	3.60	34.34	0.00	Peak	136	180	VERTICAL

Item 1, 2 are the fundamental frequency at 5700 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Serway Li	Configurations	IEEE 802.11ac MCS0/Nss1 40MHz CH 38, 46 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 24, 2013	Test Mode	Mode 1 (Ant.1 Dipole antenna / 1dBi)

Channel 38

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5148.40	53.37	54.00	-0.63	13.23	6.13	34.01	0.00 Average	131	139	VERTICAL
2	5148.80	71.53	74.00	-2.47	31.39	6.13	34.01	0.00 Peak	131	139	VERTICAL
3	5183.20	98.46			58.23	6.15	34.08	0.00 Average	131	139	VERTICAL
4	5183.60	110.73			70.50	6.15	34.08	0.00 Peak	131	139	VERTICAL

Item 3, 4 are the fundamental frequency at 5190 MHz.

Channel 46

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5143.20	53.92	54.00	-0.08	13.81	6.13	33.98	0.00 Average	130	138	VERTICAL
2	5143.20	65.54	74.00	-8.46	25.43	6.13	33.98	0.00 Peak	130	138	VERTICAL
3	5228.80	114.25			73.89	6.18	34.18	0.00 Peak	130	138	VERTICAL
4	5233.20	102.68			62.32	6.18	34.18	0.00 Average	130	138	VERTICAL

Item 3, 4 are the fundamental frequency at 5230 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Jim Huang	Configurations	IEEE 802.11ac MCS0/Nss3 40MHz CH 38, 46 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 18, 2013	Test Mode	Mode 1 (Ant.1 Dipole antenna / 1dBi)

Channel 38

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Preamp Factor	Remark	A/Pos	T/Pos	PoI/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5145.83	70.84	74.00	-3.16	33.74	3.43	33.67	0.00 Peak	130	313	VERTICAL
2	5150.00	53.47	54.00	-0.53	16.37	3.43	33.67	0.00 Average	130	313	VERTICAL
3	5186.47	95.33			58.16	3.44	33.73	0.00 Average	130	313	VERTICAL
4	5196.73	110.07			72.86	3.45	33.76	0.00 Peak	130	313	VERTICAL

Item 3, 4 are the fundamental frequency at 5190 MHz.

Channel 46

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Preamp Factor	Remark	A/Pos	T/Pos	PoI/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5146.15	51.48	54.00	-2.52	14.38	3.43	33.67	0.00 Average	141	316	VERTICAL
2	5146.64	66.30	74.00	-7.70	29.20	3.43	33.67	0.00 Peak	141	316	VERTICAL
3	5226.64	99.12			61.87	3.46	33.79	0.00 Average	141	316	VERTICAL
4	5226.64	114.18			76.93	3.46	33.79	0.00 Peak	141	316	VERTICAL

Item 3, 4 are the fundamental frequency at 5230 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Serway Li	Configurations	IEEE 802.11ac MCS0/Nss1 40MHz CH 54, 62 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 24, 2013	Test Mode	Mode 1 (Ant.1 Dipole antenna / 1dBi)

Channel 54

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5273.60	103.49			63.03	6.21	34.25	0.00 Average	114	137	VERTICAL
2	5283.20	114.79			74.28	6.22	34.29	0.00 Peak	114	137	VERTICAL
3	5353.60	53.98	54.00	-0.02	13.30	6.26	34.42	0.00 Average	114	137	VERTICAL
4	5354.00	65.13	74.00	-8.87	24.45	6.26	34.42	0.00 Peak	114	137	VERTICAL

Item 1, 2 are the fundamental frequency at 5270 MHz.

Channel 62

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5303.60	100.13			59.58	6.23	34.32	0.00 Average	144	137	VERTICAL
2	5303.60	111.64			71.09	6.23	34.32	0.00 Peak	144	137	VERTICAL
3	5353.20	72.07	74.00	-1.93	31.39	6.26	34.42	0.00 Peak	144	137	VERTICAL
4	5353.60	53.67	54.00	-0.33	12.99	6.26	34.42	0.00 Average	144	137	VERTICAL

Item 1, 2 are the fundamental frequency at 5310 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Jim Huang	Configurations	IEEE 802.11ac MCS0/Nss3 40MHz CH 54, 62 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 18, 2013	Test Mode	Mode 1 (Ant.1 Dipole antenna / 1dBi)

Channel 54

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	PoI/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5266.15	114.62			77.28	3.46	33.88	0.00 Peak	169	317	VERTICAL
2	5266.64	99.59			62.25	3.46	33.88	0.00 Average	169	317	VERTICAL
3	5357.21	63.09	74.00	-10.91	25.57	3.49	34.03	0.00 Peak	169	317	VERTICAL
4	5366.83	48.67	54.00	-5.33	11.12	3.49	34.06	0.00 Average	169	317	VERTICAL

Item 1, 2 are the fundamental frequency at 5270 MHz.

Channel 62

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	PoI/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5306.47	95.88			58.46	3.48	33.94	0.00 Average	140	315	VERTICAL
2	5306.47	110.66			73.24	3.48	33.94	0.00 Peak	140	315	VERTICAL
3	5350.00	53.41	54.00	-0.59	15.89	3.49	34.03	0.00 Average	140	315	VERTICAL
4	5354.49	71.32	74.00	-2.68	33.80	3.49	34.03	0.00 Peak	140	315	VERTICAL

Item 1, 2 are the fundamental frequency at 5310 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Serway Li	Configurations	IEEE 802.11ac MCS0/Nss1 40MHz CH 102, 110, 134 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 24, 2013	Test Mode	Mode 1 (Ant.1 Dipole antenna / 1dBi)

Channel 102

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5460.00	46.93	54.00	-7.07	5.97	6.33	34.63	0.00	Average	126	166 VERTICAL
2	5460.00	62.37	74.00	-11.63	21.41	6.33	34.63	0.00	Peak	126	166 VERTICAL
3	5470.00	53.21	54.00	-0.79	12.20	6.34	34.67	0.00	Average	126	166 VERTICAL
4	5470.00	70.37	74.00	-3.63	29.36	6.34	34.67	0.00	Peak	126	166 VERTICAL
5	5504.80	109.10			68.03	6.36	34.71	0.00	Peak	126	166 VERTICAL
6	5505.20	97.54			56.47	6.36	34.71	0.00	Average	126	166 VERTICAL

Item 5, 6 are the fundamental frequency at 5510 MHz.

Channel 110

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5454.40	53.34	54.00	-0.66	12.38	6.33	34.63	0.00	Average	137	167 VERTICAL
2	5455.20	62.92	74.00	-11.08	21.96	6.33	34.63	0.00	Peak	137	167 VERTICAL
3	5470.00	49.75	54.00	-4.25	8.74	6.34	34.67	0.00	Average	137	167 VERTICAL
4	5470.00	62.33	74.00	-11.67	21.32	6.34	34.67	0.00	Peak	137	167 VERTICAL
5	5554.80	116.19			75.06	6.38	34.75	0.00	Peak	137	167 VERTICAL
6	5555.40	103.96			62.83	6.38	34.75	0.00	Average	137	167 VERTICAL

Item 5, 6 are the fundamental frequency at 5550 MHz.

Channel 134

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5656.80	101.03			59.78	6.42	34.83	0.00	Average	185	346 VERTICAL
2	5667.00	112.93			71.67	6.43	34.83	0.00	Peak	185	346 VERTICAL
3	5726.80	66.36	74.00	-7.64	25.02	6.45	34.89	0.00	Peak	185	346 VERTICAL
4	5746.60	53.31	54.00	-0.69	11.96	6.45	34.90	0.00	Average	185	346 VERTICAL

Item 1, 2 are the fundamental frequency at 5670 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Jim Huang	Configurations	IEEE 802.11ac MCS0/Nss3 40MHz CH 102, 110, 134 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 18, 2013	Test Mode	Mode 1 (Ant.1 Dipole antenna / 1dBi)

Channel 102

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor		cm	deg	
1	5458.72	61.03	74.00	-12.97	23.30	3.52	34.21	0.00	Peak	113	173	VERTICAL
2	5460.00	46.03	54.00	-7.97	8.30	3.52	34.21	0.00	Average	113	173	VERTICAL
3	5465.83	71.25	74.00	-2.75	33.52	3.52	34.21	0.00	Peak	113	173	VERTICAL
4	5470.00	53.59	54.00	-0.41	15.83	3.52	34.24	0.00	Average	113	173	VERTICAL
5	5513.53	93.48			55.66	3.54	34.28	0.00	Average	113	173	VERTICAL
6	5515.45	109.91			72.09	3.54	34.28	0.00	Peak	113	173	VERTICAL

Item 5, 6 are the fundamental frequency at 5510 MHz.

Channel 110

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor		cm	deg	
1	5455.83	60.86	74.00	-13.14	23.13	3.52	34.21	0.00	Peak	113	177	VERTICAL
2	5456.15	48.34	54.00	-5.66	10.61	3.52	34.21	0.00	Average	113	177	VERTICAL
3	5464.23	64.81	74.00	-9.19	27.08	3.52	34.21	0.00	Peak	113	177	VERTICAL
4	5466.47	49.64	54.00	-4.36	11.91	3.52	34.21	0.00	Average	113	177	VERTICAL
5	5546.47	98.01			60.15	3.55	34.31	0.00	Average	113	177	VERTICAL
6	5555.45	113.84			75.98	3.55	34.31	0.00	Peak	113	177	VERTICAL

Item 5, 6 are the fundamental frequency at 5550 MHz.

Channel 134

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor		cm	deg	
1	5665.51	113.82			75.90	3.59	34.33	0.00	Peak	129	40	VERTICAL
2	5666.47	98.36			60.44	3.59	34.33	0.00	Average	129	40	VERTICAL
3	5725.32	73.50	74.00	-0.50	35.56	3.60	34.34	0.00	Peak	129	40	VERTICAL
4	5746.47	50.86	54.00	-3.14	12.90	3.61	34.35	0.00	Average	129	40	VERTICAL

Item 1, 2 are the fundamental frequency at 5670 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Serway Li	Configurations	IEEE 802.11ac MCS0/Nss1 80MHz CH 42, 58, 106 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 24, 2013	Test Mode	Mode 1 (Ant.1 Dipole antenna / 1dBi)

Channel 42

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5143.40	53.85	54.00	-0.15	13.71	6.13	34.01	0.00	Average	143	77	VERTICAL
2	5143.40	69.44	74.00	-4.56	29.30	6.13	34.01	0.00	Peak	143	77	VERTICAL
3	5233.40	93.23			52.87	6.18	34.18	0.00	Average	143	77	VERTICAL
4	5234.00	106.41			66.05	6.18	34.18	0.00	Peak	143	77	VERTICAL

Item 3, 4 are the fundamental frequency at 5210 MHz.

Channel 58

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5288.20	106.32			65.81	6.22	34.29	0.00	Peak	189	136	VERTICAL
2	5303.20	93.35			52.80	6.23	34.32	0.00	Average	189	136	VERTICAL
3	5353.60	53.24	54.00	-0.76	12.56	6.26	34.42	0.00	Average	189	136	VERTICAL
4	5353.60	67.43	74.00	-6.57	26.75	6.26	34.42	0.00	Peak	189	136	VERTICAL

Item 1, 2 are the fundamental frequency at 5290 MHz.

Channel 106

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5453.40	68.79	74.00	-5.21	27.83	6.33	34.63	0.00	Peak	180	44	VERTICAL
2	5458.20	52.88	54.00	-1.12	11.92	6.33	34.63	0.00	Average	180	44	VERTICAL
3	5462.80	53.30	54.00	-0.70	12.33	6.34	34.63	0.00	Average	180	44	VERTICAL
4	5463.40	67.68	74.00	-6.32	26.71	6.34	34.63	0.00	Peak	180	44	VERTICAL
5	5523.40	90.72			49.62	6.37	34.73	0.00	Average	180	44	VERTICAL
6	5542.60	103.83			62.72	6.37	34.74	0.00	Peak	180	44	VERTICAL

Item 5, 6 are the fundamental frequency at 5530 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Jim Huang	Configurations	IEEE 802.11ac MCS0/Nss3 80MHz CH 42, 58, 106 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 18, 2013	Test Mode	Mode 1 (Ant.1 Dipole antenna / 1dBi)

Channel 42

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5142.79	70.49	74.00	-3.51	33.42	3.43	33.64	0.00 Peak	100	97	VERTICAL
2	5147.60	53.41	54.00	-0.59	16.31	3.43	33.67	0.00 Average	100	97	VERTICAL
3	5197.98	89.51			52.30	3.45	33.76	0.00 Average	100	97	VERTICAL
4	5200.39	103.73			66.52	3.45	33.76	0.00 Peak	100	97	VERTICAL

Item 3, 4 are the fundamental frequency at 5210 MHz.

Channel 58

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5293.21	91.99			54.61	3.47	33.91	0.00 Average	128	144	VERTICAL
2	5302.82	107.46			70.04	3.48	33.94	0.00 Peak	128	144	VERTICAL
3	5353.21	53.50	54.00	-0.50	15.98	3.49	34.03	0.00 Average	128	144	VERTICAL
4	5353.21	70.59	74.00	-3.41	33.07	3.49	34.03	0.00 Peak	128	144	VERTICAL

Item 1, 2 are the fundamental frequency at 5290 MHz.

Channel 106

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5455.99	53.04	54.00	-0.96	15.31	3.52	34.21	0.00 Average	100	85	VERTICAL
2	5455.99	68.23	74.00	-5.77	30.50	3.52	34.21	0.00 Peak	100	85	VERTICAL
3	5465.99	53.63	54.00	-0.37	15.90	3.52	34.21	0.00 Average	100	85	VERTICAL
4	5465.99	68.72	74.00	-5.28	30.99	3.52	34.21	0.00 Peak	100	85	VERTICAL
5	5506.76	88.69			50.87	3.54	34.28	0.00 Average	100	85	VERTICAL
6	5546.83	103.66			65.80	3.55	34.31	0.00 Peak	100	85	VERTICAL

Item 5, 6 are the fundamental frequency at 5530 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Jim Huang	Configurations	IEEE 802.11ac MCS0/Nss1 80MHz CH 138 / Chain 1 + Chain 2 + Chain 3
Test Date	Aug. 20, 2013	Test Mode	Mode 1 (Ant.1 Dipole antenna / 1dBi)

Channel 138

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5456.80	52.13	74.00	-21.87	14.40	3.52	34.21	0.00 Peak	100	128	VERTICAL
2	5458.40	40.77	54.00	-13.23	3.04	3.52	34.21	0.00 Average	100	128	VERTICAL
3	5468.40	53.03	68.30	-15.27	15.27	3.52	34.24	0.00 Peak	100	128	VERTICAL
4	5678.78	98.03			60.11	3.59	34.33	0.00 Average	100	128	VERTICAL
5	5683.59	110.99			73.07	3.59	34.33	0.00 Peak	100	128	VERTICAL
6	5839.42	60.59	78.20	-17.61	22.58	3.64	34.37	0.00 Peak	100	128	VERTICAL

Item 4, 5 are the fundamental frequency at 5690 MHz.



Temperature	24.5°C	Humidity	57%
Test Engineer	Jim Huang	Configurations	IEEE 802.11ac MCS0/Nss3 80MHz CH 138 / Chain 1 + Chain 2 + Chain 3
Test Date	Aug. 20, 2013	Test Mode	Mode 1 (Ant.1 Dipole antenna / 1dBi)

Channel 138

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	Line	Limit	Level	Loss	Factor	Factor		cm	deg	
			dBuV/m	dB	dBuV	dB	dB/m	dB				
1	5458.40	40.92	54.00	-13.08	3.19	3.52	34.21	0.00	Average	125	127	VERTICAL
2	5460.00	52.22	74.00	-21.78	14.49	3.52	34.21	0.00	Peak	125	127	VERTICAL
3	5465.99	53.79	68.30	-14.51	16.06	3.52	34.21	0.00	Peak	125	127	VERTICAL
4	5662.76	111.02			73.10	3.59	34.33	0.00	Peak	125	127	VERTICAL
5	5693.21	93.70			55.77	3.59	34.34	0.00	Average	125	127	VERTICAL
6	5827.40	60.17	78.20	-18.03	22.17	3.63	34.37	0.00	Peak	125	127	VERTICAL

Item 4, 5 are the fundamental frequency at 5690 MHz.

Note:

Emission level (dBuV/m) = 20 log Emission level (uV/m)

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level

Temperature	24.5°C	Humidity	57%
Test Engineer	Jim Huang	Configurations	IEEE 802.11a CH 36, 40, 48 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 18, 2013	Test Mode	Mode 1 (Ant.1 Dipole antenna / 1dBi)

Channel 36

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	PoI/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5098.72	63.76	74.00	-10.24	26.76	3.42	33.58	0.00 Peak	161	52	VERTICAL
2	5099.04	53.73	54.00	-0.27	16.73	3.42	33.58	0.00 Average	161	52	VERTICAL
3	5178.40	113.79			76.62	3.44	33.73	0.00 Peak	161	52	VERTICAL
4	5179.04	103.44			66.27	3.44	33.73	0.00 Average	161	52	VERTICAL

Item 3, 4 are the fundamental frequency at 5180 MHz.

