

Temperature	23°C	Humidity	61%
Test Engineer	Roki Liu	Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 54, 62 / Chain 4 + Chain 5 + Chain 6
Test Date	Jan. 22, 2015		
Test Mode	Mode 2: (Ant.8 Panel antenna / 5.1dBi / 3TX)		

Channel 54

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	5103.00	59.77	74.00	-14.23	52.64	6.14	34.04	33.05	358	208	Peak	VERTICAL
2	5146.00	48.46	54.00	-5.54	41.19	6.21	34.11	33.05	358	208	Average	VERTICAL
3	5264.00	115.44			107.89	6.34	34.27	33.06	358	208	Peak	VERTICAL
4	5267.00	105.11			97.56	6.34	34.27	33.06	358	208	Average	VERTICAL
5	5351.00	66.63	74.00	-7.37	58.83	6.47	34.39	33.06	358	208	Peak	VERTICAL
6	5352.00	52.75	54.00	-1.25	44.95	6.47	34.39	33.06	358	208	Average	VERTICAL

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

Channel 62

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	5307.00	99.64			91.98	6.40	34.32	33.06	360	211	Average	VERTICAL
2	5315.00	110.48			102.80	6.40	34.34	33.06	360	211	Peak	VERTICAL
3	5350.00	52.82	54.00	-1.18	45.02	6.47	34.39	33.06	360	211	Average	VERTICAL
4	5357.00	65.40	74.00	-8.60	57.60	6.47	34.39	33.06	360	211	Peak	VERTICAL

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

Temperature	23°C	Humidity	61%
Test Engineer	Roki Liu	Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 102, 110, 134 / Chain 4 + Chain 5 + Chain 6
Test Date	Jan. 22, 2015		
Test Mode	Mode 2: (Ant.8 Panel antenna / 5.1dBi / 3TX)		

Channel 102

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm	
1	5455.00	63.12	74.00	-10.88	55.05	6.60	34.53	33.06	355	195 Peak	VERTICAL
2	5460.00	49.94	54.00	-4.06	41.87	6.60	34.53	33.06	355	195 Average	VERTICAL
3	5469.00	66.28	74.00	-7.72	58.19	6.60	34.55	33.06	355	195 Peak	VERTICAL
4	5470.00	52.79	54.00	-1.21	44.70	6.60	34.55	33.06	355	195 Average	VERTICAL
5	5513.00	100.83			92.65	6.65	34.60	33.07	355	195 Average	VERTICAL
6	5514.00	112.30			104.11	6.65	34.61	33.07	355	195 Peak	VERTICAL

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

Channel 110

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm	
1	5433.00	52.49	54.00	-1.51	44.48	6.56	34.51	33.06	352	203 Average	VERTICAL
2	5441.40	65.26	74.00	-8.74	57.25	6.56	34.51	33.06	352	203 Peak	VERTICAL
3	5468.20	66.58	74.00	-7.42	58.49	6.60	34.55	33.06	352	203 Peak	VERTICAL
4	5468.80	52.21	54.00	-1.79	44.12	6.60	34.55	33.06	352	203 Average	VERTICAL
5	5553.60	105.67			97.43	6.70	34.62	33.08	352	203 Average	VERTICAL
6	5554.80	116.90			108.66	6.70	34.62	33.08	352	203 Peak	VERTICAL

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

Channel 134

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm	
1	5666.40	102.46			94.13	6.79	34.66	33.12	357	205 Average	VERTICAL
2	5667.00	113.13			104.79	6.79	34.67	33.12	357	205 Peak	VERTICAL
3	5725.00	52.80	54.00	-1.20	44.41	6.83	34.69	33.13	357	205 Average	VERTICAL
4	5725.60	70.02	74.00	-3.98	61.63	6.83	34.69	33.13	357	205 Peak	VERTICAL

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

Temperature	23°C	Humidity	61%
Test Engineer	Roki Liu	Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 142 / Chain 4 + Chain 5 + Chain 6
Test Date	Jan. 22, 2015		
Test Mode	Mode 2: (Ant.8 Panel antenna / 5.1 dBi / 3TX)		

Channel 142

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	5713.00	107.68			99.30	6.83	34.68	33.13	11	198	Average	VERTICAL
2	5715.00	118.23			109.85	6.83	34.68	33.13	11	198	Peak	VERTICAL
3	5854.00	66.62	68.20	-1.58	58.10	6.95	34.74	33.17	11	198	Peak	VERTICAL

Item 1, 2 are the fundamental frequency at 5710 MHz.

Temperature	23°C	Humidity	61%
Test Engineer	Roki Liu	Configurations	IEEE 802.11ac MCS0/Nss1 VHT80 CH 58, 106 / Chain 4 + Chain 5 + Chain 6
Test Date	Jan. 22, 2015		
Test Mode	Mode 2: (Ant.8 Panel antenna / 5.1 dBi / 3TX)		

Channel 58

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	deg	cm		
1	5132.00	59.03	74.00	-14.97	51.82	6.17	34.09	33.05	348	228 Peak	VERTICAL
2	5147.00	47.09	54.00	-6.91	39.82	6.21	34.11	33.05	348	228 Average	VERTICAL
3	5278.00	95.57			87.96	6.37	34.30	33.06	348	228 Average	VERTICAL
4	5278.00	105.48			97.87	6.37	34.30	33.06	348	228 Peak	VERTICAL
5	5351.00	64.77	74.00	-9.23	56.97	6.47	34.39	33.06	348	228 Peak	VERTICAL
6	5352.00	52.79	54.00	-1.21	44.99	6.47	34.39	33.06	348	228 Average	VERTICAL

