



Temperature	24°C	Humidity	56%
Test Engineer	Nick Peng	Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 54, 62 / Chain 2
Test Date	Jun. 09, 2014	Test Mode	Mode 2 (Ant. 4 Panel antenna / 5.1 dBi / 1TX)

Channel 54

	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	5265.19	102.73			99.91	3.46	34.27	34.91	Average	123	14	VERTICAL
2	5265.19	113.76			110.94	3.46	34.27	34.91	Peak	123	14	VERTICAL
3	5350.00	52.63	54.00	-1.37	49.66	3.49	34.39	34.91	Average	123	14	VERTICAL
4	5350.00	67.12	74.00	-6.88	64.15	3.49	34.39	34.91	Peak	123	14	VERTICAL

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

Channel 62

	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	5305.99	108.24			105.35	3.48	34.32	34.91	Peak	113	25	VERTICAL
2	5314.01	97.30			94.39	3.48	34.34	34.91	Average	113	25	VERTICAL
3	5350.00	52.74	54.00	-1.26	49.77	3.49	34.39	34.91	Average	113	25	VERTICAL
4	5350.80	69.70	74.00	-4.30	66.73	3.49	34.39	34.91	Peak	113	25	VERTICAL

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

Temperature	24°C	Humidity	56%
Test Engineer	Nick Peng	Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 102, 110, 134 / Chain 2
Test Date	Jun. 09, 2014	Test Mode	Mode 2 (Ant. 4 Panel antenna / 5.1dBi / 1TX)

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	5457.76	67.48	74.00	-6.52	64.35	3.52	34.53	34.92	Peak	108	29	VERTICAL
2	5460.00	47.70	54.00	-6.30	44.57	3.52	34.53	34.92	Average	108	29	VERTICAL
3	5468.08	72.53	74.00	-1.47	69.38	3.52	34.55	34.92	Peak	108	29	VERTICAL
4	5470.00	50.81	54.00	-3.19	47.66	3.52	34.55	34.92	Average	108	29	VERTICAL
5	5515.13	98.03			94.80	3.54	34.61	34.92	Average	108	29	VERTICAL
6	5515.13	110.31			107.08	3.54	34.61	34.92	Peak	108	29	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	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5459.20	64.28	74.00	-9.72	61.15	3.52	34.53	34.92	Peak	127	20	VERTICAL
2	5460.00	49.61	54.00	-4.39	46.48	3.52	34.53	34.92	Average	127	20	VERTICAL
3	5468.40	52.85	54.00	-1.15	49.70	3.52	34.55	34.92	Average	127	20	VERTICAL
4	5469.20	68.96	74.00	-5.04	65.81	3.52	34.55	34.92	Peak	127	20	VERTICAL
5	5553.21	113.34			110.10	3.55	34.62	34.93	Peak	127	20	VERTICAL
6	5554.01	102.22			98.98	3.55	34.62	34.93	Average	127	20	VERTICAL

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	5675.13	111.63			108.30	3.59	34.67	34.93	Peak	123	5	VERTICAL
2	5676.09	98.92			95.59	3.59	34.67	34.93	Average	123	5	VERTICAL
3	5725.00	52.50	54.00	-1.50	49.15	3.60	34.69	34.94	Average	123	5	VERTICAL
4	5735.58	72.79	74.00	-1.21	69.42	3.61	34.70	34.94	Peak	123	5	VERTICAL

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



Temperature	24°C	Humidity	56%
Test Engineer	Nick Peng	Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 142 / Chain 2
Test Date	Jun. 09, 2014	Test Mode	Mode 2 (Ant. 4 Panel antenna / 5.1dBi / 1TX)

Channel 142

	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	5714.81	103.72			100.38	3.60	34.68	34.94	Average	122	18	VERTICAL
2	5714.81	115.37			112.03	3.60	34.68	34.94	Peak	122	18	VERTICAL
3	5852.40	52.57	54.00	-1.43	49.14	3.64	34.74	34.95	Average	122	18	VERTICAL
4	5853.21	67.10	74.00	-6.90	63.67	3.64	34.74	34.95	Peak	122	18	VERTICAL

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

Temperature	24°C	Humidity	56%
Test Engineer	Nick Peng	Configurations	IEEE 802.11ac MCS0/Nss1 VHT80 CH 58, 106 / Chain 2
Test Date	Jun. 09, 2014	Test Mode	Mode 2 (Ant. 4 Panel antenna / 5.1dBi / 1TX)

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	5121.96	53.61	74.00	-20.39	51.03	3.43	34.06	34.91	Peak	112	25	VERTICAL
2	5150.00	41.15	54.00	-12.85	38.52	3.43	34.11	34.91	Average	112	25	VERTICAL
3	5302.02	105.23			102.34	3.48	34.32	34.91	Peak	112	25	VERTICAL
4	5318.05	91.39			88.48	3.48	34.34	34.91	Average	112	25	VERTICAL
5	5350.80	70.38	74.00	-3.62	67.41	3.49	34.39	34.91	Peak	112	25	VERTICAL
6	5352.40	52.65	54.00	-1.35	49.68	3.49	34.39	34.91	Average	112	25	VERTICAL

Item 3, 4 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	5457.60	70.20	74.00	-3.80	67.07	3.52	34.53	34.92	Peak	128	18	VERTICAL
2	5460.00	49.78	54.00	-4.22	46.65	3.52	34.53	34.92	Average	128	18	VERTICAL
3	5465.99	72.48	74.00	-1.52	69.33	3.52	34.55	34.92	Peak	128	18	VERTICAL
4	5470.00	51.31	54.00	-2.69	48.16	3.52	34.55	34.92	Average	128	18	VERTICAL
5	5536.41	107.17			103.93	3.55	34.61	34.92	Peak	128	18	VERTICAL
6	5537.21	93.27			90.03	3.55	34.61	34.92	Average	128	18	VERTICAL
7	5726.60	41.67	54.00	-12.33	38.32	3.60	34.69	34.94	Average	128	18	VERTICAL
8	5731.41	54.91	74.00	-19.09	51.55	3.61	34.69	34.94	Peak	128	18	VERTICAL

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

Temperature	24°C	Humidity	56%
Test Engineer	Nick Peng	Configurations	IEEE 802.11ac MCS0/Nss1 VHT80 CH 122, 138 / Chain 2
Test Date	Jun. 09, 2014	Test Mode	Mode 2 (Ant. 4 Panel antenna / 5.1dBi / 1TX)

Channel 122

	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	5442.37	59.76	74.00	-14.24	56.65	3.52	34.51	34.92	Peak	100	73	VERTICAL
2	5460.00	45.29	54.00	-8.71	42.16	3.52	34.53	34.92	Average	100	73	VERTICAL
3	5469.20	63.69	74.00	-10.31	60.54	3.52	34.55	34.92	Peak	100	73	VERTICAL
4	5470.00	46.97	54.00	-7.03	43.82	3.52	34.55	34.92	Average	100	73	VERTICAL
5	5598.78	91.29			88.02	3.56	34.64	34.93	Average	100	73	VERTICAL
6	5603.59	104.40			101.12	3.57	34.64	34.93	Peak	100	73	VERTICAL
7	5725.00	52.44	54.00	-1.56	49.09	3.60	34.69	34.94	Average	100	73	VERTICAL
8	5741.83	67.75	74.00	-6.25	64.38	3.61	34.70	34.94	Peak	100	73	VERTICAL

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

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	5718.85	95.33			91.98	3.60	34.69	34.94	Average	122	19	VERTICAL
2	5722.05	108.00			104.65	3.60	34.69	34.94	Peak	122	19	VERTICAL
3	5850.80	52.44	54.00	-1.56	49.01	3.64	34.74	34.95	Average	122	19	VERTICAL
4	5850.80	68.47	74.00	-5.53	65.04	3.64	34.74	34.95	Peak	122	19	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	24°C	Humidity	56%
Test Engineer	Nick Peng	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 52, 60, 64 / Chain 1 + Chain 2
Test Date	Jun. 09, 2014	Test Mode	Mode 2 (Ant. 4 Panel antenna / 5.1dBi / 2TX)

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	5141.25	51.50	54.00	-2.50	48.87	3.43	34.11	34.91	Average	124	7	VERTICAL
2	5142.31	64.09	74.00	-9.91	61.46	3.43	34.11	34.91	Peak	124	7	VERTICAL
3	5261.44	111.42			108.60	3.46	34.27	34.91	Average	124	7	VERTICAL
4	5261.92	122.71			119.89	3.46	34.27	34.91	Peak	124	7	VERTICAL
5	5350.96	64.66	74.00	-9.34	61.69	3.49	34.39	34.91	Peak	124	7	VERTICAL
6	5371.64	49.74	54.00	-4.26	46.75	3.49	34.41	34.91	Average	124	7	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	5297.60	116.84			113.95	3.48	34.32	34.91	Peak	100	354	VERTICAL
2	5302.40	106.34			103.45	3.48	34.32	34.91	Average	100	354	VERTICAL
3	5350.00	52.80	54.00	-1.20	49.83	3.49	34.39	34.91	Average	100	354	VERTICAL
4	5355.61	68.36	74.00	-5.64	65.39	3.49	34.39	34.91	Peak	100	354	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	5317.44	118.62			115.71	3.48	34.34	34.91	Peak	113	354	VERTICAL
2	5317.76	107.19			104.28	3.48	34.34	34.91	Average	113	354	VERTICAL
3	5350.00	52.51	54.00	-1.49	49.54	3.49	34.39	34.91	Average	113	354	VERTICAL
4	5352.24	67.81	74.00	-6.19	64.84	3.49	34.39	34.91	Peak	113	354	VERTICAL

