4.6. Radiated Emissions Measurement

4.6.1. Limit

For transmitters operating in the 5.15-5.25 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

For transmitters operating in the 5.725-5.85 GHz band: all emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an e.i.r.p. of −17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an e.i.r.p. of −27 dBm/MHz.

In addition, In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

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

4.6.2. Measuring Instruments and Setting

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

| Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	40 GHz
RBW / VBW (Emission in restricted band)	1MHz / 3MHz for Peak, 1MHz / 1/T for Average
RBW / VBW (Emission in non-restricted band)	1MHz / 3MHz for peak

| Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RBW 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RBW 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RBW 120kHz for QP

4.6.3. Test Procedures

1. Configure the EUT according to ANSI C63.10. The EUT was placed on the top of the turntable 1.5 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 1m & 3m far away from the turntable.

2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.

3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.

4. For each suspected emissions, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.

5. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.

6. For emissions above 1GHz, use 1MHz VBW and 3MHz RBW for peak reading. Then 1MHz RBW and 1/T VBW for average reading in spectrum analyzer.

7. If the emissions level of the EUT in peak mode was 3 dB lower than the average limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method for below 1GHz.

8. For testing above 1GHz, the emissions level of the EUT in peak mode was lower than average limit (that means the emissions level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

9. In case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded data should be QP measured by receiver. High – Low scan is not required in this case.

4.6.4. Test Setup Layout

For Radiated Emissions: 9kHz ~30MHz
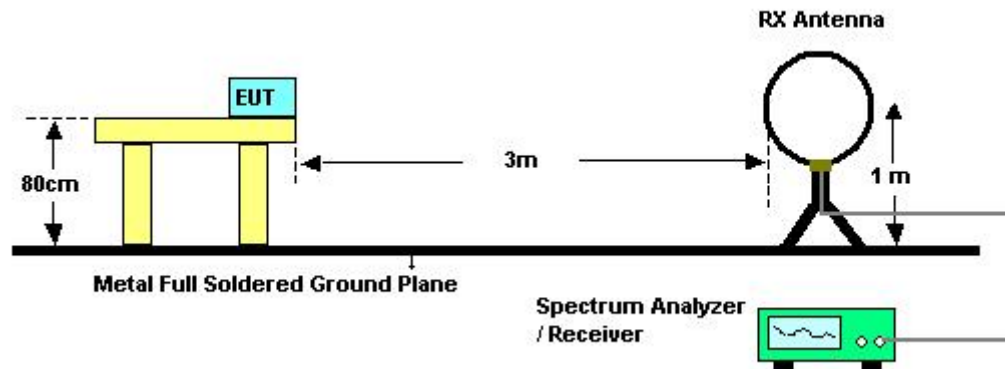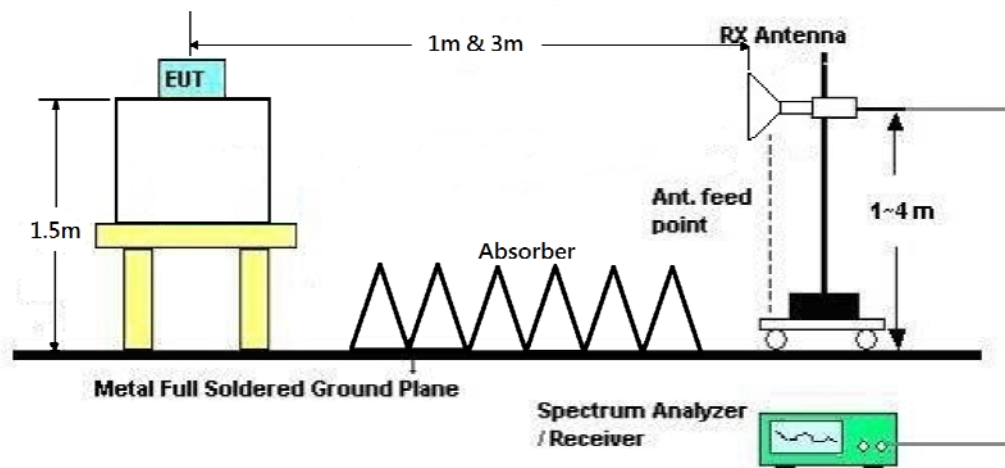

For Radiated Emissions: 30MHz~1GHz
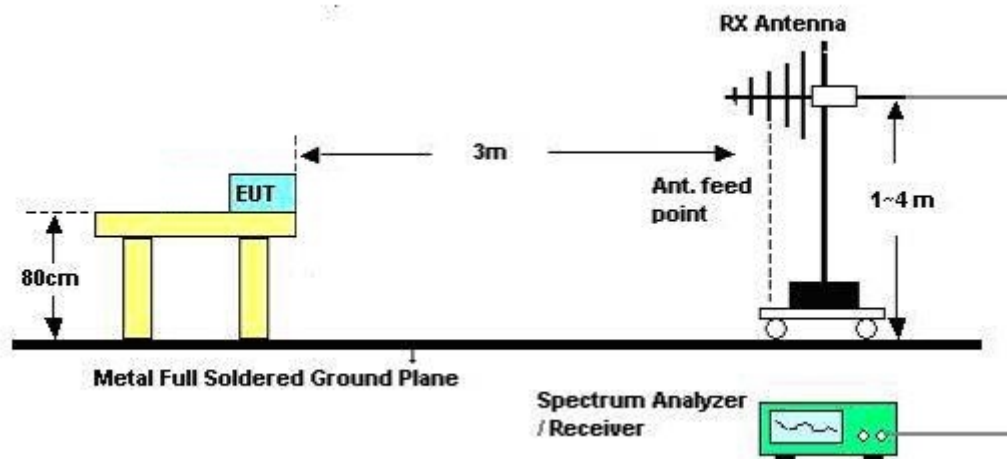
For Radiated Emissions: Above 1GHz

4.6.5. Test Deviation

There is no deviation with the original standard.

4.6.6. EUT Operation during Test

<u>For Non-beamforming mode</u>:

The EUT was programmed to be in continuously transmitting mode.

<u>For beamforming mode</u>:

The EUT was programmed to be in beamforming transmitting mode.

4.6.7. Results of Radiated Emissions (9kHz~30MHz)

Temperature	22℃	Humidity	55%
Test Engineer	Stim Sung	Configurations	Normal Link / Mode 3
Test Date	Jul. 08, 2015		

Freq. (MHz)	Level (dBuV)	Over Limit (dB)	Limit Line (dBuV)	Remark
-	-	-	-	See Note

Note:

The amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.
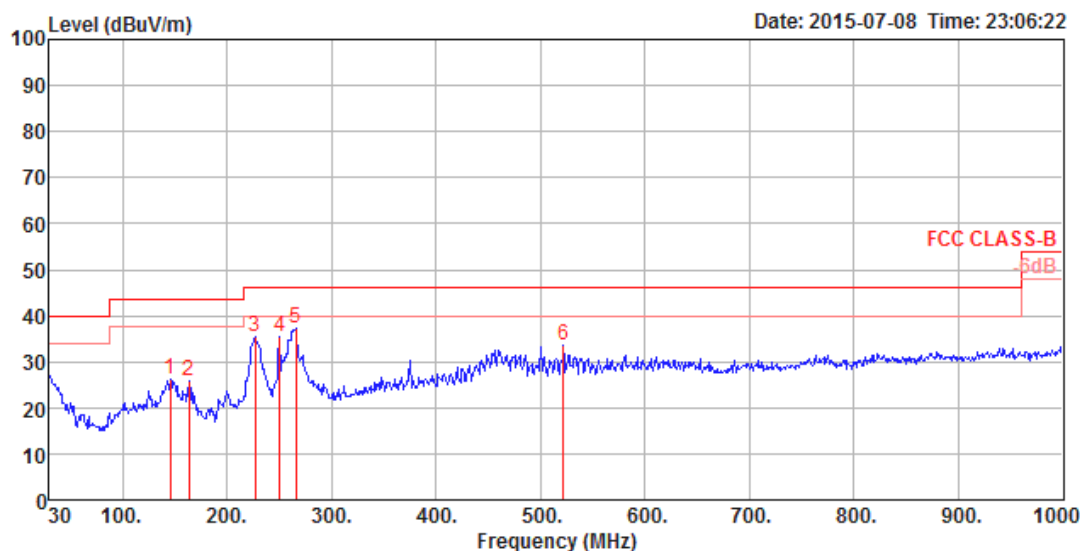
Distance extrapolation factor = 40 log (specific distance / test distance) (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor.

4.6.8. Results of Radiated Emissions (30MHz~1GHz)

Temperature	22℃	Humidity	55%
Test Engineer	Stim Sung	Configurations	Normal Link / Mode 3

Horizontal


```
                  Limit   Over   Read  CableAntenna Preamp A/Pos  T/Pos
          Freq  Level  Line  Limit  Level  Loss Factor Factor                 Remark      Pol/Phase

          MHz  dBuV/m dBuV/m   dB    dBuV    dB   dB/m    dB     cm    deg
     1   145.43  26.29  43.50  -17.21  45.95  1.09  11.61  32.36   200   138  Peak    HORIZONTAL
     2   163.86  25.83  43.50  -17.67  46.40  1.17  10.61  32.35   200   138  Peak    HORIZONTAL
     3   226.91  35.27  46.00  -10.73  55.13  1.33  11.12  32.31   150   102  Peak    HORIZONTAL
     4   250.19  35.46  46.00  -10.54  53.48  1.38  12.90  32.30   200   114  Peak    HORIZONTAL
     5   265.71  37.23  46.00   -8.77  54.37  1.42  13.74  32.30   100   102  Peak    HORIZONTAL
     6   521.79  33.40  46.00  -12.60  45.63  1.94  18.19  32.36   100   293  Peak    HORIZONTAL
```

Vertical
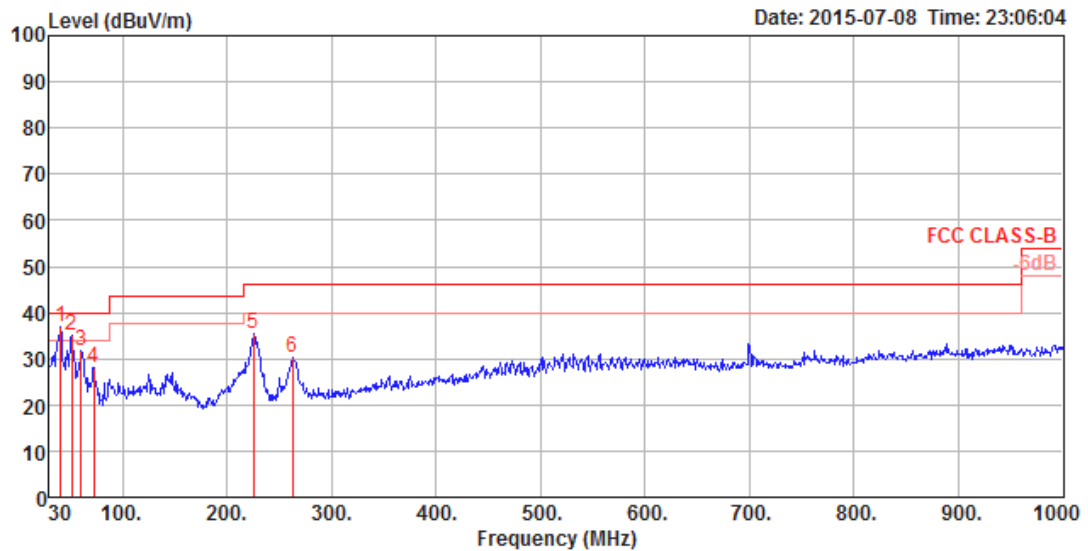
	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	40.67	36.75	40.00	-3.25	54.80	0.67	13.69	32.41	100	239	Peak	VERTICAL
2	51.34	35.21	40.00	-4.79	58.17	0.73	8.72	32.41	125	356	Peak	VERTICAL
3	60.07	31.57	40.00	-8.43	56.30	0.77	6.90	32.40	100	343	Peak	VERTICAL
4	72.68	27.98	40.00	-12.02	52.54	0.83	7.01	32.40	125	165	Peak	VERTICAL
5	224.97	35.44	46.00	-10.56	55.42	1.32	11.02	32.32	100	83	Peak	VERTICAL
6	262.80	30.16	46.00	-15.84	47.23	1.41	13.82	32.30	200	191	Peak	VERTICAL

Note:

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

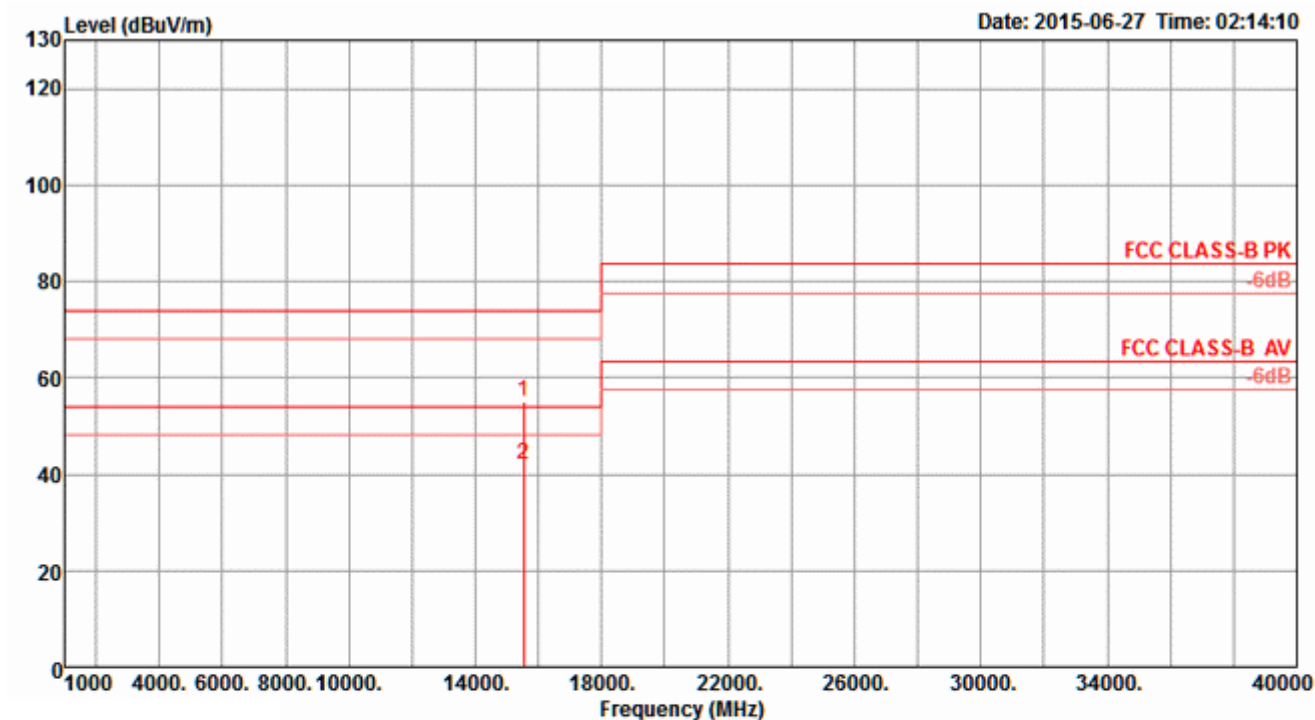Emission level (dBuV/m) = 20 log Emission level (uV/m).

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

4.6.9. Results for Radiated Emissions (1GHz~40GHz)

<For Radio 2 Non-beamforming Mode>: 3TX, 1S

Temperature	22℃	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11a CH 36 / Chain 4 + Chain 5 + Chain 6

Horizontal

	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	15539.40	54.94	74.00	-19.06	43.84	7.56	38.16	34.62	26	150	Peak	HORIZONTAL
2	15540.50	41.98	54.00	-12.02	30.88	7.56	38.16	34.62	26	150	Average	HORIZONTAL
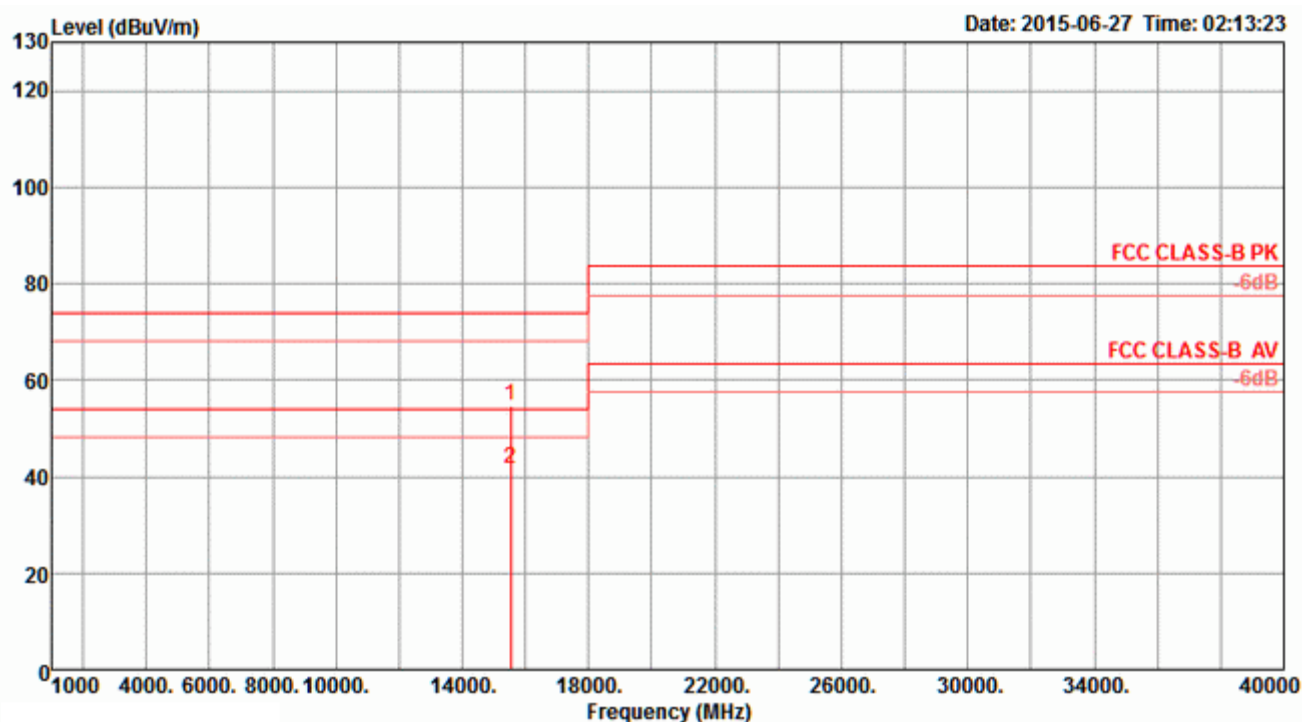
Vertical

	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	15539.00	54.83	74.00	-19.17	43.73	7.56	38.16	34.62	35	150	Peak	VERTICAL
2	15539.00	41.63	54.00	-12.37	30.53	7.56	38.16	34.62	35	150	Average	VERTICAL