Channel 40

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	PoI/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5122.12	53.71	54.00	-0.29	16.67	3.43	33.61	0.00 Average	193	190	VERTICAL
2	5122.12	63.80	74.00	-10.20	26.76	3.43	33.61	0.00 Peak	193	190	VERTICAL
3	5202.56	115.13			77.92	3.45	33.76	0.00 Peak	193	190	VERTICAL
4	5202.89	104.72			67.51	3.45	33.76	0.00 Average	193	190	VERTICAL

Item 3, 4 are the fundamental frequency at 5200 MHz.

Channel 48

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	PoI/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5147.76	42.95	54.00	-11.05	5.85	3.43	33.67	0.00 Average	186	127	VERTICAL
2	5148.72	55.93	74.00	-18.07	18.83	3.43	33.67	0.00 Peak	186	127	VERTICAL
3	5237.44	108.98			71.70	3.46	33.82	0.00 Average	186	127	VERTICAL
4	5238.08	119.63			82.35	3.46	33.82	0.00 Peak	186	127	VERTICAL

Item 3, 4 are the fundamental frequency at 5240 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Jim Huang	Configurations	IEEE 802.11a CH 52, 60, 64 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 18, 2013	Test Mode	Mode 1 (Ant.1 Dipole antenna / 1dBi)

Channel 52

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	PoI/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5260.96	109.22			71.91	3.46	33.85	0.00 Average	156	260	VERTICAL
2	5260.96	119.40			82.09	3.46	33.85	0.00 Peak	156	260	VERTICAL
3	5350.00	41.77	54.00	-12.23	4.25	3.49	34.03	0.00 Average	156	260	VERTICAL
4	5351.28	54.09	74.00	-19.91	16.57	3.49	34.03	0.00 Peak	156	260	VERTICAL

Item 1, 2 are the fundamental frequency at 5260 MHz.

Channel 60

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	PoI/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5297.44	115.09			77.67	3.48	33.94	0.00 Peak	103	273	VERTICAL
2	5297.76	104.45			67.03	3.48	33.94	0.00 Average	103	273	VERTICAL
3	5377.56	63.55	74.00	-10.45	25.99	3.50	34.06	0.00 Peak	103	273	VERTICAL
4	5378.21	53.71	54.00	-0.29	16.15	3.50	34.06	0.00 Average	103	273	VERTICAL

Item 1, 2 are the fundamental frequency at 5300 MHz.

Channel 64

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	PoI/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5317.76	103.50			66.05	3.48	33.97	0.00 Average	100	271	VERTICAL
2	5318.08	114.17			76.72	3.48	33.97	0.00 Peak	100	271	VERTICAL
3	5398.08	53.86	54.00	-0.14	16.27	3.50	34.09	0.00 Average	100	271	VERTICAL
4	5398.08	64.33	74.00	-9.67	26.74	3.50	34.09	0.00 Peak	100	271	VERTICAL

Item 1, 2 are the fundamental frequency at 5320 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Jim Huang	Configurations	IEEE 802.11a CH 100, 140 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 18, 2013	Test Mode	Mode 1 (Ant.1 Dipole antenna / 1dBi)

Channel 100

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5418.01	53.72	54.00	-0.28	16.06	3.51	34.15	0.00	Average	100	271	VERTICAL
2	5418.01	65.02	74.00	-8.98	27.36	3.51	34.15	0.00	Peak	100	271	VERTICAL
3	5467.44	41.19	54.00	-12.81	3.43	3.52	34.24	0.00	Average	100	271	VERTICAL
4	5470.00	55.08	74.00	-18.92	17.32	3.52	34.24	0.00	Peak	100	271	VERTICAL
5	5498.40	101.15			63.36	3.53	34.26	0.00	Average	100	271	VERTICAL
6	5498.72	111.58			73.79	3.53	34.26	0.00	Peak	100	271	VERTICAL

Item 5, 6 are the fundamental frequency at 5500 MHz.

Channel 140

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5699.04	117.35			79.42	3.59	34.34	0.00	Peak	142	129	VERTICAL
2	5699.36	107.15			69.22	3.59	34.34	0.00	Average	142	129	VERTICAL
3	5725.00	67.89	68.30	-0.41	29.95	3.60	34.34	0.00	Peak	142	129	VERTICAL

Item 1, 2 are the fundamental frequency at 5700 MHz.

Note:

Emission level (dBuV/m) = 20 log Emission level (uV/m)

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level

Temperature	24.5°C	Humidity	57%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11ac MCS0/Nss1 20MHz CH 36, 40, 48 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 25, 2013	Test Mode	Mode 2 (Ant.3 Omnidirectional antenna / 6.7dBi)

Channel 36

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5101.92	53.65	54.00	-0.35	16.65	3.42	33.58	0.00 Average	155	92	HORIZONTAL
2	5102.56	64.29	74.00	-9.71	27.29	3.42	33.58	0.00 Peak	155	92	HORIZONTAL
3	5177.12	102.06			64.92	3.44	33.70	0.00 Average	155	92	HORIZONTAL
4	5187.37	112.69			75.52	3.44	33.73	0.00 Peak	155	92	HORIZONTAL

Item 3, 4 are the fundamental frequency at 5180 MHz.

Channel 40

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5121.80	53.67	54.00	-0.33	16.63	3.43	33.61	0.00 Average	152	93	HORIZONTAL
2	5122.12	63.78	74.00	-10.22	26.74	3.43	33.61	0.00 Peak	152	93	HORIZONTAL
3	5197.12	102.24			65.03	3.45	33.76	0.00 Average	152	93	HORIZONTAL
4	5201.92	114.31			77.10	3.45	33.76	0.00 Peak	152	93	HORIZONTAL

Item 3, 4 are the fundamental frequency at 5200 MHz.

Channel 48

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5150.00	49.50	54.00	-4.50	12.40	3.43	33.67	0.00 Average	151	94	HORIZONTAL
2	5150.00	60.07	74.00	-13.93	22.97	3.43	33.67	0.00 Peak	151	94	HORIZONTAL
3	5241.44	122.79			85.51	3.46	33.82	0.00 Peak	151	94	HORIZONTAL
4	5241.92	112.71			75.43	3.46	33.82	0.00 Average	151	94	HORIZONTAL
5	5352.40	47.95	54.00	-6.05	10.43	3.49	34.03	0.00 Average	151	94	HORIZONTAL
6	5352.40	58.02	74.00	-15.98	20.50	3.49	34.03	0.00 Peak	151	94	HORIZONTAL

Item 3, 4 are the fundamental frequency at 5240 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11ac MCS0/Nss3 20MHz CH 36, 40, 48 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 15, 2013	Test Mode	Mode 2 (Ant.3 Omnidirectional antenna / 6.7dBi)

Channel 36

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	5101.92	53.71	54.00	-0.29	16.71	3.42	33.58	0.00	Average	159	275	HORIZONTAL
2	5102.56	65.24	74.00	-8.76	28.24	3.42	33.58	0.00	Peak	159	275	HORIZONTAL
3	5181.28	114.46			77.29	3.44	33.73	0.00	Peak	159	275	HORIZONTAL
4	5186.41	100.94			63.77	3.44	33.73	0.00	Average	159	275	HORIZONTAL

Item 3, 4 are the fundamental frequency at 5180 MHz.

Channel 40

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	5118.27	66.05	74.00	-7.95	29.01	3.43	33.61	0.00	Peak	152	287	HORIZONTAL
2	5122.12	53.88	54.00	-0.12	16.84	3.43	33.61	0.00	Average	152	287	HORIZONTAL
3	5198.40	115.75			78.54	3.45	33.76	0.00	Peak	152	287	HORIZONTAL
4	5202.24	102.10			64.89	3.45	33.76	0.00	Average	152	287	HORIZONTAL

Item 3, 4 are the fundamental frequency at 5200 MHz.

Channel 48

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	5150.00	47.67	54.00	-6.33	10.57	3.43	33.67	0.00	Average	150	287	HORIZONTAL
2	5150.00	60.15	74.00	-13.85	23.05	3.43	33.67	0.00	Peak	150	287	HORIZONTAL
3	5242.40	108.44			71.16	3.46	33.82	0.00	Average	150	287	HORIZONTAL
4	5247.69	120.90			83.59	3.46	33.85	0.00	Peak	150	287	HORIZONTAL
5	5351.92	46.50	54.00	-7.50	8.98	3.49	34.03	0.00	Average	150	287	HORIZONTAL
6	5351.92	58.04	74.00	-15.96	20.52	3.49	34.03	0.00	Peak	150	287	HORIZONTAL

Item 3, 4 are the fundamental frequency at 5240 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11ac MCS0/Nss1 20MHz CH 52, 60, 64 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 25, 2013	Test Mode	Mode 2 (Ant.3 Omnidirectional antenna / 6.7dBi)

Channel 52

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor		cm	deg	
1	5141.83	60.67	74.00	-13.33	23.60	3.43	33.64	0.00	Peak	162	92	HORIZONTAL
2	5147.12	47.74	54.00	-6.26	10.64	3.43	33.67	0.00	Average	162	92	HORIZONTAL
3	5257.12	112.14			74.83	3.46	33.85	0.00	Average	162	92	HORIZONTAL
4	5262.40	123.08			85.77	3.46	33.85	0.00	Peak	162	92	HORIZONTAL
5	5382.69	47.77	54.00	-6.23	10.18	3.50	34.09	0.00	Average	162	92	HORIZONTAL
6	5387.98	59.86	74.00	-14.14	22.27	3.50	34.09	0.00	Peak	162	92	HORIZONTAL

Item 3, 4 are the fundamental frequency at 5260 MHz.

Channel 60

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor		cm	deg	
1	5302.24	103.15			65.73	3.48	33.94	0.00	Average	160	95	HORIZONTAL
2	5302.24	113.95			76.53	3.48	33.94	0.00	Peak	160	95	HORIZONTAL
3	5382.00	64.73	74.00	-9.27	27.14	3.50	34.09	0.00	Peak	160	95	HORIZONTAL
4	5382.37	53.86	54.00	-0.14	16.27	3.50	34.09	0.00	Average	160	95	HORIZONTAL

Item 1, 2 are the fundamental frequency at 5300 MHz.

Channel 64

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor		cm	deg	
1	5321.92	113.23			75.78	3.48	33.97	0.00	Peak	156	94	HORIZONTAL
2	5322.24	102.43			64.98	3.48	33.97	0.00	Average	156	94	HORIZONTAL
3	5402.00	64.10	74.00	-9.90	26.47	3.51	34.12	0.00	Peak	156	94	HORIZONTAL
4	5402.24	53.89	54.00	-0.11	16.26	3.51	34.12	0.00	Average	156	94	HORIZONTAL

Item 1, 2 are the fundamental frequency at 5320 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11ac MCS0/Nss3 20MHz CH 52, 60, 64 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 15, 2013	Test Mode	Mode 2 (Ant.3 Omnidirectional antenna / 6.7dBi)

Channel 52

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor		cm	deg	
1	5146.64	46.70	54.00	-7.30	9.60	3.43	33.67	0.00	Average	157	288	HORIZONTAL
2	5146.64	58.19	74.00	-15.81	21.09	3.43	33.67	0.00	Peak	157	288	HORIZONTAL
3	5259.52	121.81			84.50	3.46	33.85	0.00	Peak	157	288	HORIZONTAL
4	5262.40	108.04			70.73	3.46	33.85	0.00	Average	157	288	HORIZONTAL
5	5350.00	47.27	54.00	-6.73	9.75	3.49	34.03	0.00	Average	157	288	HORIZONTAL
6	5350.00	61.03	74.00	-12.97	23.51	3.49	34.03	0.00	Peak	157	288	HORIZONTAL

Item 3, 4 are the fundamental frequency at 5260 MHz.

Channel 60

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor		cm	deg	
1	5298.40	114.54			77.12	3.48	33.94	0.00	Peak	149	289	HORIZONTAL
2	5302.24	101.97			64.55	3.48	33.94	0.00	Average	149	289	HORIZONTAL
3	5386.54	53.84	54.00	-0.16	16.25	3.50	34.09	0.00	Average	149	289	HORIZONTAL
4	5386.54	65.59	74.00	-8.41	28.00	3.50	34.09	0.00	Peak	149	289	HORIZONTAL

Item 1, 2 are the fundamental frequency at 5300 MHz.

Channel 64

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor		cm	deg	
1	5316.15	115.24			77.79	3.48	33.97	0.00	Peak	164	276	HORIZONTAL
2	5322.24	102.54			65.09	3.48	33.97	0.00	Average	164	276	HORIZONTAL
3	5398.72	65.89	74.00	-8.11	28.30	3.50	34.09	0.00	Peak	164	276	HORIZONTAL
4	5402.24	53.88	54.00	-0.12	16.25	3.51	34.12	0.00	Average	164	276	HORIZONTAL

Item 1, 2 are the fundamental frequency at 5320 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11ac MCS0/Nss1 20MHz CH 100, 140 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 25, 2013	Test Mode	Mode 2 (Ant.3 Omnidirectional antenna / 6.7dBi)

Channel 100

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor		cm	deg	
1	5417.05	53.78	54.00	-0.22	16.12	3.51	34.15	0.00	Average	150	93	HORIZONTAL
2	5417.12	64.67	74.00	-9.33	27.01	3.51	34.15	0.00	Peak	150	93	HORIZONTAL
3	5465.83	54.29	74.00	-19.71	16.58	3.52	34.19	0.00	Peak	150	93	HORIZONTAL
4	5467.12	42.48	54.00	-11.52	4.75	3.52	34.21	0.00	Average	150	93	HORIZONTAL
5	5497.12	102.34			64.58	3.53	34.23	0.00	Average	150	93	HORIZONTAL
6	5497.12	113.76			76.00	3.53	34.23	0.00	Peak	150	93	HORIZONTAL

Item 5, 6 are the fundamental frequency at 5500 MHz.

Channel 140

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor		cm	deg	
1	5700.32	102.89			64.96	3.59	34.34	0.00	Average	145	270	HORIZONTAL
2	5700.64	113.33			75.40	3.59	34.34	0.00	Peak	145	270	HORIZONTAL
3	5775.64	63.66	74.00	-10.34	25.68	3.62	34.36	0.00	Peak	145	270	HORIZONTAL
4	5780.77	53.67	54.00	-0.33	15.69	3.62	34.36	0.00	Average	145	270	HORIZONTAL

Item 1, 2 are the fundamental frequency at 5700 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11ac MCS0/Nss3 20MHz CH 100, 140 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 15, 2013	Test Mode	Mode 2 (Ant.3 Omnidirectional antenna / 6.7dBi)

Channel 100

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor		cm	deg	
1	5417.69	53.84	54.00	-0.16	16.18	3.51	34.15	0.00	Average	154	91	HORIZONTAL
2	5418.01	67.16	74.00	-6.84	29.50	3.51	34.15	0.00	Peak	154	91	HORIZONTAL
3	5466.15	57.86	74.00	-16.14	20.15	3.52	34.19	0.00	Peak	154	91	HORIZONTAL
4	5468.40	44.04	54.00	-9.96	6.31	3.52	34.21	0.00	Average	154	91	HORIZONTAL
5	5498.08	100.32			62.56	3.53	34.23	0.00	Average	154	91	HORIZONTAL
6	5504.49	113.91			76.12	3.54	34.25	0.00	Peak	154	91	HORIZONTAL

Item 5, 6 are the fundamental frequency at 5500 MHz.

Channel 140

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor		cm	deg	
1	5699.36	116.45			78.52	3.59	34.34	0.00	Peak	138	279	HORIZONTAL
2	5702.24	103.48			65.55	3.59	34.34	0.00	Average	138	279	HORIZONTAL
3	5725.00	67.89	68.30	-0.41	29.95	3.60	34.34	0.00	Peak	138	279	HORIZONTAL

Item 1, 2 are the fundamental frequency at 5700 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11ac MCS0/Nss1 40MHz CH 38, 46 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 25, 2013	Test Mode	Mode 2 (Ant.3 Omnidirectional antenna / 6.7dBi)

Channel 38

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5147.12	53.59	54.00	-0.41	16.49	3.43	33.67	0.00	Average	156	95	HORIZONTAL
2	5147.44	70.86	74.00	-3.14	33.76	3.43	33.67	0.00	Peak	156	95	HORIZONTAL
3	5187.12	99.99			62.82	3.44	33.73	0.00	Average	156	95	HORIZONTAL
4	5202.18	111.98			74.77	3.45	33.76	0.00	Peak	156	95	HORIZONTAL

Item 3, 4 are the fundamental frequency at 5190 MHz.