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

Channel 106

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	deg	cm		
1	5436.00	63.23	74.00	-10.77	55.63	6.56	34.51	33.47	356	218 Peak	VERTICAL
2	5455.00	52.02	54.00	-1.98	44.36	6.60	34.53	33.47	356	218 Average	VERTICAL
3	5468.00	64.58	74.00	-9.42	56.89	6.60	34.55	33.46	356	218 Peak	VERTICAL
4	5469.00	52.59	54.00	-1.41	44.90	6.60	34.55	33.46	356	218 Average	VERTICAL
5	5542.00	97.04			89.19	6.68	34.61	33.44	356	218 Average	VERTICAL
6	5542.00	107.85			100.00	6.68	34.61	33.44	356	218 Peak	VERTICAL

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

Temperature	23°C	Humidity	61%
Test Engineer	Roki Liu	Configurations	IEEE 802.11ac MCS0/Nss1 VHT80 CH 122, 138 / Chain 4 + Chain 5 + Chain 6
Test Date	Jan. 22, 2015		
Test Mode	Mode 2: (Ant.8 Panel antenna / 5.1dBi / 3TX)		

Channel 122

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	5456.00	61.22	74.00	-12.78	53.15	6.60	34.53	33.06	15	201	Peak	VERTICAL
2	5460.00	50.22	54.00	-3.78	42.15	6.60	34.53	33.06	15	201	Average	VERTICAL
3	5465.00	63.34	74.00	-10.66	55.25	6.60	34.55	33.06	15	201	Peak	VERTICAL
4	5470.00	51.00	54.00	-3.00	42.91	6.60	34.55	33.06	15	201	Average	VERTICAL
5	5583.00	111.83			103.57	6.72	34.63	33.09	15	201	Peak	VERTICAL
6	5587.00	101.72			93.46	6.72	34.63	33.09	15	201	Average	VERTICAL
7	5726.00	52.67	54.00	-1.33	44.28	6.83	34.69	33.13	15	201	Average	VERTICAL
8	5728.00	65.58	74.00	-8.42	57.19	6.83	34.69	33.13	15	201	Peak	VERTICAL

Item 5, 6 are the fundamental frequency at 5610 MHz.

Channel 138

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	5687.00	101.91			93.54	6.81	34.68	33.12	356	207	Average	VERTICAL
2	5719.00	112.26			103.87	6.83	34.69	33.13	356	207	Peak	VERTICAL
3	5853.00	66.61	68.20	-1.59	58.09	6.95	34.74	33.17	356	207	Peak	VERTICAL

Item 1, 2 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	23°C	Humidity	61%
Test Engineer	Roki Liu	Configurations	IEEE 802.11ac MCS0/Nss2 VHT20 CH 52, 60, 64 / Chain 4 + Chain 5
Test Date	Jan. 26, 2015		
Test Mode	Mode 3: (Ant.9 CROSS-POLARIZED PANEL ANTENNA / Chain 4: 8.3, Chain 5: 5.9, Chain 6: 8.2dBi / 2TX)		

Channel 52

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	5147.40	50.51	54.00	-3.49	43.24	6.21	34.11	33.05	36	211	Average	VERTICAL
2	5147.83	64.14	74.00	-9.86	56.87	6.21	34.11	33.05	36	211	Peak	VERTICAL
3	5253.92	119.23			111.70	6.34	34.25	33.06	36	211	Peak	VERTICAL
4	5258.26	108.15			100.62	6.34	34.25	33.06	36	211	Average	VERTICAL
5	5379.09	52.75	54.00	-1.25	44.87	6.50	34.44	33.06	36	211	Average	VERTICAL
6	5379.09	65.79	74.00	-8.21	57.91	6.50	34.44	33.06	36	211	Peak	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	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	5074.02	64.28	74.00	-9.72	57.20	6.11	34.02	33.05	35	193	Peak	VERTICAL
2	5077.64	52.20	54.00	-1.80	45.12	6.11	34.02	33.05	35	193	Average	VERTICAL
3	5297.83	117.13			109.47	6.40	34.32	33.06	35	193	Peak	VERTICAL
4	5302.17	105.48			97.82	6.40	34.32	33.06	35	193	Average	VERTICAL
5	5372.43	64.39	74.00	-9.61	56.57	6.47	34.41	33.06	35	193	Peak	VERTICAL
6	5381.84	52.68	54.00	-1.32	44.80	6.50	34.44	33.06	35	193	Average	VERTICAL

Item 3, 4 are the fundamental frequency at 5300 MHz.

Channel 64

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	5096.45	51.22	54.00	-2.78	44.09	6.14	34.04	33.05	40	199	Average	VERTICAL
2	5097.90	64.15	74.00	-9.85	57.02	6.14	34.04	33.05	40	199	Peak	VERTICAL
3	5318.55	115.65			107.97	6.40	34.34	33.06	40	199	Peak	VERTICAL
4	5320.72	104.92			97.24	6.40	34.34	33.06	40	199	Average	VERTICAL
5	5350.00	52.96	54.00	-1.04	45.16	6.47	34.39	33.06	40	199	Average	VERTICAL
6	5350.00	68.99	74.00	-5.01	61.19	6.47	34.39	33.06	40	199	Peak	VERTICAL

Item 3, 4 are the fundamental frequency at 5320 MHz.