Temperature	22℃	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11a CH 40 / Chain 4 + Chain 5 + Chain 6
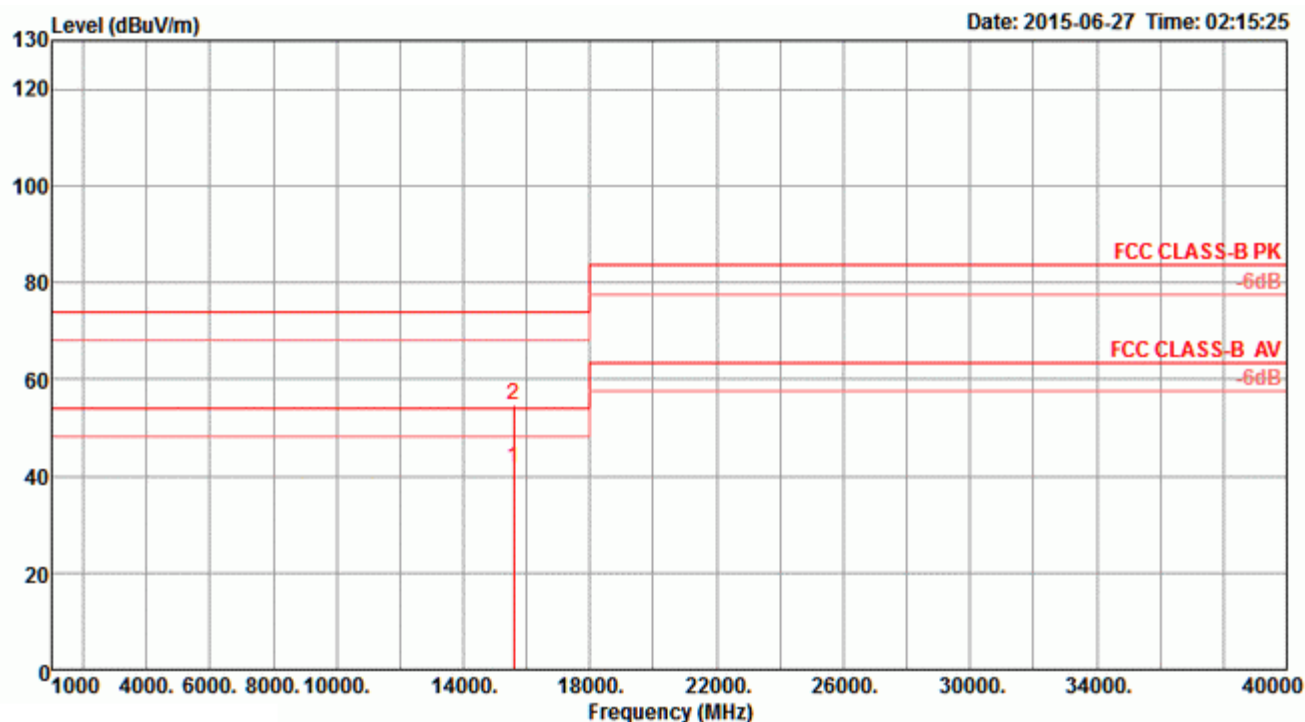
Horizontal

	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	15599.37	41.62	54.00	-12.38	30.44	7.58	38.29	34.69	45	150	Average	HORIZONTAL
2	15599.48	54.86	74.00	-19.14	43.68	7.58	38.29	34.69	45	150	Peak	HORIZONTAL
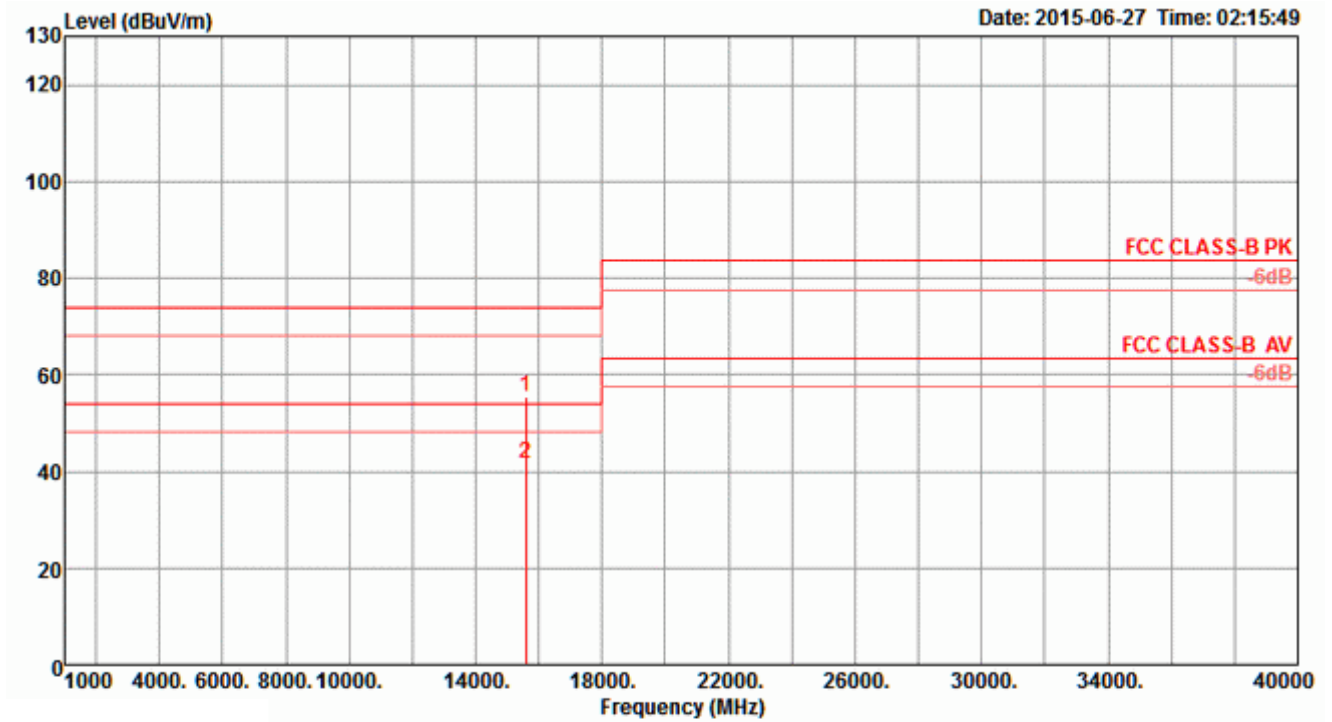
Vertical

Level (dBuV/m)   Date: 2015-06-27 Time: 02:15:49

FCC CLASS-B PK
-6dB

FCC CLASS-B AV
-6dB

	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	15599.40	55.32	74.00	-18.68	44.14	7.58	38.29	34.69	39	150	Peak	VERTICAL
2	15600.12	41.71	54.00	-12.29	30.53	7.58	38.29	34.69	39	150	Average	VERTICAL

Temperature	22℃	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11a CH 48 / Chain 4 + Chain 5 + Chain 6
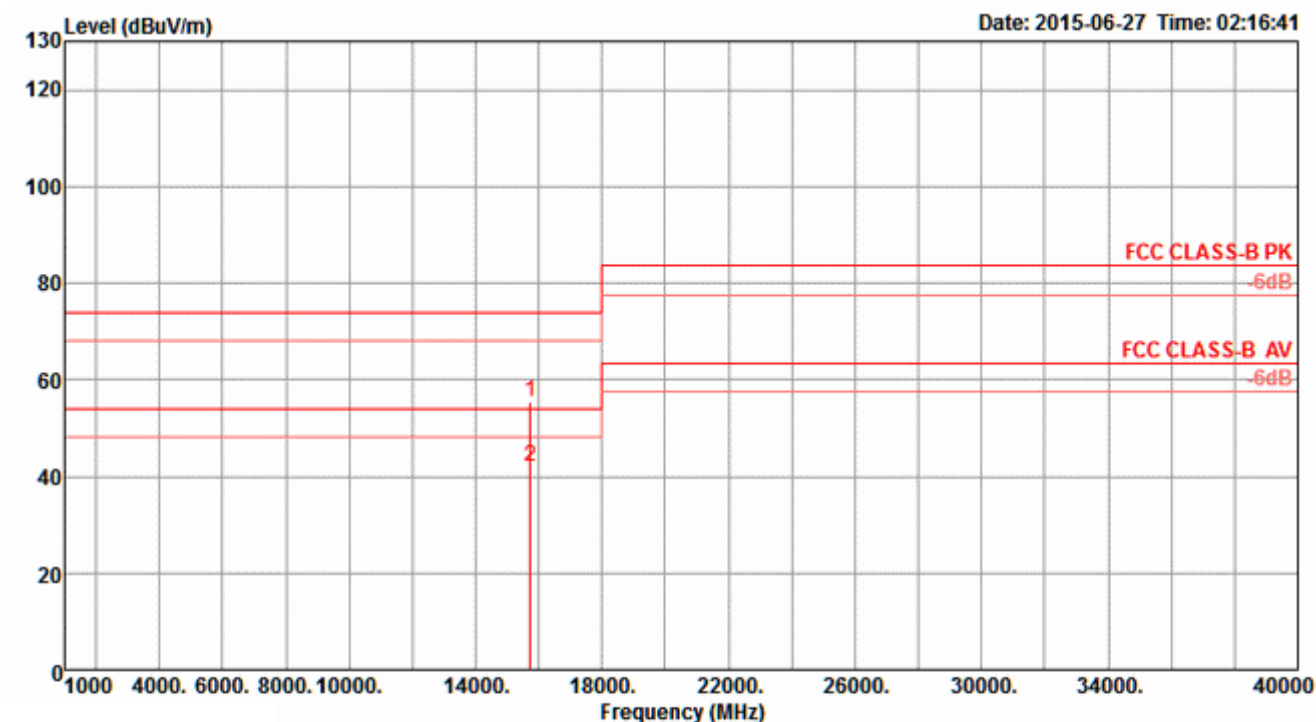
Horizontal

	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	15719.34	55.53	74.00	-18.47	44.19	7.62	38.50	34.78	69	150	Peak	HORIZONTAL
2	15720.64	42.12	54.00	-11.88	30.78	7.62	38.50	34.78	69	150	Average	HORIZONTAL
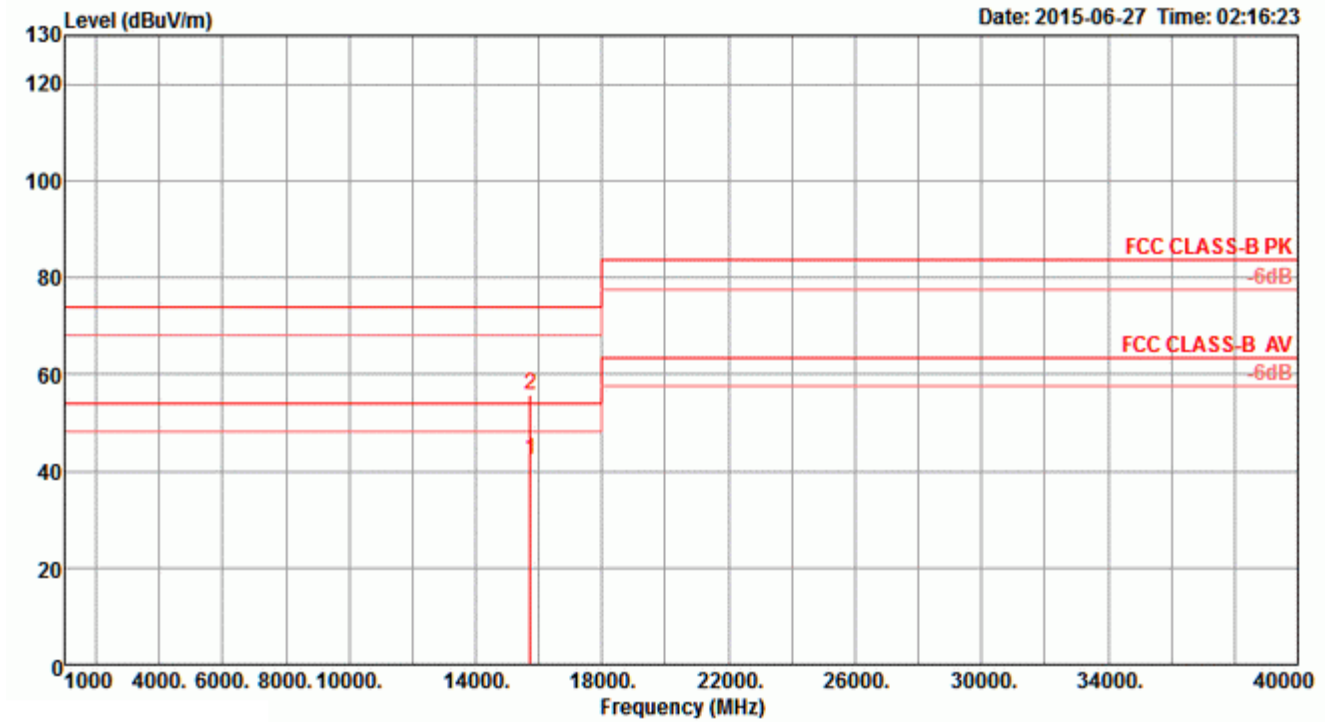
Vertical

	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	15719.09	42.43	54.00	-11.57	31.09	7.62	38.50	34.78	63	150	Average	VERTICAL
2	15720.22	55.77	74.00	-18.23	44.43	7.62	38.50	34.78	63	150	Peak	VERTICAL

Temperature	22℃	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11a CH 149 / Chain 4 + Chain 5 + Chain 6
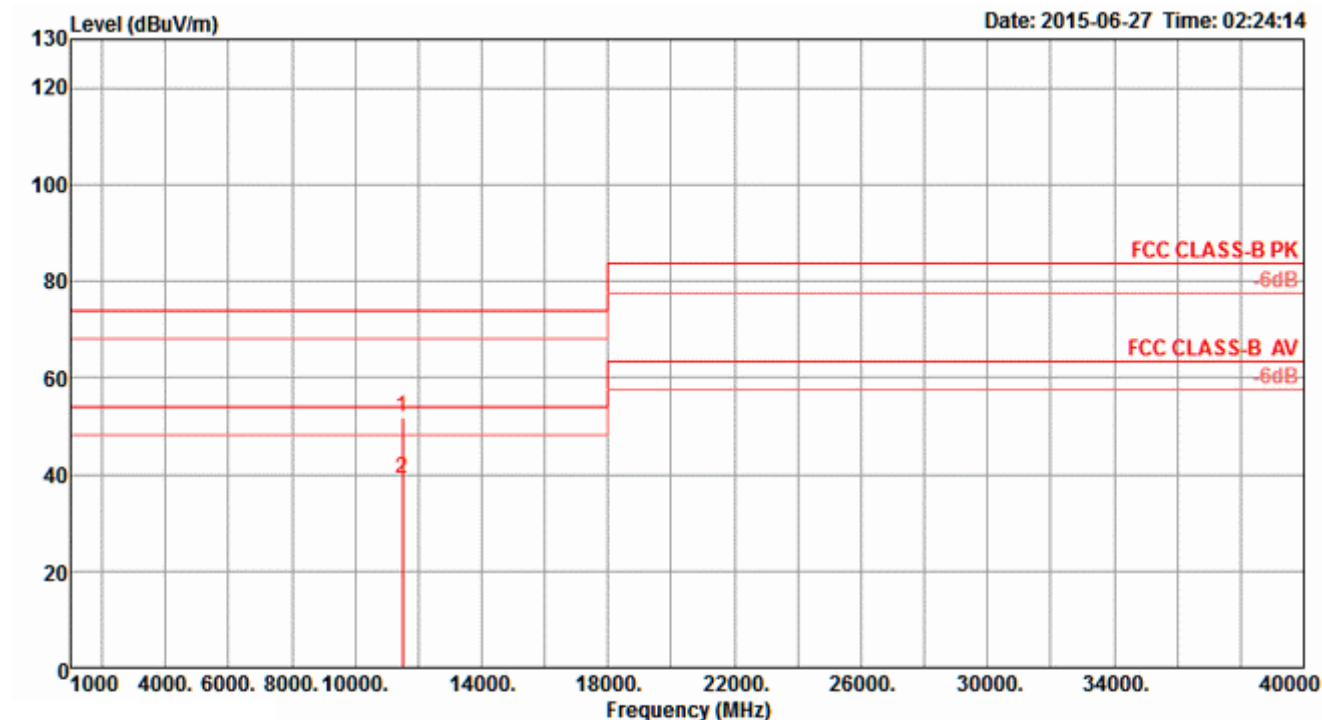
Horizontal

	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	11489.46	51.90	74.00	-22.10	41.29	6.53	38.70	34.62	232	150	Peak	HORIZONTAL
2	11490.01	39.04	54.00	-14.96	28.43	6.53	38.70	34.62	232	150	Average	HORIZONTAL
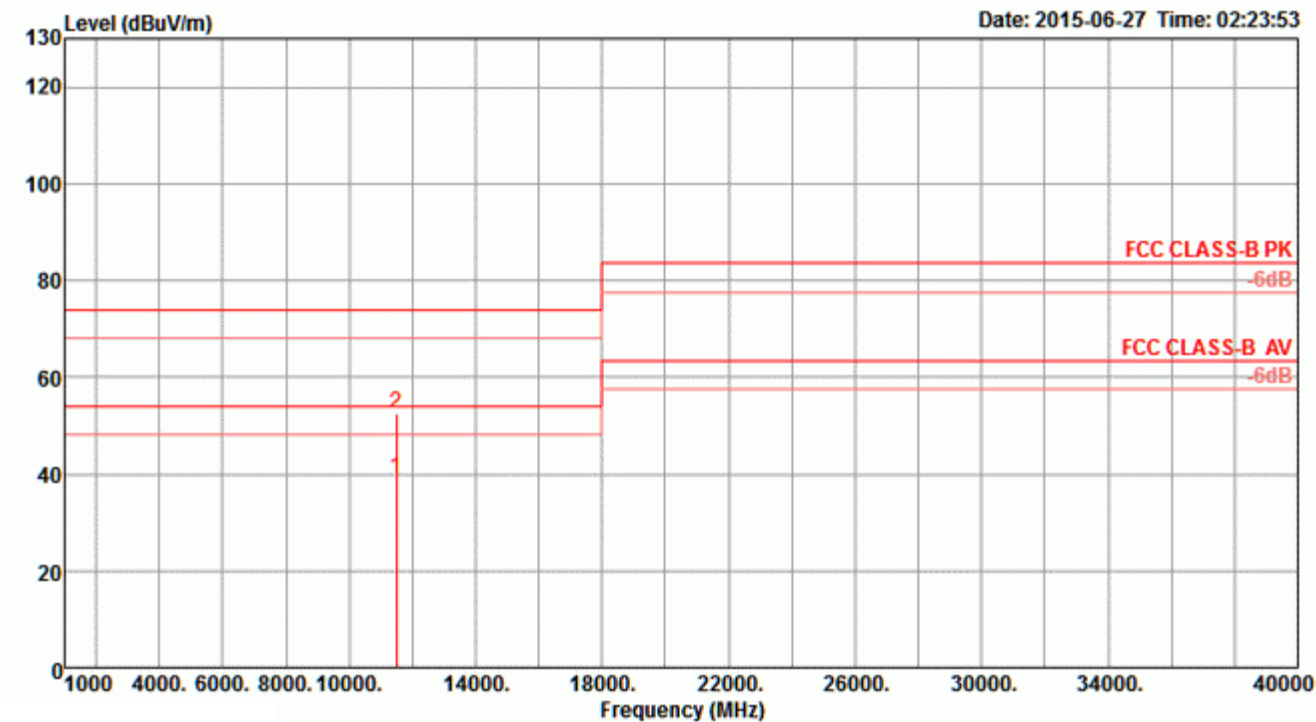
Vertical