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

Temperature	24°C	Humidity	56%
Test Engineer	Nick Peng	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 100, 116, 140 / Chain 1 + Chain 2
Test Date	Jun. 09, 2014	Test Mode	Mode 2 (Ant. 4 Panel antenna / 5.1dBi / 2TX)

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	5459.04	64.34	74.00	-9.66	61.21	3.52	34.53	34.92	Peak	100	20	VERTICAL
2	5460.00	47.21	54.00	-6.79	44.08	3.52	34.53	34.92	Average	100	20	VERTICAL
3	5470.00	52.72	54.00	-1.28	49.57	3.52	34.55	34.92	Average	100	20	VERTICAL
4	5470.00	71.79	74.00	-2.21	68.64	3.52	34.55	34.92	Peak	100	20	VERTICAL
5	5500.32	105.20			101.99	3.53	34.60	34.92	Average	100	20	VERTICAL
6	5501.28	115.75			112.53	3.54	34.60	34.92	Peak	100	20	VERTICAL

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

Channel 116

	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	5454.23	62.68	74.00	-11.32	59.55	3.52	34.53	34.92	Peak	100	65	VERTICAL
2	5457.12	52.45	54.00	-1.55	49.32	3.52	34.53	34.92	Average	100	65	VERTICAL
3	5459.42	52.52	54.00	-1.48	49.39	3.52	34.53	34.92	Average	100	65	VERTICAL
4	5462.31	63.15	74.00	-10.85	60.02	3.52	34.53	34.92	Peak	100	65	VERTICAL
5	5582.40	107.68			104.42	3.56	34.63	34.93	Average	100	65	VERTICAL
6	5584.33	118.15			114.89	3.56	34.63	34.93	Peak	100	65	VERTICAL

Item 5, 6 are the fundamental frequency at 5580 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	5699.36	101.02			97.69	3.59	34.68	34.94	Average	100	77	VERTICAL
2	5699.36	111.86			108.53	3.59	34.68	34.94	Peak	100	77	VERTICAL
3	5725.00	52.00	54.00	-2.00	48.65	3.60	34.69	34.94	Average	100	77	VERTICAL
4	5726.60	72.69	74.00	-1.31	69.34	3.60	34.69	34.94	Peak	100	77	VERTICAL

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



Temperature	24°C	Humidity	56%
Test Engineer	Nick Peng	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 144 / Chain 1 + Chain 2
Test Date	Jun. 09, 2014	Test Mode	Mode 2 (Ant. 4 Panel antenna / 5.1dBi / 2TX)

Channel 144

	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	5718.40	122.56			119.21	3.60	34.69	34.94	Peak	132	348	VERTICAL
2	5720.80	111.04			107.69	3.60	34.69	34.94	Average	132	348	VERTICAL
3	5850.00	50.40	54.00	-3.60	46.97	3.64	34.74	34.95	Average	132	348	VERTICAL
4	5858.01	65.23	74.00	-8.77	61.79	3.65	34.74	34.95	Peak	132	348	VERTICAL

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

Temperature	24°C	Humidity	56%
Test Engineer	Nick Peng	Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 54, 62 / Chain 1 + Chain 2
Test Date	Jun. 09, 2014	Test Mode	Mode 2 (Ant. 4 Panel antenna / 5.1 dBi / 2TX)

Channel 54

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase	
	MHz	dBuV/m	Line	Limit	Level	Loss	Factor		cm	deg		
			dBuV/m	dB	dBuV	dB	dB/m	dB				
1	5252.37	115.29			112.49	3.46	34.25	34.91	Peak	102	351	VERTICAL
2	5265.19	103.32			100.50	3.46	34.27	34.91	Average	102	351	VERTICAL
3	5350.80	52.80	54.00	-1.20	49.83	3.49	34.39	34.91	Average	102	351	VERTICAL
4	5350.80	68.71	74.00	-5.29	65.74	3.49	34.39	34.91	Peak	102	351	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	Line	Limit	Level	Loss	Factor		cm	deg		
			dBuV/m	dB	dBuV	dB	dB/m	dB				
1	5315.45	109.26			106.35	3.48	34.34	34.91	Peak	100	346	VERTICAL
2	5315.77	97.30			94.39	3.48	34.34	34.91	Average	100	346	VERTICAL
3	5350.64	52.14	54.00	-1.86	49.17	3.49	34.39	34.91	Average	100	346	VERTICAL
4	5350.96	72.86	74.00	-1.14	69.89	3.49	34.39	34.91	Peak	100	346	VERTICAL

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

Temperature	24°C	Humidity	56%
Test Engineer	Nick Peng	Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 102, 110, 134 / Chain 1 + Chain 2
Test Date	Jun. 09, 2014	Test Mode	Mode 2 (Ant. 4 Panel antenna / 5.1dBi / 2TX)

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	5457.12	66.95	74.00	-7.05	63.82	3.52	34.53	34.92	Peak	100	19	VERTICAL
2	5460.00	48.54	54.00	-5.46	45.41	3.52	34.53	34.92	Average	100	19	VERTICAL
3	5465.51	72.43	74.00	-1.57	69.28	3.52	34.55	34.92	Peak	100	19	VERTICAL
4	5468.40	52.31			49.16	3.52	34.55	34.92	Average	100	19	VERTICAL
5	5505.51	100.00			96.78	3.54	34.60	34.92	Average	100	19	VERTICAL

Item 4, 5 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	5434.52	63.22	74.00	-10.78	60.11	3.52	34.51	34.92	Peak	100	20	VERTICAL
2	5435.00	52.35	54.00	-1.65	49.24	3.52	34.51	34.92	Average	100	20	VERTICAL
3	5462.79	71.04	74.00	-2.96	67.89	3.52	34.55	34.92	Peak	100	20	VERTICAL
4	5467.60	52.49	54.00	-1.51	49.34	3.52	34.55	34.92	Average	100	20	VERTICAL
5	5545.19	102.31			99.07	3.55	34.61	34.92	Average	100	20	VERTICAL
6	5555.29	113.96			110.72	3.55	34.62	34.93	Peak	100	20	VERTICAL

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	5656.86	98.45			95.13	3.59	34.66	34.93	Average	100	77	VERTICAL
2	5656.86	110.00			106.68	3.59	34.66	34.93	Peak	100	77	VERTICAL
3	5725.00	52.15	54.00	-1.85	48.80	3.60	34.69	34.94	Average	100	77	VERTICAL
4	5725.32	70.51	74.00	-3.49	67.16	3.60	34.69	34.94	Peak	100	77	VERTICAL

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

Temperature	24°C	Humidity	56%
Test Engineer	Nick Peng	Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 142 / Chain 1 + Chain 2
Test Date	Jun. 09, 2014	Test Mode	Mode 2 (Ant. 4 Panel antenna / 5.1dBi / 2TX)

Channel 142

	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	5715.61	105.22			101.88	3.60	34.68	34.94	Average	132	349	VERTICAL
2	5715.61	116.51			113.17	3.60	34.68	34.94	Peak	132	349	VERTICAL
3	5851.60	67.92	74.00	-6.08	64.49	3.64	34.74	34.95	Peak	132	349	VERTICAL
4	5853.21	52.88	54.00	-1.12	49.45	3.64	34.74	34.95	Average	132	349	VERTICAL

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

Temperature	24°C	Humidity	56%
Test Engineer	Nick Peng	Configurations	IEEE 802.11ac MCS0/Nss1 VHT80 CH 58, 106 / Chain 1 + Chain 2
Test Date	Jun. 09, 2014	Test Mode	Mode 2 (Ant. 4 Panel antenna / 5.1 dBi / 2TX)

Channel 58

	Freq	Level	Limit Line	Over Limit	Read Level	Cable 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	5144.39	53.76	74.00	-20.24	51.13	3.43	34.11	34.91	Peak	111	353	VERTICAL
2	5150.00	40.11	74.00	-33.89	37.48	3.43	34.11	34.91	Peak	111	353	VERTICAL
3	5300.42	105.47			102.58	3.48	34.32	34.91	Peak	111	353	VERTICAL
4	5314.84	92.60			89.69	3.48	34.34	34.91	Average	111	353	VERTICAL
5	5350.00	52.46	54.00	-1.54	49.49	3.49	34.39	34.91	Average	111	353	VERTICAL
6	5350.00	66.68	74.00	-7.32	63.71	3.49	34.39	34.91	Peak	111	353	VERTICAL

Item 3, 4 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	PoI/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5455.19	69.86	74.00	-4.14	66.73	3.52	34.53	34.92	Peak	100	20	VERTICAL
2	5460.00	51.70	54.00	-2.30	48.57	3.52	34.53	34.92	Average	100	20	VERTICAL
3	5468.40	72.90	74.00	-1.10	69.75	3.52	34.55	34.92	Peak	100	20	VERTICAL
4	5470.00	52.70	54.00	-1.30	49.55	3.52	34.55	34.92	Average	100	20	VERTICAL
5	5520.39	94.68			91.45	3.54	34.61	34.92	Average	100	20	VERTICAL
6	5521.19	107.30			104.07	3.54	34.61	34.92	Peak	100	20	VERTICAL

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

Temperature	24°C	Humidity	56%
Test Engineer	Nick Peng	Configurations	IEEE 802.11ac MCS0/Nss1 VHT80 CH 122, 138 / Chain 1 + Chain 2
Test Date	Jun. 09, 2014	Test Mode	Mode 2 (Ant. 4 Panel antenna / 5.1dBi / 2TX)