Temperature	23°C	Humidity	61%
Test Engineer	Roki Liu	Configurations	IEEE 802.11ac MCS0/Nss2 VHT20 CH 100, 116, 140 / Chain 4 + Chain 5
Test Date	Jan. 26, 2015		
Test Mode	Mode 3: (Ant.9 CROSS-POLARIZED PANEL ANTENNA / Chain 4: 8.3, Chain 5: 5.9, Chain 6: 8.2dBi / 2TX)		

Channel 100

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	5418.03	49.44	54.00	-4.56	41.49	6.53	34.48	33.06	54	203	Average	HORIZONTAL
2	5456.38	65.75	74.00	-8.25	57.68	6.60	34.53	33.06	54	203	Peak	HORIZONTAL
3	5470.00	52.55	54.00	-1.45	44.46	6.60	34.55	33.06	54	203	Average	HORIZONTAL
4	5470.00	72.18	74.00	-1.82	64.09	6.60	34.55	33.06	54	203	Peak	HORIZONTAL
5	5502.17	102.19			94.01	6.65	34.60	33.07	54	203	Average	HORIZONTAL
6	5503.62	114.38			106.20	6.65	34.60	33.07	54	203	Peak	HORIZONTAL

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

Channel 116

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	5343.50	49.71	54.00	-4.29	41.95	6.43	34.39	33.06	339	207	Average	VERTICAL
2	5415.14	63.98	74.00	-10.02	56.03	6.53	34.48	33.06	339	207	Peak	VERTICAL
3	5466.38	49.07	54.00	-4.93	40.98	6.60	34.55	33.06	339	207	Average	VERTICAL
4	5468.55	62.70	74.00	-11.30	54.61	6.60	34.55	33.06	339	207	Peak	VERTICAL
5	5577.83	108.53			100.27	6.72	34.63	33.09	339	207	Average	VERTICAL
6	5578.55	119.19			110.93	6.72	34.63	33.09	339	207	Peak	VERTICAL

Item 5, 6 are the fundamental frequency at 5580 MHz.

Channel 140

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	5702.17	100.03			91.66	6.81	34.68	33.12	58	221	Average	HORIZONTAL
2	5703.62	112.17			103.80	6.81	34.68	33.12	58	221	Peak	HORIZONTAL
3	5725.00	51.59	54.00	-2.41	43.20	6.83	34.69	33.13	58	221	Average	HORIZONTAL
4	5727.17	72.94	74.00	-1.06	64.55	6.83	34.69	33.13	58	221	Peak	HORIZONTAL

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

Temperature	23°C	Humidity	61%
Test Engineer	Roki Liu	Configurations	IEEE 802.11ac MCS0/Nss2 VHT20 CH 144 / Chain 4 + Chain 5
Test Date	Jan. 26, 2015		
Test Mode	Mode 3: (Ant.9 CROSS-POLARIZED PANEL ANTENNA / Chain 4: 8.3, Chain 5: 5.9, Chain 6: 8.2dBi / 2TX)		

Channel 144

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	5718.55	106.51			98.12	6.83	34.69	33.13	57	205	Average	VERTICAL
2	5719.28	117.29			108.90	6.83	34.69	33.13	57	205	Peak	VERTICAL
3	5881.11	64.58	68.20	-3.62	56.04	6.97	34.75	33.18	57	205	Peak	VERTICAL

Item 1, 2 are the fundamental frequency at 5720 MHz.

Temperature	23°C	Humidity	61%
Test Engineer	Roki Liu	Configurations	IEEE 802.11ac MCS0/Nss2 VHT40 CH 54, 62 / Chain 4 + Chain 5
Test Date	Jan. 26, 2015		
Test Mode	Mode 3: (Ant.9 CROSS-POLARIZED PANEL ANTENNA / Chain 4: 8.3, Chain 5: 5.9, Chain 6: 8.2dBi / 2TX)		

Channel 54

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm	
1	5274.34	102.98			95.40	6.37	34.27	33.06	57	209 Average	HORIZONTAL
2	5274.34	113.84			106.26	6.37	34.27	33.06	57	209 Peak	HORIZONTAL
3	5350.00	52.65	54.00	-1.35	44.85	6.47	34.39	33.06	57	209 Average	HORIZONTAL
4	5352.17	65.76	74.00	-8.24	57.96	6.47	34.39	33.06	57	209 Peak	HORIZONTAL

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

Channel 62

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm	
1	5315.79	99.02			91.34	6.40	34.34	33.06	37	187 Average	VERTICAL
2	5316.51	110.01			102.33	6.40	34.34	33.06	37	187 Peak	VERTICAL
3	5350.00	52.76	54.00	-1.24	44.96	6.47	34.39	33.06	37	187 Average	VERTICAL
4	5352.89	69.23	74.00	-4.77	61.43	6.47	34.39	33.06	37	187 Peak	VERTICAL

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

Temperature	23°C	Humidity	61%
Test Engineer	Roki Liu	Configurations	IEEE 802.11ac MCS0/Nss2 VHT40 CH 102, 110, 134 / Chain 4 + Chain 5
Test Date	Jan. 26, 2015		
Test Mode	Mode 3: (Ant.9 CROSS-POLARIZED PANEL ANTENNA / Chain 4: 8.3, Chain 5: 5.9, Chain 6: 8.2dBi / 2TX)		

Channel 102

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	5460.00	49.83	54.00	-4.17	41.76	6.60	34.53	33.06	39	206	Average	VERTICAL
2	5460.00	63.02	74.00	-10.98	54.95	6.60	34.53	33.06	39	206	Peak	VERTICAL
3	5470.00	52.74	54.00	-1.26	44.65	6.60	34.55	33.06	39	206	Average	VERTICAL
4	5470.00	65.22	74.00	-8.78	57.13	6.60	34.55	33.06	39	206	Peak	VERTICAL
5	5506.38	98.71			90.53	6.65	34.60	33.07	39	206	Average	VERTICAL
6	5514.34	109.11			100.92	6.65	34.61	33.07	39	206	Peak	VERTICAL