	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	11489.25	39.08	54.00	-14.92	28.47	6.53	38.70	34.62	212	150	Average	VERTICAL
2	11490.21	52.36	74.00	-21.64	41.75	6.53	38.70	34.62	212	150	Peak	VERTICAL

Temperature	22℃	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11a CH 157 / Chain 4 + Chain 5 + Chain 6
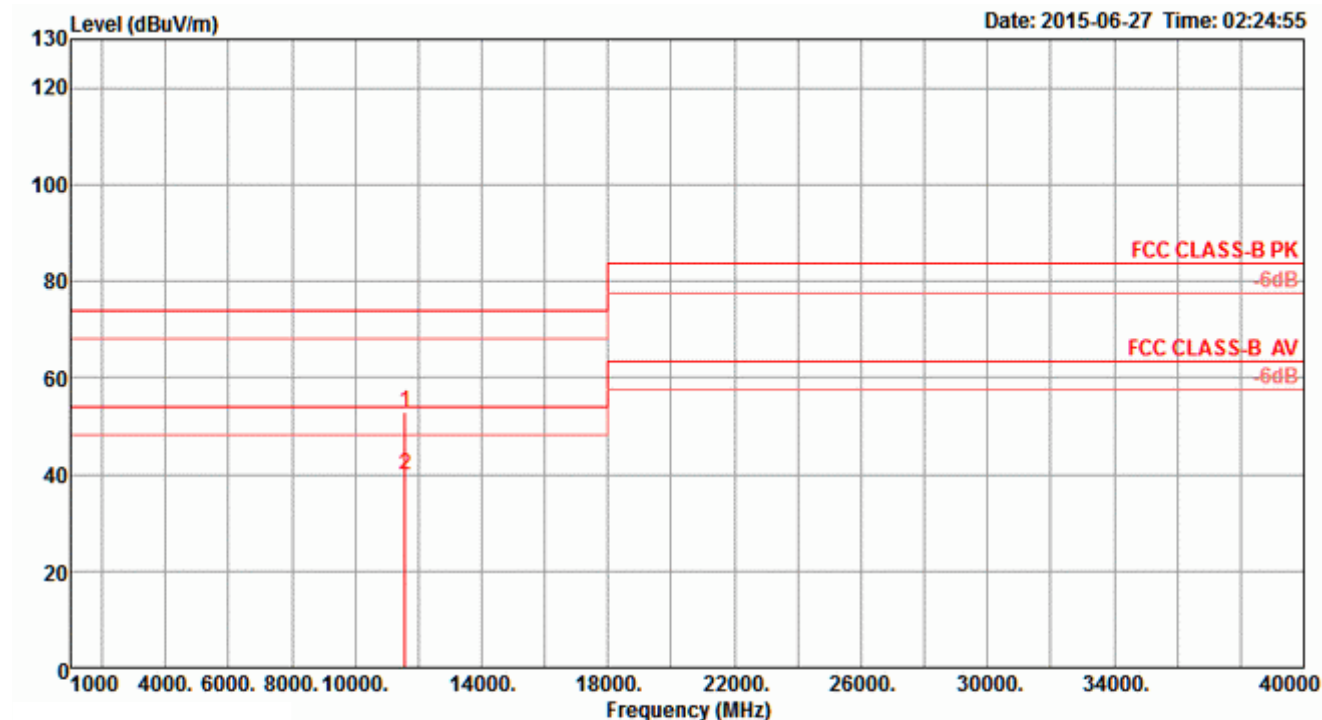
Horizontal

	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	11569.76	53.04	74.00	-20.96	42.43	6.55	38.71	34.65	242	150	Peak	HORIZONTAL
2	11570.32	39.99	54.00	-14.01	29.38	6.55	38.71	34.65	242	150	Average	HORIZONTAL
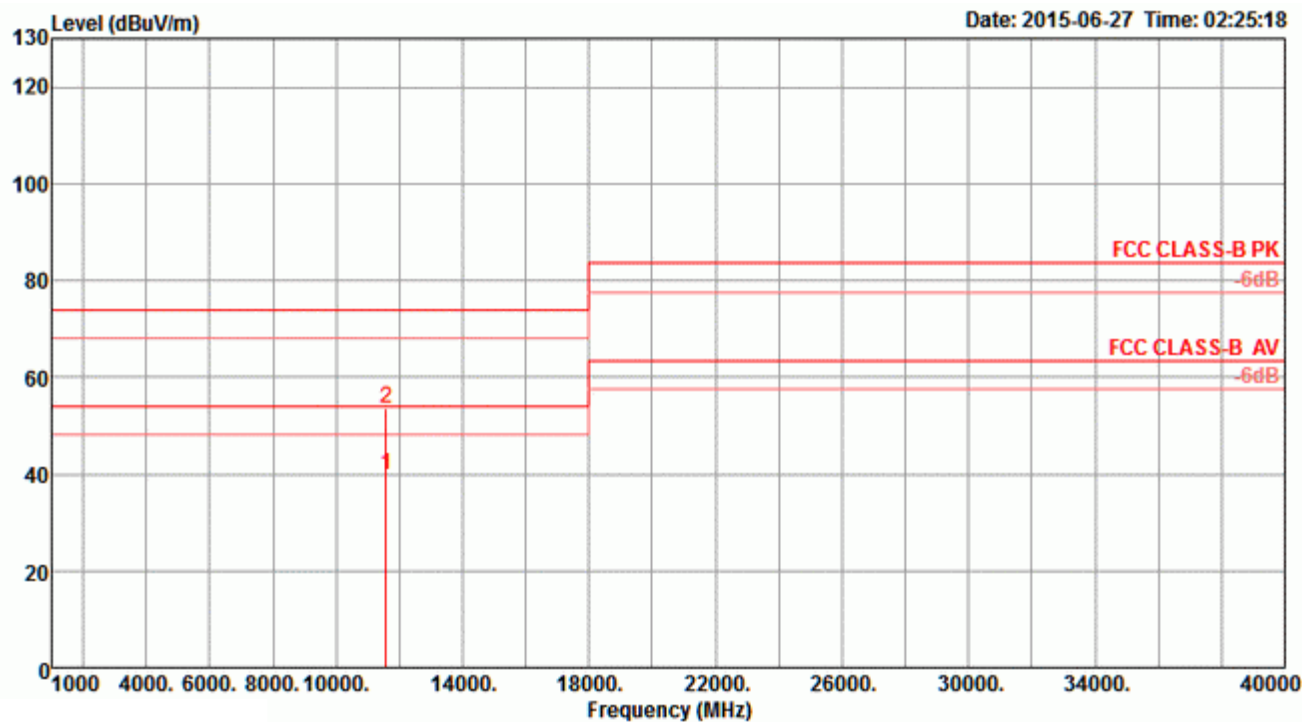
Vertical

	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	11569.38	39.96	54.00	-14.04	29.34	6.55	38.71	34.64	251	150	Average	VERTICAL
2	11569.81	53.58	74.00	-20.42	42.97	6.55	38.71	34.65	251	150	Peak	VERTICAL

Temperature	22℃	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11a CH 165 / Chain 4 + Chain 5 + Chain 6
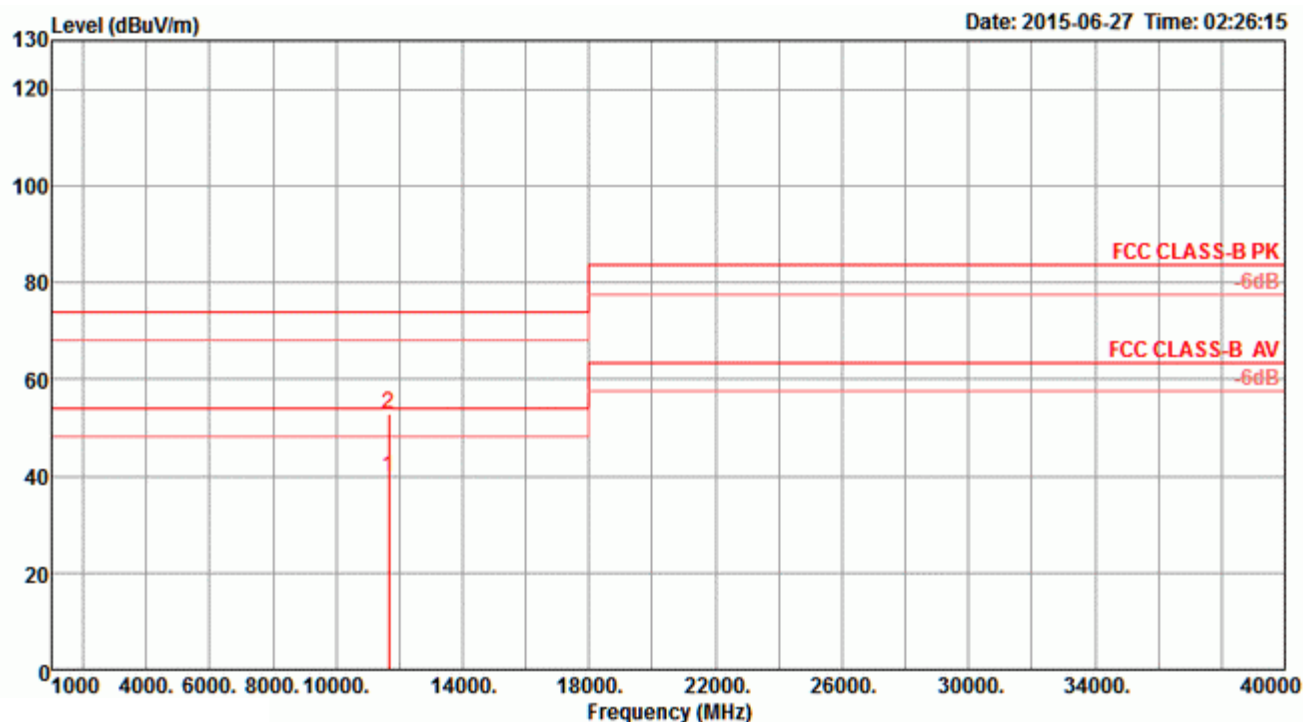
Horizontal

	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	11649.64	39.68	54.00	-14.32	29.07	6.56	38.73	34.68	279	150	Average	HORIZONTAL
2	11649.83	53.05	74.00	-20.95	42.44	6.56	38.73	34.68	279	150	Peak	HORIZONTAL
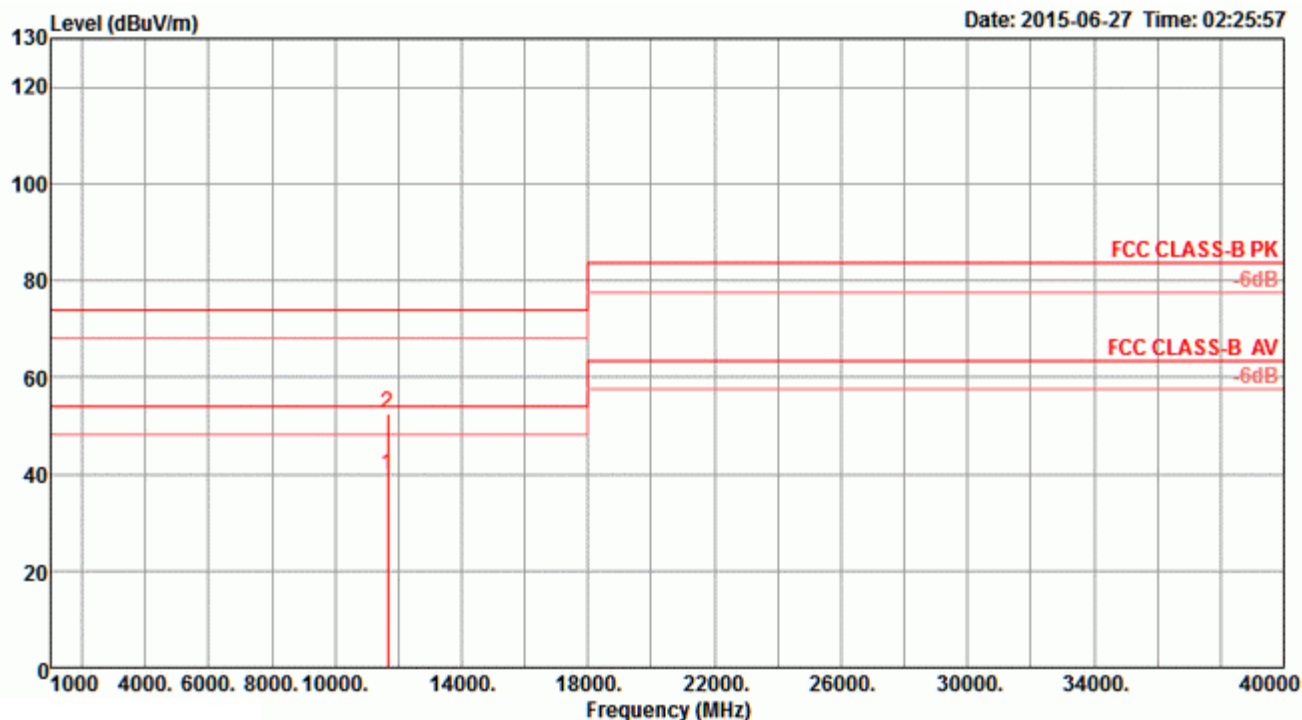
Vertical

	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	11649.83	39.73	54.00	-14.27	29.12	6.56	38.73	34.68	269	150	Average	VERTICAL
2	11650.42	52.57	74.00	-21.43	41.96	6.56	38.73	34.68	269	150	Peak	VERTICAL

| Temperature	22℃	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 36 / Chain 4 + Chain 5 + Chain 6
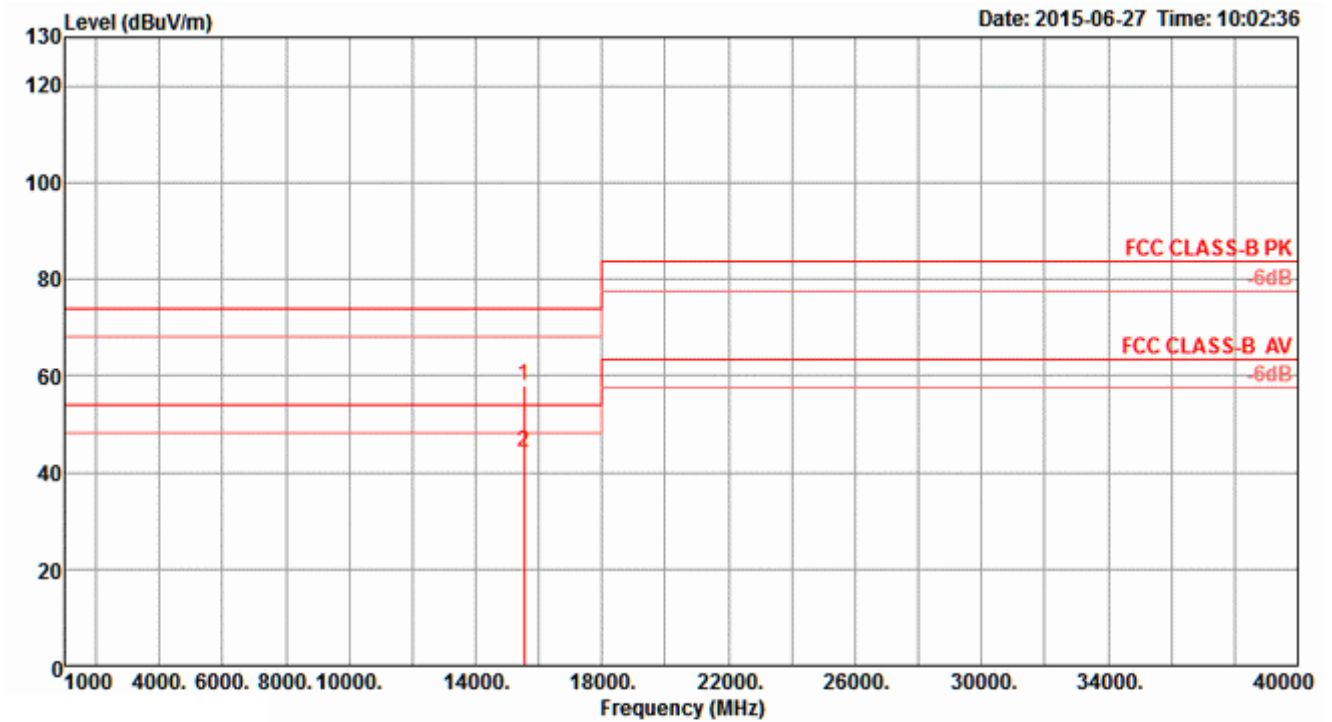
Horizontal

	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	15542.92	58.03	74.00	-15.97	46.93	7.56	38.16	34.62	254	177	Peak	HORIZONTAL
2	15544.59	44.03	54.00	-9.97	32.90	7.56	38.19	34.62	254	177	Average	HORIZONTAL
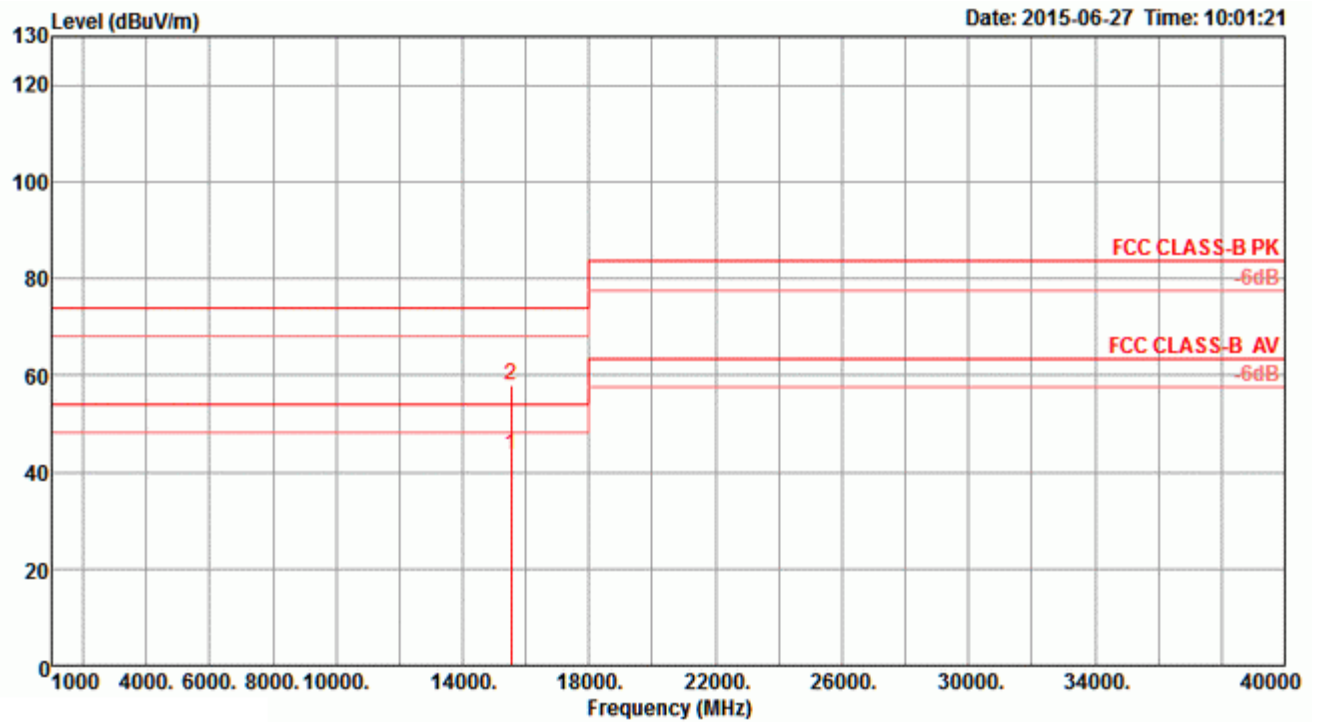
Vertical