Channel 122

	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	5443.17	61.17	74.00	-12.83	58.06	3.52	34.51	34.92	Peak	100	70	VERTICAL
2	5460.00	46.83	54.00	-7.17	43.70	3.52	34.53	34.92	Average	100	70	VERTICAL
3	5465.99	63.59	74.00	-10.41	60.44	3.52	34.55	34.92	Peak	100	70	VERTICAL
4	5470.00	48.36	54.00	-5.64	45.21	3.52	34.55	34.92	Average	100	70	VERTICAL
5	5599.58	93.10			89.83	3.56	34.64	34.93	Average	100	70	VERTICAL
6	5599.58	105.74			102.47	3.56	34.64	34.93	Peak	100	70	VERTICAL
7	5725.00	52.70	54.00	-1.30	49.35	3.60	34.69	34.94	Average	100	70	VERTICAL
8	5734.62	67.41	74.00	-6.59	64.04	3.61	34.70	34.94	Peak	100	70	VERTICAL

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

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	5683.59	111.87			108.54	3.59	34.68	34.94	Peak	134	354	VERTICAL
2	5685.19	98.37			95.04	3.59	34.68	34.94	Average	134	354	VERTICAL
3	5850.00	52.59	54.00	-1.41	49.16	3.64	34.74	34.95	Average	134	354	VERTICAL
4	5858.81	68.30	74.00	-5.70	64.86	3.65	34.74	34.95	Peak	134	354	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

<For Beamforming Mode>

Temperature	24°C	Humidity	56%
Test Engineer	Nick Peng	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 52, 60, 64 / Chain 1 + Chain 2
Test Date	Jun. 05, 2014	Test Mode	Mode 1 (Ant. 2 Dipole antenna / 5dBi / 2TX)

Channel 52

	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	5131.00	52.52	54.00	-1.48	49.91	3.43	34.09	34.91	Average	100	282	VERTICAL
2	5133.00	64.70	74.00	-9.30	62.09	3.43	34.09	34.91	Peak	100	282	VERTICAL
3	5257.00	107.22			104.42	3.46	34.25	34.91	Average	100	282	VERTICAL
4	5257.00	117.48			114.68	3.46	34.25	34.91	Peak	100	282	VERTICAL
5	5374.00	47.64	54.00	-6.36	44.65	3.50	34.41	34.92	Average	100	282	VERTICAL
6	5375.00	60.25	74.00	-13.75	57.26	3.50	34.41	34.92	Peak	100	282	VERTICAL

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

Channel 60

	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	5308.00	107.77			104.88	3.48	34.32	34.91	Average	100	52	VERTICAL
2	5308.00	117.50			114.61	3.48	34.32	34.91	Peak	100	52	VERTICAL
3	5388.00	52.89	54.00	-1.11	49.87	3.50	34.44	34.92	Average	100	52	VERTICAL
4	5388.00	63.87	74.00	-10.13	60.85	3.50	34.44	34.92	Peak	100	52	VERTICAL

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

Channel 64

	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	5105.93	60.07	74.00	-13.93	57.49	3.42	34.06	34.90	Peak	100	248	VERTICAL
2	5150.00	48.04	54.00	-5.96	45.41	3.43	34.11	34.91	Average	100	248	VERTICAL
3	5322.40	108.69			105.77	3.49	34.34	34.91	Average	100	248	VERTICAL
4	5322.40	119.22			116.30	3.49	34.34	34.91	Peak	100	248	VERTICAL
5	5350.00	52.60	54.00	-1.40	49.63	3.49	34.39	34.91	Average	100	248	VERTICAL
6	5350.00	66.43	74.00	-7.57	63.46	3.49	34.39	34.91	Peak	100	248	VERTICAL

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

Temperature	24°C	Humidity	56%
Test Engineer	Nick Peng	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 100, 116, 140 / Chain 1 + Chain 2
Test Date	Jun. 06, 2014	Test Mode	Mode 1 (Ant. 2 Dipole antenna / 5dBi / 2TX)

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	5457.12	72.23	74.00	-1.77	69.10	3.52	34.53	34.92	Peak	100	358	VERTICAL
2	5459.68	52.62	54.00	-1.38	49.49	3.52	34.53	34.92	Average	100	358	VERTICAL
3	5499.36	108.37			105.16	3.53	34.60	34.92	Average	100	358	VERTICAL
4	5499.36	121.17			117.96	3.53	34.60	34.92	Peak	100	358	VERTICAL

Item 3, 4 are the fundamental frequency at 5500 MHz.

Channel 116

	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	5458.72	52.88	54.00	-1.12	49.75	3.52	34.53	34.92	Average	100	59	VERTICAL
2	5458.72	63.69	74.00	-10.31	60.56	3.52	34.53	34.92	Peak	100	59	VERTICAL
3	5461.03	65.14	74.00	-8.86	62.01	3.52	34.53	34.92	Peak	100	59	VERTICAL
4	5581.28	107.90			104.64	3.56	34.63	34.93	Average	100	59	VERTICAL
5	5581.28	118.18			114.92	3.56	34.63	34.93	Peak	100	59	VERTICAL
6	5737.18	58.48	74.00	-15.52	55.11	3.61	34.70	34.94	Peak	100	59	VERTICAL

Item 4, 5 are the fundamental frequency at 5580 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	5698.88	106.57			103.24	3.59	34.68	34.94	Average	100	263	VERTICAL
2	5699.52	118.49			115.16	3.59	34.68	34.94	Peak	100	263	VERTICAL
3	5726.28	52.98	54.00	-1.02	49.63	3.60	34.69	34.94	Average	100	263	VERTICAL
4	5726.60	72.62	74.00	-1.38	69.27	3.60	34.69	34.94	Peak	100	263	VERTICAL

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



Temperature	24°C	Humidity	56%
Test Engineer	Nick Peng	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 144 / Chain 1 + Chain 2
Test Date	Jun. 06, 2014	Test Mode	Mode 1 (Ant. 2 Dipole antenna / 5dBi / 2TX)

Channel 144

	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	5720.80	114.54			111.19	3.60	34.69	34.94	Average	100	64	VERTICAL
2	5722.40	124.41			121.06	3.60	34.69	34.94	Peak	100	64	VERTICAL
3	5881.25	66.68	68.20	-1.52	63.23	3.65	34.75	34.95	Peak	100	64	VERTICAL

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

Temperature	24°C	Humidity	56%
Test Engineer	Nick Peng	Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 54, 62 / Chain 1 + Chain 2
Test Date	Jun. 06, 2014	Test Mode	Mode 1 (Ant. 2 Dipole antenna / 5dBi / 2TX)

Channel 54

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase	
	MHz	dBuV/m	Line	Limit	Level	Loss	Factor		cm	deg		
			dBuV/m	dB	dBuV	dB	dB/m	dB				
1	5264.23	105.52			102.70	3.46	34.27	34.91	Average	100	243	VERTICAL
2	5264.55	117.33			114.51	3.46	34.27	34.91	Peak	100	243	VERTICAL
3	5351.92	52.69	54.00	-1.31	49.72	3.49	34.39	34.91	Average	100	243	VERTICAL
4	5351.92	67.74	74.00	-6.26	64.77	3.49	34.39	34.91	Peak	100	243	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	Line	Limit	Level	Loss	Factor		cm	deg		
			dBuV/m	dB	dBuV	dB	dB/m	dB				
1	5296.86	111.67			108.78	3.48	34.32	34.91	Peak	100	243	VERTICAL
2	5304.23	100.24			97.35	3.48	34.32	34.91	Average	100	243	VERTICAL
3	5350.00	52.63	54.00	-1.37	49.66	3.49	34.39	34.91	Average	100	243	VERTICAL
4	5351.92	70.86	74.00	-3.14	67.89	3.49	34.39	34.91	Peak	100	243	VERTICAL

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

Temperature	24°C	Humidity	56%
Test Engineer	Nick Peng	Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 102, 110, 134 / Chain 1 + Chain 2
Test Date	Jun. 06, 2014	Test Mode	Mode 1 (Ant. 2 Dipole antenna / 5dBi / 2TX)

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	5459.36	63.64	74.00	-10.36	60.51	3.52	34.53	34.92	Peak	100	315	VERTICAL
2	5459.68	47.51	54.00	-6.49	44.38	3.52	34.53	34.92	Average	100	315	VERTICAL
3	5469.36	72.00	74.00	-2.00	68.85	3.52	34.55	34.92	Peak	100	315	VERTICAL
4	5470.00	52.81	54.00	-1.19	49.66	3.52	34.55	34.92	Average	100	315	VERTICAL
5	5504.87	100.52			97.30	3.54	34.60	34.92	Average	100	315	VERTICAL
6	5507.44	112.71			109.49	3.54	34.60	34.92	Peak	100	315	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	5458.40	64.48	74.00	-9.52	61.35	3.52	34.53	34.92	Peak	100	62	VERTICAL
2	5458.72	50.79	54.00	-3.21	47.66	3.52	34.53	34.92	Average	100	62	VERTICAL
3	5468.72	52.79	54.00	-1.21	49.64	3.52	34.55	34.92	Average	100	62	VERTICAL
4	5469.04	71.05	74.00	-2.95	67.90	3.52	34.55	34.92	Peak	100	62	VERTICAL
5	5546.15	105.07			101.83	3.55	34.61	34.92	Average	100	62	VERTICAL
6	5546.15	117.02			113.78	3.55	34.61	34.92	Peak	100	62	VERTICAL

Item 5, 6 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	5663.59	104.19			100.87	3.59	34.66	34.93	Average	100	63	VERTICAL
2	5663.91	115.84			112.52	3.59	34.66	34.93	Peak	100	63	VERTICAL
3	5725.96	52.79	54.00	-1.21	49.44	3.60	34.69	34.94	Average	100	63	VERTICAL
4	5726.60	72.76	74.00	-1.24	69.41	3.60	34.69	34.94	Peak	100	63	VERTICAL