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	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	5455.66	67.49	74.00	-6.51	59.42	6.60	34.53	33.06	64	209	Peak	HORIZONTAL
2	5457.83	51.65	54.00	-2.35	43.58	6.60	34.53	33.06	64	209	Average	HORIZONTAL
3	5467.83	67.93	74.00	-6.07	59.84	6.60	34.55	33.06	64	209	Peak	HORIZONTAL
4	5470.00	52.91	54.00	-1.09	44.82	6.60	34.55	33.06	64	209	Average	HORIZONTAL
5	5544.21	113.53			105.32	6.68	34.61	33.08	64	209	Peak	HORIZONTAL
6	5546.38	102.12			93.91	6.68	34.61	33.08	64	209	Average	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	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	5663.49	98.59			90.26	6.79	34.66	33.12	63	200	Average	HORIZONTAL
2	5663.49	110.50			102.17	6.79	34.66	33.12	63	200	Peak	HORIZONTAL
3	5725.00	52.36	54.00	-1.64	43.97	6.83	34.69	33.13	63	200	Average	HORIZONTAL
4	5730.07	69.84	74.00	-4.16	61.45	6.83	34.69	33.13	63	200	Peak	HORIZONTAL

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

Temperature	23°C	Humidity	61%
Test Engineer	Roki Liu	Configurations	IEEE 802.11ac MCS0/Nss2 VHT40 CH 142 / Chain 4 + Chain 5
Test Date	Jan. 26, 2015		
Test Mode	Mode 3: (Ant.9 CROSS-POLARIZED PANEL ANTENNA / Chain 4: 8.3, Chain 5: 5.9, Chain 6: 8.2dBi / 2TX)		

Channel 142

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	5664.93	116.73			108.40	6.79	34.66	33.12	58	202	Peak	HORIZONTAL
2	5666.38	104.97			96.64	6.79	34.66	33.12	58	202	Average	HORIZONTAL
3	5861.58	66.87	68.20	-1.33	58.34	6.97	34.74	33.18	58	202	Peak	HORIZONTAL

Item 1, 2 are the fundamental frequency at 5710 MHz.

Temperature	23°C	Humidity	61%
Test Engineer	Roki Liu	Configurations	IEEE 802.11ac MCS0/Nss2 VHT80 CH 58, 106 / Chain 4 + Chain 5
Test Date	Jan. 26, 2015		
Test Mode	Mode 3: (Ant.9 CROSS-POLARIZED PANEL ANTENNA / Chain 4: 8.3, Chain 5: 5.9, Chain 6: 8.2dBi / 2TX)		

Channel 58

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm	
1	5260.33	93.99			86.44	6.34	34.27	33.06	36	213 Average	HORIZONTAL
2	5262.50	104.94			97.39	6.34	34.27	33.06	36	213 Peak	HORIZONTAL
3	5350.00	52.72	54.00	-1.28	44.92	6.47	34.39	33.06	36	213 Average	HORIZONTAL
4	5351.45	66.47	74.00	-7.53	58.67	6.47	34.39	33.06	36	213 Peak	HORIZONTAL

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

Channel 106

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm	
1	5454.93	51.77	54.00	-2.23	43.70	6.60	34.53	33.06	65	203 Average	HORIZONTAL
2	5459.28	68.35	74.00	-5.65	60.28	6.60	34.53	33.06	65	203 Peak	HORIZONTAL
3	5467.11	70.86	74.00	-3.14	62.77	6.60	34.55	33.06	65	203 Peak	HORIZONTAL
4	5470.00	52.86	54.00	-1.14	44.77	6.60	34.55	33.06	65	203 Average	HORIZONTAL
5	5539.41	106.02			97.81	6.68	34.61	33.08	65	203 Peak	HORIZONTAL
6	5540.13	94.56			86.35	6.68	34.61	33.08	65	203 Average	HORIZONTAL

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

Temperature	23°C	Humidity	61%
Test Engineer	Roki Liu	Configurations	IEEE 802.11ac MCS0/Nss2 VHT80 CH 122, 138 / Chain 4 + Chain 5
Test Date	Jan. 27, 2015		
Test Mode	Mode 3: (Ant.9 CROSS-POLARIZED PANEL ANTENNA / Chain 4: 8.3, Chain 5: 5.9, Chain 6: 8.2dBi / 2TX)		

Channel 122

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	5448.78	62.14	74.00	-11.86	54.11	6.56	34.53	33.06	62	202	Peak	HORIZONTAL
2	5458.40	48.18	54.00	-5.82	40.11	6.60	34.53	33.06	62	202	Average	HORIZONTAL
3	5469.20	48.98	54.00	-5.02	40.89	6.60	34.55	33.06	62	202	Average	HORIZONTAL
4	5469.20	62.66	74.00	-11.34	54.57	6.60	34.55	33.06	62	202	Peak	HORIZONTAL
5	5597.18	108.50			100.24	6.72	34.63	33.09	62	202	Peak	HORIZONTAL
6	5622.82	96.08			87.79	6.74	34.65	33.10	62	202	Average	HORIZONTAL
7	5725.80	52.67	54.00	-1.33	44.28	6.83	34.69	33.13	62	202	Average	HORIZONTAL
8	5728.21	66.73	74.00	-7.27	58.34	6.83	34.69	33.13	62	202	Peak	HORIZONTAL

Item 5, 6 are the fundamental frequency at 5610 MHz.

Channel 138

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	5676.98	100.31			91.97	6.79	34.67	33.12	360	186	Average	VERTICAL
2	5704.47	110.75			102.38	6.81	34.68	33.12	360	186	Peak	VERTICAL
3	5852.89	67.19	68.20	-1.01	58.67	6.95	34.74	33.17	360	186	Peak	VERTICAL

Item 1, 2 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	23°C	Humidity	61%
Test Engineer	Roki Liu	Configurations	IEEE 802.11ac MCS0/Nss2 VHT20 CH 52, 60, 64 / Chain 4 + Chain 5 + Chain 6
Test Date	Jan. 27, 2015		
Test Mode	Mode 3: (Ant.9 CROSS-POLARIZED PANEL ANTENNA / Chain 4: 8.3, Chain 5: 5.9, Chain 6: 8.2dBi / 3TX)		