	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	15536.19	43.63	54.00	-10.37	32.53	7.56	38.16	34.62	44	146	Average	VERTICAL
2	15540.65	57.80	74.00	-16.20	46.70	7.56	38.16	34.62	44	146	Peak	VERTICAL

| Temperature	22℃	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 40 / Chain 4 + Chain 5 + Chain 6
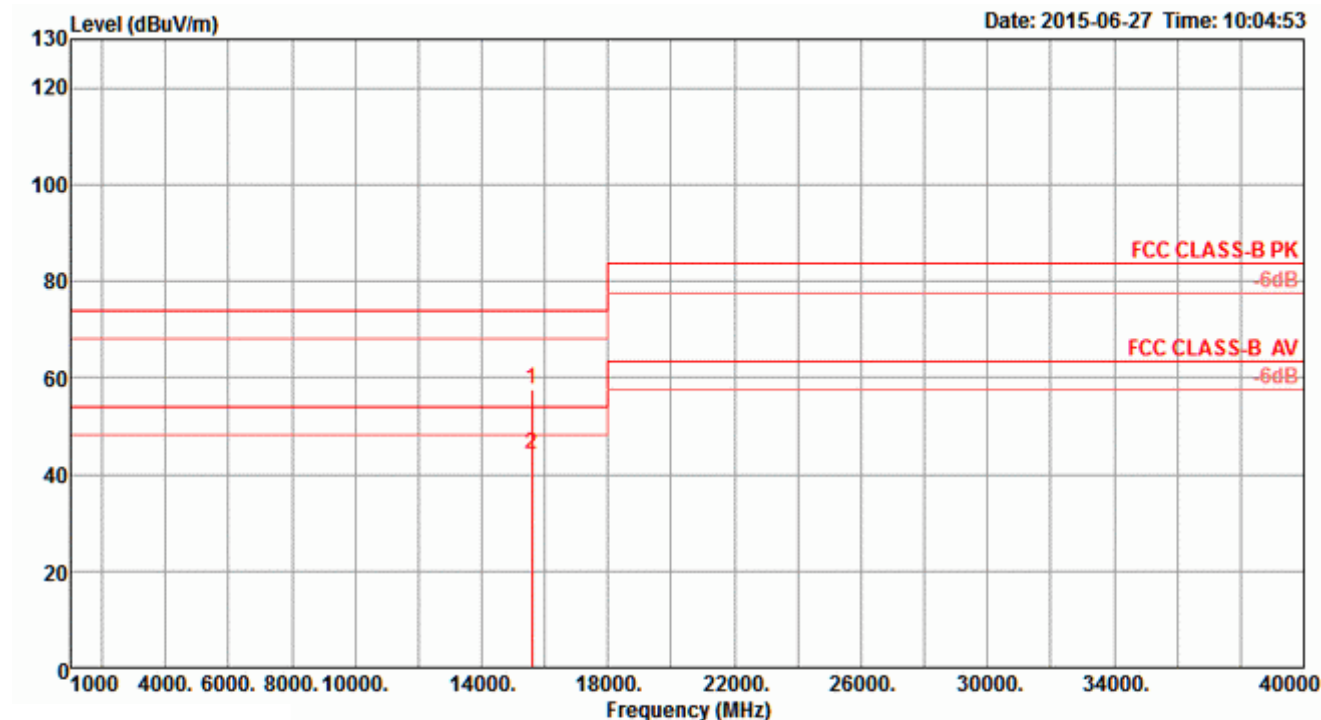
Horizontal

	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	15596.56	57.43	74.00	-16.57	46.23	7.58	38.29	34.67	312	126	Peak	HORIZONTAL
2	15597.57	44.02	54.00	-9.98	32.82	7.58	38.29	34.67	312	126	Average	HORIZONTAL
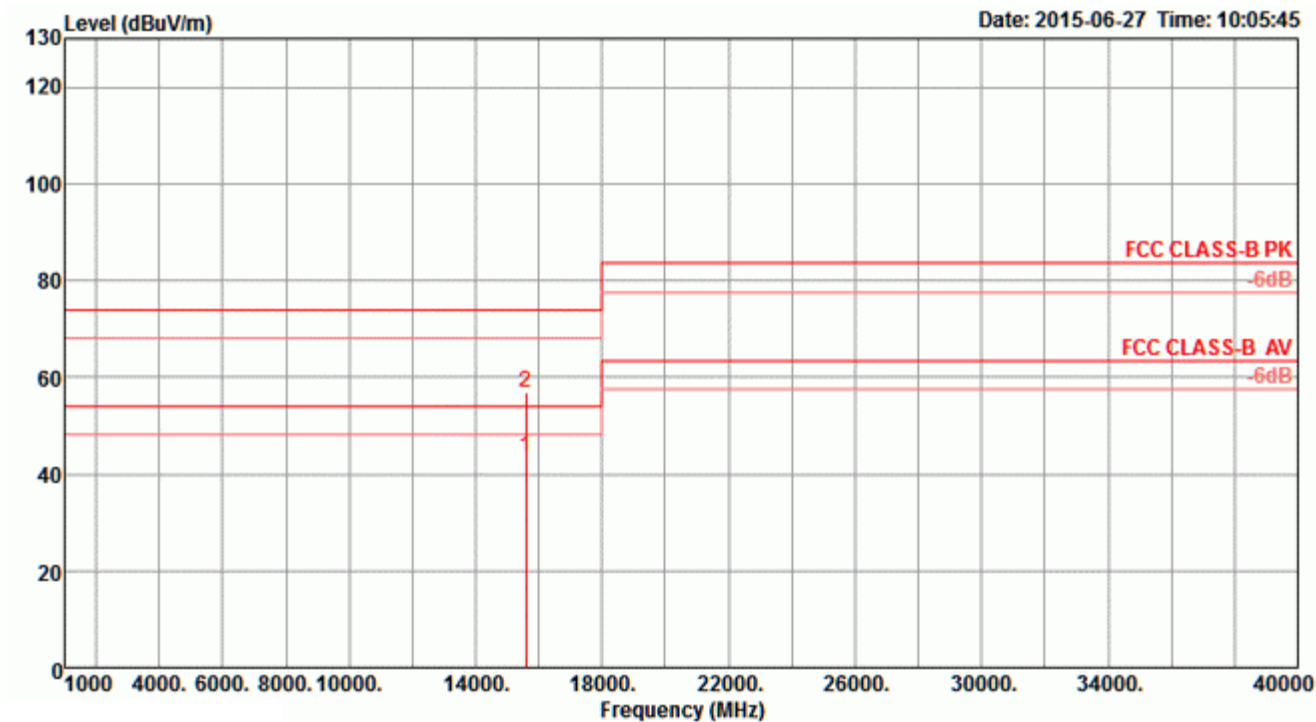
Vertical

	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	15599.41	43.52	54.00	-10.48	32.34	7.58	38.29	34.69	125	143	Average	VERTICAL
2	15599.83	57.00	74.00	-17.00	45.82	7.58	38.29	34.69	125	143	Peak	VERTICAL

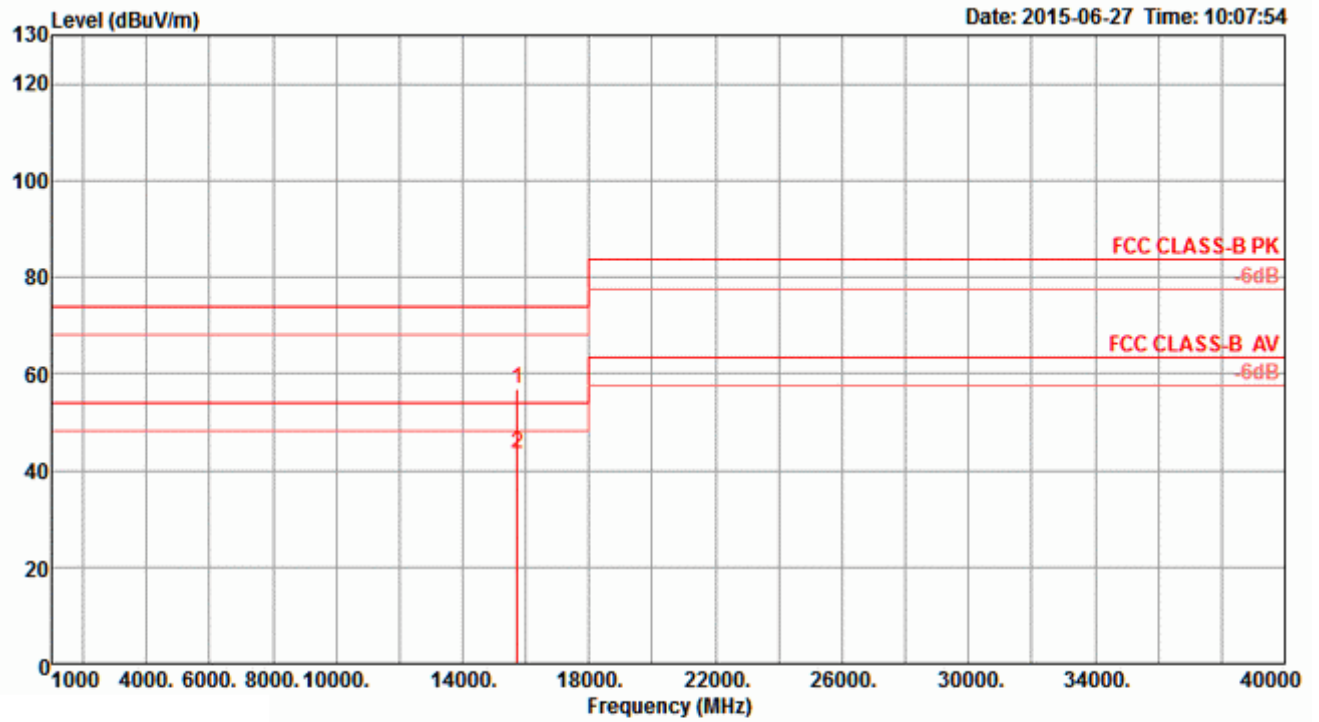| Temperature	22℃	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 48 / Chain 4 + Chain 5 + Chain 6
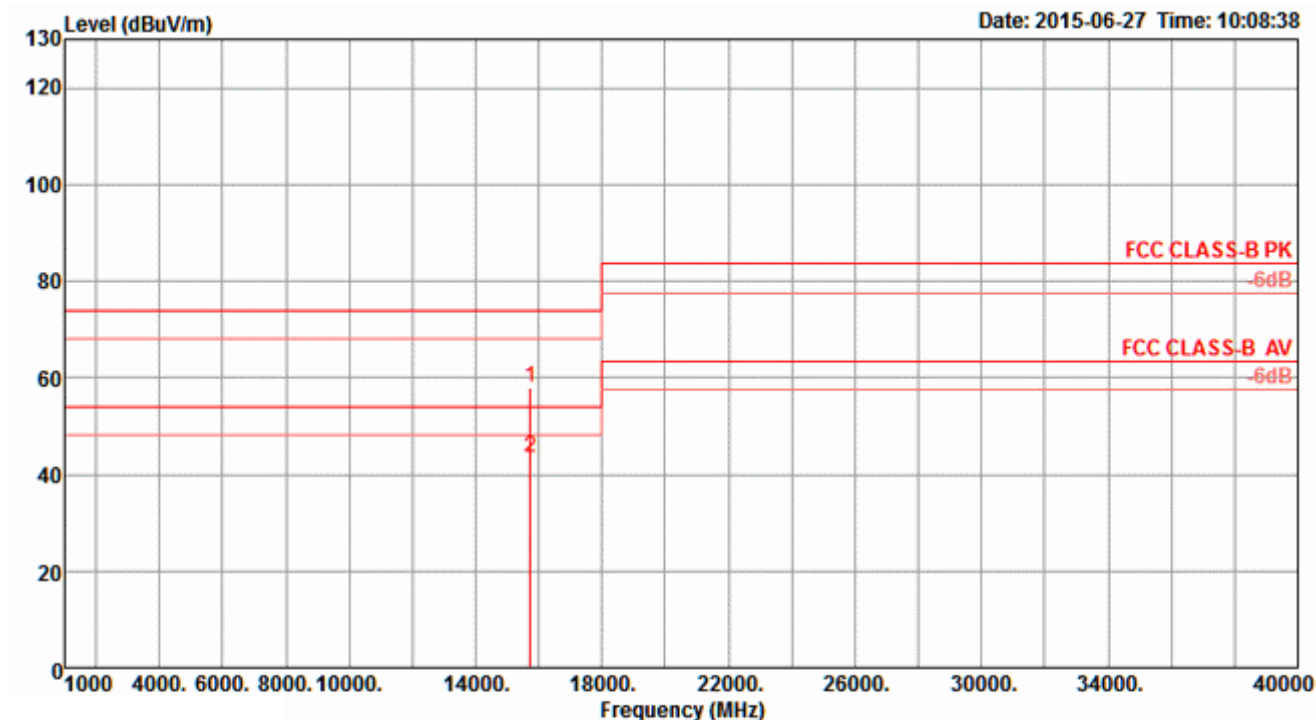
Horizontal

	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	15719.25	57.94	74.00	-16.06	46.60	7.62	38.50	34.78	62	141	Peak	HORIZONTAL
2	15722.74	43.53	54.00	-10.47	32.19	7.62	38.50	34.78	62	141	Average	HORIZONTAL

Vertical

	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	15721.06	56.73	74.00	-17.27	45.39	7.62	38.50	34.78	102	152	Peak	VERTICAL
2	15722.13	43.57	54.00	-10.43	32.23	7.62	38.50	34.78	102	152	Average	VERTICAL

| Temperature	24℃	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 149 / Chain 4 + Chain 5 + Chain 6

Horizontal
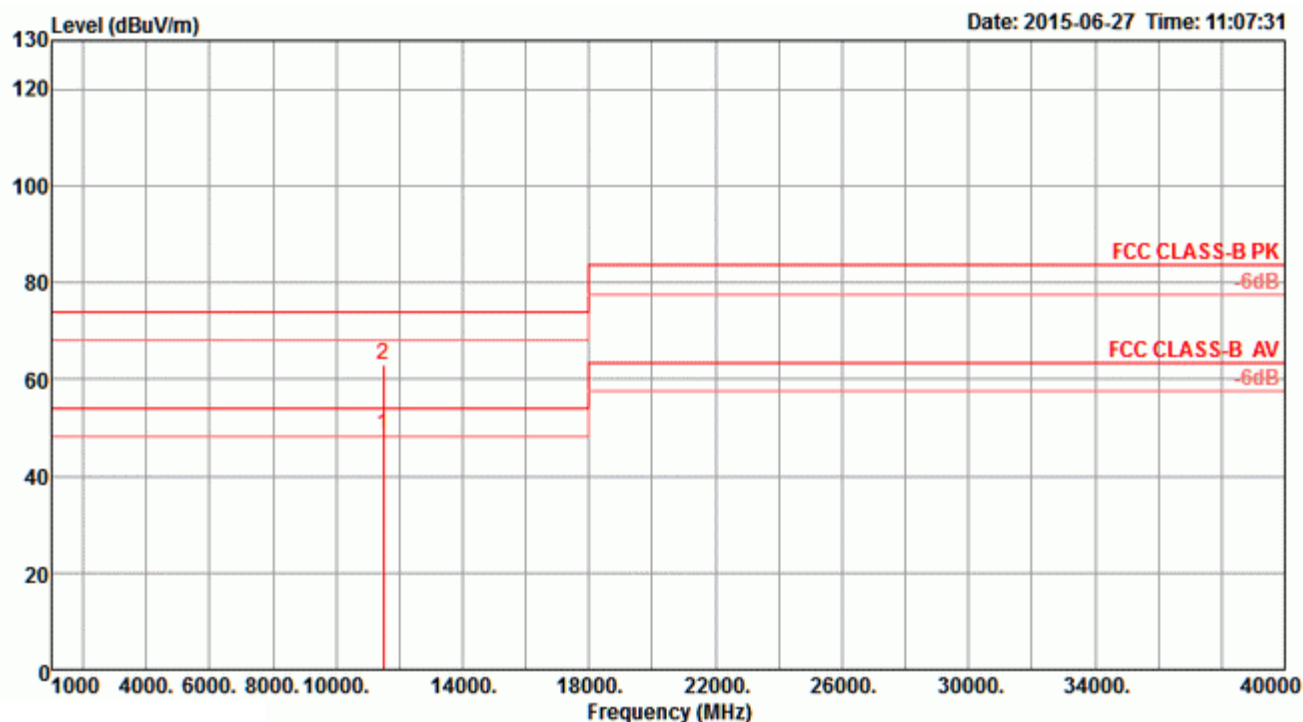
	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	11492.58	48.63	54.00	-5.37	38.02	6.53	38.70	34.62	145	170	Average	HORIZONTAL
2	11492.78	63.00	74.00	-11.00	52.39	6.53	38.70	34.62	145	170	Peak	HORIZONTAL
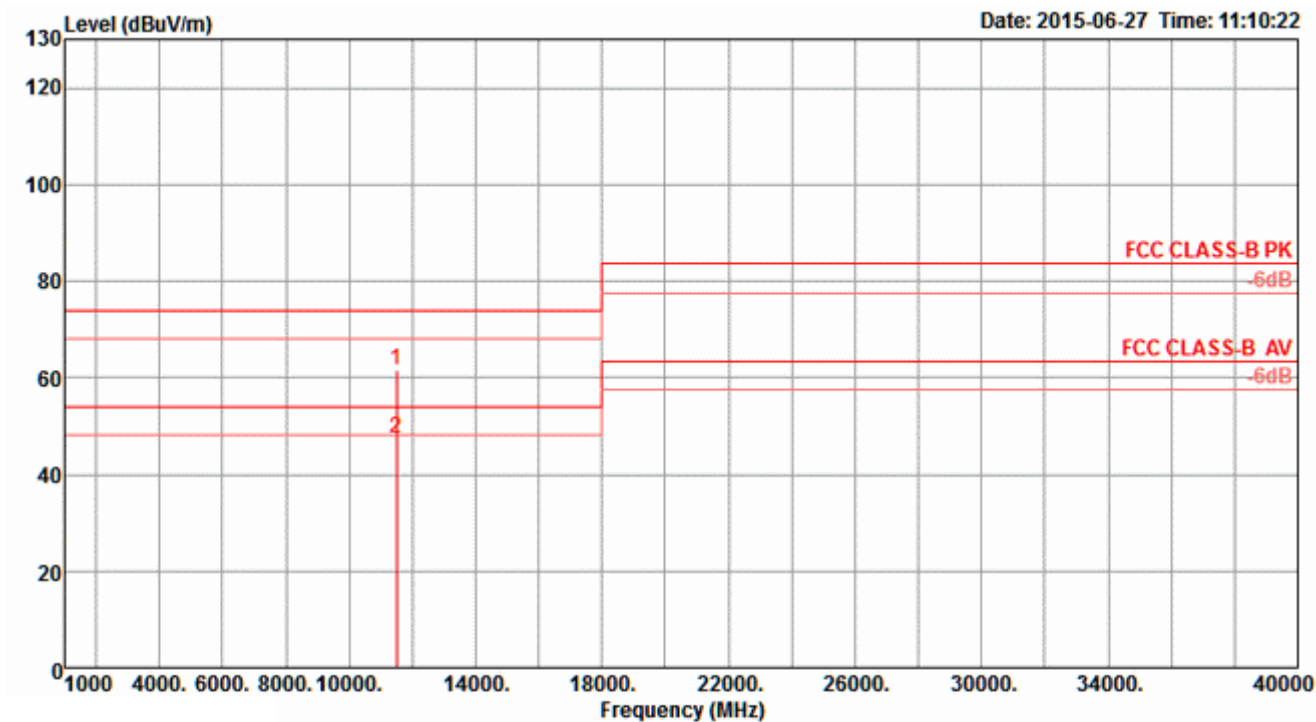
Vertical