Channel 46

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5147.12	53.84	54.00	-0.16	16.74	3.43	33.67	0.00	Average	152	95	HORIZONTAL
2	5147.12	64.18	74.00	-9.82	27.08	3.43	33.67	0.00	Peak	152	95	HORIZONTAL
3	5216.86	114.41			77.17	3.45	33.79	0.00	Peak	152	95	HORIZONTAL
4	5227.12	102.22			64.97	3.46	33.79	0.00	Average	152	95	HORIZONTAL

Item 3, 4 are the fundamental frequency at 5230 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	David Tseng	Configurations	IEEE 802.11ac MCS0/Nss3 40MHz CH 38, 46 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 15, 2013	Test Mode	Mode 2 (Ant.3 Omnidirectional antenna / 6.7dBi)

Channel 38

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5148.56	68.42	74.00	-5.58	31.32	3.43	33.67	0.00	Peak	148	97	HORIZONTAL
2	5150.00	53.82	54.00	-0.18	16.72	3.43	33.67	0.00	Average	148	97	HORIZONTAL
3	5179.42	111.46			74.29	3.44	33.73	0.00	Peak	148	97	HORIZONTAL
4	5197.69	95.60			58.39	3.45	33.76	0.00	Average	148	97	HORIZONTAL

Item 3, 4 are the fundamental frequency at 5190 MHz.

Channel 46

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5138.94	65.76	74.00	-8.24	28.69	3.43	33.64	0.00	Peak	157	293	HORIZONTAL
2	5146.30	53.75	54.00	-0.25	16.65	3.43	33.67	0.00	Average	157	293	HORIZONTAL
3	5217.02	115.58			78.34	3.45	33.79	0.00	Peak	157	293	HORIZONTAL
4	5226.64	100.53			63.28	3.46	33.79	0.00	Average	157	293	HORIZONTAL

Item 3, 4 are the fundamental frequency at 5230 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11ac MCS0/Nss1 40MHz CH 54, 62 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 25, 2013	Test Mode	Mode 2 (Ant.3 Omnidirectional antenna / 6.7dBi)

Channel 54

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5266.80	115.13			77.79	3.46	33.88	0.00 Peak	148	91	HORIZONTAL
2	5267.12	103.18			65.84	3.46	33.88	0.00 Average	148	91	HORIZONTAL
3	5357.05	53.62	54.00	-0.38	16.10	3.49	34.03	0.00 Average	148	91	HORIZONTAL
4	5357.37	63.91	74.00	-10.09	26.39	3.49	34.03	0.00 Peak	148	91	HORIZONTAL

Item 1, 2 are the fundamental frequency at 5270 MHz.

Channel 62

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5317.05	100.52			63.07	3.48	33.97	0.00 Average	145	93	HORIZONTAL
2	5317.37	112.33			74.88	3.48	33.97	0.00 Peak	145	93	HORIZONTAL
3	5351.92	72.07	74.00	-1.93	34.55	3.49	34.03	0.00 Peak	145	93	HORIZONTAL
4	5352.24	53.85	54.00	-0.15	16.33	3.49	34.03	0.00 Average	145	93	HORIZONTAL

Item 1, 2 are the fundamental frequency at 5310 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	David Tseng	Configurations	IEEE 802.11ac MCS0/Nss3 40MHz CH 54 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 16, 2013	Test Mode	Mode 2 (Ant.3 Omnidirectional antenna / 6.7dBi)

Channel 54

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor		cm	deg	
1	5148.56	44.17	54.00	-9.83	7.07	3.43	33.67	0.00	Average	152	289	HORIZONTAL
2	5150.00	56.23	74.00	-17.77	19.13	3.43	33.67	0.00	Peak	152	289	HORIZONTAL
3	5259.42	117.29			79.98	3.46	33.85	0.00	Peak	152	289	HORIZONTAL
4	5266.64	101.80			64.46	3.46	33.88	0.00	Average	152	289	HORIZONTAL
5	5357.69	67.55	74.00	-6.45	30.03	3.49	34.03	0.00	Peak	152	289	HORIZONTAL
6	5366.83	53.75	54.00	-0.25	16.20	3.49	34.06	0.00	Average	152	289	HORIZONTAL

Item 3, 4 are the fundamental frequency at 5270 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11ac MCS0/Nss3 40MHz CH 62 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 15, 2013	Test Mode	Mode 2 (Ant.3 Omnidirectional antenna / 6.7dBi)

Channel 62

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor		cm	deg	
1	5306.47	97.55			60.13	3.48	33.94	0.00	Average	148	277	HORIZONTAL
2	5316.73	112.81			75.36	3.48	33.97	0.00	Peak	148	277	HORIZONTAL
3	5350.00	53.35	54.00	-0.65	15.83	3.49	34.03	0.00	Average	148	277	HORIZONTAL
4	5351.60	71.15	74.00	-2.85	33.63	3.49	34.03	0.00	Peak	148	277	HORIZONTAL

Item 1, 2 are the fundamental frequency at 5310 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11ac MCS0/Nss1 40MHz CH 102, 110, 134 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 25, 2013	Test Mode	Mode 2 (Ant.3 Omnidirectional antenna / 6.7dBi)

Channel 102

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5426.67	62.73	74.00	-11.27	25.06	3.52	34.15	0.00	Peak	151	94	HORIZONTAL
2	5426.99	51.82	54.00	-2.18	14.15	3.52	34.15	0.00	Average	151	94	HORIZONTAL
3	5467.12	72.00	74.00	-2.00	34.27	3.52	34.21	0.00	Peak	151	94	HORIZONTAL
4	5467.44	53.70	54.00	-0.30	15.97	3.52	34.21	0.00	Average	151	94	HORIZONTAL
5	5507.12	99.68			61.89	3.54	34.25	0.00	Average	151	94	HORIZONTAL
6	5512.24	111.67			73.88	3.54	34.25	0.00	Peak	151	94	HORIZONTAL

Item 5, 6 are the fundamental frequency at 5510 MHz.

Channel 110

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5460.00	51.79	54.00	-2.21	14.08	3.52	34.19	0.00	Average	147	274	HORIZONTAL
2	5460.00	63.85	74.00	-10.15	26.14	3.52	34.19	0.00	Peak	147	274	HORIZONTAL
3	5465.19	53.64	54.00	-0.36	15.93	3.52	34.19	0.00	Average	147	274	HORIZONTAL
4	5465.51	68.38	74.00	-5.62	30.67	3.52	34.19	0.00	Peak	147	274	HORIZONTAL
5	5555.13	104.19			66.33	3.55	34.31	0.00	Average	147	274	HORIZONTAL
6	5555.45	116.15			78.29	3.55	34.31	0.00	Peak	147	274	HORIZONTAL

Item 5, 6 are the fundamental frequency at 5550 MHz.

Channel 134

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5665.19	103.91			65.99	3.59	34.33	0.00	Average	148	272	HORIZONTAL
2	5665.51	116.25			78.33	3.59	34.33	0.00	Peak	148	272	HORIZONTAL
3	5735.26	68.14	68.30	-0.16	30.19	3.61	34.34	0.00	Peak	148	272	HORIZONTAL

Item 1, 2 are the fundamental frequency at 5670 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	David Tseng	Configurations	IEEE 802.11ac MCS0/Nss3 40MHz CH 102, 110, 134 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 16, 2013	Test Mode	Mode 2 (Ant.3 Omnidirectional antenna / 6.7dBi)

Channel 102

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5434.36	49.10	54.00	-4.90	11.41	3.52	34.17	0.00	Average	148	99	HORIZONTAL
2	5460.00	64.64	74.00	-9.36	26.93	3.52	34.19	0.00	Peak	148	99	HORIZONTAL
3	5467.44	70.04	74.00	-3.96	32.31	3.52	34.21	0.00	Peak	148	99	HORIZONTAL
4	5470.00	53.69	54.00	-0.31	15.96	3.52	34.21	0.00	Average	148	99	HORIZONTAL
5	5496.22	94.35			56.59	3.53	34.23	0.00	Average	148	99	HORIZONTAL
6	5499.42	110.79			73.03	3.53	34.23	0.00	Peak	148	99	HORIZONTAL

Item 5, 6 are the fundamental frequency at 5510 MHz.

Channel 110

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5455.67	65.47	74.00	-8.53	27.76	3.52	34.19	0.00	Peak	146	100	HORIZONTAL
2	5457.60	52.83	54.00	-1.17	15.12	3.52	34.19	0.00	Average	146	100	HORIZONTAL
3	5467.12	53.82	54.00	-0.18	16.09	3.52	34.21	0.00	Average	146	100	HORIZONTAL
4	5467.12	68.91	74.00	-5.09	31.18	3.52	34.21	0.00	Peak	146	100	HORIZONTAL
5	5546.15	116.72			78.88	3.55	34.29	0.00	Peak	146	100	HORIZONTAL
6	5554.81	100.31			62.45	3.55	34.31	0.00	Average	146	100	HORIZONTAL

Item 5, 6 are the fundamental frequency at 5550 MHz.

Channel 134

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5673.37	98.55			60.63	3.59	34.33	0.00	Average	100	103	HORIZONTAL
2	5675.77	113.72			75.80	3.59	34.33	0.00	Peak	100	103	HORIZONTAL
3	5725.48	73.84	74.00	-0.16	35.90	3.60	34.34	0.00	Peak	100	103	HORIZONTAL
4	5746.64	52.92	54.00	-1.08	14.96	3.61	34.35	0.00	Average	100	103	HORIZONTAL

Item 1, 2 are the fundamental frequency at 5670 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11ac MCS0/Nss1 80MHz CH 42, 58, 106 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 25, 2013	Test Mode	Mode 2 (Ant.3 Omnidirectional antenna / 6.7dBi)

Channel 42

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5146.80	53.96	54.00	-0.04	16.86	3.43	33.67	0.00 Average	150	93	HORIZONTAL
2	5146.80	69.30	74.00	-4.70	32.20	3.43	33.67	0.00 Peak	150	93	HORIZONTAL
3	5201.99	107.41			70.20	3.45	33.76	0.00 Peak	150	93	HORIZONTAL
4	5217.21	94.69			57.45	3.45	33.79	0.00 Average	150	93	HORIZONTAL

Item 3, 4 are the fundamental frequency at 5210 MHz.

Channel 58

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5312.44	107.39			69.97	3.48	33.94	0.00 Peak	155	92	HORIZONTAL
2	5317.24	94.65			57.20	3.48	33.97	0.00 Average	155	92	HORIZONTAL
3	5351.60	71.49	74.00	-2.51	33.97	3.49	34.03	0.00 Peak	155	92	HORIZONTAL
4	5352.40	53.96	54.00	-0.04	16.44	3.49	34.03	0.00 Average	155	92	HORIZONTAL

Item 1, 2 are the fundamental frequency at 5290 MHz.

Channel 106

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5456.80	52.11	54.00	-1.89	14.40	3.52	34.19	0.00 Average	146	91	HORIZONTAL
2	5456.80	66.90	74.00	-7.10	29.19	3.52	34.19	0.00 Peak	146	91	HORIZONTAL
3	5467.60	53.65	54.00	-0.35	15.92	3.52	34.21	0.00 Average	146	91	HORIZONTAL
4	5467.60	68.15	74.00	-5.85	30.42	3.52	34.21	0.00 Peak	146	91	HORIZONTAL
5	5557.24	94.44			56.58	3.55	34.31	0.00 Average	146	91	HORIZONTAL
6	5557.24	106.85			68.99	3.55	34.31	0.00 Peak	146	91	HORIZONTAL

Item 5, 6 are the fundamental frequency at 5530 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	David Tseng	Configurations	IEEE 802.11ac MCS0/Nss3 80MHz CH 42, 58, 106 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 18, 2013	Test Mode	Mode 2 (Ant.3 Omnidirectional antenna / 6.7dBi)

Channel 42

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5137.98	71.46	74.00	-2.54	34.39	3.43	33.64	0.00	Peak	157	99	HORIZONTAL
2	5147.60	53.62	54.00	-0.38	16.52	3.43	33.67	0.00	Average	157	99	HORIZONTAL
3	5197.98	90.02			52.81	3.45	33.76	0.00	Average	157	99	HORIZONTAL
4	5199.58	107.80			70.59	3.45	33.76	0.00	Peak	157	99	HORIZONTAL

Item 3, 4 are the fundamental frequency at 5210 MHz.

Channel 58

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5147.60	54.52	74.00	-19.48	17.42	3.43	33.67	0.00	Peak	153	296	HORIZONTAL
2	5150.00	40.82	54.00	-13.18	3.72	3.43	33.67	0.00	Average	153	296	HORIZONTAL
3	5279.58	109.58			72.23	3.47	33.88	0.00	Peak	153	296	HORIZONTAL
4	5286.80	90.70			53.32	3.47	33.91	0.00	Average	153	296	HORIZONTAL
5	5357.21	53.81	54.00	-0.19	16.29	3.49	34.03	0.00	Average	153	296	HORIZONTAL
6	5357.21	73.54	74.00	-0.46	36.02	3.49	34.03	0.00	Peak	153	296	HORIZONTAL

Item 3, 4 are the fundamental frequency at 5290 MHz.

Channel 106

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5456.80	69.55	74.00	-4.45	31.84	3.52	34.19	0.00	Peak	143	100	HORIZONTAL
2	5460.00	52.24	54.00	-1.76	14.53	3.52	34.19	0.00	Average	143	100	HORIZONTAL
3	5467.60	53.67	54.00	-0.33	15.94	3.52	34.21	0.00	Average	143	100	HORIZONTAL
4	5470.00	71.06	74.00	-2.94	33.33	3.52	34.21	0.00	Peak	143	100	HORIZONTAL
5	5546.03	107.72			69.88	3.55	34.29	0.00	Peak	143	100	HORIZONTAL
6	5557.24	89.12			51.26	3.55	34.31	0.00	Average	143	100	HORIZONTAL

Item 5, 6 are the fundamental frequency at 5530 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Jim Huang	Configurations	IEEE 802.11ac MCS0/Nss1 80MHz CH 138 / Chain 1 + Chain 2 + Chain 3
Test Date	Aug. 20, 2013	Test Mode	Mode 2 (Ant.3 Omnidirectional antenna / 6.7dBi)

Channel 138

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5456.80	46.82	54.00	-7.18	9.11	3.52	34.19	0.00	Average	151	86	HORIZONTAL
2	5457.60	58.55	74.00	-15.45	20.84	3.52	34.19	0.00	Peak	151	86	HORIZONTAL
3	5467.60	60.48	68.30	-7.82	22.75	3.52	34.21	0.00	Peak	151	86	HORIZONTAL
4	5677.18	117.23			79.31	3.59	34.33	0.00	Peak	151	86	HORIZONTAL
5	5697.21	103.00			65.07	3.59	34.34	0.00	Average	151	86	HORIZONTAL
6	5825.80	67.77	78.20	-10.43	29.77	3.63	34.37	0.00	Peak	151	86	HORIZONTAL

Item 3, 4 are the fundamental frequency at 5690 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Jim Huang	Configurations	IEEE 802.11ac MCS0/Nss3 80MHz CH 138 / Chain 1 + Chain 2 + Chain 3
Test Date	Aug. 20, 2013	Test Mode	Mode 2 (Ant.3 Omnidirectional antenna / 6.7dBi)

Channel 138

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor		cm	deg	
1	5456.80	58.41	74.00	-15.59	20.70	3.52	34.19	0.00	Peak	150	80	HORIZONTAL
2	5457.60	44.36	54.00	-9.64	6.65	3.52	34.19	0.00	Average	150	80	HORIZONTAL
3	5467.60	59.21	68.30	-9.09	21.48	3.52	34.21	0.00	Peak	150	80	HORIZONTAL
4	5677.98	96.83			58.91	3.59	34.33	0.00	Average	150	80	HORIZONTAL
5	5679.58	116.76			78.84	3.59	34.33	0.00	Peak	150	80	HORIZONTAL
6	5826.60	67.55	78.20	-10.65	29.55	3.63	34.37	0.00	Peak	150	80	HORIZONTAL

Item 4, 5 are the fundamental frequency at 5690 MHz.

Note:

Emission level (dBuV/m) = 20 log Emission level (uV/m)

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level

Temperature	24.5°C	Humidity	57%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11a CH 36, 40, 48 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 15, 2013	Test Mode	Mode 2 (Ant.3 Omnidirectional antenna / 6.7dBi)

Channel 36

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5098.40	53.76	54.00	-0.24	16.76	3.42	33.58	0.00	Average	152	86	HORIZONTAL
2	5098.40	64.23	74.00	-9.77	27.23	3.42	33.58	0.00	Peak	152	86	HORIZONTAL
3	5178.40	112.63			75.46	3.44	33.73	0.00	Peak	152	86	HORIZONTAL
4	5179.04	102.72			65.55	3.44	33.73	0.00	Average	152	86	HORIZONTAL

Item 3, 4 are the fundamental frequency at 5180 MHz.

Channel 40

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5117.95	53.80	54.00	-0.20	16.77	3.42	33.61	0.00	Average	154	279	HORIZONTAL
2	5117.95	64.60	74.00	-9.40	27.57	3.42	33.61	0.00	Peak	154	279	HORIZONTAL
3	5197.44	102.74			65.53	3.45	33.76	0.00	Average	154	279	HORIZONTAL
4	5198.08	112.77			75.56	3.45	33.76	0.00	Peak	154	279	HORIZONTAL

Item 3, 4 are the fundamental frequency at 5200 MHz.