Channel 52

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm	
1	5042.91	50.89	54.00	-3.11	43.89	6.08	33.97	33.05	22	188 Average	VERTICAL
2	5138.42	64.20	74.00	-9.80	56.99	6.17	34.09	33.05	22	188 Peak	VERTICAL
3	5257.83	109.61			102.08	6.34	34.25	33.06	22	188 Average	VERTICAL
4	5262.17	121.23			113.68	6.34	34.27	33.06	22	188 Peak	VERTICAL
5	5373.88	65.52	74.00	-8.48	57.67	6.50	34.41	33.06	22	188 Peak	VERTICAL
6	5378.22	52.85	54.00	-1.15	44.97	6.50	34.44	33.06	22	188 Average	VERTICAL

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

Channel 60

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm	
1	5078.36	64.37	74.00	-9.63	57.29	6.11	34.02	33.05	20	204 Peak	VERTICAL
2	5081.26	51.31	54.00	-2.69	44.23	6.11	34.02	33.05	20	204 Average	VERTICAL
3	5297.83	118.35			110.69	6.40	34.32	33.06	20	204 Peak	VERTICAL
4	5300.72	107.00			99.34	6.40	34.32	33.06	20	204 Average	VERTICAL
5	5378.94	65.26	74.00	-8.74	57.38	6.50	34.44	33.06	20	204 Peak	VERTICAL
6	5382.56	52.95	54.00	-1.05	45.07	6.50	34.44	33.06	20	204 Average	VERTICAL

Item 3, 4 are the fundamental frequency at 5300 MHz.

Channel 64

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm	
1	5095.73	63.53	74.00	-10.47	56.40	6.14	34.04	33.05	22	202 Peak	VERTICAL
2	5097.90	51.28	54.00	-2.72	44.15	6.14	34.04	33.05	22	202 Average	VERTICAL
3	5317.83	106.89			99.21	6.40	34.34	33.06	22	202 Average	VERTICAL
4	5319.28	118.03			110.35	6.40	34.34	33.06	22	202 Peak	VERTICAL
5	5350.00	52.64	54.00	-1.36	44.84	6.47	34.39	33.06	22	202 Average	VERTICAL
6	5352.17	70.52	74.00	-3.48	62.72	6.47	34.39	33.06	22	202 Peak	VERTICAL

Item 3, 4 are the fundamental frequency at 5320 MHz.

Temperature	23°C	Humidity	61%
Test Engineer	Roki Liu	Configurations	IEEE 802.11ac MCS0/Nss2 VHT20 CH 100, 116, 140 / Chain 4 + Chain 5 + Chain 6
Test Date	Jan. 27, 2015		
Test Mode	Mode 3: (Ant.9 CROSS-POLARIZED PANEL ANTENNA / Chain 4: 8.3, Chain 5: 5.9, Chain 6: 8.2dBi / 3TX)		

Channel 100

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	5412.24	63.39	74.00	-10.61	55.44	6.53	34.48	33.06	30	190	Peak	VERTICAL
2	5426.71	49.18	54.00	-4.82	41.20	6.56	34.48	33.06	30	190	Average	VERTICAL
3	5467.11	66.52	68.20	-1.68	58.43	6.60	34.55	33.06	30	190	Peak	VERTICAL
4	5498.55	116.92			108.75	6.63	34.60	33.06	30	190	Peak	VERTICAL
5	5499.28	104.39			96.22	6.63	34.60	33.06	30	190	Average	VERTICAL
6	5728.62	64.30	68.20	-3.90	55.91	6.83	34.69	33.13	30	190	Peak	VERTICAL

Item 4, 5 are the fundamental frequency at 5500 MHz.

Channel 116

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	5339.16	63.88	74.00	-10.12	56.14	6.43	34.37	33.06	16	209	Peak	VERTICAL
2	5344.95	49.82	54.00	-4.18	42.06	6.43	34.39	33.06	16	209	Average	VERTICAL
3	5466.38	51.13	54.00	-2.87	43.04	6.60	34.55	33.06	16	209	Average	VERTICAL
4	5467.11	62.82	74.00	-11.18	54.73	6.60	34.55	33.06	16	209	Peak	VERTICAL
5	5577.11	121.87			113.62	6.70	34.63	33.08	16	209	Peak	VERTICAL
6	5582.17	113.40			105.14	6.72	34.63	33.09	16	175	Average	VERTICAL
7	5725.72	64.35	74.00	-9.65	55.96	6.83	34.69	33.13	16	209	Peak	VERTICAL
8	5726.45	52.12	54.00	-1.88	43.73	6.83	34.69	33.13	16	209	Average	VERTICAL

Item 5, 6 are the fundamental frequency at 5580 MHz.

Channel 140

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	5700.00	111.98			103.61	6.81	34.68	33.12	328	206	Peak	VERTICAL
2	5701.45	101.05			92.68	6.81	34.68	33.12	328	206	Average	VERTICAL
3	5725.72	67.07	68.20	-1.13	58.68	6.83	34.69	33.13	328	206	Peak	VERTICAL

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

Temperature	23°C	Humidity	61%
Test Engineer	Roki Liu	Configurations	IEEE 802.11ac MCS0/Nss2 VHT20 CH 144 / Chain 4 + Chain 5 + Chain 6
Test Date	Jan. 27, 2015		
Test Mode	Mode 3: (Ant.9 CROSS-POLARIZED PANEL ANTENNA / Chain 4: 8.3, Chain 5: 5.9, Chain 6: 8.2dBi / 3TX)		

Channel 144

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm	
1	5722.17	113.13			104.74	6.83	34.69	33.13	16	206 Average	VERTICAL
2	5722.89	124.53			116.14	6.83	34.69	33.13	16	206 Peak	VERTICAL
3	5858.68	66.37	68.20	-1.83	57.84	6.97	34.74	33.18	16	206 Peak	VERTICAL

Item 1, 2 are the fundamental frequency at 5720 MHz.