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

Temperature	24°C	Humidity	56%
Test Engineer	Nick Peng	Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 142 / Chain 1 + Chain 2
Test Date	Jun. 06, 2014	Test Mode	Mode 1 (Ant. 2 Dipole antenna / 5dBi / 2TX)

Channel 142

	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	5713.21	110.11			106.77	3.60	34.68	34.94	Average	100	63	VERTICAL
2	5714.01	121.66			118.32	3.60	34.68	34.94	Peak	100	63	VERTICAL
3	5853.21	52.67	54.00	-1.33	49.24	3.64	34.74	34.95	Average	100	63	VERTICAL
4	5868.43	66.79	74.00	-7.21	63.35	3.65	34.74	34.95	Peak	100	63	VERTICAL

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



Temperature	24°C	Humidity	56%
Test Engineer	Nick Peng	Configurations	IEEE 802.11ac MCS0/Nss1 VHT80 CH 58, 106 / Chain 1 + Chain 2
Test Date	Jun. 06, 2014	Test Mode	Mode 1 (Ant. 2 Dipole antenna / 5dBi / 2TX)

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	5133.97	46.13	54.00	-7.87	43.52	3.43	34.09	34.91	Average	100	245	VERTICAL
2	5134.78	58.88	74.00	-15.12	56.27	3.43	34.09	34.91	Peak	100	245	VERTICAL
3	5294.81	94.86			91.98	3.47	34.32	34.91	Average	100	245	VERTICAL
4	5294.81	107.21			104.33	3.47	34.32	34.91	Peak	100	245	VERTICAL
5	5352.40	52.56	54.00	-1.44	49.59	3.49	34.39	34.91	Average	100	245	VERTICAL
6	5352.40	67.78	74.00	-6.22	64.81	3.49	34.39	34.91	Peak	100	245	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	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5458.40	50.94	54.00	-3.06	47.81	3.52	34.53	34.92	Average	100	60	VERTICAL
2	5458.40	66.90	74.00	-7.10	63.77	3.52	34.53	34.92	Peak	100	60	VERTICAL
3	5468.40	52.75	54.00	-1.25	49.60	3.52	34.55	34.92	Average	100	60	VERTICAL
4	5470.00	70.76	74.00	-3.24	67.61	3.52	34.55	34.92	Peak	100	60	VERTICAL
5	5521.19	106.84			103.61	3.54	34.61	34.92	Peak	100	60	VERTICAL
6	5538.81	94.71			91.47	3.55	34.61	34.92	Average	100	60	VERTICAL

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



Temperature	24°C	Humidity	56%
Test Engineer	Nick Peng	Configurations	IEEE 802.11ac MCS0/Nss1 VHT80 CH 122, 138 / Chain 1 + Chain 2
Test Date	Jun. 06, 2014	Test Mode	Mode 1 (Ant. 2 Dipole antenna / 5dBi / 2TX)

Channel 122

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	T/Pos	A/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		deg	cm	
1	5442.37	61.34	74.00	-12.66	57.75	4.53	33.59	34.53	Peak	54	100	VERTICAL
2	5460.00	48.72	54.00	-5.28	45.09	4.54	33.62	34.53	Average	54	100	VERTICAL
3	5463.59	65.28	74.00	-8.72	61.61	4.55	33.65	34.53	Peak	54	100	VERTICAL
4	5467.60	49.87	54.00	-4.13	46.20	4.55	33.65	34.53	Average	54	100	VERTICAL
5	5603.59	112.86			108.77	4.64	34.01	34.56	Peak	54	100	VERTICAL
6	5606.80	98.37			94.28	4.64	34.01	34.56	Average	54	100	VERTICAL
7	5725.00	66.67	74.00	-7.33	62.16	4.72	34.37	34.58	Peak	54	100	VERTICAL
8	5726.60	52.43	54.00	-1.57	47.92	4.72	34.37	34.58	Average	54	100	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	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5685.19	102.52			99.19	3.59	34.68	34.94	Average	100	78	VERTICAL
2	5685.19	114.65			111.32	3.59	34.68	34.94	Peak	100	78	VERTICAL
3	5859.62	67.93	74.00	-6.07	64.49	3.65	34.74	34.95	Peak	100	78	VERTICAL
4	5865.22	52.19	54.00	-1.81	48.75	3.65	34.74	34.95	Average	100	78	VERTICAL

Item 1, 2 are the fundamental frequency at 5690 MHz.

Note:

$$\text{Emission level (dBuV/m)} = 20 \log \text{Emission level (uV/m)}$$

$$\text{Corrected Reading: Antenna Factor} + \text{Cable Loss} + \text{Read Level} - \text{Preamp Factor} = \text{Level}$$

Temperature	24°C	Humidity	56%
Test Engineer	Nick Peng	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 52, 60, 64 / Chain 1 + Chain 2
Test Date	Jun. 09, 2014	Test Mode	Mode 2 (Ant. 4 Panel antenna / 5.1dBi / 2TX)

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	63.93	74.00	-10.07	61.30	3.43	34.11	34.91	Peak	124	7	VERTICAL
2	5146.64	52.63	54.00	-1.37	50.00	3.43	34.11	34.91	Average	124	7	VERTICAL
3	5261.44	113.34			110.52	3.46	34.27	34.91	Average	124	7	VERTICAL
4	5261.44	124.33			121.51	3.46	34.27	34.91	Peak	124	7	VERTICAL
5	5381.73	64.97	74.00	-9.03	61.95	3.50	34.44	34.92	Peak	124	7	VERTICAL
6	5381.80	52.07	54.00	-1.93	49.05	3.50	34.44	34.92	Average	124	7	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	5297.60	117.47			114.58	3.48	34.32	34.91	Peak	100	354	VERTICAL
2	5302.40	106.67			103.78	3.48	34.32	34.91	Average	100	354	VERTICAL
3	5418.11	52.82	54.00	-1.18	49.75	3.51	34.48	34.92	Average	100	354	VERTICAL
4	5422.92	65.29	74.00	-8.71	62.22	3.51	34.48	34.92	Peak	100	354	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	5317.76	106.30			103.39	3.48	34.34	34.91	Average	100	354	VERTICAL
2	5322.56	116.73			113.81	3.49	34.34	34.91	Peak	100	354	VERTICAL
3	5350.00	52.95	54.00	-1.05	49.98	3.49	34.39	34.91	Average	100	354	VERTICAL
4	5352.89	70.77	74.00	-3.23	67.80	3.49	34.39	34.91	Peak	100	354	VERTICAL

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

Temperature	24°C	Humidity	56%
Test Engineer	Nick Peng	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 100, 116, 140 / Chain 1 + Chain 2
Test Date	Jun. 09, 2014	Test Mode	Mode 2 (Ant. 4 Panel antenna / 5.1dBi / 2TX)

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	5458.08	64.68	74.00	-9.32	61.55	3.52	34.53	34.92	Peak	100	20	VERTICAL
2	5460.00	48.16	54.00	-5.84	45.03	3.52	34.53	34.92	Average	100	20	VERTICAL
3	5468.08	71.69	74.00	-2.31	68.54	3.52	34.55	34.92	Peak	100	20	VERTICAL
4	5470.00	52.47	54.00	-1.53	49.32	3.52	34.55	34.92	Average	100	20	VERTICAL
5	5500.64	106.91			103.70	3.53	34.60	34.92	Average	100	20	VERTICAL
6	5503.21	117.82			114.60	3.54	34.60	34.92	Peak	100	20	VERTICAL

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	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5457.12	52.62	54.00	-1.38	49.49	3.52	34.53	34.92	Average	100	65	VERTICAL
2	5457.12	62.95	74.00	-11.05	59.82	3.52	34.53	34.92	Peak	100	65	VERTICAL
3	5459.42	52.78	54.00	-1.22	49.65	3.52	34.53	34.92	Average	100	65	VERTICAL
4	5461.35	64.55	74.00	-9.45	61.42	3.52	34.53	34.92	Peak	100	65	VERTICAL
5	5581.92	107.68			104.42	3.56	34.63	34.93	Average	100	65	VERTICAL
6	5582.40	118.81			115.55	3.56	34.63	34.93	Peak	100	65	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	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5699.04	102.75			99.42	3.59	34.68	34.94	Average	100	77	VERTICAL
2	5701.60	114.23			110.90	3.59	34.68	34.94	Peak	100	77	VERTICAL
3	5725.00	50.98	54.00	-3.02	47.63	3.60	34.69	34.94	Average	100	77	VERTICAL
4	5725.96	72.47	74.00	-1.53	69.12	3.60	34.69	34.94	Peak	100	77	VERTICAL

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

Temperature	24°C	Humidity	56%
Test Engineer	Nick Peng	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 144 / Chain 1 + Chain 2
Test Date	Jun. 09, 2014	Test Mode	Mode 2 (Ant. 4 Panel antenna / 5.1dBi / 2TX)

Channel 144

	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	5718.40	125.11			121.76	3.60	34.69	34.94	Peak	132	348	VERTICAL
2	5720.80	113.67			110.32	3.60	34.69	34.94	Average	132	348	VERTICAL
3	5850.00	52.98	54.00	-1.02	49.55	3.64	34.74	34.95	Average	132	348	VERTICAL
4	5854.81	69.25	74.00	-4.75	65.82	3.64	34.74	34.95	Peak	132	348	VERTICAL