Channel 48

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4997.76	49.91	54.00	-4.09	13.13	3.39	33.39	0.00	Average	156	281	HORIZONTAL
2	4997.76	60.73	74.00	-13.27	23.95	3.39	33.39	0.00	Peak	156	281	HORIZONTAL
3	5237.60	122.87			85.59	3.46	33.82	0.00	Peak	156	281	HORIZONTAL
4	5247.21	113.06			75.75	3.46	33.85	0.00	Average	156	281	HORIZONTAL
5	5397.50	49.49	54.00	-4.51	11.90	3.50	34.09	0.00	Average	156	281	HORIZONTAL
6	5398.30	61.29	74.00	-12.71	23.70	3.50	34.09	0.00	Peak	156	281	HORIZONTAL

Item 3, 4 are the fundamental frequency at 5240 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11a CH 52, 60, 64 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 15, 2013	Test Mode	Mode 2 (Ant.3 Omnidirectional antenna / 6.7dBi)

Channel 52

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor		cm	deg	
1	5026.60	59.76	74.00	-14.24	22.91	3.40	33.45	0.00	Peak	164	282	HORIZONTAL
2	5027.40	49.13	54.00	-4.87	12.28	3.40	33.45	0.00	Average	164	282	HORIZONTAL
3	5257.60	112.93			75.62	3.46	33.85	0.00	Average	164	282	HORIZONTAL
4	5258.40	123.04			85.73	3.46	33.85	0.00	Peak	164	282	HORIZONTAL
5	5418.11	48.30	54.00	-5.70	10.64	3.51	34.15	0.00	Average	164	282	HORIZONTAL
6	5418.11	58.56	74.00	-15.44	20.90	3.51	34.15	0.00	Peak	164	282	HORIZONTAL

Item 3, 4 are the fundamental frequency at 5260 MHz.

Channel 60

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor		cm	deg	
1	5297.76	102.83			65.41	3.48	33.94	0.00	Average	160	281	HORIZONTAL
2	5298.08	113.13			75.71	3.48	33.94	0.00	Peak	160	281	HORIZONTAL
3	5377.56	64.63	74.00	-9.37	27.07	3.50	34.06	0.00	Peak	160	281	HORIZONTAL
4	5377.89	53.90	54.00	-0.10	16.34	3.50	34.06	0.00	Average	160	281	HORIZONTAL

Item 1, 2 are the fundamental frequency at 5300 MHz.

Channel 64

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor		cm	deg	
1	5317.12	102.73			65.28	3.48	33.97	0.00	Average	149	275	HORIZONTAL
2	5317.44	113.01			75.56	3.48	33.97	0.00	Peak	149	275	HORIZONTAL
3	5397.44	53.70	54.00	-0.30	16.11	3.50	34.09	0.00	Average	149	275	HORIZONTAL
4	5397.44	64.09	74.00	-9.91	26.50	3.50	34.09	0.00	Peak	149	275	HORIZONTAL

Item 1, 2 are the fundamental frequency at 5320 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11a CH 100, 140 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 15, 2013	Test Mode	Mode 2 (Ant.3 Omnidirectional antenna / 6.7dBi)

Channel 100

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5418.65	64.35	74.00	-9.65	26.69	3.51	34.15	0.00	Peak	159	89	HORIZONTAL
2	5418.91	53.84	54.00	-0.16	16.18	3.51	34.15	0.00	Average	159	89	HORIZONTAL
3	5468.08	41.58	54.00	-12.42	3.85	3.52	34.21	0.00	Average	159	89	HORIZONTAL
4	5470.00	52.47	74.00	-21.53	14.74	3.52	34.21	0.00	Peak	159	89	HORIZONTAL
5	5498.72	111.65			73.89	3.53	34.23	0.00	Peak	159	89	HORIZONTAL
6	5499.04	101.90			64.14	3.53	34.23	0.00	Average	159	89	HORIZONTAL

Item 5, 6 are the fundamental frequency at 5500 MHz.

Channel 140

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5697.12	107.02			69.09	3.59	34.34	0.00	Average	148	273	HORIZONTAL
2	5697.44	117.75			79.82	3.59	34.34	0.00	Peak	148	273	HORIZONTAL
3	5776.92	67.73	68.30	-0.57	29.75	3.62	34.36	0.00	Peak	148	273	HORIZONTAL

Item 1, 2 are the fundamental frequency at 5700 MHz.

Note:

Emission level (dBuV/m) = 20 log Emission level (uV/m)

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level

Temperature	24.5°C	Humidity	57%
Test Engineer	Jim Huang	Configurations	IEEE 802.11ac MCS0/Nss1 20MHz CH 36, 40, 48 / Chain 1 + Chain 2 + Chain 3
Test Date	Aug. 02, 2013	Test Mode	Mode 3 (Ant.4 Panel antenna / 9.2dBi)

Channel 36

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	PoI/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5098.40	63.90	74.00	-10.10	26.90	3.42	33.58	0.00	Peak	120	178	VERTICAL
2	5099.04	53.86	54.00	-0.14	16.86	3.42	33.58	0.00	Average	120	178	VERTICAL
3	5179.04	102.64			65.47	3.44	33.73	0.00	Average	120	178	VERTICAL
4	5179.04	113.56			76.39	3.44	33.73	0.00	Peak	120	178	VERTICAL

Item 3, 4 are the fundamental frequency at 5180 MHz.

Channel 40

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	PoI/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5118.91	53.80	54.00	-0.20	16.76	3.43	33.61	0.00	Average	115	177	VERTICAL
2	5118.91	63.83	74.00	-10.17	26.79	3.43	33.61	0.00	Peak	115	177	VERTICAL
3	5199.04	103.65			66.44	3.45	33.76	0.00	Average	115	177	VERTICAL
4	5199.36	114.40			77.19	3.45	33.76	0.00	Peak	115	177	VERTICAL

Item 3, 4 are the fundamental frequency at 5200 MHz.

Channel 48

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	PoI/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5150.00	49.49	54.00	-4.51	12.39	3.43	33.67	0.00	Average	126	182	VERTICAL
2	5150.00	61.07	74.00	-12.93	23.97	3.43	33.67	0.00	Peak	126	182	VERTICAL
3	5237.44	112.54			75.26	3.46	33.82	0.00	Average	126	182	VERTICAL
4	5237.76	123.24			85.96	3.46	33.82	0.00	Peak	126	182	VERTICAL

Item 3, 4 are the fundamental frequency at 5240 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Jim Huang	Configurations	IEEE 802.11ac MCS0/Nss3 20MHz CH 36, 40, 48 / Chain 1 + Chain 2 + Chain 3
Test Date	Aug. 03, 2013	Test Mode	Mode 3 (Ant.4 Panel antenna / 9.2dBi)

Channel 36

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5097.76	53.81	54.00	-0.19	16.81	3.42	33.58	0.00	Average	118	184	VERTICAL
2	5097.76	64.93	74.00	-9.07	27.93	3.42	33.58	0.00	Peak	118	184	VERTICAL
3	5177.44	114.50			77.33	3.44	33.73	0.00	Peak	118	184	VERTICAL
4	5177.76	101.52			64.35	3.44	33.73	0.00	Average	118	184	VERTICAL

Item 3, 4 are the fundamental frequency at 5180 MHz.

Channel 40

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5117.63	53.74	54.00	-0.26	16.71	3.42	33.61	0.00	Average	129	184	VERTICAL
2	5117.63	65.29	74.00	-8.71	28.26	3.42	33.61	0.00	Peak	129	184	VERTICAL
3	5197.76	101.58			64.37	3.45	33.76	0.00	Average	129	184	VERTICAL
4	5198.72	114.19			76.98	3.45	33.76	0.00	Peak	129	184	VERTICAL

Item 3, 4 are the fundamental frequency at 5200 MHz.

Channel 48

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5150.00	49.67	54.00	-4.33	12.57	3.43	33.67	0.00	Average	117	180	VERTICAL
2	5150.00	61.00	74.00	-13.00	23.90	3.43	33.67	0.00	Peak	117	180	VERTICAL
3	5239.04	123.20			85.92	3.46	33.82	0.00	Peak	117	180	VERTICAL
4	5242.24	110.04			72.76	3.46	33.82	0.00	Average	117	180	VERTICAL

Item 3, 4 are the fundamental frequency at 5240 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Will Tung	Configurations	IEEE 802.11ac MCS0/Nss1 20MHz CH 52, 60, 64 / Chain 1 + Chain 2 + Chain 3
Test Date	Aug. 03, 2013	Test Mode	Mode 3 (Ant.4 Panel antenna / 9.2dBi)

Channel 52

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5141.35	63.55	74.00	-10.45	26.48	3.43	33.64	0.00	Peak	117	178	VERTICAL
2	5141.83	52.04	54.00	-1.96	14.97	3.43	33.64	0.00	Average	117	178	VERTICAL
3	5259.04	113.03			75.72	3.46	33.85	0.00	Average	117	178	VERTICAL
4	5259.52	122.54			85.23	3.46	33.85	0.00	Peak	117	178	VERTICAL
5	5350.00	51.63	54.00	-2.37	14.11	3.49	34.03	0.00	Average	117	178	VERTICAL
6	5350.00	60.21	74.00	-13.79	22.69	3.49	34.03	0.00	Peak	117	178	VERTICAL

Item 3, 4 are the fundamental frequency at 5260 MHz.

Channel 60

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5298.72	113.20			75.78	3.48	33.94	0.00	Peak	124	180	VERTICAL
2	5299.36	102.40			64.98	3.48	33.94	0.00	Average	124	180	VERTICAL
3	5377.24	63.11	74.00	-10.89	25.55	3.50	34.06	0.00	Peak	124	180	VERTICAL
4	5379.49	53.97	54.00	-0.03	16.41	3.50	34.06	0.00	Average	124	180	VERTICAL

Item 1, 2 are the fundamental frequency at 5300 MHz.

Channel 64

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5319.36	112.77			75.32	3.48	33.97	0.00	Peak	126	181	VERTICAL
2	5319.68	102.74			65.29	3.48	33.97	0.00	Average	126	181	VERTICAL
3	5397.12	53.72	54.00	-0.28	16.13	3.50	34.09	0.00	Average	126	181	VERTICAL
4	5401.60	64.52	74.00	-9.48	26.89	3.51	34.12	0.00	Peak	126	181	VERTICAL

Item 1, 2 are the fundamental frequency at 5320 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Will Tung	Configurations	IEEE 802.11ac MCS0/Nss3 20MHz CH 52, 60, 64 / Chain 1 + Chain 2 + Chain 3
Test Date	Aug. 03, 2013	Test Mode	Mode 3 (Ant.4 Panel antenna / 9.2dBi)

Channel 52

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5143.75	62.71	74.00	-11.29	25.61	3.43	33.67	0.00 Peak	137	186	VERTICAL
2	5150.00	50.77	54.00	-3.23	13.67	3.43	33.67	0.00 Average	137	186	VERTICAL
3	5257.60	108.97			71.66	3.46	33.85	0.00 Average	137	186	VERTICAL
4	5262.40	122.53			85.22	3.46	33.85	0.00 Peak	137	186	VERTICAL
5	5350.00	51.47	54.00	-2.53	13.95	3.49	34.03	0.00 Average	137	186	VERTICAL
6	5350.00	61.33	74.00	-12.67	23.81	3.49	34.03	0.00 Peak	137	186	VERTICAL

Item 3, 4 are the fundamental frequency at 5260 MHz.

Channel 60

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5298.40	114.72			77.30	3.48	33.94	0.00 Peak	124	179	VERTICAL
2	5302.24	101.91			64.49	3.48	33.94	0.00 Average	124	179	VERTICAL
3	5382.05	53.94	54.00	-0.06	16.35	3.50	34.09	0.00 Average	124	179	VERTICAL
4	5382.05	65.78	74.00	-8.22	28.19	3.50	34.09	0.00 Peak	124	179	VERTICAL

Item 1, 2 are the fundamental frequency at 5300 MHz.

Channel 64

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5318.40	114.75			77.30	3.48	33.97	0.00 Peak	124	181	VERTICAL
2	5322.24	101.78			64.33	3.48	33.97	0.00 Average	124	181	VERTICAL
3	5398.40	64.83	74.00	-9.17	27.24	3.50	34.09	0.00 Peak	124	181	VERTICAL
4	5402.24	53.73	54.00	-0.27	16.10	3.51	34.12	0.00 Average	124	181	VERTICAL

Item 1, 2 are the fundamental frequency at 5320 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Will Tung	Configurations	IEEE 802.11ac MCS0/Nss1 20MHz CH 100, 140 / Chain 1 + Chain 2 + Chain 3
Test Date	Aug. 03, 2013	Test Mode	Mode 3 (Ant.4 Panel antenna / 9.2dBi)

Channel 100

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5418.97	53.86	54.00	-0.14	16.20	3.51	34.15	0.00 Average	122	178	VERTICAL
2	5421.86	64.24	74.00	-9.76	26.58	3.51	34.15	0.00 Peak	122	178	VERTICAL
3	5468.72	59.53	74.00	-14.47	21.77	3.52	34.24	0.00 Peak	122	178	VERTICAL
4	5470.00	50.06	54.00	-3.94	12.30	3.52	34.24	0.00 Average	122	178	VERTICAL
5	5499.36	100.52			62.73	3.53	34.26	0.00 Average	122	178	VERTICAL
6	5504.17	111.41			73.59	3.54	34.28	0.00 Peak	122	178	VERTICAL

Item 5, 6 are the fundamental frequency at 5500 MHz.

Channel 140

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5696.47	102.45			64.52	3.59	34.34	0.00 Average	117	177	VERTICAL
2	5696.47	112.95			75.02	3.59	34.34	0.00 Peak	117	177	VERTICAL
3	5777.24	63.95	74.00	-10.05	25.97	3.62	34.36	0.00 Peak	117	177	VERTICAL
4	5782.05	53.90	54.00	-0.10	15.91	3.63	34.36	0.00 Average	117	177	VERTICAL

Item 1, 2 are the fundamental frequency at 5700 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Will Tung	Configurations	IEEE 802.11ac MCS0/Nss3 20MHz CH 100, 140 / Chain 1 + Chain 2 + Chain 3
Test Date	Aug. 03, 2013	Test Mode	Mode 3 (Ant.4 Panel antenna / 9.2dBi)

Channel 100

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5417.69	53.79	54.00	-0.21	16.13	3.51	34.15	0.00 Average	123	184	VERTICAL
2	5418.65	64.92	74.00	-9.08	27.26	3.51	34.15	0.00 Peak	123	184	VERTICAL
3	5469.04	59.34	74.00	-14.66	21.58	3.52	34.24	0.00 Peak	123	184	VERTICAL
4	5470.00	50.04	54.00	-3.96	12.28	3.52	34.24	0.00 Average	123	184	VERTICAL
5	5497.76	98.83			61.04	3.53	34.26	0.00 Average	123	184	VERTICAL
6	5501.92	111.31			73.49	3.54	34.28	0.00 Peak	123	184	VERTICAL

Item 5, 6 are the fundamental frequency at 5500 MHz.

Channel 140

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5698.40	112.17			74.24	3.59	34.34	0.00 Peak	126	179	VERTICAL
2	5702.24	99.94			62.01	3.59	34.34	0.00 Average	126	179	VERTICAL
3	5782.05	53.90	54.00	-0.10	15.91	3.63	34.36	0.00 Average	126	179	VERTICAL
4	5784.30	64.82	74.00	-9.18	26.83	3.63	34.36	0.00 Peak	126	179	VERTICAL

Item 1, 2 are the fundamental frequency at 5700 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Jim Huang	Configurations	IEEE 802.11ac MCS0/Nss1 40MHz CH 38, 46 / Chain 1 + Chain 2 + Chain 3
Test Date	Aug. 02, 2013	Test Mode	Mode 3 (Ant.4 Panel antenna / 9.2dBi)

Channel 38

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5149.36	68.47	74.00	-5.53	31.37	3.43	33.67	0.00 Peak	117	180	VERTICAL
2	5149.68	53.91	54.00	-0.09	16.81	3.43	33.67	0.00 Average	117	180	VERTICAL
3	5184.55	99.82			62.65	3.44	33.73	0.00 Average	117	180	VERTICAL
4	5184.87	112.21			75.04	3.44	33.73	0.00 Peak	117	180	VERTICAL

Item 3, 4 are the fundamental frequency at 5190 MHz.

Channel 46

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5144.23	53.71	54.00	-0.29	16.61	3.43	33.67	0.00 Average	126	178	VERTICAL
2	5144.23	64.87	74.00	-9.13	27.77	3.43	33.67	0.00 Peak	126	178	VERTICAL
3	5224.23	115.06			77.81	3.46	33.79	0.00 Peak	126	178	VERTICAL
4	5233.85	103.03			65.75	3.46	33.82	0.00 Average	126	178	VERTICAL

Item 3, 4 are the fundamental frequency at 5230 MHz.