	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	11492.58	61.44	74.00	-12.56	50.83	6.53	38.70	34.62	161	163	Peak	VERTICAL
2	11493.47	47.52	54.00	-6.48	36.91	6.53	38.70	34.62	161	163	Average	VERTICAL

| Temperature	24℃	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 157 / Chain 4 + Chain 5 + Chain 6

Horizontal
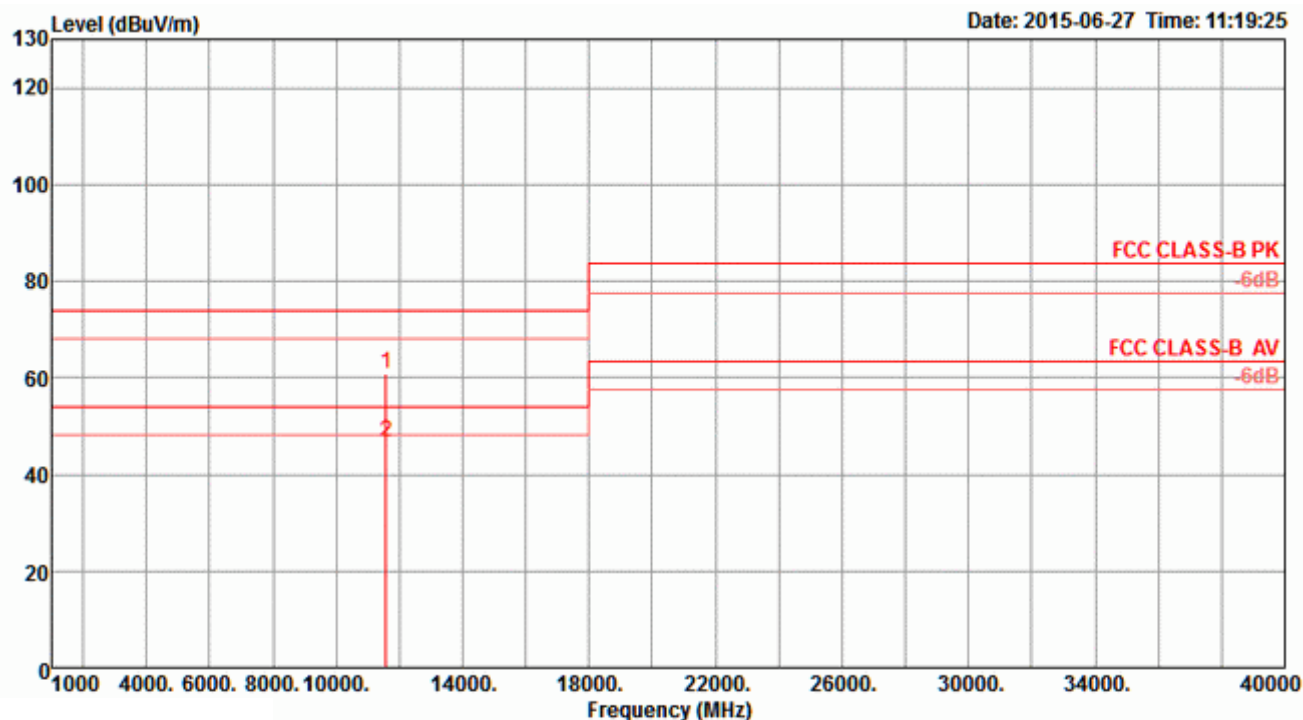
	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	11575.01	60.69	74.00	-13.31	50.08	6.55	38.71	34.65	139	152	Peak	HORIZONTAL
2	11575.18	46.54	54.00	-7.46	35.93	6.55	38.71	34.65	139	152	Average	HORIZONTAL
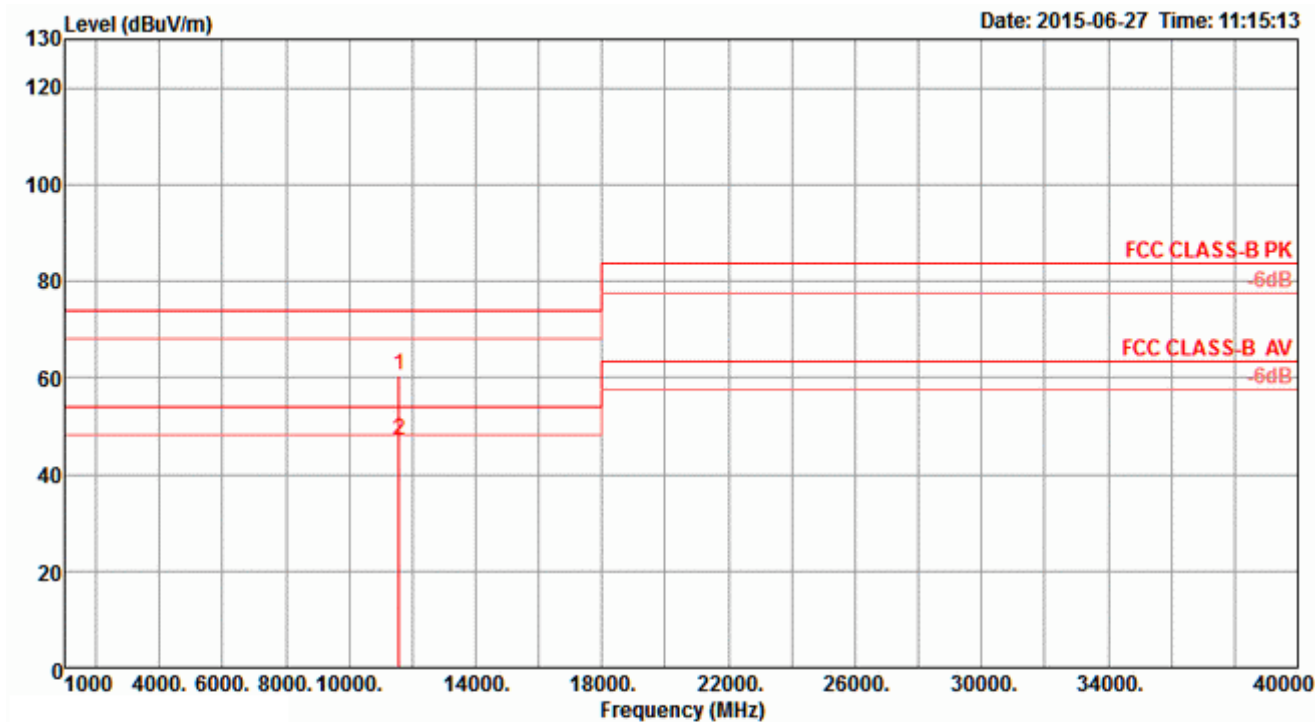
Vertical

	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	11575.30	60.40	74.00	-13.60	49.79	6.55	38.71	34.65	153	168	Peak	VERTICAL
2	11576.08	47.01	54.00	-6.99	36.40	6.55	38.71	34.65	153	168	Average	VERTICAL

| Temperature	24℃	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 165 / Chain 4 + Chain 5 + Chain 6

Horizontal
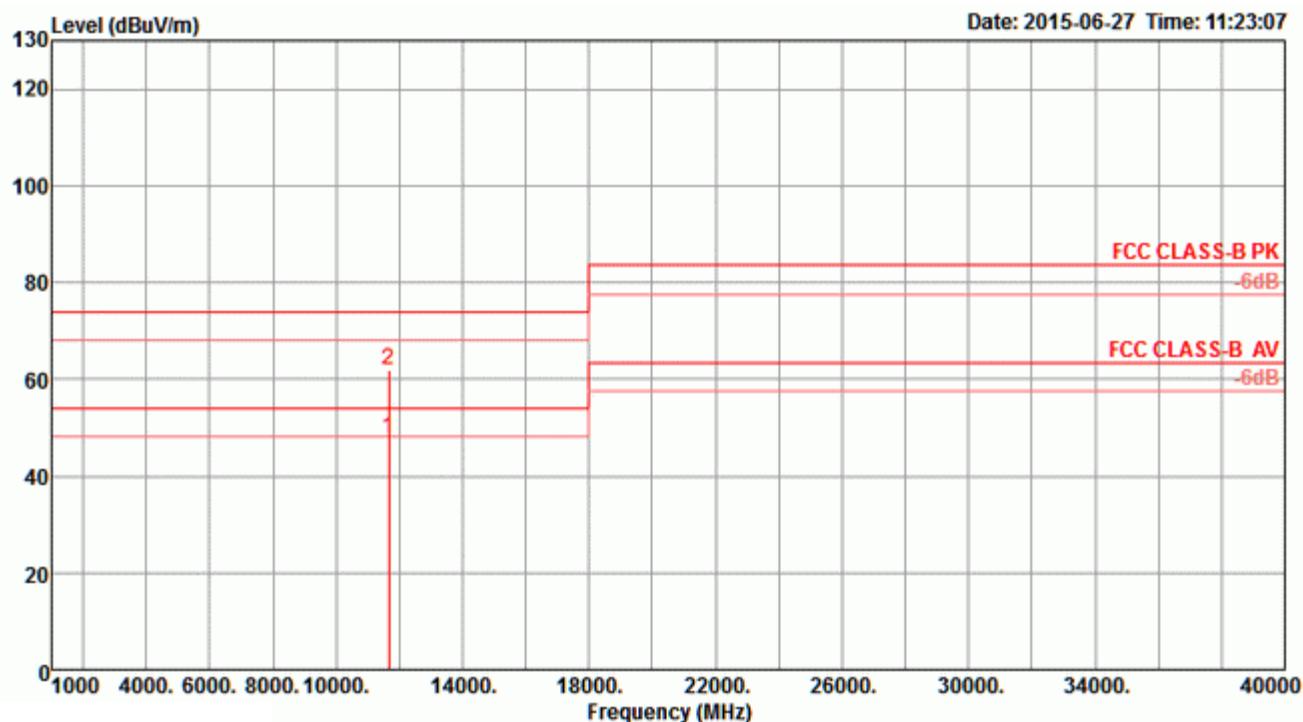
	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	11650.03	47.94	54.00	-6.06	37.33	6.56	38.73	34.68	97	139	Average	HORIZONTAL
2	11650.55	62.09	74.00	-11.91	51.48	6.56	38.73	34.68	97	139	Peak	HORIZONTAL
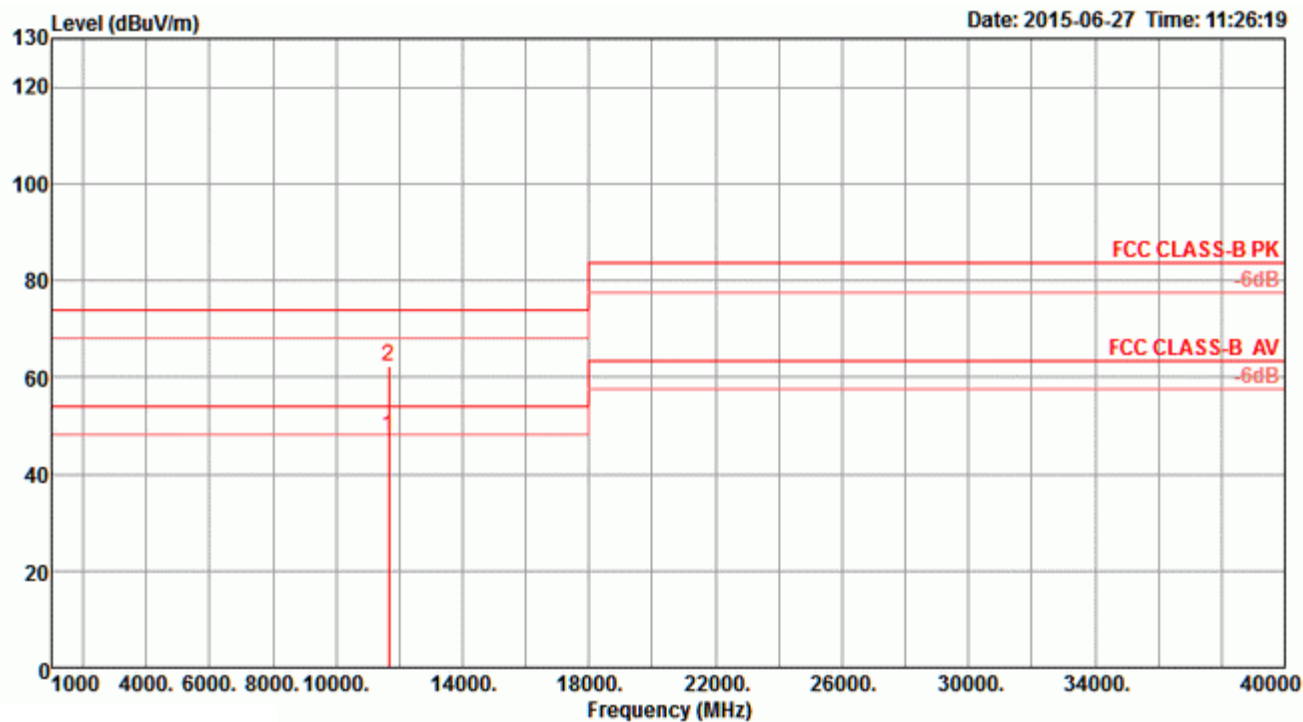
Vertical

	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	11659.26	47.93	54.00	-6.07	37.32	6.56	38.73	34.68	184	145	Average	VERTICAL
2	11659.93	62.18	74.00	-11.82	51.57	6.56	38.73	34.68	184	145	Peak	VERTICAL

| Temperature	22℃	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 38 / Chain 4 + Chain 5 + Chain 6
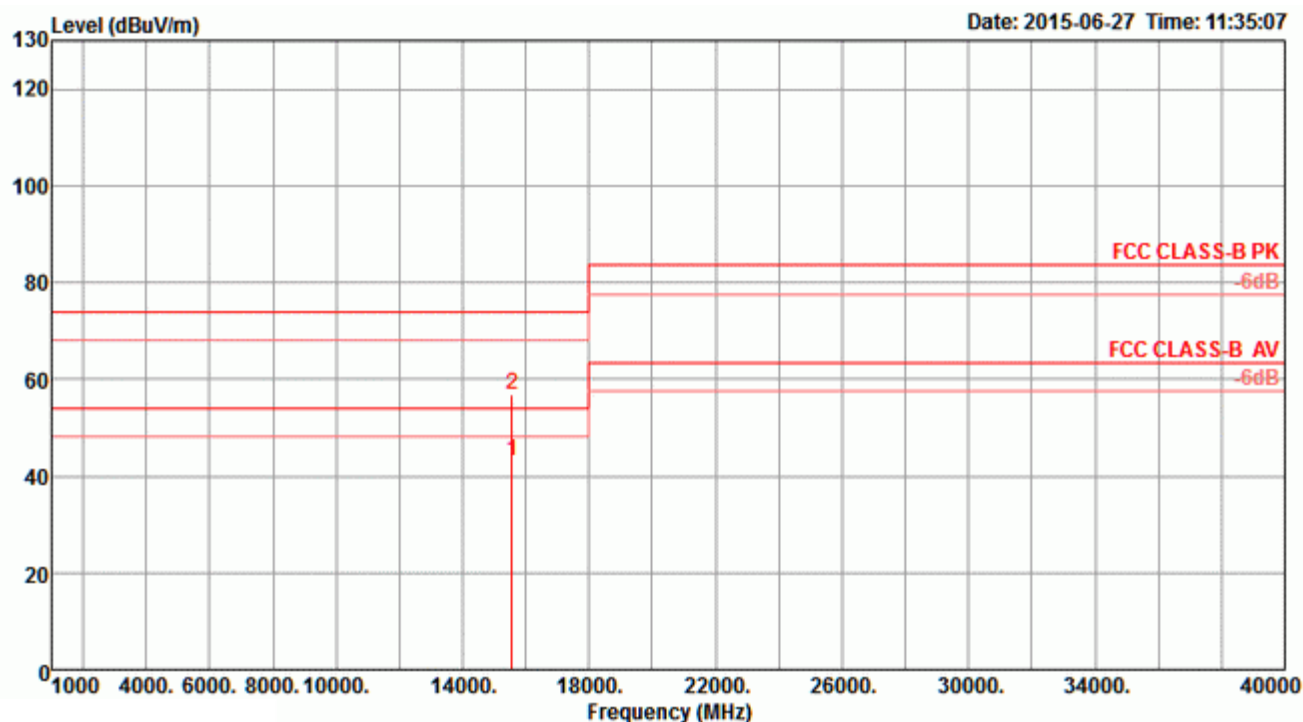
Horizontal

	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	15567.12	43.24	54.00	-10.76	32.09	7.57	38.22	34.64	156	149	Average	HORIZONTAL
2	15571.42	56.74	74.00	-17.26	45.59	7.57	38.22	34.64	156	149	Peak	HORIZONTAL
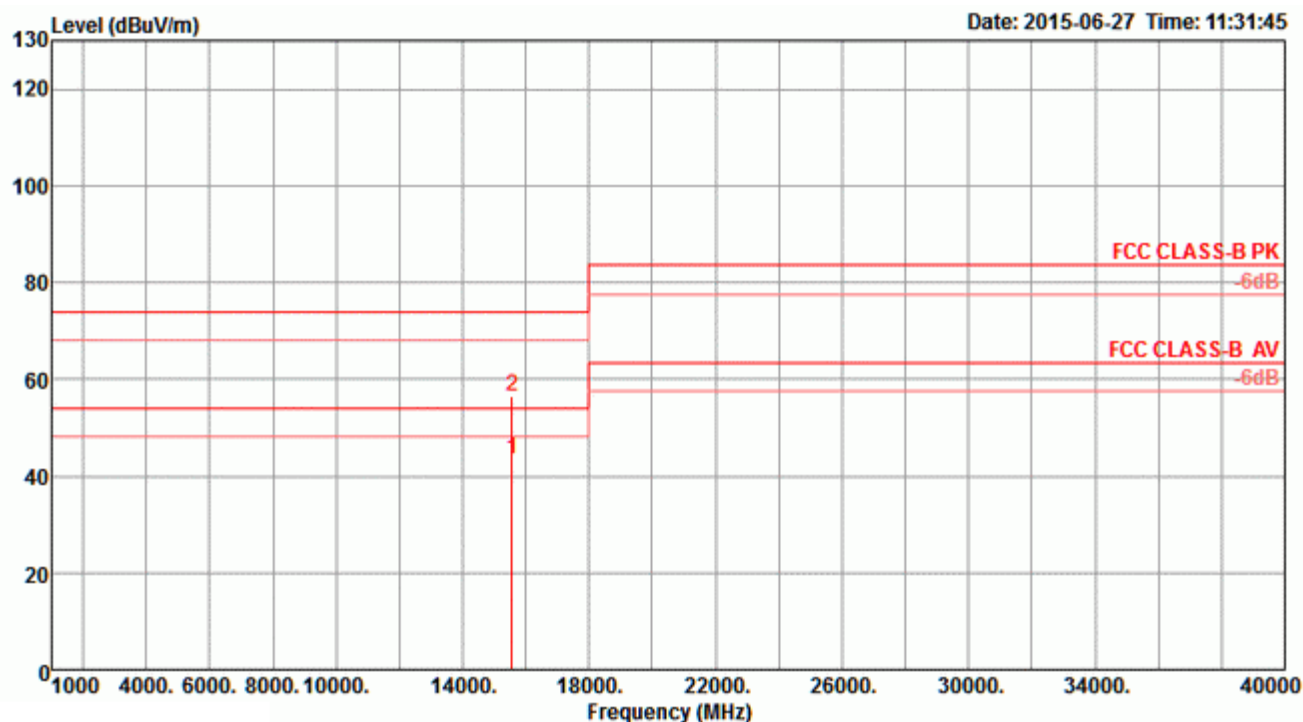
Vertical