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

Temperature	24°C	Humidity	56%
Test Engineer	Nick Peng	Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 54, 62 / Chain 1 + Chain 2
Test Date	Jun. 09, 2014	Test Mode	Mode 2 (Ant. 4 Panel antenna / 5.1 dBi / 2TX)

Channel 54

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase	
	MHz	dBuV/m	Line	Limit	Level	Loss	Factor		cm	deg		
			dBuV/m	dB	dBuV	dB	dB/m	dB				
1	5265.19	104.34			101.52	3.46	34.27	34.91	Average	102	351	VERTICAL
2	5267.60	116.06			113.24	3.46	34.27	34.91	Peak	102	351	VERTICAL
3	5353.21	52.67	54.00	-1.33	49.70	3.49	34.39	34.91	Average	102	351	VERTICAL
4	5353.21	65.57	74.00	-8.43	62.60	3.49	34.39	34.91	Peak	102	351	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	Line	Limit	Level	Loss	Factor		cm	deg		
			dBuV/m	dB	dBuV	dB	dB/m	dB				
1	5315.77	98.93			96.02	3.48	34.34	34.91	Average	100	346	VERTICAL
2	5315.77	110.82			107.91	3.48	34.34	34.91	Peak	100	346	VERTICAL
3	5350.32	67.60	74.00	-6.40	64.63	3.49	34.39	34.91	Peak	100	346	VERTICAL
4	5350.64	52.95	54.00	-1.05	49.98	3.49	34.39	34.91	Average	100	346	VERTICAL

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

Temperature	24°C	Humidity	56%
Test Engineer	Nick Peng	Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 102, 110, 134 / Chain 1 + Chain 2
Test Date	Jun. 09, 2014	Test Mode	Mode 2 (Ant. 4 Panel antenna / 5.1dBi / 2TX)

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	5451.99	62.82	74.00	-11.18	59.69	3.52	34.53	34.92	Peak	100	19	VERTICAL
2	5460.00	49.20	54.00	-4.80	46.07	3.52	34.53	34.92	Average	100	19	VERTICAL
3	5468.40	52.93	54.00	-1.07	49.78	3.52	34.55	34.92	Average	100	19	VERTICAL
4	5469.68	70.91	74.00	-3.09	67.76	3.52	34.55	34.92	Peak	100	19	VERTICAL
5	5505.51	101.16			97.94	3.54	34.60	34.92	Average	100	19	VERTICAL
6	5505.51	112.41			109.19	3.54	34.60	34.92	Peak	100	19	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	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5435.00	52.63	54.00	-1.37	49.52	3.52	34.51	34.92	Average	100	20	VERTICAL
2	5456.15	64.30	74.00	-9.70	61.17	3.52	34.53	34.92	Peak	100	20	VERTICAL
3	5457.60	50.26	54.00	-3.74	47.13	3.52	34.53	34.92	Average	100	20	VERTICAL
4	5467.60	66.56	74.00	-7.44	63.41	3.52	34.55	34.92	Peak	100	20	VERTICAL
5	5552.89	102.85			99.61	3.55	34.62	34.93	Average	100	20	VERTICAL
6	5555.77	114.42			111.18	3.55	34.62	34.93	Peak	100	20	VERTICAL

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	5656.86	100.79			97.47	3.59	34.66	34.93	Average	100	77	VERTICAL
2	5657.18	112.96			109.64	3.59	34.66	34.93	Peak	100	77	VERTICAL
3	5725.00	52.71	54.00	-1.29	49.36	3.60	34.69	34.94	Average	100	77	VERTICAL
4	5725.32	72.98	74.00	-1.02	69.63	3.60	34.69	34.94	Peak	100	77	VERTICAL

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



Temperature	24°C	Humidity	56%
Test Engineer	Nick Peng	Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 142 / Chain 1 + Chain 2
Test Date	Jun. 09, 2014	Test Mode	Mode 2 (Ant. 4 Panel antenna / 5.1dBi / 2TX)

Channel 142

	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	5715.61	107.38			104.04	3.60	34.68	34.94	Average	132	349	VERTICAL
2	5718.01	119.08			115.73	3.60	34.69	34.94	Peak	132	349	VERTICAL
3	5852.40	52.77	54.00	-1.23	49.34	3.64	34.74	34.95	Average	132	349	VERTICAL
4	5854.81	67.93	74.00	-6.07	64.50	3.64	34.74	34.95	Peak	132	349	VERTICAL

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

Temperature	24°C	Humidity	56%
Test Engineer	Nick Peng	Configurations	IEEE 802.11ac MCS0/Nss1 VHT80 CH 58, 106 / Chain 1 + Chain 2
Test Date	Jun. 09, 2014	Test Mode	Mode 2 (Ant. 4 Panel antenna / 5.1dBi / 2TX)

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	5147.50	42.99	54.00	-11.01	40.36	3.43	34.11	34.91	Average	111	353	VERTICAL
2	5147.60	55.08	74.00	-18.92	52.45	3.43	34.11	34.91	Peak	111	353	VERTICAL
3	5300.42	105.59			102.70	3.48	34.32	34.91	Peak	111	353	VERTICAL
4	5314.84	93.33			90.42	3.48	34.34	34.91	Average	111	353	VERTICAL
5	5350.00	52.91	54.00	-1.09	49.94	3.49	34.39	34.91	Average	111	353	VERTICAL
6	5350.00	66.85	74.00	-7.15	63.88	3.49	34.39	34.91	Peak	111	353	VERTICAL

Item 3, 4 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	5456.80	66.34	74.00	-7.66	63.21	3.52	34.53	34.92	Peak	100	20	VERTICAL
2	5460.00	52.05	54.00	-1.95	48.92	3.52	34.53	34.92	Average	100	20	VERTICAL
3	5470.00	52.84	54.00	-1.16	49.69	3.52	34.55	34.92	Average	100	20	VERTICAL
4	5470.00	68.25	74.00	-5.75	65.10	3.52	34.55	34.92	Peak	100	20	VERTICAL
5	5520.39	95.52			92.29	3.54	34.61	34.92	Average	100	20	VERTICAL
6	5538.01	108.59			105.35	3.55	34.61	34.92	Peak	100	20	VERTICAL
7	5725.00	43.75	74.00	-30.25	40.40	3.60	34.69	34.94	Peak	100	20	VERTICAL
8	5729.01	56.45	74.00	-17.55	53.10	3.60	34.69	34.94	Peak	100	20	VERTICAL

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

Temperature	24°C	Humidity	56%
Test Engineer	Nick Peng	Configurations	IEEE 802.11ac MCS0/Nss1 VHT80 CH 122, 138 / Chain 1 + Chain 2
Test Date	Jun. 09, 2014	Test Mode	Mode 2 (Ant. 4 Panel antenna / 5.1dBi / 2TX)

Channel 122

	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	5454.39	60.80	74.00	-13.20	57.67	3.52	34.53	34.92	Peak	100	70	VERTICAL
2	5460.00	46.96	54.00	-7.04	43.83	3.52	34.53	34.92	Average	100	70	VERTICAL
3	5463.59	64.51	74.00	-9.49	61.36	3.52	34.55	34.92	Peak	100	70	VERTICAL
4	5470.00	48.66	54.00	-5.34	45.51	3.52	34.55	34.92	Average	100	70	VERTICAL
5	5599.58	95.17			91.90	3.56	34.64	34.93	Average	100	70	VERTICAL
6	5599.58	107.71			104.44	3.56	34.64	34.93	Peak	100	70	VERTICAL
7	5725.00	52.56	54.00	-1.44	49.21	3.60	34.69	34.94	Average	100	70	VERTICAL
8	5730.61	68.39	74.00	-5.61	65.03	3.61	34.69	34.94	Peak	100	70	VERTICAL

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

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	5682.79	113.72			110.40	3.59	34.67	34.94	Peak	134	354	VERTICAL
2	5685.19	100.56			97.23	3.59	34.68	34.94	Average	134	354	VERTICAL
3	5850.80	52.78	54.00	-1.22	49.35	3.64	34.74	34.95	Average	134	354	VERTICAL
4	5851.60	68.53	74.00	-5.47	65.10	3.64	34.74	34.95	Peak	134	354	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

<For STBC Mode>

Temperature	24°C	Humidity	56%
Test Engineer	Nick Peng	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 52, 60, 64 / Chain 1 + Chain 2
Test Date	Jun. 05, 2014	Test Mode	Mode 1 (Ant. 2 Dipole antenna / 5dBi / 2TX)

Channel 52

	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	5131.40	62.46	74.00	-11.54	59.85	3.43	34.09	34.91	Peak	100	238	VERTICAL
2	5132.00	50.66	54.00	-3.34	48.05	3.43	34.09	34.91	Average	100	238	VERTICAL
3	5261.80	119.84			117.02	3.46	34.27	34.91	Peak	100	238	VERTICAL
4	5262.40	107.80			104.98	3.46	34.27	34.91	Average	100	238	VERTICAL
5	5378.80	65.17	74.00	-8.83	62.15	3.50	34.44	34.92	Peak	100	238	VERTICAL
6	5382.40	52.62	54.00	-1.38	49.60	3.50	34.44	34.92	Average	100	238	VERTICAL

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

Channel 60

	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	5299.20	120.21			117.32	3.48	34.32	34.91	Peak	100	236	VERTICAL
2	5302.00	108.19			105.30	3.48	34.32	34.91	Average	100	236	VERTICAL
3	5350.00	52.87	54.00	-1.13	49.90	3.49	34.39	34.91	Average	100	236	VERTICAL
4	5352.00	66.99	74.00	-7.01	64.02	3.49	34.39	34.91	Peak	100	236	VERTICAL