Temperature	24.5°C	Humidity	57%
Test Engineer	Jim Huang	Configurations	IEEE 802.11ac MCS0/Nss3 40MHz CH 38, 46 / Chain 1 + Chain 2 + Chain 3
Test Date	Aug. 03, 2013	Test Mode	Mode 3 (Ant.4 Panel antenna / 9.2dBi)

Channel 38

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5150.00	53.64	54.00	-0.36	16.54	3.43	33.67	0.00	Average	131	178	VERTICAL
2	5150.00	70.00	74.00	-4.00	32.90	3.43	33.67	0.00	Peak	131	178	VERTICAL
3	5186.15	112.35			75.18	3.44	33.73	0.00	Peak	131	178	VERTICAL
4	5186.47	97.38			60.21	3.44	33.73	0.00	Average	131	178	VERTICAL

Item 3, 4 are the fundamental frequency at 5190 MHz.

Channel 46

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5146.47	53.71	54.00	-0.29	16.61	3.43	33.67	0.00	Average	126	178	VERTICAL
2	5146.47	64.76	74.00	-9.24	27.66	3.43	33.67	0.00	Peak	126	178	VERTICAL
3	5225.19	116.31			79.06	3.46	33.79	0.00	Peak	126	178	VERTICAL
4	5226.47	100.65			63.40	3.46	33.79	0.00	Average	126	178	VERTICAL

Item 3, 4 are the fundamental frequency at 5230 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Will Tung	Configurations	IEEE 802.11ac MCS0/Nss1 40MHz CH 54, 62 / Chain 1 + Chain 2 + Chain 3
Test Date	Aug. 03, 2013	Test Mode	Mode 3 (Ant.4 Panel antenna / 9.2dBi)

Channel 54

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	PoI/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5266.80	113.93			76.59	3.46	33.88	0.00 Peak	128	181	VERTICAL
2	5274.81	102.83			65.48	3.47	33.88	0.00 Average	128	181	VERTICAL
3	5352.24	53.65	54.00	-0.35	16.13	3.49	34.03	0.00 Average	128	181	VERTICAL
4	5352.24	63.73	74.00	-10.27	26.21	3.49	34.03	0.00 Peak	128	181	VERTICAL

Item 1, 2 are the fundamental frequency at 5270 MHz.

Channel 62

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	PoI/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5301.83	109.55			72.13	3.48	33.94	0.00 Peak	116	179	VERTICAL
2	5304.23	98.92			61.50	3.48	33.94	0.00 Average	116	179	VERTICAL
3	5350.00	53.61	54.00	-0.39	16.09	3.49	34.03	0.00 Average	116	179	VERTICAL
4	5350.00	67.35	74.00	-6.65	29.83	3.49	34.03	0.00 Peak	116	179	VERTICAL

Item 1, 2 are the fundamental frequency at 5310 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Will Tung	Configurations	IEEE 802.11ac MCS0/Nss3 40MHz CH 54, 62 / Chain 1 + Chain 2 + Chain 3
Test Date	Aug. 03, 2013	Test Mode	Mode 3 (Ant.4 Panel antenna / 9.2dBi)

Channel 54

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5266.15	114.76			77.42	3.46	33.88	0.00 Peak	128	176	VERTICAL
2	5273.21	100.20			62.85	3.47	33.88	0.00 Average	128	176	VERTICAL
3	5353.53	53.57	54.00	-0.43	16.05	3.49	34.03	0.00 Average	128	176	VERTICAL
4	5354.81	65.76	74.00	-8.24	28.24	3.49	34.03	0.00 Peak	128	176	VERTICAL

Item 1, 2 are the fundamental frequency at 5270 MHz.

Channel 62

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5306.47	96.57			59.15	3.48	33.94	0.00 Average	125	177	VERTICAL
2	5316.09	110.68			73.23	3.48	33.97	0.00 Peak	125	177	VERTICAL
3	5350.00	53.71	54.00	-0.29	16.19	3.49	34.03	0.00 Average	125	177	VERTICAL
4	5352.24	69.15	74.00	-4.85	31.63	3.49	34.03	0.00 Peak	125	177	VERTICAL

Item 1, 2 are the fundamental frequency at 5310 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Will Tung	Configurations	IEEE 802.11ac MCS0/Nss1 40MHz CH 102, 110, 134 / Chain 1 + Chain 2 + Chain 3
Test Date	Aug. 03, 2013	Test Mode	Mode 3 (Ant.4 Panel antenna / 9.2dBi)

Channel 102

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5422.18	63.90	74.00	-10.10	26.24	3.51	34.15	0.00	Peak	121	180	VERTICAL
2	5424.42	52.92	54.00	-1.08	15.25	3.52	34.15	0.00	Average	121	180	VERTICAL
3	5470.00	53.88	54.00	-0.12	16.12	3.52	34.24	0.00	Average	121	180	VERTICAL
4	5470.00	67.97	74.00	-6.03	30.21	3.52	34.24	0.00	Peak	121	180	VERTICAL
5	5504.55	98.87			61.05	3.54	34.28	0.00	Average	121	180	VERTICAL
6	5504.87	109.77			71.95	3.54	34.28	0.00	Peak	121	180	VERTICAL

Item 5, 6 are the fundamental frequency at 5510 MHz.

Channel 110

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5457.44	52.87	54.00	-1.13	15.14	3.52	34.21	0.00	Average	119	181	VERTICAL
2	5458.40	63.58	74.00	-10.42	25.85	3.52	34.21	0.00	Peak	119	181	VERTICAL
3	5464.87	53.55	54.00	-0.45	15.82	3.52	34.21	0.00	Average	119	181	VERTICAL
4	5464.87	64.15	74.00	-9.85	26.42	3.52	34.21	0.00	Peak	119	181	VERTICAL
5	5544.87	111.58			73.72	3.55	34.31	0.00	Peak	119	181	VERTICAL
6	5554.81	100.95			63.09	3.55	34.31	0.00	Average	119	181	VERTICAL

Item 5, 6 are the fundamental frequency at 5550 MHz.

Channel 134

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5656.86	100.70			62.78	3.59	34.33	0.00	Average	119	179	VERTICAL
2	5661.99	112.07			74.15	3.59	34.33	0.00	Peak	119	179	VERTICAL
3	5744.23	65.01	74.00	-8.99	27.05	3.61	34.35	0.00	Peak	119	179	VERTICAL
4	5746.80	53.88	54.00	-0.12	15.92	3.61	34.35	0.00	Average	119	179	VERTICAL

Item 1, 2 are the fundamental frequency at 5670 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Will Tung	Configurations	IEEE 802.11ac MCS0/Nss3 40MHz CH 102, 110, 134 / Chain 1 + Chain 2 + Chain 3
Test Date	Aug. 03, 2013	Test Mode	Mode 3 (Ant.4 Panel antenna / 9.2dBi)

Channel 102

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5426.35	52.41	54.00	-1.59	14.74	3.52	34.15	0.00	Average	121	176	VERTICAL
2	5435.00	64.62	74.00	-9.38	26.92	3.52	34.18	0.00	Peak	121	176	VERTICAL
3	5464.55	68.24	74.00	-5.76	30.51	3.52	34.21	0.00	Peak	121	176	VERTICAL
4	5470.00	53.54	54.00	-0.46	15.78	3.52	34.24	0.00	Average	121	176	VERTICAL
5	5506.47	96.55			58.73	3.54	34.28	0.00	Average	121	176	VERTICAL
6	5515.45	110.81			72.99	3.54	34.28	0.00	Peak	121	176	VERTICAL

Item 5, 6 are the fundamental frequency at 5510 MHz.

Channel 110

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5456.80	52.34	54.00	-1.66	14.61	3.52	34.21	0.00	Average	129	178	VERTICAL
2	5456.80	63.51	74.00	-10.49	25.78	3.52	34.21	0.00	Peak	129	178	VERTICAL
3	5466.15	64.94	74.00	-9.06	27.21	3.52	34.21	0.00	Peak	129	178	VERTICAL
4	5466.47	53.52	54.00	-0.48	15.79	3.52	34.21	0.00	Average	129	178	VERTICAL
5	5546.47	98.64			60.78	3.55	34.31	0.00	Average	129	178	VERTICAL
6	5555.45	113.53			75.67	3.55	34.31	0.00	Peak	129	178	VERTICAL

Item 5, 6 are the fundamental frequency at 5550 MHz.

Channel 134

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5666.47	98.08			60.16	3.59	34.33	0.00	Average	126	178	VERTICAL
2	5679.30	112.59			74.67	3.59	34.33	0.00	Peak	126	178	VERTICAL
3	5736.54	65.30	74.00	-8.70	27.35	3.61	34.34	0.00	Peak	126	178	VERTICAL
4	5746.15	53.83	54.00	-0.17	15.87	3.61	34.35	0.00	Average	126	178	VERTICAL

Item 1, 2 are the fundamental frequency at 5670 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Jim Huang	Configurations	IEEE 802.11ac MCS0/Nss1 80MHz CH 42 / Chain 1 + Chain 2 + Chain 3
Test Date	Aug. 02, 2013	Test Mode	Mode 3 (Ant.4 Panel antenna / 9.2dBi)

Channel 42

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5141.99	68.72	74.00	-5.28	31.65	3.43	33.64	0.00 Peak	127	179	VERTICAL
2	5146.80	53.92	54.00	-0.08	16.82	3.43	33.67	0.00 Average	127	179	VERTICAL
3	5219.62	94.54			57.30	3.45	33.79	0.00 Average	127	179	VERTICAL
4	5222.02	107.99			70.74	3.46	33.79	0.00 Peak	127	179	VERTICAL

Item 3, 4 are the fundamental frequency at 5210 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Will Tung	Configurations	IEEE 802.11ac MCS0/Nss1 80MHz CH 58, 106 / Chain 1 + Chain 2 + Chain 3
Test Date	Aug. 03, 2013	Test Mode	Mode 3 (Ant.4 Panel antenna / 9.2dBi)

Channel 58

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5126.76	59.48	74.00	-14.52	22.41	3.43	33.64	0.00 Peak	126	182	VERTICAL
2	5150.00	49.58	54.00	-4.42	12.48	3.43	33.67	0.00 Average	126	182	VERTICAL
3	5277.18	94.02			56.67	3.47	33.88	0.00 Average	126	182	VERTICAL
4	5279.58	106.74			69.39	3.47	33.88	0.00 Peak	126	182	VERTICAL
5	5350.00	53.97	54.00	-0.03	16.45	3.49	34.03	0.00 Average	126	182	VERTICAL
6	5365.22	70.19	74.00	-3.81	32.64	3.49	34.06	0.00 Peak	126	182	VERTICAL

Item 3, 4 are the fundamental frequency at 5290 MHz.

Channel 106

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5451.99	65.60	74.00	-8.40	27.87	3.52	34.21	0.00 Peak	121	181	VERTICAL
2	5460.00	52.89	54.00	-1.11	15.16	3.52	34.21	0.00 Average	121	181	VERTICAL
3	5464.39	67.43	74.00	-6.57	29.70	3.52	34.21	0.00 Peak	121	181	VERTICAL
4	5470.00	53.69	54.00	-0.31	15.93	3.52	34.24	0.00 Average	121	181	VERTICAL
5	5515.58	104.74			66.92	3.54	34.28	0.00 Peak	121	181	VERTICAL
6	5517.18	93.09			55.27	3.54	34.28	0.00 Average	121	181	VERTICAL
7	5725.00	50.18	54.00	-3.82	12.24	3.60	34.34	0.00 Average	121	181	VERTICAL
8	5725.00	60.15	74.00	-13.85	22.21	3.60	34.34	0.00 Peak	121	181	VERTICAL

Item 5, 6 are the fundamental frequency at 5530 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Jim Huang	Configurations	IEEE 802.11ac MCS0/Nss3 80MHz CH 42 / Chain 1 + Chain 2 + Chain 3
Test Date	Aug. 03, 2013	Test Mode	Mode 3 (Ant.4 Panel antenna / 9.2dBi)

Channel 42

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5145.19	68.32	74.00	-5.68	31.22	3.43	33.67	0.00	Peak	128	182	VERTICAL
2	5147.60	53.87	54.00	-0.13	16.77	3.43	33.67	0.00	Average	128	182	VERTICAL
3	5219.62	108.80			71.56	3.45	33.79	0.00	Peak	128	182	VERTICAL
4	5222.02	90.68			53.43	3.46	33.79	0.00	Average	128	182	VERTICAL

Item 3, 4 are the fundamental frequency at 5210 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Will Tung	Configurations	IEEE 802.11ac MCS0/Nss3 80MHz CH 58, 106 / Chain 1 + Chain 2 + Chain 3
Test Date	Aug. 03, 2013	Test Mode	Mode 3 (Ant.4 Panel antenna / 9.2dBi)

Channel 58

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5267.56	106.91			69.57	3.46	33.88	0.00	Peak	125	179	VERTICAL
2	5278.78	90.55			53.20	3.47	33.88	0.00	Average	125	179	VERTICAL
3	5357.21	53.52	54.00	-0.48	16.00	3.49	34.03	0.00	Average	125	179	VERTICAL
4	5358.01	68.31	74.00	-5.69	30.79	3.49	34.03	0.00	Peak	125	179	VERTICAL

Item 1, 2 are the fundamental frequency at 5290 MHz.

Channel 106

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5447.98	67.73	74.00	-6.27	30.03	3.52	34.18	0.00	Peak	120	181	VERTICAL
2	5458.40	53.22	54.00	-0.78	15.49	3.52	34.21	0.00	Average	120	181	VERTICAL
3	5467.60	53.84	54.00	-0.16	16.08	3.52	34.24	0.00	Average	120	181	VERTICAL
4	5467.60	68.10	74.00	-5.90	30.34	3.52	34.24	0.00	Peak	120	181	VERTICAL
5	5517.98	90.34			52.52	3.54	34.28	0.00	Average	120	181	VERTICAL
6	5519.58	106.57			68.73	3.54	34.30	0.00	Peak	120	181	VERTICAL

Item 5, 6 are the fundamental frequency at 5530 MHz.



Temperature	24.5°C	Humidity	57%
Test Engineer	Jim Huang	Configurations	IEEE 802.11ac MCS0/Nss1 80MHz CH 138 / Chain 1 + Chain 2 + Chain 3
Test Date	Aug. 20, 2013	Test Mode	Mode 3 (Ant.4 Panel antenna / 9.2dBi)

Channel 138

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor		cm	deg	
1	5458.40	58.11	74.00	-15.89	20.38	3.52	34.21	0.00	Peak	116	175	VERTICAL
2	5459.20	45.20	54.00	-8.80	7.47	3.52	34.21	0.00	Average	116	175	VERTICAL
3	5469.20	60.55	68.30	-7.75	22.79	3.52	34.24	0.00	Peak	116	175	VERTICAL
4	5677.18	116.92			79.00	3.59	34.33	0.00	Peak	116	175	VERTICAL
5	5697.21	103.11			65.18	3.59	34.34	0.00	Average	116	175	VERTICAL
6	5828.21	74.00	78.20	-4.20	36.00	3.63	34.37	0.00	Peak	116	175	VERTICAL

Item 4, 5 are the fundamental frequency at 5690 MHz.



Temperature	24.5°C	Humidity	57%
Test Engineer	Jim Huang	Configurations	IEEE 802.11ac MCS0/Nss3 80MHz CH 138 / Chain 1 + Chain 2 + Chain 3
Test Date	Aug. 20, 2013	Test Mode	Mode 3 (Ant.4 Panel antenna / 9.2dBi)

Channel 138

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor		cm	deg	
1	5457.60	58.39	74.00	-15.61	20.66	3.52	34.21	0.00	Peak	127	176	VERTICAL
2	5458.40	44.56	54.00	-9.44	6.83	3.52	34.21	0.00	Average	127	176	VERTICAL
3	5467.60	59.45	68.30	-8.85	21.69	3.52	34.24	0.00	Peak	127	176	VERTICAL
4	5698.01	97.03			59.10	3.59	34.34	0.00	Average	127	176	VERTICAL
5	5698.01	116.13			78.20	3.59	34.34	0.00	Peak	127	176	VERTICAL
6	5827.40	71.11	78.20	-7.09	33.11	3.63	34.37	0.00	Peak	127	176	VERTICAL

Item 4, 5 are the fundamental frequency at 5690 MHz.

Note:

Emission level (dBuV/m) = 20 log Emission level (uV/m)

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level

Temperature	24.5°C	Humidity	57%
Test Engineer	Jim Huang	Configurations	IEEE 802.11a CH 36, 40, 48 / Chain 1 + Chain 2 + Chain 3
Test Date	Aug. 02, 2013	Test Mode	Mode 3 (Ant.4 Panel antenna / 9.2dBi)

Channel 36

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	PoI/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5099.04	53.75	54.00	-0.25	16.75	3.42	33.58	0.00	Average	115	180	VERTICAL
2	5099.36	64.38	74.00	-9.62	27.38	3.42	33.58	0.00	Peak	115	180	VERTICAL
3	5178.72	112.97			75.80	3.44	33.73	0.00	Peak	115	180	VERTICAL
4	5179.04	102.67			65.50	3.44	33.73	0.00	Average	115	180	VERTICAL

Item 3, 4 are the fundamental frequency at 5180 MHz.