	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	15567.92	43.31	54.00	-10.69	32.16	7.57	38.22	34.64	66	168	Average	VERTICAL
2	15572.05	56.46	74.00	-17.54	45.31	7.57	38.22	34.64	66	168	Peak	VERTICAL

| Temperature	22℃	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 46 / Chain 4 + Chain 5 + Chain 6
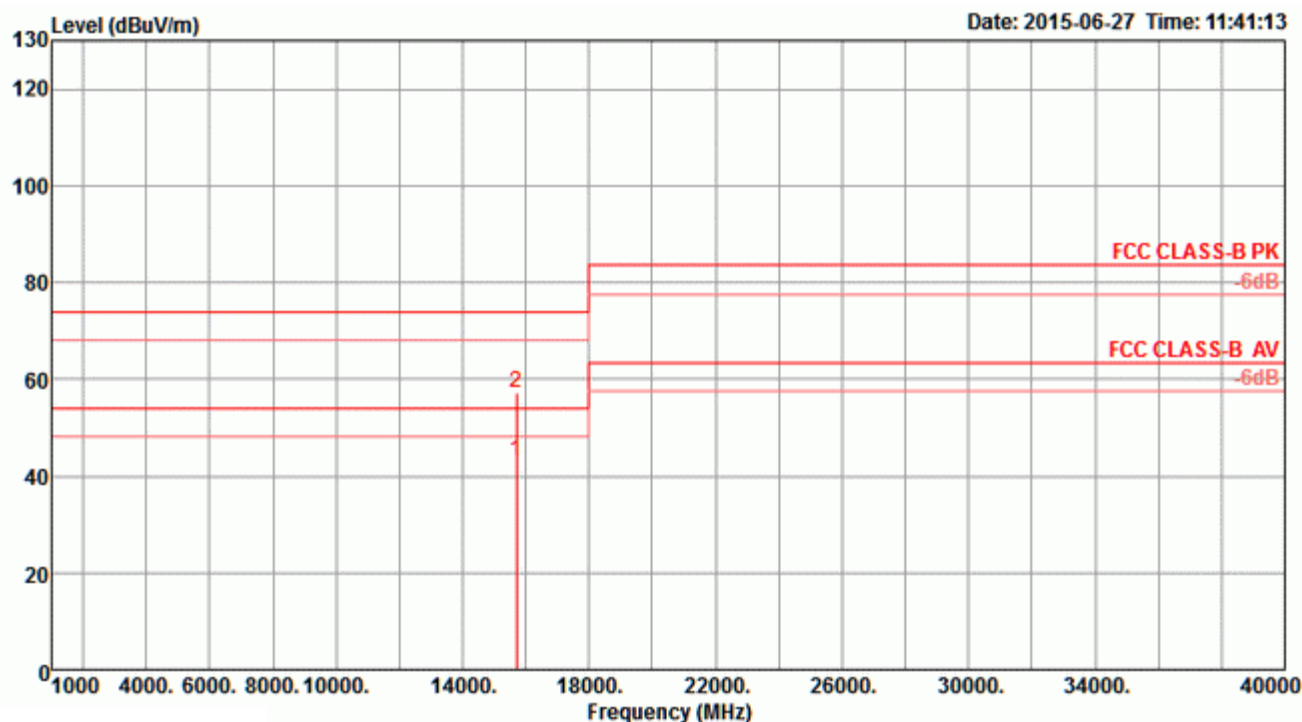
Horizontal

	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	15687.58	43.21	54.00	-10.79	31.91	7.61	38.44	34.75	165	161	Average	HORIZONTAL
2	15690.93	57.16	74.00	-16.84	45.86	7.61	38.44	34.75	165	161	Peak	HORIZONTAL
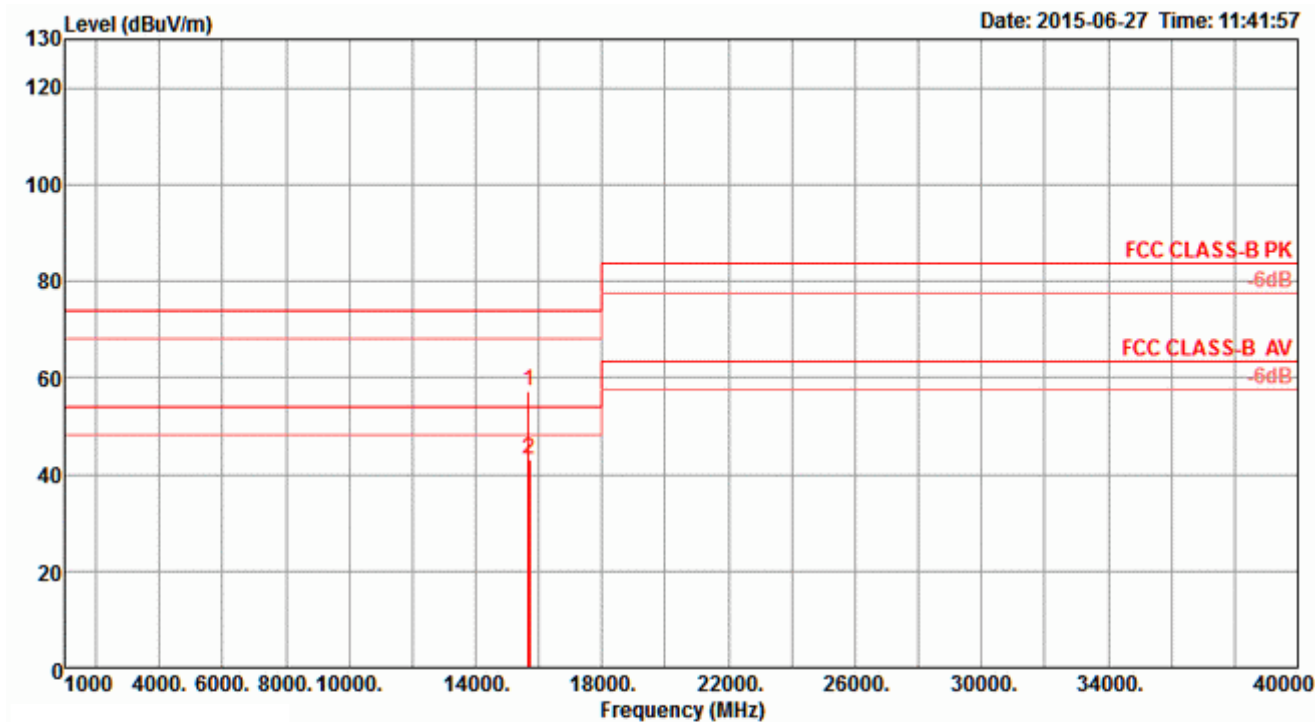
Vertical

	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	15685.82	57.04	74.00	-16.96	45.74	7.61	38.44	34.75	146	156	Peak	VERTICAL
2	15688.15	43.24	54.00	-10.76	31.94	7.61	38.44	34.75	146	156	Average	VERTICAL

| Temperature	24℃	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 151 / Chain 4 + Chain 5 + Chain 6

Horizontal
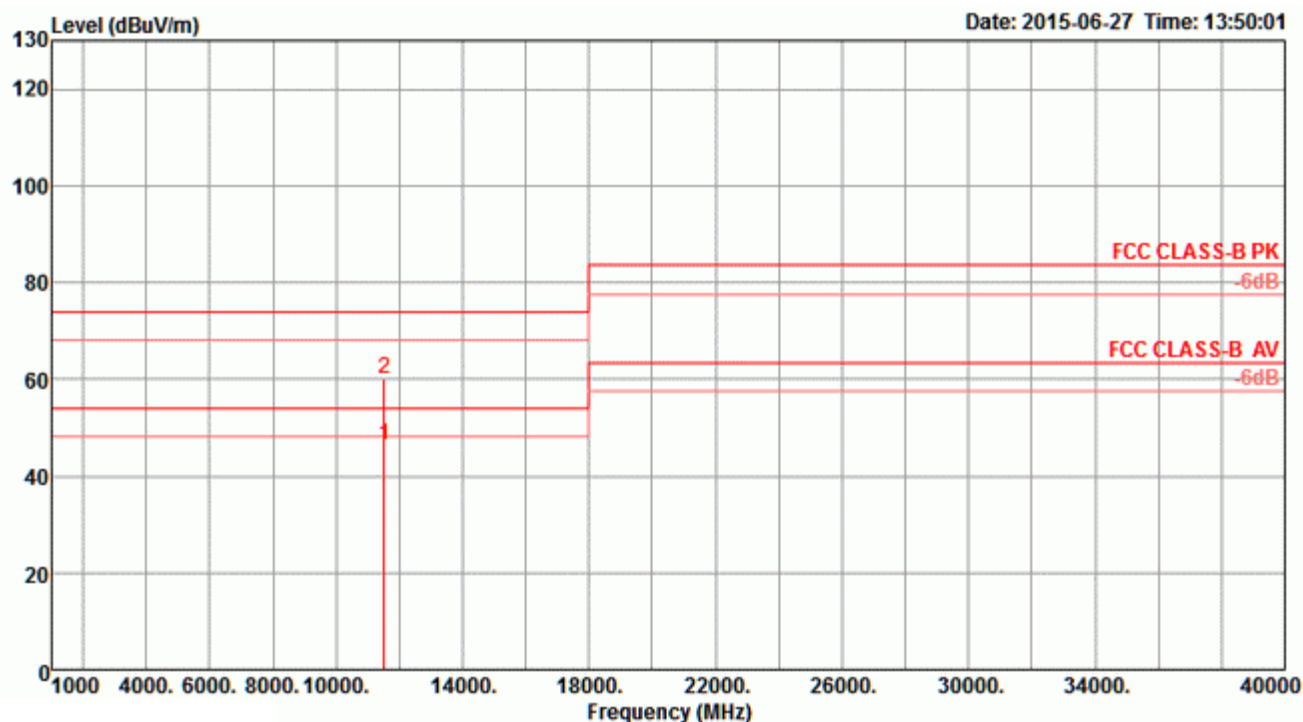
	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	11513.96	46.39	54.00	-7.61	35.77	6.54	38.70	34.62	142	161	Average	HORIZONTAL
2	11514.49	60.12	74.00	-13.88	49.50	6.54	38.70	34.62	142	161	Peak	HORIZONTAL
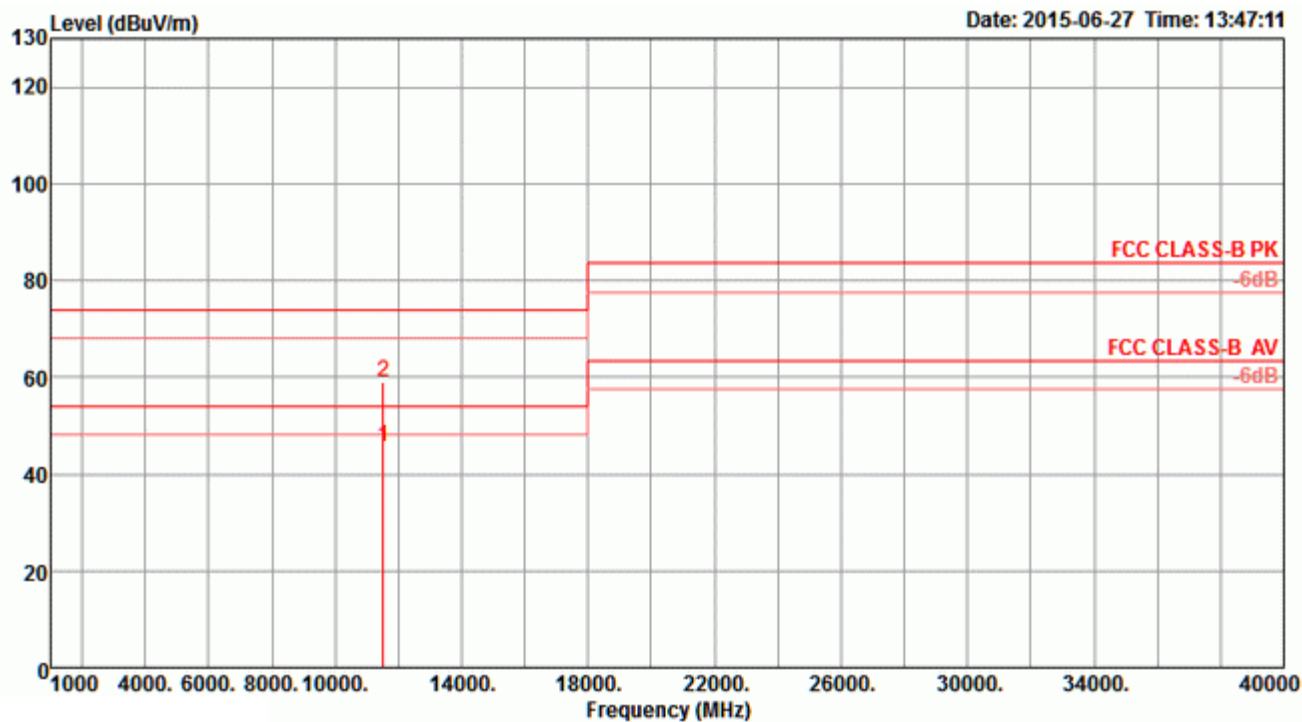
Vertical

	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	11514.28	45.48	54.00	-8.52	34.86	6.54	38.70	34.62	156	168	Average	VERTICAL
2	11514.95	59.11	74.00	-14.89	48.49	6.54	38.70	34.62	156	168	Peak	VERTICAL

| Temperature	24℃	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 159 / Chain 4 + Chain 5 + Chain 6

Horizontal
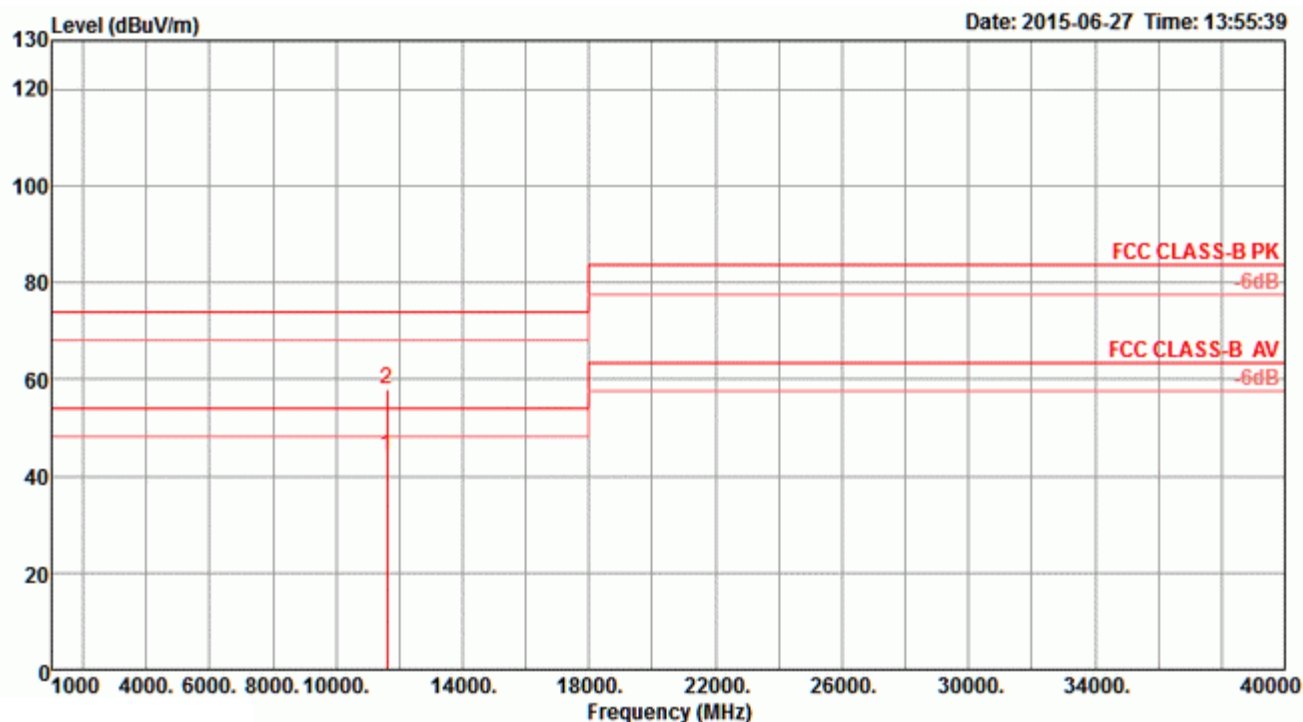
	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	11594.57	44.11	54.00	-9.89	33.49	6.55	38.72	34.65	144	159	Average	HORIZONTAL
2	11596.57	57.83	74.00	-16.17	47.22	6.55	38.72	34.66	144	159	Peak	HORIZONTAL
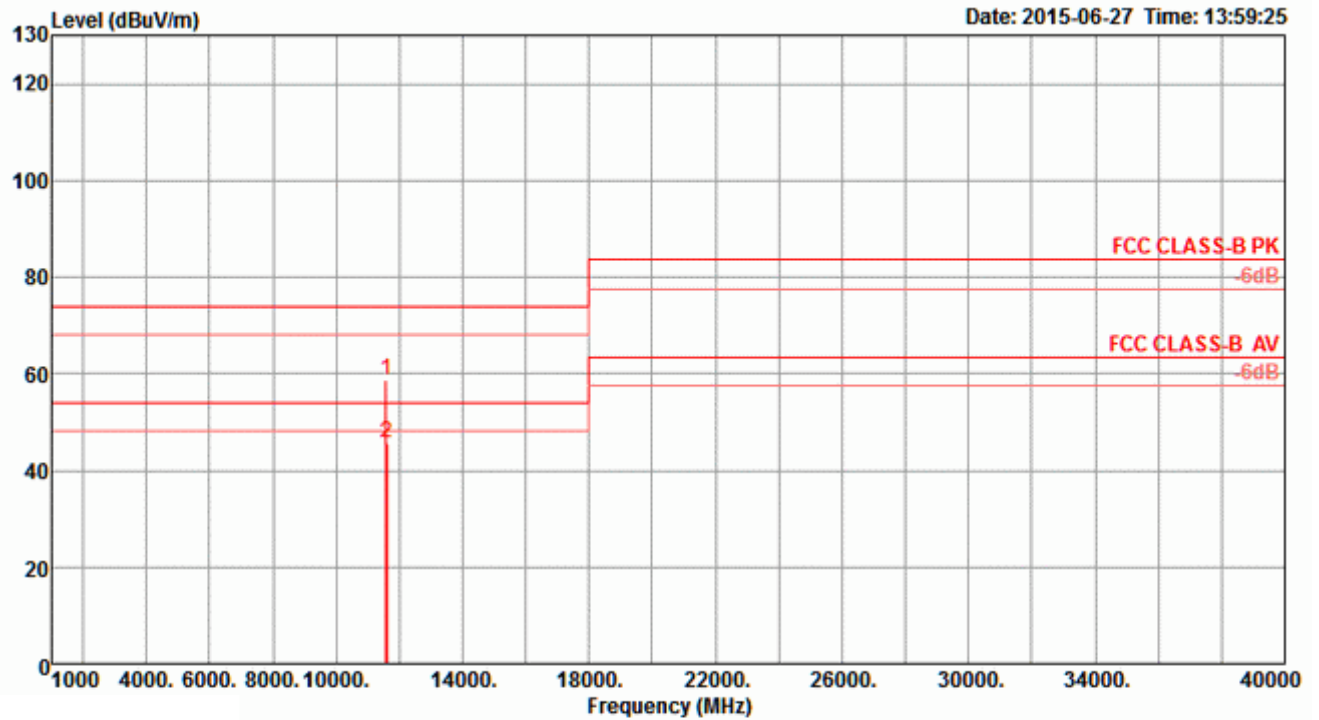
Vertical