Temperature	23°C	Humidity	61%
Test Engineer	Roki Liu	Configurations	IEEE 802.11ac MCS0/Nss2 VHT40 CH 54, 62 / Chain 4 + Chain 5 + Chain 6
Test Date	Jan. 27, 2015		
Test Mode	Mode 3: (Ant.9 CROSS-POLARIZED PANEL ANTENNA / Chain 4: 8.3, Chain 5: 5.9, Chain 6: 8.2dBi / 3TX)		

Channel 54

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm	
1	5264.21	116.57			109.02	6.34	34.27	33.06	24	226 Peak	VERTICAL
2	5264.93	105.76			98.21	6.34	34.27	33.06	24	226 Average	VERTICAL
3	5351.45	52.94	54.00	-1.06	45.14	6.47	34.39	33.06	24	226 Average	VERTICAL
4	5355.07	65.79	74.00	-8.21	57.99	6.47	34.39	33.06	24	226 Peak	VERTICAL

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

Channel 62

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm	
1	5303.49	110.82			103.16	6.40	34.32	33.06	339	210 Peak	VERTICAL
2	5313.62	100.09			92.41	6.40	34.34	33.06	339	210 Average	VERTICAL
3	5350.00	52.90	54.00	-1.10	45.10	6.47	34.39	33.06	339	210 Average	VERTICAL
4	5350.00	66.74	74.00	-7.26	58.94	6.47	34.39	33.06	339	210 Peak	VERTICAL

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

Temperature	23°C	Humidity	61%
Test Engineer	Roki Liu	Configurations	IEEE 802.11ac MCS0/Nss2 VHT40 CH 102, 110, 134 / Chain 4 + Chain 5 + Chain 6
Test Date	Jan. 27, 2015		
Test Mode	Mode 3: (Ant.9 CROSS-POLARIZED PANEL ANTENNA / Chain 4: 8.3, Chain 5: 5.9, Chain 6: 8.2dBi / 3TX)		

Channel 102

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	5454.36	62.83	74.00	-11.17	54.76	6.60	34.53	33.06	14	191	Peak	VERTICAL
2	5460.00	49.82	54.00	-4.18	41.75	6.60	34.53	33.06	14	191	Average	VERTICAL
3	5465.22	66.68	74.00	-7.32	58.59	6.60	34.55	33.06	14	191	Peak	VERTICAL
4	5470.00	52.74	54.00	-1.26	44.65	6.60	34.55	33.06	14	191	Average	VERTICAL
5	5513.04	112.34			104.16	6.65	34.60	33.07	14	191	Peak	VERTICAL
6	5514.34	101.38			93.19	6.65	34.61	33.07	14	191	Average	VERTICAL

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

Channel 110

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	5459.13	66.04	74.00	-7.96	57.97	6.60	34.53	33.06	11	203	Peak	VERTICAL
2	5459.57	51.42	54.00	-2.58	43.35	6.60	34.53	33.06	11	203	Average	VERTICAL
3	5464.79	69.67	74.00	-4.33	61.58	6.60	34.55	33.06	11	203	Peak	VERTICAL
4	5467.40	52.81	54.00	-1.19	44.72	6.60	34.55	33.06	11	203	Average	VERTICAL
5	5545.22	116.42			108.21	6.68	34.61	33.08	11	203	Peak	VERTICAL
6	5546.53	106.06			97.85	6.68	34.61	33.08	11	203	Average	VERTICAL

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

Channel 134

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	5665.22	103.81			95.48	6.79	34.66	33.12	14	203	Average	VERTICAL
2	5677.38	114.91			106.57	6.79	34.67	33.12	14	203	Peak	VERTICAL
3	5726.30	69.86	74.00	-4.14	61.47	6.83	34.69	33.13	14	203	Peak	VERTICAL
4	5731.95	52.68	54.00	-1.32	44.27	6.86	34.69	33.14	14	203	Average	VERTICAL

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

Temperature	23°C	Humidity	61%
Test Engineer	Roki Liu	Configurations	IEEE 802.11ac MCS0/Nss2 VHT40 CH 142 / Chain 4 + Chain 5 + Chain 6
Test Date	Jan. 27, 2015		
Test Mode	Mode 3: (Ant.9 CROSS-POLARIZED PANEL ANTENNA / Chain 4: 8.3, Chain 5: 5.9, Chain 6: 8.2dBi / 3TX)		

Channel 142

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	5692.20	107.52			99.15	6.81	34.68	33.12	16	201	Average	VERTICAL
2	5717.38	119.01			110.63	6.83	34.68	33.13	16	201	Peak	VERTICAL
3	5854.34	66.94	68.20	-1.26	58.42	6.95	34.74	33.17	16	201	Peak	VERTICAL

Item 1, 2 are the fundamental frequency at 5710 MHz.

Temperature	23°C	Humidity	61%
Test Engineer	Roki Liu	Configurations	IEEE 802.11ac MCS0/Nss2 VHT80 CH 58, 106 / Chain 4 + Chain 5 + Chain 6
Test Date	Jan. 27, 2015		
Test Mode	Mode 3: (Ant.9 CROSS-POLARIZED PANEL ANTENNA / Chain 4: 8.3, Chain 5: 5.9, Chain 6: 8.2dBi / 3TX)		

Channel 58

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	5131.19	60.63	74.00	-13.37	53.42	6.17	34.09	33.05	26	199	Peak	VERTICAL
2	5150.00	47.21	54.00	-6.79	39.94	6.21	34.11	33.05	26	199	Average	VERTICAL
3	5279.15	106.84			99.23	6.37	34.30	33.06	26	199	Peak	VERTICAL
4	5282.04	96.07			88.46	6.37	34.30	33.06	26	199	Average	VERTICAL
5	5350.72	52.76	54.00	-1.24	44.96	6.47	34.39	33.06	26	199	Average	VERTICAL
6	5351.45	65.68	74.00	-8.32	57.88	6.47	34.39	33.06	26	199	Peak	VERTICAL