Channel 40

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	PoI/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5120.51	63.93	74.00	-10.07	26.89	3.43	33.61	0.00	Peak	107	183	VERTICAL
2	5121.15	53.96	54.00	-0.04	16.92	3.43	33.61	0.00	Average	107	183	VERTICAL
3	5200.96	103.33			66.12	3.45	33.76	0.00	Average	107	183	VERTICAL
4	5200.96	113.57			76.36	3.45	33.76	0.00	Peak	107	183	VERTICAL

Item 3, 4 are the fundamental frequency at 5200 MHz.

Channel 48

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	PoI/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5149.68	63.39	74.00	-10.61	26.29	3.43	33.67	0.00	Peak	129	181	VERTICAL
2	5150.00	49.88	54.00	-4.12	12.78	3.43	33.67	0.00	Average	129	181	VERTICAL
3	5239.04	113.83			76.55	3.46	33.82	0.00	Average	129	181	VERTICAL
4	5239.36	124.23			86.95	3.46	33.82	0.00	Peak	129	181	VERTICAL

Item 3, 4 are the fundamental frequency at 5240 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Will Tung	Configurations	IEEE 802.11a CH 52, 60, 64 / Chain 1 + Chain 2 + Chain 3
Test Date	Aug. 03, 2013	Test Mode	Mode 3 (Ant.4 Panel antenna / 9.2dBi)

Channel 52

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5140.87	52.37	54.00	-1.63	15.30	3.43	33.64	0.00	Average	118	182	HORIZONTAL
2	5141.35	63.34	74.00	-10.66	26.27	3.43	33.64	0.00	Peak	118	182	HORIZONTAL
3	5260.96	112.72			75.41	3.46	33.85	0.00	Average	118	182	HORIZONTAL
4	5260.96	122.82			85.51	3.46	33.85	0.00	Peak	118	182	HORIZONTAL
5	5350.00	51.19	54.00	-2.81	13.67	3.49	34.03	0.00	Average	118	182	HORIZONTAL
6	5350.00	61.31	74.00	-12.69	23.79	3.49	34.03	0.00	Peak	118	182	HORIZONTAL

Item 3, 4 are the fundamental frequency at 5260 MHz.

Channel 60

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5297.12	102.41			64.99	3.48	33.94	0.00	Average	124	177	VERTICAL
2	5298.40	113.10			75.68	3.48	33.94	0.00	Peak	124	177	VERTICAL
3	5377.56	53.79	54.00	-0.21	16.23	3.50	34.06	0.00	Average	124	177	VERTICAL
4	5378.85	64.23	74.00	-9.77	26.67	3.50	34.06	0.00	Peak	124	177	VERTICAL

Item 1, 2 are the fundamental frequency at 5300 MHz.

Channel 64

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5318.72	112.75			75.30	3.48	33.97	0.00	Peak	126	182	VERTICAL
2	5319.04	103.03			65.58	3.48	33.97	0.00	Average	126	182	VERTICAL
3	5398.72	63.60	74.00	-10.40	26.01	3.50	34.09	0.00	Peak	126	182	VERTICAL
4	5399.36	53.77	54.00	-0.23	16.14	3.51	34.12	0.00	Average	126	182	VERTICAL

Item 1, 2 are the fundamental frequency at 5320 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Will Tung	Configurations	IEEE 802.11a CH 100, 140 / Chain 1 + Chain 2 + Chain 3
Test Date	Aug. 03, 2013	Test Mode	Mode 3 (Ant.4 Panel antenna / 9.2dBi)

Channel 100

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5417.37	53.87	54.00	-0.13	16.21	3.51	34.15	0.00	Average	122	179	VERTICAL
2	5417.37	64.70	74.00	-9.30	27.04	3.51	34.15	0.00	Peak	122	179	VERTICAL
3	5470.00	50.03	54.00	-3.97	12.27	3.52	34.24	0.00	Average	122	179	VERTICAL
4	5470.00	58.19	74.00	-15.81	20.43	3.52	34.24	0.00	Peak	122	179	VERTICAL
5	5497.12	98.79			61.00	3.53	34.26	0.00	Average	122	179	VERTICAL
6	5497.12	110.18			72.39	3.53	34.26	0.00	Peak	122	179	VERTICAL

Item 5, 6 are the fundamental frequency at 5500 MHz.

Channel 140

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5698.08	111.81			73.88	3.59	34.34	0.00	Peak	117	181	VERTICAL
2	5698.40	101.94			64.01	3.59	34.34	0.00	Average	117	181	VERTICAL
3	5778.53	53.99	54.00	-0.01	16.01	3.62	34.36	0.00	Average	117	181	VERTICAL
4	5779.17	64.30	74.00	-9.70	26.32	3.62	34.36	0.00	Peak	117	181	VERTICAL

Item 1, 2 are the fundamental frequency at 5700 MHz.

Note:

Emission level (dBuV/m) = 20 log Emission level (uV/m)

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level

Temperature	24.5°C	Humidity	57%
Test Engineer	Jim Huang	Configurations	IEEE 802.11ac MCS0/Nss1 20MHz CH 36 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 26, 2013	Test Mode	Mode 4 (Ant.5 PCB antenna / 5.74dBi)

Channel 36

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5107.20	63.52	74.00	-10.48	26.52	3.42	33.58	0.00	Peak	116	325	VERTICAL
2	5107.60	53.67	54.00	-0.33	16.67	3.42	33.58	0.00	Average	116	325	VERTICAL
3	5177.60	104.32			67.15	3.44	33.73	0.00	Average	116	325	VERTICAL
4	5183.20	114.88			77.71	3.44	33.73	0.00	Peak	116	325	VERTICAL

Item 3, 4 are the fundamental frequency at 5180 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Jim Huang	Configurations	IEEE 802.11ac MCS0/Nss1 20MHz CH 40, 48 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 27, 2013	Test Mode	Mode 4 (Ant.5 PCB antenna / 5.74dBi)

Channel 40

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5122.40	53.68	54.00	-0.32	16.64	3.43	33.61	0.00	Average	102	325 VERTICAL
2	5122.80	64.05	74.00	-9.95	27.01	3.43	33.61	0.00	Peak	102	325 VERTICAL
3	5197.60	116.16			78.95	3.45	33.76	0.00	Peak	102	325 VERTICAL
4	5202.80	104.90			67.69	3.45	33.76	0.00	Average	102	325 VERTICAL

Item 3, 4 are the fundamental frequency at 5200 MHz.

Channel 48

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5150.00	42.18	54.00	-11.82	5.08	3.43	33.67	0.00	Average	113	333 VERTICAL
2	5150.00	52.49	74.00	-21.51	15.39	3.43	33.67	0.00	Peak	113	333 VERTICAL
3	5237.60	119.02			81.74	3.46	33.82	0.00	Peak	113	333 VERTICAL
4	5242.40	108.59			71.31	3.46	33.82	0.00	Average	113	333 VERTICAL

Item 3, 4 are the fundamental frequency at 5240 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11ac MCS0/Nss3 20MHz CH 36, 40, 48 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 27, 2013	Test Mode	Mode 4 (Ant.5 PCB antenna / 5.74dBi)

Channel 36

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5093.20	53.70	54.00	-0.30	16.70	3.42	33.58	0.00	Average	123	71	VERTICAL
2	5093.60	64.71	74.00	-9.29	27.71	3.42	33.58	0.00	Peak	123	71	VERTICAL
3	5173.20	100.56			63.42	3.44	33.70	0.00	Average	123	71	VERTICAL
4	5174.00	112.66			75.52	3.44	33.70	0.00	Peak	123	71	VERTICAL

Item 3, 4 are the fundamental frequency at 5180 MHz.

Channel 40

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5117.60	53.68	54.00	-0.32	16.65	3.42	33.61	0.00	Average	104	334	VERTICAL
2	5117.60	64.76	74.00	-9.24	27.73	3.42	33.61	0.00	Peak	104	334	VERTICAL
3	5198.00	114.96			77.75	3.45	33.76	0.00	Peak	104	334	VERTICAL
4	5202.00	102.50			65.29	3.45	33.76	0.00	Average	104	334	VERTICAL

Item 3, 4 are the fundamental frequency at 5200 MHz.

Channel 48

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5150.00	42.14	54.00	-11.86	5.04	3.43	33.67	0.00	Average	100	332	VERTICAL
2	5150.00	55.20	74.00	-18.80	18.10	3.43	33.67	0.00	Peak	100	332	VERTICAL
3	5237.60	105.28			68.00	3.46	33.82	0.00	Average	100	332	VERTICAL
4	5243.00	117.19			79.91	3.46	33.82	0.00	Peak	100	332	VERTICAL
5	5358.40	44.75	54.00	-9.25	7.23	3.49	34.03	0.00	Average	100	332	VERTICAL
6	5358.40	56.01	74.00	-17.99	18.49	3.49	34.03	0.00	Peak	100	332	VERTICAL

Item 3, 4 are the fundamental frequency at 5240 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Jim Huang	Configurations	IEEE 802.11ac MCS0/Nss1 20MHz CH 52, 60, 64 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 27, 2013	Test Mode	Mode 4 (Ant.5 PCB antenna / 5.74dBi)

Channel 52

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Preamp Factor	Remark	A/Pos	T/Pos	PoI/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5263.20	118.82			81.48	3.46	33.88	0.00	100	325	VERTICAL
2	5267.60	107.89			70.55	3.46	33.88	0.00	100	325	VERTICAL
3	5350.00	44.75	54.00	-9.25	7.23	3.49	34.03	0.00	100	325	VERTICAL
4	5350.00	56.86	74.00	-17.14	19.34	3.49	34.03	0.00	100	325	VERTICAL

Item 1, 2 are the fundamental frequency at 5260 MHz.

Channel 60

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Preamp Factor	Remark	A/Pos	T/Pos	PoI/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5302.40	102.25			64.83	3.48	33.94	0.00	100	22	VERTICAL
2	5307.20	113.11			75.69	3.48	33.94	0.00	100	22	VERTICAL
3	5377.20	64.90	74.00	-9.10	27.34	3.50	34.06	0.00	100	22	VERTICAL
4	5377.60	53.90	54.00	-0.10	16.34	3.50	34.06	0.00	100	22	VERTICAL

Item 1, 2 are the fundamental frequency at 5300 MHz.

Channel 64

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Preamp Factor	Remark	A/Pos	T/Pos	PoI/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5322.40	103.19			65.73	3.49	33.97	0.00	113	23	VERTICAL
2	5322.40	113.81			76.35	3.49	33.97	0.00	113	23	VERTICAL
3	5397.20	53.84	54.00	-0.16	16.25	3.50	34.09	0.00	113	23	VERTICAL
4	5397.60	64.27	74.00	-9.73	26.68	3.50	34.09	0.00	113	23	VERTICAL

Item 1, 2 are the fundamental frequency at 5320 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11ac MCS0/Nss3 20MHz CH 52, 60, 64 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 27, 2013	Test Mode	Mode 4 (Ant.5 PCB antenna / 5.74dBi)

Channel 52

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5148.20	41.67	54.00	-12.33	4.57	3.43	33.67	0.00 Average	100	325	VERTICAL
2	5150.00	52.98	74.00	-21.02	15.88	3.43	33.67	0.00 Peak	100	325	VERTICAL
3	5257.60	105.22			67.91	3.46	33.85	0.00 Average	100	325	VERTICAL
4	5259.40	117.07			79.76	3.46	33.85	0.00 Peak	100	325	VERTICAL
5	5350.00	44.69	54.00	-9.31	7.17	3.49	34.03	0.00 Average	100	325	VERTICAL
6	5350.00	55.50	74.00	-18.50	17.98	3.49	34.03	0.00 Peak	100	325	VERTICAL

Item 3, 4 are the fundamental frequency at 5260 MHz.

Channel 60

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5302.00	101.83			64.41	3.48	33.94	0.00 Average	100	22	VERTICAL
2	5302.40	114.05			76.63	3.48	33.94	0.00 Peak	100	22	VERTICAL
3	5382.40	53.73	54.00	-0.27	16.14	3.50	34.09	0.00 Average	100	22	VERTICAL
4	5382.40	65.02	74.00	-8.98	27.43	3.50	34.09	0.00 Peak	100	22	VERTICAL

Item 1, 2 are the fundamental frequency at 5300 MHz.

Channel 64

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5322.00	103.81			66.36	3.48	33.97	0.00 Average	114	16	VERTICAL
2	5322.80	115.96			78.50	3.49	33.97	0.00 Peak	114	16	VERTICAL
3	5401.60	64.35	74.00	-9.65	26.72	3.51	34.12	0.00 Peak	114	16	VERTICAL
4	5402.40	53.57	54.00	-0.43	15.94	3.51	34.12	0.00 Average	114	16	VERTICAL

Item 1, 2 are the fundamental frequency at 5320 MHz.



Temperature	24.5°C	Humidity	57%
Test Engineer	Jim Huang	Configurations	IEEE 802.11ac MCS0/Nss1 20MHz CH 100, 140 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 27, 2013	Test Mode	Mode 4 (Ant.5 PCB antenna / 5.74dBi)

Channel 100

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5417.20	64.52	74.00	-9.48	26.86	3.51	34.15	0.00 Peak	102	142	VERTICAL
2	5417.60	53.84	54.00	-0.16	16.18	3.51	34.15	0.00 Average	102	142	VERTICAL
3	5467.60	43.78	54.00	-10.22	6.02	3.52	34.24	0.00 Average	102	142	VERTICAL
4	5467.60	54.59	74.00	-19.41	16.83	3.52	34.24	0.00 Peak	102	142	VERTICAL
5	5502.40	104.48			66.66	3.54	34.28	0.00 Average	102	142	VERTICAL
6	5502.40	114.91			77.09	3.54	34.28	0.00 Peak	102	142	VERTICAL

Item 5, 6 are the fundamental frequency at 5500 MHz.

Channel 140

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5697.20	106.74			68.81	3.59	34.34	0.00 Average	121	133	VERTICAL
2	5697.20	116.98			79.05	3.59	34.34	0.00 Peak	121	133	VERTICAL
3	5725.00	67.92	68.30	-0.38	29.98	3.60	34.34	0.00 Peak	121	133	VERTICAL

Item 1, 2 are the fundamental frequency at 5700 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11ac MCS0/Nss3 20MHz CH 100, 140 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 27, 2013	Test Mode	Mode 4 (Ant.5 PCB antenna / 5.74dBi)

Channel 100

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5417.60	53.50	54.00	-0.50	15.84	3.51	34.15	0.00 Average	100	142	VERTICAL
2	5418.40	64.48	74.00	-9.52	26.82	3.51	34.15	0.00 Peak	100	142	VERTICAL
3	5470.00	45.47	54.00	-8.53	7.71	3.52	34.24	0.00 Average	100	142	VERTICAL
4	5470.00	59.24	74.00	-14.76	21.48	3.52	34.24	0.00 Peak	100	142	VERTICAL
5	5497.60	103.90			66.11	3.53	34.26	0.00 Average	100	142	VERTICAL
6	5502.80	115.84			78.02	3.54	34.28	0.00 Peak	100	142	VERTICAL

Item 5, 6 are the fundamental frequency at 5500 MHz.

Channel 140

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5701.60	115.89			77.96	3.59	34.34	0.00 Peak	120	133	VERTICAL
2	5702.00	103.75			65.82	3.59	34.34	0.00 Average	120	133	VERTICAL
3	5725.00	51.48	54.00	-2.52	13.54	3.60	34.34	0.00 Average	120	133	VERTICAL
4	5725.00	68.60	74.00	-5.40	30.66	3.60	34.34	0.00 Peak	120	133	VERTICAL
5	5777.80	53.55	54.00	-0.45	15.57	3.62	34.36	0.00 Average	120	133	VERTICAL
6	5777.80	65.39	74.00	-8.61	27.41	3.62	34.36	0.00 Peak	120	133	VERTICAL

Item 1, 2 are the fundamental frequency at 5700 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Jim Huang	Configurations	IEEE 802.11ac MCS0/Nss1 40MHz CH 38, 46 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 27, 2013	Test Mode	Mode 4 (Ant.5 PCB antenna / 5.74dBi)

Channel 38

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5147.60	53.84	54.00	-0.16	16.74	3.43	33.67	0.00 Average	116	325	VERTICAL
2	5148.00	72.14	74.00	-1.86	35.04	3.43	33.67	0.00 Peak	116	325	VERTICAL
3	5177.60	110.31			73.14	3.44	33.73	0.00 Peak	116	325	VERTICAL
4	5187.60	98.48			61.31	3.44	33.73	0.00 Average	116	325	VERTICAL

Item 3, 4 are the fundamental frequency at 5190 MHz.