	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	11586.53	58.71	74.00	-15.29	48.09	6.55	38.72	34.65	185	141	Peak	VERTICAL
2	11599.00	45.81	54.00	-8.19	35.20	6.55	38.72	34.66	185	141	Average	VERTICAL

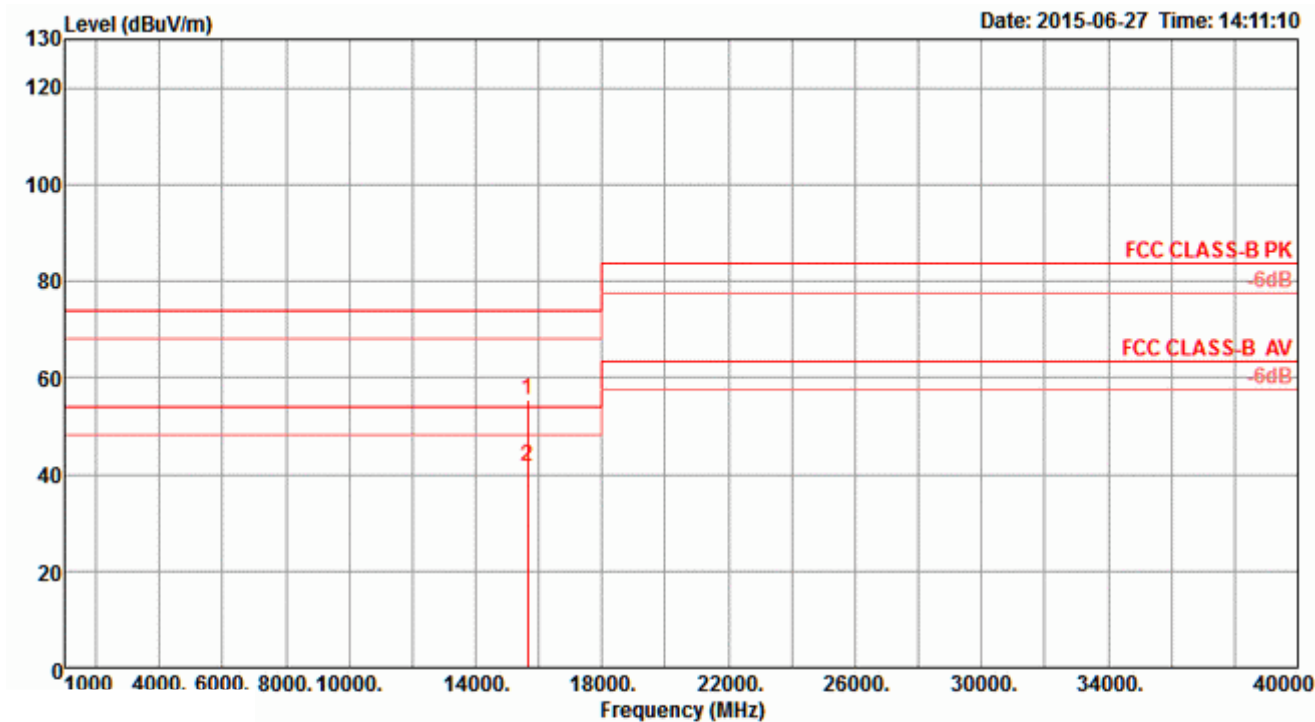| Temperature	22℃	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT80 CH 42 / Chain 4 + Chain 5 + Chain 6
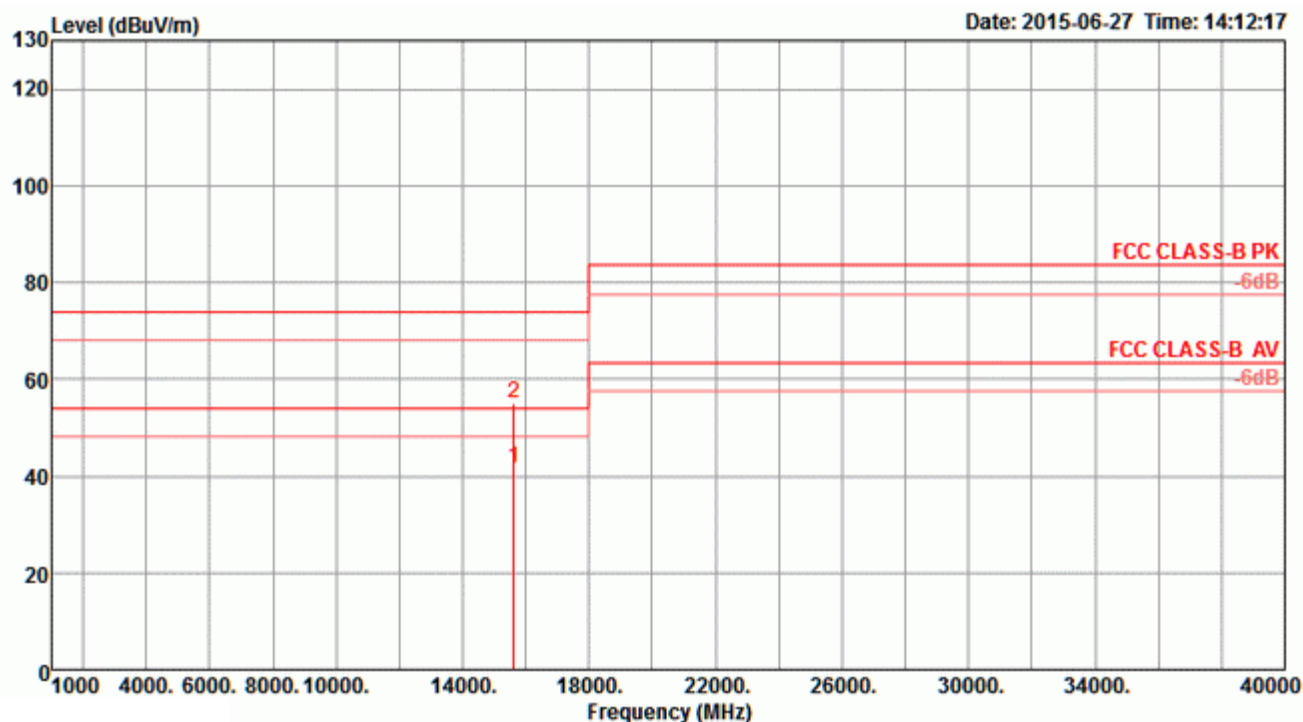
Horizontal

	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	15627.71	41.64	54.00	-12.36	30.44	7.59	38.32	34.71	170	158	Average	HORIZONTAL
2	15631.45	55.16	74.00	-18.84	43.93	7.59	38.35	34.71	170	158	Peak	HORIZONTAL

Vertical

	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	15633.44	55.37	74.00	-18.63	44.14	7.59	38.35	34.71	127	166	Peak	VERTICAL
2	15635.21	41.73	54.00	-12.27	30.50	7.59	38.35	34.71	127	166	Average	VERTICAL

Temperature	24℃	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT80 CH 155 / Chain 4 + Chain 5 + Chain 6

Horizontal

Date: 2015-06-27 Time: 15:05:26
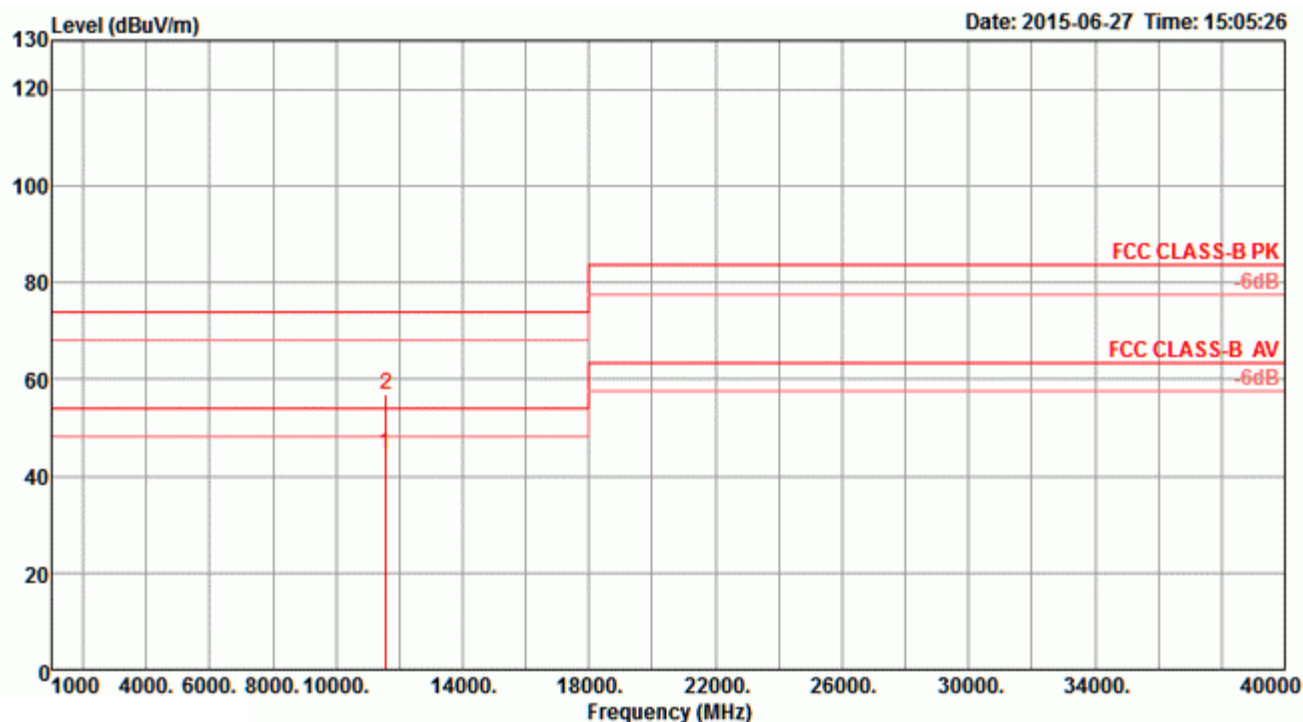
	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	11550.00	44.72	54.00	-9.28	34.10	6.55	38.71	34.64	96	138	Average	HORIZONTAL
2	11566.35	56.73	74.00	-17.27	46.11	6.55	38.71	34.64	96	138	Peak	HORIZONTAL
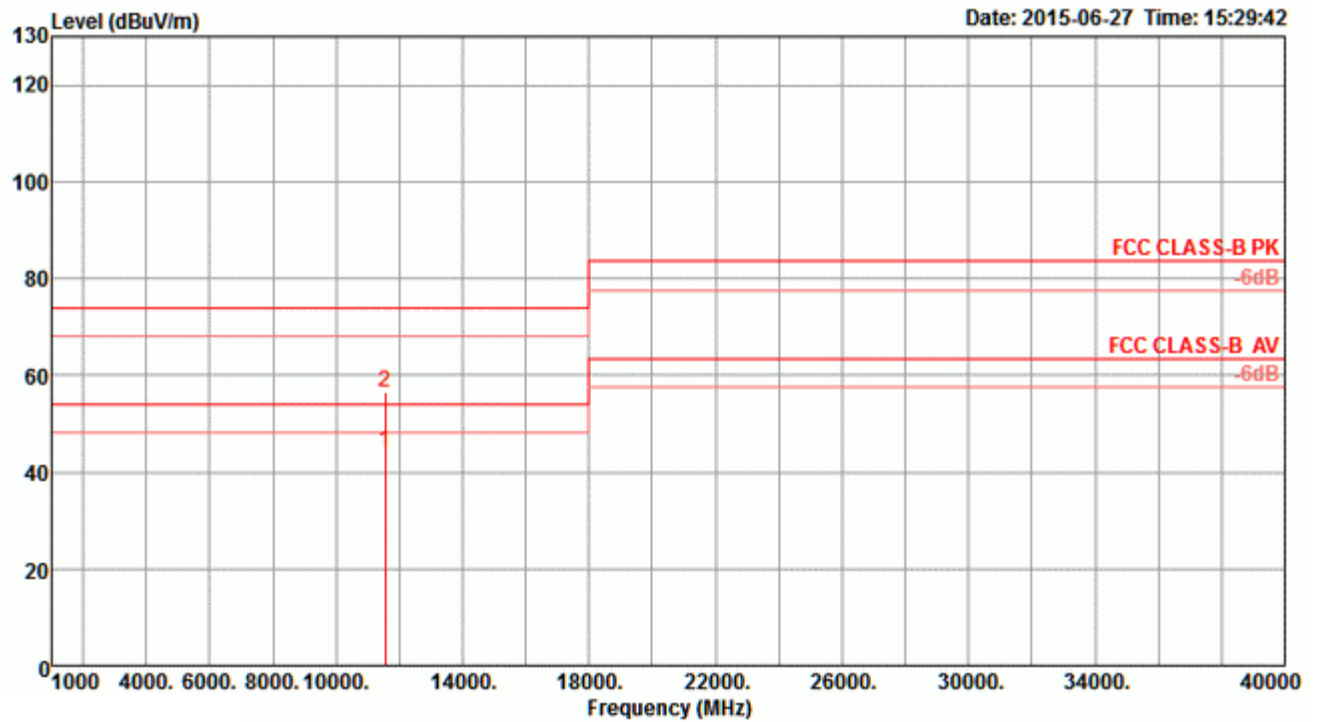
Vertical

Level (dBuV/m)   Date: 2015-06-27 Time: 15:29:42

FCC CLASS-B PK
-6dB

FCC CLASS-B AV
-6dB

	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	11560.27	44.11	54.00	-9.89	33.49	6.55	38.71	34.64	186	145	Average	VERTICAL
2	11561.43	56.45	74.00	-17.55	45.83	6.55	38.71	34.64	186	145	Peak	VERTICAL

Note:

The amplitude of spurious emissions that are attenuated by more than 20dB below the permissible value has no need to be reported.
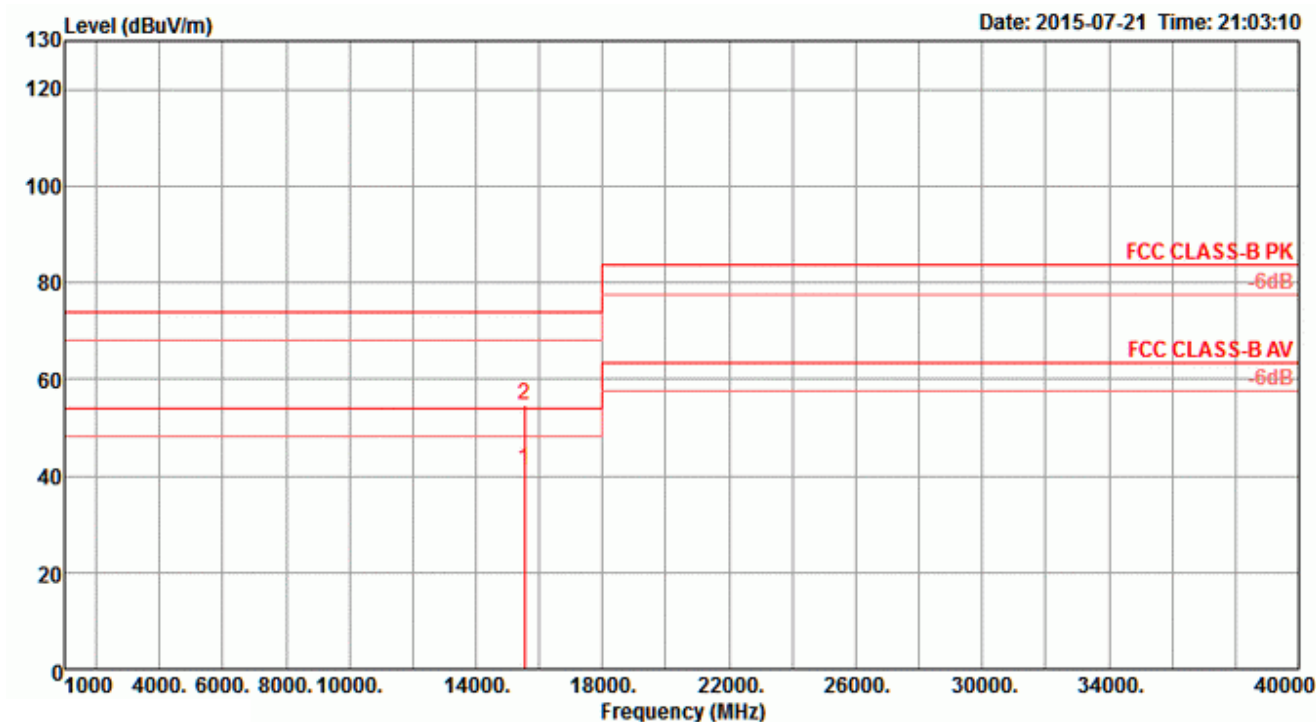
Emission level (dBuV/m) = 20 log Emission level (uV/m).