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	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	5457.11	64.48	74.00	-9.52	56.41	6.60	34.53	33.06	12	198	Peak	VERTICAL
2	5457.83	51.73	54.00	-2.27	43.66	6.60	34.53	33.06	12	198	Average	VERTICAL
3	5469.28	66.02	74.00	-7.98	57.93	6.60	34.55	33.06	12	198	Peak	VERTICAL
4	5470.00	52.52	54.00	-1.48	44.43	6.60	34.55	33.06	12	198	Average	VERTICAL
5	5538.68	97.44			89.23	6.68	34.61	33.08	12	198	Average	VERTICAL
6	5540.13	108.27			100.06	6.68	34.61	33.08	12	198	Peak	VERTICAL
7	5725.00	49.02	54.00	-4.98	40.63	6.83	34.69	33.13	12	198	Average	VERTICAL
8	5729.34	61.58	74.00	-12.42	53.19	6.83	34.69	33.13	12	198	Peak	VERTICAL

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

Temperature	23°C	Humidity	61%
Test Engineer	Roki Liu	Configurations	IEEE 802.11ac MCS0/Nss2 VHT80 CH 122, 138 / Chain 4 + Chain 5 + Chain 6
Test Date	Jan. 27, 2015		
Test Mode	Mode 3: (Ant.9 CROSS-POLARIZED PANEL ANTENNA / Chain 4: 8.3, Chain 5: 5.9, Chain 6: 8.2dBi / 3TX)		

Channel 122

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm	
1	5453.59	61.17	74.00	-12.83	53.10	6.60	34.53	33.06	15	199 Peak	VERTICAL
2	5455.19	49.64	54.00	-4.36	41.57	6.60	34.53	33.06	15	199 Average	VERTICAL
3	5465.19	50.19	54.00	-3.81	42.10	6.60	34.55	33.06	15	199 Average	VERTICAL
4	5470.00	61.37	74.00	-12.63	53.28	6.60	34.55	33.06	15	199 Peak	VERTICAL
5	5622.02	100.84			92.55	6.74	34.65	33.10	15	199 Average	VERTICAL
6	5634.84	110.68			102.37	6.76	34.66	33.11	15	199 Peak	VERTICAL
7	5727.40	52.74	54.00	-1.26	44.35	6.83	34.69	33.13	15	199 Average	VERTICAL
8	5730.61	65.45	74.00	-8.55	57.04	6.86	34.69	33.14	15	199 Peak	VERTICAL

Item 5, 6 are the fundamental frequency at 5610 MHz.

Channel 138

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm	
1	5702.02	103.84			95.47	6.81	34.68	33.12	16	200 Average	VERTICAL
2	5702.02	114.50			106.13	6.81	34.68	33.12	16	200 Peak	VERTICAL
3	5850.80	66.73	68.20	-1.47	58.21	6.95	34.74	33.17	16	200 Peak	VERTICAL

Item 1, 2 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

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

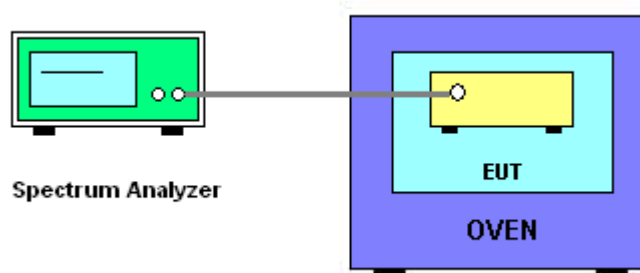
Please refer to section 5 of equipments list in this report. The following table is the setting of the spectrum analyzer.

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 $-30^\circ\text{C} \sim 60^\circ\text{C}$.

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	26°C	Humidity	63%
Test Engineer	Nick Peng, Lucas Huang	Test Date	Jan. 30, 2015~Mar. 20, 2015

Mode: 20 MHz

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)	
(V)	5300 MHz	5580 MHz
126.50	5299.9600	5579.9800
110.00	5299.9800	5579.9700
93.50	5299.9400	5579.9700
Max. Deviation (MHz)	0.06	0.03
Max. Deviation (ppm)	11.32	5.38

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)	
(°C)	5300 MHz	5580 MHz
-30	5299.9800	5579.9800
-20	5299.9600	5579.9600
-10	5299.9700	5579.9800
0	5299.9700	5579.9700
10	5299.9700	5579.9800
20	5299.9600	5579.9600
30	5299.9600	5579.9800
40	5299.9700	5579.9600
50	5299.9700	5579.9600
60	5299.9600	5579.9700
Max. Deviation (MHz)	0.04	0.04
Max. Deviation (ppm)	7.55	7.17

Mode: 40 MHz

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)	
(V)	5310 MHz	5550 MHz
126.50	5309.9600	5549.9800
110.00	5309.9800	5549.9700
93.50	5309.9800	5549.9800
Max. Deviation (MHz)	0.04	0.03
Max. Deviation (ppm)	7.53	5.41

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)	
(°C)	5310 MHz	5550 MHz
-30	5309.9800	5549.9600
-20	5309.9700	5549.9800
-10	5309.9600	5549.9700
0	5309.9700	5549.9700
10	5309.9700	5549.9600
20	5309.9800	5549.9600
30	5309.9600	5549.9700
40	5309.9700	5549.9600
50	5309.9700	5549.9700
60	5309.9700	5549.9600
Max. Deviation (MHz)	0.04	0.04
Max. Deviation (ppm)	7.53	7.21