Channel 46

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5132.40	53.51	54.00	-0.49	16.44	3.43	33.64	0.00 Average	116	343	VERTICAL
2	5132.40	63.93	74.00	-10.07	26.86	3.43	33.64	0.00 Peak	116	343	VERTICAL
3	5217.20	104.05			66.81	3.45	33.79	0.00 Average	116	343	VERTICAL
4	5227.60	115.92			78.67	3.46	33.79	0.00 Peak	116	343	VERTICAL

Item 3, 4 are the fundamental frequency at 5230 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11ac MCS0/Nss3 40MHz CH 38, 46 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 27, 2013	Test Mode	Mode 4 (Ant.5 PCB antenna / 5.74dBi)

Channel 38

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5143.60	69.85	74.00	-4.15	32.75	3.43	33.67	0.00	Peak	116	20	VERTICAL
2	5150.00	53.37	54.00	-0.63	16.27	3.43	33.67	0.00	Average	116	20	VERTICAL
3	5182.00	94.42			57.25	3.44	33.73	0.00	Average	116	20	VERTICAL
4	5184.00	108.72			71.55	3.44	33.73	0.00	Peak	116	20	VERTICAL

Item 3, 4 are the fundamental frequency at 5190 MHz.

Channel 46

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5143.60	49.69	54.00	-4.31	12.59	3.43	33.67	0.00	Average	115	27	VERTICAL
2	5144.80	65.22	74.00	-8.78	28.12	3.43	33.67	0.00	Peak	115	27	VERTICAL
3	5235.60	116.03			78.75	3.46	33.82	0.00	Peak	115	27	VERTICAL
4	5237.60	101.02			63.74	3.46	33.82	0.00	Average	115	27	VERTICAL

Item 3, 4 are the fundamental frequency at 5230 MHz.



Temperature	24.5°C	Humidity	57%
Test Engineer	Jim Huang	Configurations	IEEE 802.11ac MCS0/Nss1 40MHz CH 54, 62 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 27, 2013	Test Mode	Mode 4 (Ant.5 PCB antenna / 5.74dBi)

Channel 54

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5272.40	113.70			76.35	3.47	33.88	0.00 Peak	114	336	VERTICAL
2	5287.20	101.69			64.31	3.47	33.91	0.00 Average	114	336	VERTICAL
3	5352.80	53.85	54.00	-0.15	16.33	3.49	34.03	0.00 Average	114	336	VERTICAL
4	5352.80	64.42	74.00	-9.58	26.90	3.49	34.03	0.00 Peak	114	336	VERTICAL

Item 1, 2 are the fundamental frequency at 5270 MHz.

Channel 62

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5307.60	110.53			73.11	3.48	33.94	0.00 Peak	115	23	VERTICAL
2	5327.20	99.24			61.78	3.49	33.97	0.00 Average	115	23	VERTICAL
3	5352.40	53.53	54.00	-0.47	16.01	3.49	34.03	0.00 Average	115	23	VERTICAL
4	5352.40	70.99	74.00	-3.01	33.47	3.49	34.03	0.00 Peak	115	23	VERTICAL

Item 1, 2 are the fundamental frequency at 5310 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11ac MCS0/Nss3 40MHz CH 54, 62 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 27, 2013	Test Mode	Mode 4 (Ant.5 PCB antenna / 5.74dBi)

Channel 54

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5275.60	115.33			77.98	3.47	33.88	0.00 Peak	100	336	VERTICAL
2	5277.60	99.97			62.62	3.47	33.88	0.00 Average	100	336	VERTICAL
3	5355.60	66.42	74.00	-7.58	28.90	3.49	34.03	0.00 Peak	100	336	VERTICAL
4	5358.00	53.30	54.00	-0.70	15.78	3.49	34.03	0.00 Average	100	336	VERTICAL

Item 1, 2 are the fundamental frequency at 5270 MHz.

Channel 62

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5315.60	111.25			73.80	3.48	33.97	0.00 Peak	100	30	VERTICAL
2	5317.60	96.70			59.25	3.48	33.97	0.00 Average	100	30	VERTICAL
3	5350.00	53.51	54.00	-0.49	15.99	3.49	34.03	0.00 Average	100	30	VERTICAL
4	5350.40	70.57	74.00	-3.43	33.05	3.49	34.03	0.00 Peak	100	30	VERTICAL

Item 1, 2 are the fundamental frequency at 5310 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Jim Huang	Configurations	IEEE 802.11ac MCS0/Nss1 40MHz CH 102, 110, 134 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 27, 2013	Test Mode	Mode 4 (Ant.5 PCB antenna / 5.74dBi)

Channel 102

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5433.60	50.73	54.00	-3.27	13.03	3.52	34.18	0.00	Average	111	73	VERTICAL
2	5433.60	60.93	74.00	-13.07	23.23	3.52	34.18	0.00	Peak	111	73	VERTICAL
3	5469.20	53.52	54.00	-0.48	15.76	3.52	34.24	0.00	Average	111	73	VERTICAL
4	5469.20	70.51	74.00	-3.49	32.75	3.52	34.24	0.00	Peak	111	73	VERTICAL
5	5503.60	110.70			72.88	3.54	34.28	0.00	Peak	111	73	VERTICAL
6	5514.00	99.26			61.44	3.54	34.28	0.00	Average	111	73	VERTICAL

Item 5, 6 are the fundamental frequency at 5510 MHz.

Channel 110

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5457.20	53.60	54.00	-0.40	15.87	3.52	34.21	0.00	Average	100	142	VERTICAL
2	5458.00	64.05	74.00	-9.95	26.32	3.52	34.21	0.00	Peak	100	142	VERTICAL
3	5467.60	65.02	68.30	-3.28	27.26	3.52	34.24	0.00	Peak	100	142	VERTICAL
4	5547.60	104.75			66.89	3.55	34.31	0.00	Average	100	142	VERTICAL
5	5552.80	116.86			79.00	3.55	34.31	0.00	Peak	100	142	VERTICAL

Item 4, 5 are the fundamental frequency at 5550 MHz.

Channel 134

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5657.20	103.19			65.27	3.59	34.33	0.00	Average	138	133	VERTICAL
2	5657.60	114.73			76.81	3.59	34.33	0.00	Peak	138	133	VERTICAL
3	5726.60	68.13	68.30	-0.17	30.19	3.60	34.34	0.00	Peak	138	133	VERTICAL

Item 1, 2 are the fundamental frequency at 5670 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11ac MCS0/Nss3 40MHz CH 102, 110, 134 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 27, 2013	Test Mode	Mode 4 (Ant.5 PCB antenna / 5.74dBi)

Channel 102

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5437.60	47.89	54.00	-6.11	10.19	3.52	34.18	0.00	Average	114	142	VERTICAL
2	5442.80	59.85	74.00	-14.15	22.15	3.52	34.18	0.00	Peak	114	142	VERTICAL
3	5465.20	70.31	74.00	-3.69	32.58	3.52	34.21	0.00	Peak	114	142	VERTICAL
4	5470.00	53.43	54.00	-0.57	15.67	3.52	34.24	0.00	Average	114	142	VERTICAL
5	5515.60	110.35			72.53	3.54	34.28	0.00	Peak	114	142	VERTICAL
6	5517.60	96.37			58.55	3.54	34.28	0.00	Average	114	142	VERTICAL

Item 5, 6 are the fundamental frequency at 5510 MHz.

Channel 110

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5455.60	64.65	74.00	-9.35	26.92	3.52	34.21	0.00	Peak	100	142	VERTICAL
2	5457.20	52.24	54.00	-1.76	14.51	3.52	34.21	0.00	Average	100	142	VERTICAL
3	5462.00	53.96	54.00	-0.04	16.23	3.52	34.21	0.00	Average	100	142	VERTICAL
4	5462.40	65.59	74.00	-8.41	27.86	3.52	34.21	0.00	Peak	100	142	VERTICAL
5	5542.00	102.24			64.38	3.55	34.31	0.00	Average	100	142	VERTICAL
6	5548.00	116.99			79.13	3.55	34.31	0.00	Peak	100	142	VERTICAL

Item 5, 6 are the fundamental frequency at 5550 MHz.

Channel 134

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5659.60	113.66			75.74	3.59	34.33	0.00	Peak	100	139	VERTICAL
2	5662.00	99.10			61.18	3.59	34.33	0.00	Average	100	139	VERTICAL
3	5728.20	73.65	74.00	-0.35	35.71	3.60	34.34	0.00	Peak	100	139	VERTICAL
4	5732.60	50.05	54.00	-3.95	12.10	3.61	34.34	0.00	Average	100	139	VERTICAL

Item 1, 2 are the fundamental frequency at 5670 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11ac MCS0/Nss1 80MHz CH 42, 58, 106 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 27, 2013	Test Mode	Mode 4 (Ant.5 PCB antenna / 5.74dBi)

Channel 42

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor		cm	deg	
1	5146.00	69.47	74.00	-4.53	32.37	3.43	33.67	0.00	Peak	115	309	VERTICAL
2	5150.00	53.72	54.00	-0.28	16.62	3.43	33.67	0.00	Average	115	309	VERTICAL
3	5221.00	105.95			68.70	3.46	33.79	0.00	Peak	115	309	VERTICAL
4	5225.00	92.79			55.54	3.46	33.79	0.00	Average	115	309	VERTICAL

Item 3, 4 are the fundamental frequency at 5210 MHz.

Channel 58

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor		cm	deg	
1	5297.00	93.94			56.52	3.48	33.94	0.00	Average	114	337	VERTICAL
2	5297.00	106.09			68.67	3.48	33.94	0.00	Peak	114	337	VERTICAL
3	5352.00	70.47	74.00	-3.53	32.95	3.49	34.03	0.00	Peak	114	337	VERTICAL
4	5353.00	53.82	54.00	-0.18	16.30	3.49	34.03	0.00	Average	114	337	VERTICAL

Item 1, 2 are the fundamental frequency at 5290 MHz.

Channel 106

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor		cm	deg	
1	5453.00	67.21	74.00	-6.79	29.48	3.52	34.21	0.00	Peak	100	142	VERTICAL
2	5457.00	53.18	54.00	-0.82	15.45	3.52	34.21	0.00	Average	100	142	VERTICAL
3	5468.00	67.77	68.30	-0.53	30.01	3.52	34.24	0.00	Peak	100	142	VERTICAL
4	5542.00	107.65			69.79	3.55	34.31	0.00	Peak	100	142	VERTICAL
5	5543.00	94.86			57.00	3.55	34.31	0.00	Average	100	142	VERTICAL

Item 4, 5 are the fundamental frequency at 5530 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11ac MCS0/Nss3 80MHz CH 42, 58, 106 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 27, 2013	Test Mode	Mode 4 (Ant.5 PCB antenna / 5.74dBi)

Channel 42

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5138.00	70.23	74.00	-3.77	33.16	3.43	33.64	0.00	Peak	130	33	VERTICAL
2	5148.00	53.41	54.00	-0.59	16.31	3.43	33.67	0.00	Average	130	33	VERTICAL
3	5219.00	108.24			71.00	3.45	33.79	0.00	Peak	130	33	VERTICAL
4	5222.00	89.35			52.10	3.46	33.79	0.00	Average	130	33	VERTICAL

Item 3, 4 are the fundamental frequency at 5210 MHz.

Channel 58

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5299.00	107.63			70.21	3.48	33.94	0.00	Peak	113	336	VERTICAL
2	5302.00	89.96			52.54	3.48	33.94	0.00	Average	113	336	VERTICAL
3	5352.00	53.97	54.00	-0.03	16.45	3.49	34.03	0.00	Average	113	336	VERTICAL
4	5357.00	71.43	74.00	-2.57	33.91	3.49	34.03	0.00	Peak	113	336	VERTICAL

Item 1, 2 are the fundamental frequency at 5290 MHz.

Channel 106

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5457.00	71.08	74.00	-2.92	33.35	3.52	34.21	0.00	Peak	101	140	VERTICAL
2	5458.00	52.65	54.00	-1.35	14.92	3.52	34.21	0.00	Average	101	140	VERTICAL
3	5463.00	72.00	74.00	-2.00	34.27	3.52	34.21	0.00	Peak	101	140	VERTICAL
4	5468.00	53.83	54.00	-0.17	16.07	3.52	34.24	0.00	Average	101	140	VERTICAL
5	5518.00	90.85			53.03	3.54	34.28	0.00	Average	101	140	VERTICAL
6	5542.00	106.85			68.99	3.55	34.31	0.00	Peak	101	140	VERTICAL

Item 5, 6 are the fundamental frequency at 5530 MHz.



Temperature	24.5°C	Humidity	57%
Test Engineer	Jim Huang	Configurations	IEEE 802.11ac MCS0/Nss1 80MHz CH 138 / Chain 1 + Chain 2 + Chain 3
Test Date	Aug. 21, 2013	Test Mode	Mode 4 (Ant.5 PCB antenna / 5.74dBi)

Channel 138

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5452.79	56.58	74.00	-17.42	18.85	3.52	34.21	0.00 Peak	140	288	VERTICAL
2	5458.40	44.20	54.00	-9.80	6.47	3.52	34.21	0.00 Average	140	288	VERTICAL
3	5469.20	56.20	68.30	-12.10	18.44	3.52	34.24	0.00 Peak	140	288	VERTICAL
4	5698.81	100.67			62.74	3.59	34.34	0.00 Average	140	288	VERTICAL
5	5698.81	114.47			76.54	3.59	34.34	0.00 Peak	140	288	VERTICAL
6	5825.00	65.81	78.20	-12.39	27.81	3.63	34.37	0.00 Peak	140	288	VERTICAL

Item 4, 5 are the fundamental frequency at 5690 MHz.



Temperature	24.5°C	Humidity	57%
Test Engineer	Jim Huang	Configurations	IEEE 802.11ac MCS0/Nss3 80MHz CH 138 / Chain 1 + Chain 2 + Chain 3
Test Date	Aug. 21, 2013	Test Mode	Mode 4 (Ant.5 PCB antenna / 5.74dBi)

Channel 138

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor		cm	deg	
1	5452.79	43.07	54.00	-10.93	5.34	3.52	34.21	0.00	Average	139	288	VERTICAL
2	5460.00	56.59	74.00	-17.41	18.86	3.52	34.21	0.00	Peak	139	288	VERTICAL
3	5469.20	55.79	68.30	-12.51	18.03	3.52	34.24	0.00	Peak	139	288	VERTICAL
4	5683.59	112.92			75.00	3.59	34.33	0.00	Peak	139	288	VERTICAL
5	5693.21	95.28			57.35	3.59	34.34	0.00	Average	139	288	VERTICAL
6	5825.00	61.71	78.20	-16.49	23.71	3.63	34.37	0.00	Peak	139	288	VERTICAL

Item 4, 5 are the fundamental frequency at 5690 MHz.

Note:

Emission level (dBuV/m) = 20 log Emission level (uV/m)

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level

Temperature	24.5°C	Humidity	57%
Test Engineer	Jim Huang	Configurations	IEEE 802.11a CH 36, 40, 48 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 26, 2013	Test Mode	Mode 4 (Ant.5 PCB antenna / 5.74dBi)

Channel 36

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	PoI/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5095.20	53.72	54.00	-0.28	16.72	3.42	33.58	0.00	Average	114	78	VERTICAL
2	5095.60	64.01	74.00	-9.99	27.01	3.42	33.58	0.00	Peak	114	78	VERTICAL
3	5176.00	114.24			77.10	3.44	33.70	0.00	Peak	114	78	VERTICAL
4	5186.40	103.34			66.17	3.44	33.73	0.00	Average	114	78	VERTICAL

Item 3, 4 are the fundamental frequency at 5180 MHz.

Channel 40

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	PoI/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5113.60	64.04	74.00	-9.96	27.01	3.42	33.61	0.00	Peak	116	351	VERTICAL
2	5114.00	53.74	54.00	-0.26	16.71	3.42	33.61	0.00	Average	116	351	VERTICAL
3	5201.60	104.63			67.42	3.45	33.76	0.00	Average	116	351	VERTICAL
4	5202.00	115.12			77.91	3.45	33.76	0.00	Peak	116	351	VERTICAL

Item 3, 4 are the fundamental frequency at 5200 MHz.

Channel 48

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	PoI/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5150.00	42.18	54.00	-11.82	5.08	3.43	33.67	0.00	Average	114	350	VERTICAL
2	5150.00	53.09	74.00	-20.91	15.99	3.43	33.67	0.00	Peak	114	350	VERTICAL
3	5242.00	108.22			70.94	3.46	33.82	0.00	Average	114	350	VERTICAL
4	5242.40	118.97			81.69	3.46	33.82	0.00	Peak	114	350	VERTICAL

Item 3, 4 are the fundamental frequency at 5240 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Jim Huang	Configurations	IEEE 802.11a CH 52, 60, 64 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 26, 2013	Test Mode	Mode 4 (Ant.5 PCB antenna / 5.74dBi)

Channel 52

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	PoI/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5262.00	107.38			70.07	3.46	33.85	0.00 Average	100	339	VERTICAL
2	5262.80	118.17			80.83	3.46	33.88	0.00 Peak	100	339	VERTICAL
3	5350.00	44.22	54.00	-9.78	6.70	3.49	34.03	0.00 Average	100	339	VERTICAL
4	5353.20	57.58	74.00	-16.42	20.06	3.49	34.03	0.00 Peak	100	339	VERTICAL

Item 1, 2 are the fundamental frequency at 5260 MHz.