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

Channel 64

	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	5317.40	117.00			114.09	3.48	34.34	34.91	Peak	100	249	VERTICAL
2	5317.80	105.56			102.65	3.48	34.34	34.91	Average	100	249	VERTICAL
3	5350.00	52.80	54.00	-1.20	49.83	3.49	34.39	34.91	Average	100	249	VERTICAL
4	5350.80	69.85	74.00	-4.15	66.88	3.49	34.39	34.91	Peak	100	249	VERTICAL

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

Temperature	24°C	Humidity	56%
Test Engineer	Nick Peng	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 100, 116, 140 / Chain 1 + Chain 2
Test Date	Jun. 06, 2014	Test Mode	Mode 1 (Ant. 2 Dipole antenna / 5dBi / 2TX)

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	5459.70	47.42	54.00	-6.58	44.29	3.52	34.53	34.92	Average	102	308	VERTICAL
2	5459.80	64.56	74.00	-9.44	61.43	3.52	34.53	34.92	Peak	102	308	VERTICAL
3	5469.60	70.03	74.00	-3.97	66.88	3.52	34.55	34.92	Peak	102	308	VERTICAL
4	5470.00	52.30	54.00	-1.70	49.15	3.52	34.55	34.92	Average	102	308	VERTICAL
5	5502.20	104.49			101.27	3.54	34.60	34.92	Average	102	308	VERTICAL
6	5502.80	116.91			113.69	3.54	34.60	34.92	Peak	102	308	VERTICAL

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	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5459.40	51.99	54.00	-2.01	48.86	3.52	34.53	34.92	Average	100	54	VERTICAL
2	5459.40	62.54	74.00	-11.46	59.41	3.52	34.53	34.92	Peak	100	54	VERTICAL
3	5462.80	64.79	74.00	-9.21	61.64	3.52	34.55	34.92	Peak	100	54	VERTICAL
4	5466.00	52.87	54.00	-1.13	49.72	3.52	34.55	34.92	Average	100	54	VERTICAL
5	5581.20	117.81			114.55	3.56	34.63	34.93	Peak	100	54	VERTICAL
6	5586.60	105.93			102.67	3.56	34.63	34.93	Average	100	54	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	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5697.60	103.63			100.30	3.59	34.68	34.94	Average	100	240	VERTICAL
2	5698.00	114.98			111.65	3.59	34.68	34.94	Peak	100	240	VERTICAL
3	5725.00	51.06	54.00	-2.94	47.71	3.60	34.69	34.94	Average	100	240	VERTICAL
4	5725.40	72.40	74.00	-1.60	69.05	3.60	34.69	34.94	Peak	100	240	VERTICAL

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



Temperature	24°C	Humidity	56%
Test Engineer	Nick Peng	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 144 / Chain 1 + Chain 2
Test Date	Jun. 06, 2014	Test Mode	Mode 1 (Ant. 2 Dipole antenna / 5dBi / 2TX)

Channel 144

	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	5717.60	110.55			107.20	3.60	34.69	34.94	Average	100	47	VERTICAL
2	5720.00	121.69			118.34	3.60	34.69	34.94	Peak	100	47	VERTICAL
3	5850.00	49.64	54.00	-4.36	46.21	3.64	34.74	34.95	Average	100	47	VERTICAL
4	5852.40	62.02	74.00	-11.98	58.59	3.64	34.74	34.95	Peak	100	47	VERTICAL

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

Temperature	24°C	Humidity	56%
Test Engineer	Nick Peng	Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 54, 62 / Chain 1 + Chain 2
Test Date	Jun. 06, 2014	Test Mode	Mode 1 (Ant. 2 Dipole antenna / 5dBi / 2TX)

Channel 54

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	Line	Limit	Level	Loss	Factor		cm	deg	
			dBuV/m	dB	dBuV	dB	dB/m	dB			
1	5263.60	115.21			112.39	3.46	34.27	34.91	100	238	VERTICAL
2	5266.40	102.13			99.31	3.46	34.27	34.91	100	238	VERTICAL
3	5351.20	52.66	54.00	-1.34	49.69	3.49	34.39	34.91	100	238	VERTICAL
4	5352.80	67.41	74.00	-6.59	64.44	3.49	34.39	34.91	100	238	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	Line	Limit	Level	Loss	Factor		cm	deg	
			dBuV/m	dB	dBuV	dB	dB/m	dB			
1	5314.40	97.00			94.09	3.48	34.34	34.91	100	244	VERTICAL
2	5323.20	110.03			107.11	3.49	34.34	34.91	100	244	VERTICAL
3	5350.00	52.95	54.00	-1.05	49.98	3.49	34.39	34.91	100	244	VERTICAL
4	5351.20	69.95	74.00	-4.05	66.98	3.49	34.39	34.91	100	244	VERTICAL

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

Temperature	24°C	Humidity	56%
Test Engineer	Nick Peng	Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 102, 110, 134 / Chain 1 + Chain 2
Test Date	Jun. 06, 2014	Test Mode	Mode 1 (Ant. 2 Dipole antenna / 5dBi / 2TX)

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	5457.60	46.28	54.00	-7.72	43.15	3.52	34.53	34.92	Average	100	306	VERTICAL
2	5457.60	64.39	74.00	-9.61	61.26	3.52	34.53	34.92	Peak	100	306	VERTICAL
3	5466.80	72.19	74.00	-1.81	69.04	3.52	34.55	34.92	Peak	100	306	VERTICAL
4	5470.00	51.76	54.00	-2.24	48.61	3.52	34.55	34.92	Average	100	306	VERTICAL
5	5505.20	97.61			94.39	3.54	34.60	34.92	Average	100	306	VERTICAL
6	5512.80	110.18			106.96	3.54	34.60	34.92	Peak	100	306	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	5458.00	66.21	74.00	-7.79	63.08	3.52	34.53	34.92	Peak	100	55	VERTICAL
2	5460.00	50.50	54.00	-3.50	47.37	3.52	34.53	34.92	Average	100	55	VERTICAL
3	5467.20	66.68	74.00	-7.32	63.53	3.52	34.55	34.92	Peak	100	55	VERTICAL
4	5468.00	52.83	54.00	-1.17	49.68	3.52	34.55	34.92	Average	100	55	VERTICAL
5	5546.00	115.56			112.32	3.55	34.61	34.92	Peak	100	55	VERTICAL
6	5546.40	103.43			100.19	3.55	34.61	34.92	Average	100	55	VERTICAL

Item 5, 6 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	5666.40	100.64			97.32	3.59	34.66	34.93	Average	100	56	VERTICAL
2	5666.40	113.30			109.98	3.59	34.66	34.93	Peak	100	56	VERTICAL
3	5725.00	52.41	54.00	-1.59	49.06	3.60	34.69	34.94	Average	100	56	VERTICAL
4	5728.20	70.75	74.00	-3.25	67.40	3.60	34.69	34.94	Peak	100	56	VERTICAL

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



Temperature	24°C	Humidity	56%
Test Engineer	Nick Peng	Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 142 / Chain 1 + Chain 2
Test Date	Jun. 06, 2014	Test Mode	Mode 1 (Ant. 2 Dipole antenna / 5dBi / 2TX)

Channel 142

	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	5713.21	107.12			103.78	3.60	34.68	34.94	Average	100	63	VERTICAL
2	5714.81	118.75			115.41	3.60	34.68	34.94	Peak	100	63	VERTICAL
3	5852.40	52.65	54.00	-1.35	49.22	3.64	34.74	34.95	Average	100	63	VERTICAL
4	5871.64	68.62	74.00	-5.38	65.17	3.65	34.75	34.95	Peak	100	63	VERTICAL

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

Temperature	24°C	Humidity	56%
Test Engineer	Nick Peng	Configurations	IEEE 802.11ac MCS0/Nss1 VHT80 CH 58, 106 / Chain 1 + Chain 2
Test Date	Jun. 06, 2014	Test Mode	Mode 1 (Ant. 2 Dipole antenna / 5dBi / 2TX)

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	5114.00	55.78	74.00	-18.22	53.20	3.42	34.06	34.90	Peak	100	245	VERTICAL
2	5150.00	43.80	54.00	-10.20	41.17	3.43	34.11	34.91	Average	100	245	VERTICAL
3	5285.00	92.57			89.71	3.47	34.30	34.91	Average	100	245	VERTICAL
4	5293.00	106.74			103.86	3.47	34.32	34.91	Peak	100	245	VERTICAL
5	5350.00	52.91	54.00	-1.09	49.94	3.49	34.39	34.91	Average	100	245	VERTICAL
6	5358.00	69.46	74.00	-4.54	66.49	3.49	34.39	34.91	Peak	100	245	VERTICAL

Item 3, 4 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	5452.00	66.14	74.00	-7.86	63.01	3.52	34.53	34.92	Peak	100	243	VERTICAL
2	5460.00	50.31	54.00	-3.69	47.18	3.52	34.53	34.92	Average	100	243	VERTICAL
3	5470.00	52.40	54.00	-1.60	49.25	3.52	34.55	34.92	Average	100	243	VERTICAL
4	5470.00	70.51	74.00	-3.49	67.36	3.52	34.55	34.92	Peak	100	243	VERTICAL
5	5515.00	106.40			103.17	3.54	34.61	34.92	Peak	100	243	VERTICAL
6	5518.00	93.06			89.83	3.54	34.61	34.92	Average	100	243	VERTICAL
7	5725.00	43.26	54.00	-10.74	39.91	3.60	34.69	34.94	Average	100	243	VERTICAL
8	5728.00	56.24	74.00	-17.76	52.89	3.60	34.69	34.94	Peak	100	243	VERTICAL

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

Temperature	24°C	Humidity	56%
Test Engineer	Nick Peng	Configurations	IEEE 802.11ac MCS0/Nss1 VHT80 CH 122, 138 / Chain 1 + Chain 2
Test Date	Jun. 06, 2014	Test Mode	Mode 1 (Ant. 2 Dipole antenna / 5dBi / 2TX)

Channel 122

	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	5582.00	110.88			107.62	3.56	34.63	34.93	Peak	100	56	VERTICAL
2	5586.00	97.37			94.11	3.56	34.63	34.93	Average	100	56	VERTICAL
3	5725.00	52.85	54.00	-1.15	49.50	3.60	34.69	34.94	Average	100	56	VERTICAL
4	5732.00	66.40	74.00	-7.60	63.04	3.61	34.69	34.94	Peak	100	56	VERTICAL

Item 1, 2 are the fundamental frequency at 5610 MHz.