Mode: 80 MHz

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)	
(V)	5290 MHz	5530 MHz
126.50	5289.9700	5529.9700
110.00	5289.9700	5529.9600
93.50	5289.9900	5529.9700
Max. Deviation (MHz)	0.03	0.04
Max. Deviation (ppm)	5.67	7.23

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)	
(°C)	5290 MHz	5530 MHz
-30	5289.9900	5529.9700
-20	5289.9600	5529.9600
-10	5289.9700	5529.9700
0	5289.9600	5529.9700
10	5289.9700	5529.9600
20	5289.9600	5529.9700
30	5289.9700	5529.9600
40	5289.9700	5529.9700
50	5289.9800	5529.9800
60	5289.9800	5529.9800
Max. Deviation (MHz)	0.04	0.04
Max. Deviation (ppm)	7.56	7.23

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	100355	9kHz ~ 2.75GHz	Apr. 23, 2014	Conduction (CO01-CB)
EMI Receiver	Agilent	N9038A	My52260123	9kHz ~ 8.45GHz	Jan. 23, 2017	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	04083	150kHz ~ 100MHz	Dec. 02, 2014	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	04083	150kHz ~ 100MHz	Dec. 14, 2016	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127647	9kHz ~ 30MHz	Dec. 02, 2014	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127647	9kHz ~ 30MHz	Dec. 21, 2016	Conduction (CO01-CB)
COND Cable	Woken	Cable	01	150kHz ~ 30MHz	Dec. 04, 2014	Conduction (CO01-CB)
COND Cable	Woken	Cable	01	150kHz ~ 30MHz	May 23, 2017	Conduction (CO01-CB)
Software	Audix	E3	6.120210n	-	N.C.R.	Conduction (CO01-CB)
BILOG ANTENNA	Schaffner	CBL6112D	22021	20MHz ~ 2GHz	May 26, 2014	Radiation (03CH01-CB)
BILOG ANTENNA with 6dB Attenuator	TESEQ & EMCI	CBL6112D & N-6-06	37880 & AT-N0609	20MHz ~ 2GHz	Aug. 30, 2016	Radiation (03CH01-CB)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100315	9 kHz~30 MHz	Jul. 28, 2014	Radiation (03CH01-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Mar. 16, 2016*	Radiation (10CH01-CB)
Horn Antenna	EMCO	3115	00075790	750MHz~18GHz	Oct. 28, 2014	Radiation (03CH01-CB)
Horn Antenna	EMCO	3115	00075790	750MHz ~ 18GHz	Nov. 10, 2016	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Aug. 22, 2014	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jul. 25, 2016	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8447D	2944A10991	0.1MHz ~ 1.3GHz	Nov. 15, 2014	Radiation (03CH01-CB)
Pre-Amplifier	EMCI	EMC330N	980332	20MHz ~ 3GHz	May 02, 2017	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Dec. 16, 2013	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Jan. 16, 2017	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	83017A	MY53270063	0.5GHz ~ 26.5GHz	Jun. 20, 2014	Radiation (03CH01-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jun. 28, 2016	Radiation (03CH01-CB)
Pre-Amplifier	WM	TF-130N-R1	923365	26GHz ~ 40GHz	Nov. 25, 2014	Radiation (03CH01-CB)
Spectrum Analyzer	R&S	FSP40	100080	9kHz ~ 40GHz	Oct. 15, 2014	Radiation (03CH01-CB)

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
Spectrum Analyzer	R&S	FSP40	100056	9kHz ~ 40GHz	Nov. 22, 2016	Radiation (03CH01-CB)
EMI Test	R&S	ESCS	100355	9kHz ~ 2.75GHz	May 06, 2017	Radiation (03CH01-CB)
RF Cable-low	Woken	Low Cable-1	N/A	30 MHz - 1 GHz	Nov. 15, 2014	Radiation (03CH01-CB)
RF Cable-low	Woken	Low Cable-16+17	N/A	30 MHz ~ 1 GHz	Oct. 24, 2016	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-3	N/A	1 GHz - 40 GHz	Nov. 15, 2014	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-4	N/A	1 GHz - 40 GHz	Nov. 15, 2014	Radiation (03CH01-CB)
Signal analyzer	R&S	FSV40	100979	9kHz~40GHz	Dec.12, 2014	Conducted (TH01-CB)
Temp. and Humidity Chamber	Ten Billion	TTH-D3SP	TBN-931011	-30~100 degree	Jun. 03, 2014	Conducted (TH01-CB)
RF Cable-high	Woken	High Cable-7	-	1 GHz – 26.5 GHz	Nov. 15, 2014	Conducted (TH01-CB)
RF Cable-high	Woken	High Cable-8	-	1 GHz – 26.5 GHz	Nov. 15, 2014	Conducted (TH01-CB)
RF Cable-high	Woken	High Cable-9	-	1 GHz – 26.5 GHz	Nov. 15, 2014	Conducted (TH01-CB)
RF Cable-high	Woken	High Cable-10	-	1 GHz – 26.5 GHz	Nov. 15, 2014	Conducted (TH01-CB)
Power Sensor	Anritsu	MA2411B	1126203	300MHz~40GHz	Oct. 06, 2014	Conducted (TH01-CB)
Power Meter	Anritsu	ML2495A	1210004	300MHz~40GHz	Oct. 06, 2014	Conducted (TH01-CB)

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

* Calibration Interval of instruments listed above is two years.

N.C.R. means Non-Calibration required.

6. MEASUREMENT UNCERTAINTY

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	3.2 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	3.6 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	3.7 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	3.5 dB	Confidence levels of 95%
Conducted Emission	1.7 dB	Confidence levels of 95%
Output Power Measurement	1.33 dB	Confidence levels of 95%
Power Density Measurement	1.27 dB	Confidence levels of 95%
Bandwidth Measurement	9.74×10^{-8}	Confidence levels of 95%
Frequency Stability	6.06×10^{-8}	Confidence levels of 95%