Channel 60

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	PoI/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5295.60	113.33			75.95	3.47	33.91	0.00 Peak	102	8	VERTICAL
2	5301.20	102.87			65.45	3.48	33.94	0.00 Average	102	8	VERTICAL
3	5376.40	53.75	54.00	-0.25	16.19	3.50	34.06	0.00 Average	102	8	VERTICAL
4	5376.40	64.16	74.00	-9.84	26.60	3.50	34.06	0.00 Peak	102	8	VERTICAL

Item 1, 2 are the fundamental frequency at 5300 MHz.

Channel 64

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	PoI/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5325.60	104.18			66.72	3.49	33.97	0.00 Average	114	7	VERTICAL
2	5325.60	115.19			77.73	3.49	33.97	0.00 Peak	114	7	VERTICAL
3	5406.00	53.62	54.00	-0.38	15.99	3.51	34.12	0.00 Average	114	7	VERTICAL
4	5406.40	64.18	74.00	-9.82	26.55	3.51	34.12	0.00 Peak	114	7	VERTICAL

Item 1, 2 are the fundamental frequency at 5320 MHz.

Temperature	24.5°C	Humidity	57%
Test Engineer	Jim Huang	Configurations	IEEE 802.11a CH 100, 140 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 26, 2013	Test Mode	Mode 4 (Ant.5 PCB antenna / 5.74dBi)

Channel 100

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	PoI/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5421.20	53.73	54.00	-0.27	16.07	3.51	34.15	0.00	Average	113	172	VERTICAL
2	5421.60	63.55	74.00	-10.45	25.89	3.51	34.15	0.00	Peak	113	172	VERTICAL
3	5470.00	43.31	54.00	-10.69	5.55	3.52	34.24	0.00	Average	113	172	VERTICAL
4	5470.00	54.36	74.00	-19.64	16.60	3.52	34.24	0.00	Peak	113	172	VERTICAL
5	5501.60	105.32			67.50	3.54	34.28	0.00	Average	113	172	VERTICAL
6	5502.00	115.47			77.65	3.54	34.28	0.00	Peak	113	172	VERTICAL

Item 5, 6 are the fundamental frequency at 5500 MHz.

Channel 140

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	PoI/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5697.20	117.77			79.84	3.59	34.34	0.00	Peak	137	87	VERTICAL
2	5697.60	106.90			68.97	3.59	34.34	0.00	Average	137	87	VERTICAL
3	5778.20	68.16	68.30	-0.14	30.18	3.62	34.36	0.00	Peak	137	87	VERTICAL

Item 1, 2 are the fundamental frequency at 5700 MHz.

Note:

Emission level (dBuV/m) = 20 log Emission level (uV/m)

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level

4.8. Frequency Stability Measurement

4.8.1. Limit

In-band emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

The transmitter center frequency tolerance shall be ± 20 ppm maximum for the 5 GHz band (IEEE 802.11n specification).

4.8.2. Measuring Instruments and Setting

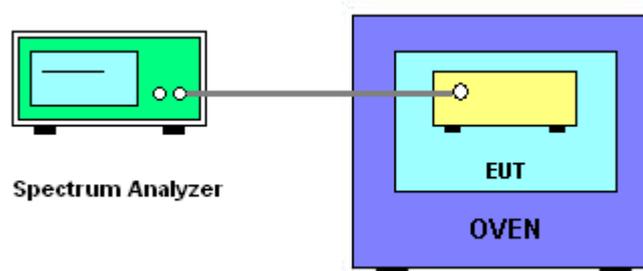
Please refer to section 5 of equipments list in this report. The following table is the setting of the spectrum analyzer.

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	Entire absence of modulation emissions bandwidth
RBW	10 kHz
VBW	10 kHz
Sweep Time	Auto

4.8.3. Test Procedures

1. The transmitter output (antenna port) was connected to the spectrum analyzer.
2. EUT have transmitted absence of modulation signal and fixed channelize.
3. Set the spectrum analyzer span to view the entire absence of modulation emissions bandwidth.
4. Set RBW = 10 kHz, VBW = 10 kHz with peak detector and maxhold settings.
5. f_c is declaring of channel frequency. Then the frequency error formula is $(f_c - f) / f_c \times 10^6$ ppm and the limit is less than ± 20 ppm (IEEE 802.11n specification).
6. The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value
7. Extreme temperature is $0^\circ\text{C} \sim 55^\circ\text{C}$.

4.8.4. Test Setup Layout



4.8.5. Test Deviation

There is no deviation with the original standard.

4.8.6. EUT Operation during Test

The EUT was programmed to be in continuously un-modulation transmitting mode.

4.8.7. Test Result of Frequency Stability

Temperature	25°C	Humidity	56%
Test Engineer	Benson Peng	Test Date	Aug. 05, 2013
Test Mode	Mode 1 (Ant.1 Dipole antenna / 1dBi) Mode 2 (Ant.3 Omnidirectional antenna / 6.7dBi) Mode 3 (Ant.4 Panel antenna / 9.2dBi) Mode 4 (Ant.5 PCB antenna / 5.74dBi)		

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)		
	5200 MHz	5300 MHz	5500 MHz
(V)			
126.50	5199.9346	5299.9352	5499.9412
110.00	5199.9350	5299.9364	5499.9420
93.50	5199.9356	5299.9370	5499.9426
Max. Deviation (MHz)	0.065400	0.064800	0.058800
Max. Deviation (ppm)	12.58	12.23	10.69

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)		
	5200 MHz	5300 MHz	5500 MHz
(°C)			
0	5199.9336	5299.9324	5499.9408
10	5199.9342	5299.9348	5499.9422
20	5199.9350	5299.9364	5499.9420
30	5199.9336	5299.9360	5499.9428
40	5199.9352	5299.9370	5499.9438
50	5199.9362	5299.9372	5499.9440
55	5199.9376	5299.9389	5499.9700
Max. Deviation (MHz)	0.067600	0.068200	0.059800
Max. Deviation (ppm)	13.00	12.87	10.87

4.9. Antenna Requirements

4.9.1. Limit

Except for special regulations, the Low-power Radio-frequency Devices must not be equipped with any jacket for installing an antenna with extension cable. An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that the user can replace a broken antenna, but the use of a standard antenna jack or electrical connector is prohibited. Further, this requirement does not apply to intentional radiators that must be professionally installed.

4.9.2. Antenna Connector Construction

Please refer to section 3.3 in this test report; antenna connector complied with the requirements.

5. LIST OF MEASURING EQUIPMENTS

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
EMI Test Receiver	R&S	ESCS 30	100377	9kHz ~ 2.75GHz	Oct. 23, 2012	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	04083	150kHz ~ 100MHz	Nov. 26, 2012	Conduction (CO01-CB)
V- LISN	Schwarzbeck	NSLK 8127	8127478	9kHz ~ 30MHz	Jul. 17, 2013	Conduction (CO01-CB)
Impulsbegrenzer Pulse Limiter	Rohde&Schwarz	ESH3-Z2	100430	9kHz~30MHz	Feb. 21, 2013	Conduction (CO01-CB)
COND Cable	Woken	Cable	01	0.15MHz~30MHz	Dec. 04, 2012	Conduction (CO01-CB)
Software	Audix	E3	5.410e	-	-	Conduction (CO01-CB)
BILOG ANTENNA	Schaffner	CBL6112D	22021	20MHz ~ 2GHz	Apr. 16, 2013	Radiation (03CH01-CB)
Loop Antenna	Teseq	HLA 6120	24155	9 kHz - 30 MHz	Nov. 05, 2012*	Radiation (03CH01-CB)
Horn Antenna	EMCO	3115	00075790	750MHz~18GHz	Nov. 27, 2012	Radiation (03CH01-CB)
Horn Antenna	SCHWARZBEAK	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Nov. 23, 2012	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8447D	2944A10991	0.1MHz ~ 1.3GHz	Nov. 27, 2012	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Nov. 23, 2012	Radiation (03CH01-CB)
Pre-Amplifier	WM	TF-130N-R1	923365	26.5GHz ~ 40GHz	Jul. 31, 2012	Radiation (03CH01-CB)
Pre-Amplifier	WM	TF-130N-R1	923365	26.5GHz ~ 40GHz	Jul. 31, 2013	Radiation (03CH01-CB)
Spectrum analyzer	R&S	FSP40	100056	9kHz~40GHz	Nov. 16, 2012	Radiation (03CH01-CB)
EMI Test Receiver	R&S	ESCS 30	100355	9kHz ~ 2.75GHz	Apr. 12, 2013	Radiation (03CH01-CB)
Turn Table	INN CO	CO 2000	N/A	0 ~ 360 degree	N.C.R	Radiation (03CH01-CB)
Antenna Mast	INN CO	CO2000	N/A	1 m - 4 m	N.C.R	Radiation (03CH01-CB)
RF Cable-low	Woken	Low Cable-1	N/A	30 MHz - 1 GHz	Nov. 18, 2012	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-1	N/A	1 GHz – 26.5 GHz	Nov. 18, 2012	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-2	N/A	1 GHz – 26.5 GHz	Nov. 18, 2012	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-3	N/A	1 GHz - 40 GHz	Nov. 18, 2012	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-4	N/A	1 GHz - 40 GHz	Nov. 18, 2012	Radiation (03CH01-CB)
Signal analyzer	R&S	FSV40	100979	9kHz~40GHz	Oct. 08, 2012	Conducted (TH01-CB)
Temp. and Humidity Chamber	Ten Billion	TTH-D3SP	TBN-931011	-30~100 degree	Jun. 04, 2013	Conducted (TH01-CB)
RF Power Divider	Woken	2 Way	0120A02056002D	2GHz ~ 18GHz	Nov. 18, 2012	Conducted (TH01-CB)
RF Power Divider	Woken	3 Way	MDC2366	2GHz ~ 18GHz	Nov. 18, 2012	Conducted (TH01-CB)
RF Power Divider	Woken	4 Way	0120A04056002D	2GHz ~ 18GHz	Nov. 18, 2012	Conducted (TH01-CB)

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
RF Cable-high	Woken	High Cable-7	-	1 GHz – 26.5 GHz	Nov. 19, 2012	Conducted (TH01-CB)
RF Cable-high	Woken	High Cable-8	-	1 GHz – 26.5 GHz	Nov. 19, 2012	Conducted (TH01-CB)
RF Cable-high	Woken	High Cable-9	-	1 GHz – 26.5 GHz	Nov. 19, 2012	Conducted (TH01-CB)
RF Cable-high	Woken	High Cable-10	-	1 GHz – 26.5 GHz	Nov. 19, 2012	Conducted (TH01-CB)
RF Cable-high	Woken	High Cable-11	-	1 GHz – 26.5 GHz	Nov. 19, 2012	Conducted (TH01-CB)
Power Sensor	Anritsu	MA2411B	0917223	300MHz~40GHz	Nov. 28, 2012	Conducted (TH01-CB)
Power Meter	Anritsu	ML2495A	1035008	300MHz~40GHz	Nov. 27, 2012	Conducted (TH01-CB)

Note: Calibration Interval of instruments listed above is one year.

“*” Calibration Interval of instruments listed above is two years.

NCR means Non-Calibration required.

6. TEST LOCATION

SHIJR	ADD : 6Fl., No. 106, Sec. 1, Shintai 5th Rd., Shijr City, Taipei, Taiwan 221, R.O.C. TEL : 886-2-2696-2468 FAX : 886-2-2696-2255
HWA YA	ADD : No. 52, Hwa Ya 1st Rd., Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C. TEL : 886-3-327-3456 FAX : 886-3-318-0055
LINKOU	ADD : No. 30-2, Dingfu Tsuen, Linkou Shiang, Taipei, Taiwan 244, R.O.C TEL : 886-2-2601-1640 FAX : 886-2-2601-1695
DUNGHU	ADD : No. 3, Lane 238, Kangle St., Neihu Chiu, Taipei, Taiwan 114, R.O.C. TEL : 886-2-2631-4739 FAX : 886-2-2631-9740
JUNGHE	ADD : 7Fl., No. 758, Jungjeng Rd., Junghe City, Taipei, Taiwan 235, R.O.C. TEL : 886-2-8227-2020 FAX : 886-2-8227-2626
NEIHU	ADD : 4Fl., No. 339, Hsin Hu 2 nd Rd., Taipei 114, Taiwan, R.O.C. TEL : 886-2-2794-8886 FAX : 886-2-2794-9777
JHUBEI	ADD : No.8, Lane 724, Bo-ai St., Jhubei City, HsinChu County 302, Taiwan, R.O.C. TEL : 886-3-656-9065 FAX : 886-3-656-9085

7. MEASUREMENT UNCERTAINTY

Uncertainty of Conducted Emission Measurement (150kHz ~ 30MHz)

Contribution	Uncertainty of x_i			$u(x_i)$
	Value	Unit	Probability Distribution k	
Receiver reading	0.026	dB	normal(k=2)	0.013
Cable loss	0.002	dB	normal(k=2)	0.001
AMN/LISN specification	1.200	dB	normal(k=2)	0.600
Mismatch Receiver VSWR 1= AMN/LISN VSWR 2=	-0.080	dB	U-shaped	0.060
Combined standard uncertainty $U_c(y)$				1.2
Measuring uncertainty for a level of confidence of 95% $U=2U_c(y)$				2.4

Uncertainty of Radiated Emission Measurement (30MHz ~ 1,000MHz)

Contribution	Uncertainty of x_i			$u(x_i)$
	Value	Unit	Probability Distribution k	
Receiver reading	± 0.173	dB	K=1	0.086
Cable loss	± 0.174	dB	K=2	0.087
Antenna gain	± 0.169	dB	K=2	0.084
Site imperfection	± 0.433	dB	Triangular	0.214
Pre-amplifier gain	± 0.366	dB	K=2	0.183
Transmitter antenna	± 1.200	dB	Rectangular	0.600
Signal generator	± 0.461	dB	Rectangular	0.231
Mismatch	± 0.080	dB	U-shape	0.040
Spectrum analyzer	± 0.500	dB	Rectangular	0.250
Combined standard uncertainty $U_c(y)$				1.778
Measuring uncertainty for a level of confidence of 95% $U=2U_c(y)$				3.555

Uncertainty of Radiated Emission Measurement (1GHz ~ 18GHz)

Contribution	Uncertainty of x_i			$u(x_i)$
	Value	Unit	Probability Distribution k	
Receiver reading	±0.191	dB	K=1	0.095
Cable loss	±0.169	dB	K=2	0.084
Antenna gain	±0.191	dB	K=2	0.096
Site imperfection	±0.582	dB	Triangular	0.291
Pre-amplifier gain	±0.304	dB	K=2	0.152
Transmitter antenna	±1.200	dB	Rectangular	0.600
Signal generator	±0.461	dB	Rectangular	0.231
Mismatch	±0.080	dB	U-shape	0.040
Spectrum analyzer	±0.500	dB	Rectangular	0.250
Combined standard uncertainty $U_c(y)$				1.839
Measuring uncertainty for a level of confidence of 95% $U=2U_c(y)$				3.678

Uncertainty of Radiated Emission Measurement (18GHz ~ 40GHz)

Contribution	Uncertainty of x_i			$u(x_i)$
	Value	Unit	Probability Distribution k	
Receiver reading	±0.186	dB	K=1	0.093
Cable loss	±0.167	dB	K=2	0.083
Antenna gain	±0.190	dB	K=2	0.095
Site imperfection	±0.488	dB	Triangular	0.244
Pre-amplifier gain	±0.269	dB	K=2	0.134
Transmitter antenna	±1.200	dB	Rectangular	0.600
Signal generator	±0.461	dB	Rectangular	0.231
Mismatch	±0.080	dB	U-shape	0.040
Spectrum analyzer	±0.500	dB	Rectangular	0.250
Combined standard uncertainty $U_c(y)$				1.771
Measuring uncertainty for a level of confidence of 95% $U=2U_c(y)$				3.541

Uncertainty of Conducted Emission Measurement

Contribution	Uncertainty of x_i			$u(x_i)$
	Value	Unit	Probability Distribution k	
Cable loss	±0.038	dB	K=2	0.019
Attenuator	±0.047	dB	K=2	0.024
Power Meter specification	±0.300	dB	Triangular	0.150
Power Sensor specification	±0.300	dB	Rectangular	0.150
Signal generator	±0.461	dB	Rectangular	0.231
Mismatch	±0.080	dB	U-shape	0.040
Spectrum analyzer	±0.500	dB	Rectangular	0.250
Combined standard uncertainty $U_c(y)$				0.863
Measuring uncertainty for a level of confidence of 95% $U=2U_c(y)$				1.726