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	5676.00	98.05			94.72	3.59	34.67	34.93	Average	100	57	VERTICAL
2	5682.00	111.49			108.17	3.59	34.67	34.94	Peak	100	57	VERTICAL
3	5850.00	52.23	54.00	-1.77	48.80	3.64	34.74	34.95	Average	100	57	VERTICAL
4	5857.00	65.83	74.00	-8.17	62.40	3.64	34.74	34.95	Peak	100	57	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	24°C	Humidity	56%
Test Engineer	Nick Peng	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 52, 60, 64 / Chain 1 + Chain 2
Test Date	Jun. 07, 2014	Test Mode	Mode 2 (Ant. 4 Panel antenna / 5.1dBi / 2TX)

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	52.90	54.00	-1.10	50.27	3.43	34.11	34.91	Average	100	17	VERTICAL
2	5141.83	65.68	74.00	-8.32	63.05	3.43	34.11	34.91	Peak	100	17	VERTICAL
3	5253.27	110.20			107.40	3.46	34.25	34.91	Average	100	17	VERTICAL
4	5260.96	121.41			118.59	3.46	34.27	34.91	Peak	100	17	VERTICAL
5	5373.56	49.71	54.00	-4.29	46.72	3.50	34.41	34.92	Average	100	17	VERTICAL
6	5375.00	61.85	74.00	-12.15	58.86	3.50	34.41	34.92	Peak	100	17	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	5297.44	119.38			116.49	3.48	34.32	34.91	Peak	107	23	VERTICAL
2	5297.76	107.20			104.31	3.48	34.32	34.91	Average	107	23	VERTICAL
3	5350.00	52.98	54.00	-1.02	50.01	3.49	34.39	34.91	Average	107	23	VERTICAL
4	5350.00	69.49	74.00	-4.51	66.52	3.49	34.39	34.91	Peak	107	23	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	5317.76	104.75			101.84	3.48	34.34	34.91	Average	107	24	VERTICAL
2	5318.08	116.01			113.10	3.48	34.34	34.91	Peak	107	24	VERTICAL
3	5350.00	52.73	54.00	-1.27	49.76	3.49	34.39	34.91	Average	107	24	VERTICAL
4	5352.89	68.56	74.00	-5.44	65.59	3.49	34.39	34.91	Peak	107	24	VERTICAL

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

Temperature	24°C	Humidity	56%
Test Engineer	Nick Peng	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 100, 116, 140 / Chain 1 + Chain 2
Test Date	Jun. 07, 2014	Test Mode	Mode 2 (Ant. 4 Panel antenna / 5.1dBi / 2TX)

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	5459.36	64.02	74.00	-9.98	60.89	3.52	34.53	34.92	Peak	113	352	VERTICAL
2	5460.00	48.58	54.00	-5.42	45.45	3.52	34.53	34.92	Average	113	352	VERTICAL
3	5468.08	70.83	74.00	-3.17	67.68	3.52	34.55	34.92	Peak	113	352	VERTICAL
4	5470.00	52.90	54.00	-1.10	49.75	3.52	34.55	34.92	Average	113	352	VERTICAL
5	5497.76	104.63			101.42	3.53	34.60	34.92	Average	113	352	VERTICAL
6	5497.76	116.52			113.31	3.53	34.60	34.92	Peak	113	352	VERTICAL

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	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5452.79	63.01	74.00	-10.99	59.88	3.52	34.53	34.92	Peak	100	352	VERTICAL
2	5458.08	52.32	54.00	-1.68	49.19	3.52	34.53	34.92	Average	100	352	VERTICAL
3	5464.71	52.68	54.00	-1.32	49.53	3.52	34.55	34.92	Average	100	352	VERTICAL
4	5467.60	64.61	74.00	-9.39	61.46	3.52	34.55	34.92	Peak	100	352	VERTICAL
5	5577.60	108.88			105.62	3.56	34.63	34.93	Average	100	352	VERTICAL
6	5585.77	121.12			117.86	3.56	34.63	34.93	Peak	100	352	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	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5697.76	101.49			98.16	3.59	34.68	34.94	Average	105	19	VERTICAL
2	5698.40	113.21			109.88	3.59	34.68	34.94	Peak	105	19	VERTICAL
3	5725.00	49.95	54.00	-4.05	46.60	3.60	34.69	34.94	Average	105	19	VERTICAL
4	5726.92	72.94	74.00	-1.06	69.59	3.60	34.69	34.94	Peak	105	19	VERTICAL

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

Temperature	24°C	Humidity	56%
Test Engineer	Nick Peng	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 144 / Chain 1 + Chain 2
Test Date	Jun. 07, 2014	Test Mode	Mode 2 (Ant. 4 Panel antenna / 5.1dBi / 2TX)

Channel 144

	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	5715.19	120.65			117.31	3.60	34.68	34.94	Peak	102	354	VERTICAL
2	5718.40	109.94			106.59	3.60	34.69	34.94	Average	102	354	VERTICAL
3	5850.00	52.50	54.00	-1.50	49.07	3.64	34.74	34.95	Average	102	354	VERTICAL
4	5851.60	66.24	74.00	-7.76	62.81	3.64	34.74	34.95	Peak	102	354	VERTICAL

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

Temperature	24°C	Humidity	56%
Test Engineer	Nick Peng	Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 54, 62 / Chain 1 + Chain 2
Test Date	Jun. 07, 2014	Test Mode	Mode 2 (Ant. 4 Panel antenna / 5.1 dBi / 2TX)

Channel 54

	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	5144.23	60.77	74.00	-13.23	58.14	3.43	34.11	34.91	Peak	123	345	VERTICAL
2	5148.56	47.46	54.00	-6.54	44.83	3.43	34.11	34.91	Average	123	345	VERTICAL
3	5264.71	103.01			100.19	3.46	34.27	34.91	Average	123	345	VERTICAL
4	5265.67	116.95			114.13	3.46	34.27	34.91	Peak	123	345	VERTICAL
5	5350.00	52.82	54.00	-1.18	49.85	3.49	34.39	34.91	Average	123	345	VERTICAL
6	5355.77	68.75	74.00	-5.25	65.78	3.49	34.39	34.91	Peak	123	345	VERTICAL

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

Channel 62

	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	5317.69	98.08			95.17	3.48	34.34	34.91	Average	101	353	VERTICAL
2	5322.50	111.51			108.59	3.49	34.34	34.91	Peak	101	353	VERTICAL
3	5350.00	52.86	54.00	-1.14	49.89	3.49	34.39	34.91	Average	101	353	VERTICAL
4	5353.21	72.87	74.00	-1.13	69.90	3.49	34.39	34.91	Peak	101	353	VERTICAL

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

Temperature	24°C	Humidity	56%
Test Engineer	Nick Peng	Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 102, 110, 134 / Chain 1 + Chain 2
Test Date	Jun. 07, 2014	Test Mode	Mode 2 (Ant. 4 Panel antenna / 5.1dBi / 2TX)

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	5459.04	69.94	74.00	-4.06	66.81	3.52	34.53	34.92	Peak	100	28	VERTICAL
2	5459.20	49.03	54.00	-4.97	45.90	3.52	34.53	34.92	Average	100	28	VERTICAL
3	5464.87	72.26	74.00	-1.74	69.11	3.52	34.55	34.92	Peak	100	28	VERTICAL
4	5470.00	52.61	54.00	-1.39	49.46	3.52	34.55	34.92	Average	100	28	VERTICAL
5	5501.67	111.89			108.67	3.54	34.60	34.92	Peak	100	28	VERTICAL
6	5502.31	99.16			95.94	3.54	34.60	34.92	Average	100	28	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	5455.51	67.91	74.00	-6.09	64.78	3.52	34.53	34.92	Peak	100	20	VERTICAL
2	5460.00	51.36	54.00	-2.64	48.23	3.52	34.53	34.92	Average	100	20	VERTICAL
3	5469.36	70.17	74.00	-3.83	67.02	3.52	34.55	34.92	Peak	100	20	VERTICAL
4	5470.00	52.93	54.00	-1.07	49.78	3.52	34.55	34.92	Average	100	20	VERTICAL
5	5554.49	101.68			98.44	3.55	34.62	34.93	Average	100	20	VERTICAL
6	5554.49	114.78			111.54	3.55	34.62	34.93	Peak	100	20	VERTICAL

Item 5, 6 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	5663.59	110.36			107.04	3.59	34.66	34.93	Peak	100	79	VERTICAL
2	5666.47	97.12			93.80	3.59	34.66	34.93	Average	100	79	VERTICAL
3	5725.00	51.93	54.00	-2.07	48.58	3.60	34.69	34.94	Average	100	79	VERTICAL
4	5727.89	68.21	74.00	-5.79	64.86	3.60	34.69	34.94	Peak	100	79	VERTICAL

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

Temperature	24°C	Humidity	56%
Test Engineer	Nick Peng	Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 142 / Chain 1 + Chain 2
Test Date	Jun. 07, 2014	Test Mode	Mode 2 (Ant. 4 Panel antenna / 5.1dBi / 2TX)

Channel 142

	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	5718.01	104.66			101.31	3.60	34.69	34.94	Average	112	354	VERTICAL
2	5722.82	118.02			114.67	3.60	34.69	34.94	Peak	112	354	VERTICAL
3	5851.60	67.16	74.00	-6.84	63.73	3.64	34.74	34.95	Peak	112	354	VERTICAL
4	5852.40	52.93	54.00	-1.07	49.50	3.64	34.74	34.95	Average	112	354	VERTICAL

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

Temperature	24°C	Humidity	56%
Test Engineer	Nick Peng	Configurations	IEEE 802.11ac MCS0/Nss1 VHT80 CH 58, 106 / Chain 1 + Chain 2
Test Date	Jun. 07, 2014	Test Mode	Mode 2 (Ant. 4 Panel antenna / 5.1dBi / 2TX)

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	5316.44	91.47			88.56	3.48	34.34	34.91	Average	100	347 VERTICAL
2	5318.85	105.24			102.33	3.48	34.34	34.91	Peak	100	347 VERTICAL
3	5352.40	52.55	54.00	-1.45	49.58	3.49	34.39	34.91	Average	100	347 VERTICAL
4	5370.83	67.73	74.00	-6.27	64.74	3.49	34.41	34.91	Peak	100	347 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	5460.00	50.45	54.00	-3.55	47.32	3.52	34.53	34.92	Average	100	18 VERTICAL
2	5460.00	70.19	74.00	-3.81	67.06	3.52	34.53	34.92	Peak	100	18 VERTICAL
3	5467.60	71.08	74.00	-2.92	67.93	3.52	34.55	34.92	Peak	100	18 VERTICAL
4	5470.00	52.54	54.00	-1.46	49.39	3.52	34.55	34.92	Average	100	18 VERTICAL
5	5517.98	94.21			90.98	3.54	34.61	34.92	Average	100	18 VERTICAL
6	5518.78	106.89			103.66	3.54	34.61	34.92	Peak	100	18 VERTICAL
7	5725.00	42.46	54.00	-11.54	39.11	3.60	34.69	34.94	Average	100	18 VERTICAL
8	5747.44	55.27	74.00	-18.73	51.90	3.61	34.70	34.94	Peak	100	18 VERTICAL

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

Temperature	24°C	Humidity	56%
Test Engineer	Nick Peng	Configurations	IEEE 802.11ac MCS0/Nss1 VHT80 CH 122, 138 / Chain 1 + Chain 2
Test Date	Jun. 07, 2014	Test Mode	Mode 2 (Ant. 4 Panel antenna / 5.1dBi / 2TX)

Channel 122

	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	5460.00	48.08	54.00	-5.92	44.95	3.52	34.53	34.92	Average	100	66	VERTICAL
2	5460.00	62.74	74.00	-11.26	59.61	3.52	34.53	34.92	Peak	100	66	VERTICAL
3	5468.40	64.28	74.00	-9.72	61.13	3.52	34.55	34.92	Peak	100	66	VERTICAL
4	5470.00	49.66	54.00	-4.34	46.51	3.52	34.55	34.92	Average	100	66	VERTICAL
5	5594.78	92.51			89.25	3.56	34.63	34.93	Average	100	66	VERTICAL
6	5596.38	107.01			103.75	3.56	34.63	34.93	Peak	100	66	VERTICAL
7	5725.00	52.66	54.00	-1.34	49.31	3.60	34.69	34.94	Average	100	66	VERTICAL
8	5725.80	67.64	74.00	-6.36	64.29	3.60	34.69	34.94	Peak	100	66	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	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5686.80	96.78			93.45	3.59	34.68	34.94	Average	100	75	VERTICAL
2	5718.85	110.91			107.56	3.60	34.69	34.94	Peak	100	75	VERTICAL
3	5850.00	52.81	54.00	-1.19	49.38	3.64	34.74	34.95	Average	100	75	VERTICAL
4	5850.00	68.06	74.00	-5.94	64.63	3.64	34.74	34.95	Peak	100	75	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

4.7. Frequency Stability Measurement

4.7.1. 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).

4.7.2. Measuring Instruments and Setting

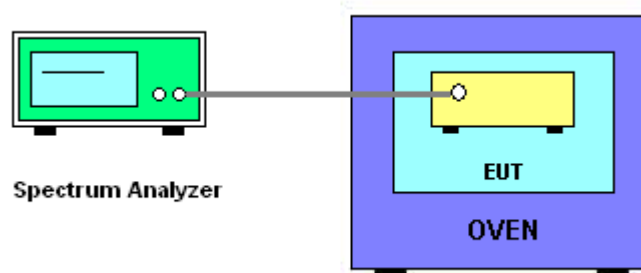
Please refer to section 5 of equipments list in this report. The following table is the setting of the spectrum analyzer.

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

4.7.3. 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 $-20^\circ\text{C} \sim 40^\circ\text{C}$.

4.7.4. Test Setup Layout



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 un-modulation transmitting mode.

4.7.7. Test Result of Frequency Stability

Temperature	22°C	Humidity	55%
Test Engineer	Jim Huang	Test Date	Jul. 01, 2014

Voltage vs. Frequency Stability

Voltage (V)	Measurement Frequency (MHz)	
	5300 MHz	5500 MHz
126.50	5300.0134	5500.0242
110.00	5300.0216	5500.0312
93.50	5300.0328	5500.0354
Max. Deviation (MHz)	0.032800	0.035400
Max. Deviation (ppm)	6.19	6.44

Temperature vs. Frequency Stability

Temperature (°C)	Measurement Frequency (MHz)	
	5300 MHz	5500 MHz
-20	5300.0133	5500.0356
-10	5300.0159	5500.0348
0	5300.0176	5500.0336
10	5300.0187	5500.0322
20	5300.0216	5500.0312
30	5300.0234	5500.0274
40	5300.0251	5500.0251
Max. Deviation (MHz)	0.025100	0.035600
Max. Deviation (ppm)	4.74	6.47

4.8. Antenna Requirements

4.8.1. 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.

4.8.2. 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	9 kHz ~ 2.75 GHz	Apr. 23, 2014	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	04083	150 kHz ~ 100 MHz	Nov. 23, 2013	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127478	9kHz ~ 30MHz	Nov. 11, 2013	Conduction (CO01-CB)
COND Cable	Woken	Cable	01	150 kHz ~ 30 MHz	Dec. 04, 2013	Conduction (CO01-CB)
Software	Audix	E3	5.410e	-	N.C.R.	Conduction (CO01-CB)
BILOG ANTENNA	Schaffner	CBL6112B	2928	30MHz ~ 2GHz	Dec. 27, 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. 01, 2013	Radiation (03CH01-CB)
Horn Antenna	SCHWARZBEAK	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Dec. 17, 2013	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8447D	2944A10991	0.1MHz ~ 1.3GHz	Nov. 12, 2013	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Dec. 16, 2013	Radiation (03CH01-CB)
Pre-Amplifier	WM	TF-130N-R1	923365	26GHz ~ 40GHz	Oct. 23, 2013	Radiation (03CH01-CB)
Spectrum analyzer	R&S	FSP40	100019	9kHz~40GHz	Dec. 02, 2013	Radiation (03CH01-CB)
EMI Test Receiver	Agilent	N9038A	MY52260123	9kHz ~ 8GHz	Dec. 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. 17, 2013	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-3	N/A	1 GHz - 40 GHz	Nov. 17, 2013	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-4	N/A	1 GHz - 40 GHz	Nov. 17, 2013	Radiation (03CH01-CB)
Signal analyzer	R&S	FSV40	100979	9kHz~40GHz	Nov. 29, 2013	Conducted (TH01-CB)
Temp. and Humidity Chamber	Ten Billion	TTH-D3SP	TBN-931011	-30~100 degree	Jun. 03, 2014	Conducted (TH01-CB)
RF Power Divider	Woken	2 Way	0120A02056002D	2GHz ~ 18GHz	Nov. 17, 2013	Conducted (TH01-CB)
RF Power Divider	Woken	3 Way	MDC2366	2GHz ~ 18GHz	Nov. 17, 2013	Conducted (TH01-CB)
RF Power Divider	Woken	4 Way	0120A04056002D	2GHz ~ 18GHz	Nov. 17, 2013	Conducted (TH01-CB)
RF Cable-high	Woken	High Cable-7	-	1 GHz ~ 26.5 GHz	Nov. 17, 2013	Conducted (TH01-CB)
RF Cable-high	Woken	High Cable-8	-	1 GHz ~ 26.5 GHz	Nov. 17, 2013	Conducted (TH01-CB)



Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
RF Cable-high	Woken	High Cable-9	-	1 GHz – 26.5 GHz	Nov. 17, 2013	Conducted (TH01-CB)
RF Cable-high	Woken	High Cable-10	-	1 GHz – 26.5 GHz	Nov. 17, 2013	Conducted (TH01-CB)
RF Cable-high	Woken	High Cable-11	-	1 GHz – 26.5 GHz	Nov. 17, 2013	Conducted (TH01-CB)
Power Sensor	Anritsu	MA2411B	0917223	300MHz~40GHz	Sep. 18, 2013	Conducted (TH01-CB)
Power Meter	Anritsu	ML2495A	1035008	300MHz~40GHz	Sep. 18, 2013	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. MEASUREMENT UNCERTAINTY

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	2.4 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%