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.
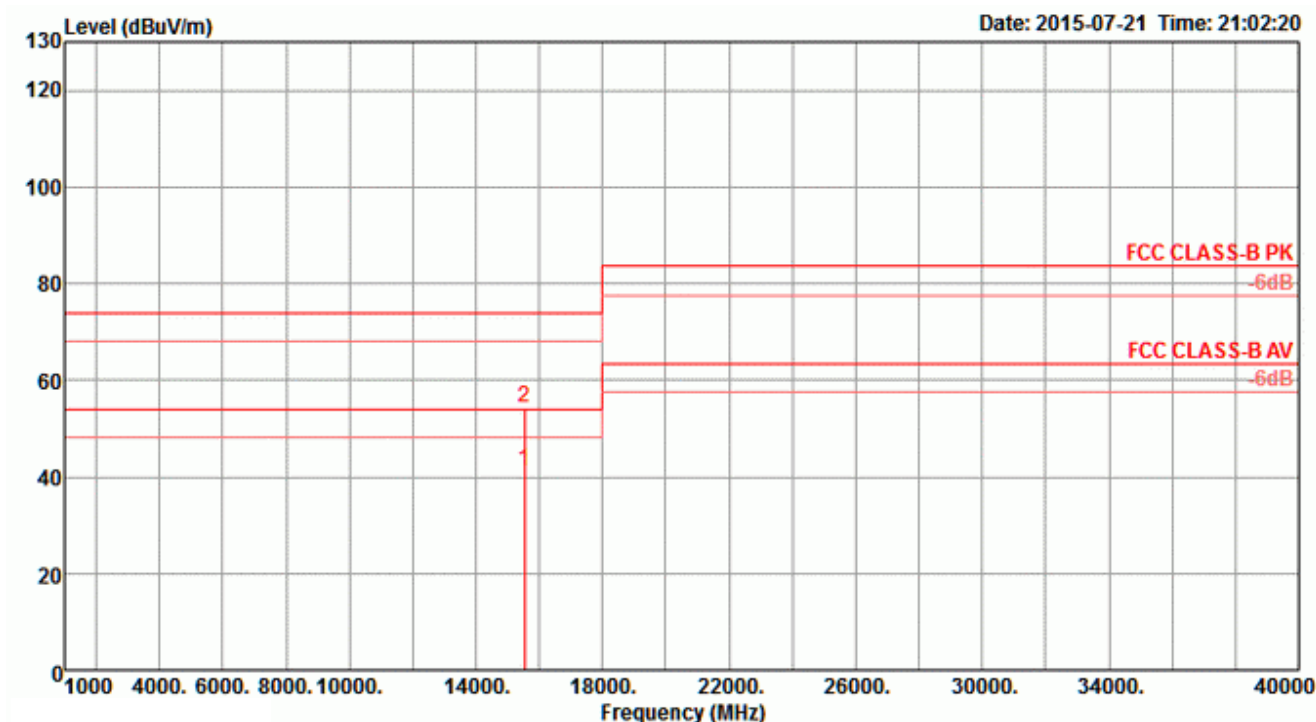
<For Radio 2 Beamforming Mode>: 3TX, 1S

Temperature	22℃	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss2 VHT20 CH 36 / Chain 4 + Chain 5 + Chain 6

Horizontal

	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	15530.48	41.35	54.00	-12.65	30.25	7.56	38.16	34.62	275	153	Average	HORIZONTAL
2	15531.22	54.70	74.00	-19.30	43.60	7.56	38.16	34.62	275	153	Peak	HORIZONTAL

Vertical

|	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	15532.76	41.16	54.00	-12.84	30.06	7.56	38.16	34.62	285	151	Average	VERTICAL
2	15548.59	54.46	74.00	-19.54	43.35	7.56	38.19	34.64	285	151	Peak	VERTICAL

Temperature	22℃	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss2 VHT20 CH 40 / Chain 4 + Chain 5 + Chain 6
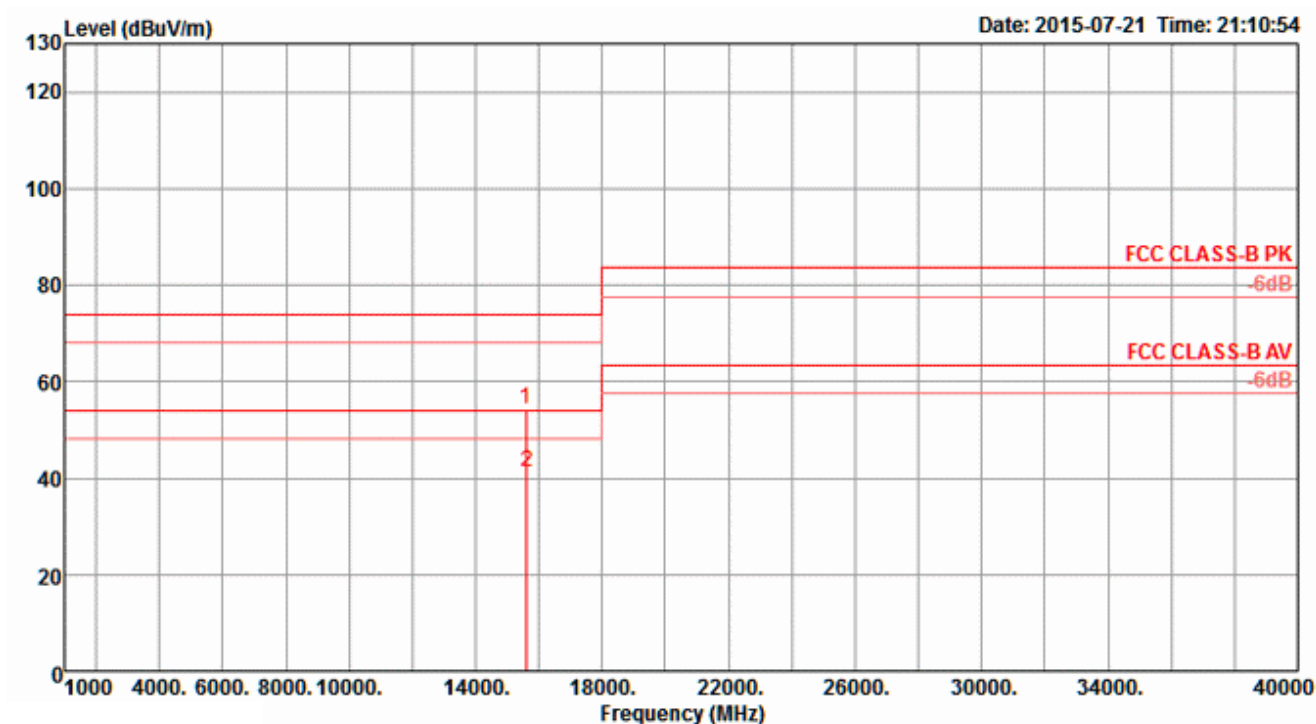
Horizontal

	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	15599.62	54.32	74.00	-19.68	43.14	7.58	38.29	34.69	262	155	Peak	HORIZONTAL
2	15607.08	41.12	54.00	-12.88	29.94	7.58	38.29	34.69	262	155	Average	HORIZONTAL
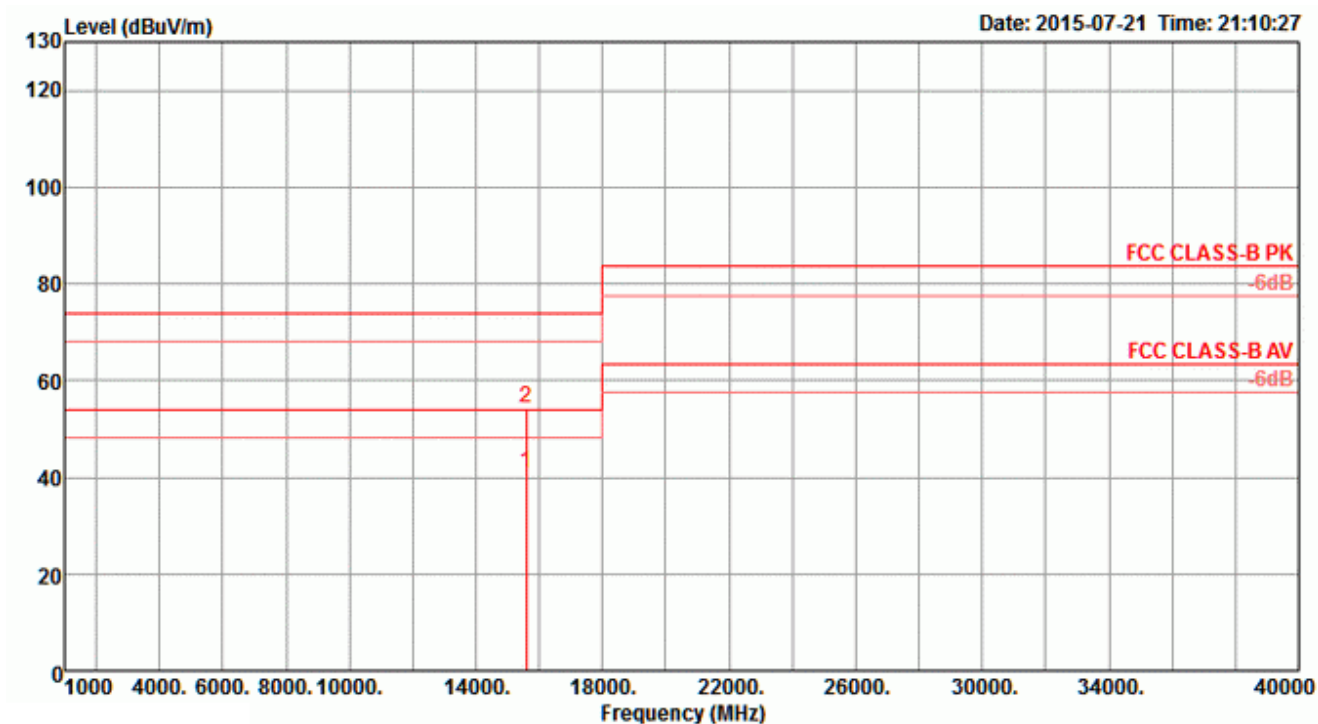
Vertical

|	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	15596.76	41.03	54.00	-12.97	29.83	7.58	38.29	34.67	268	155	Average	VERTICAL
2	15604.04	54.36	74.00	-19.64	43.18	7.58	38.29	34.69	268	155	Peak	VERTICAL

Temperature	22℃	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss2 VHT20 CH 48 / Chain 4 + Chain 5 + Chain 6
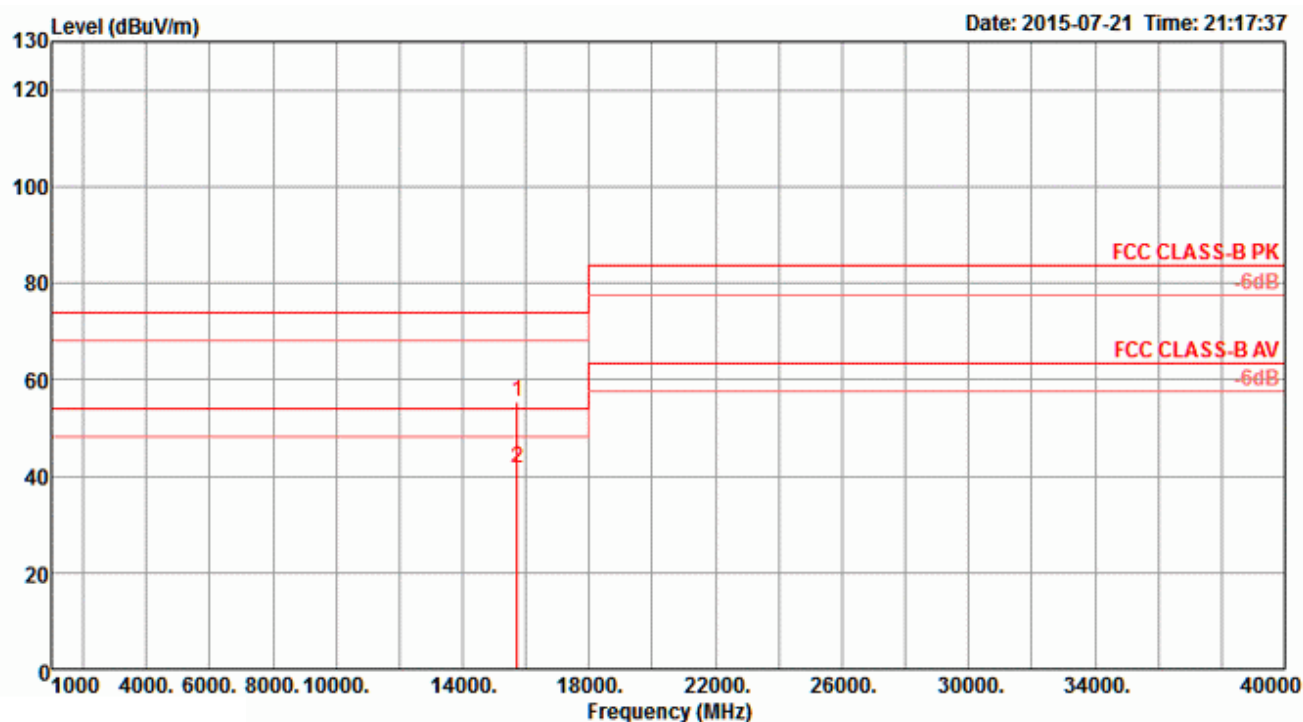
Horizontal

	Freq MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Cable Loss dB	Antenna Factor dB/m	Preamp Factor dB	T/Pos deg	A/Pos cm	Remark	Pol/Phase
1	15718.85	55.53	74.00	-18.47	44.19	7.62	38.50	34.78	257	152	Peak	HORIZONTAL
2	15722.92	41.75	54.00	-12.25	30.41	7.62	38.50	34.78	257	152	Average	HORIZONTAL
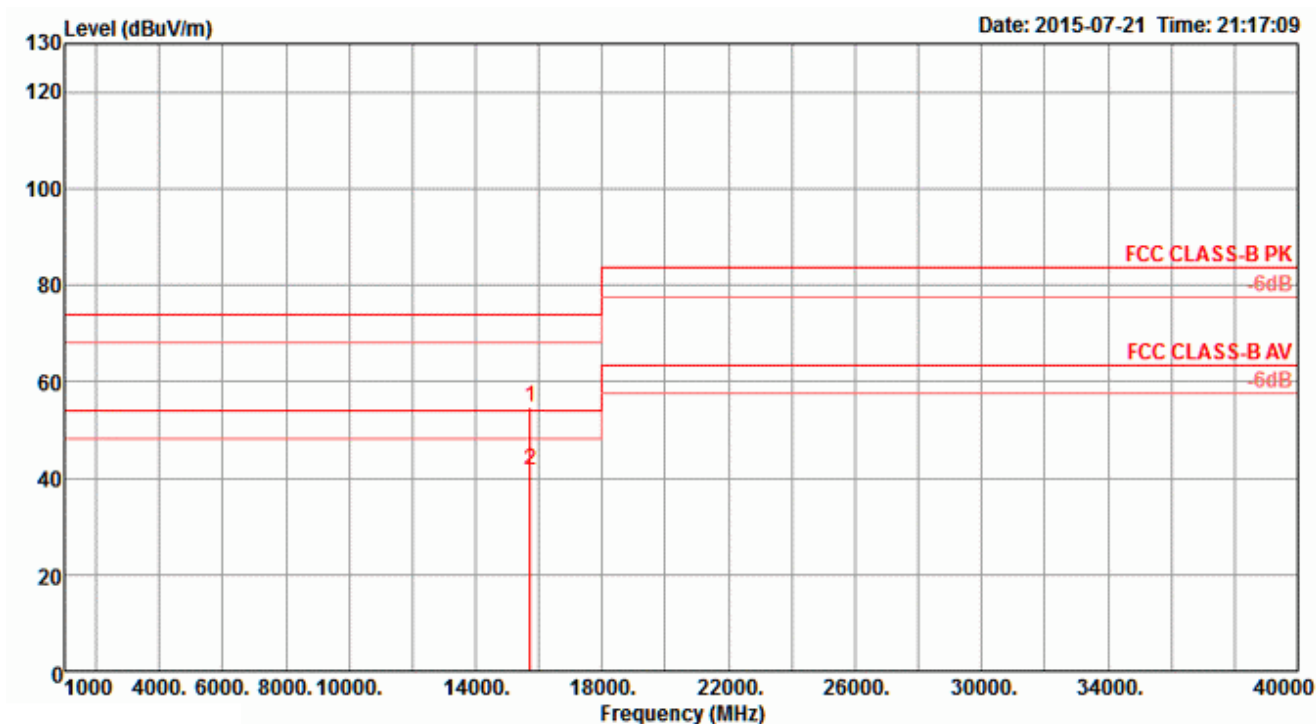
Vertical

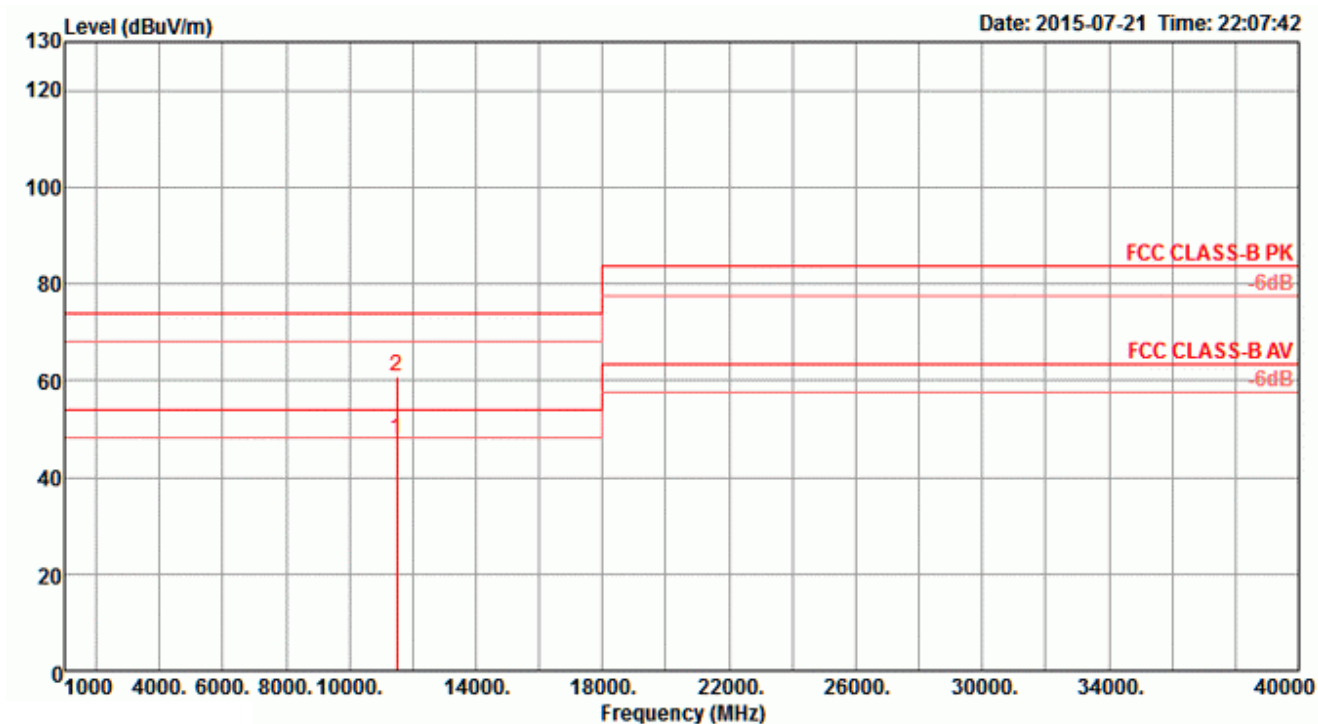|	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	15719.81	54.80	74.00	-19.20	43.46	7.62	38.50	34.78	259	153	Peak	VERTICAL
2	15720.38	41.48	54.00	-12.52	30.14	7.62	38.50	34.78	259	153	Average	VERTICAL

Temperature	24℃	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss2 VHT20 CH 149 / Chain 4 + Chain 5 + Chain 6
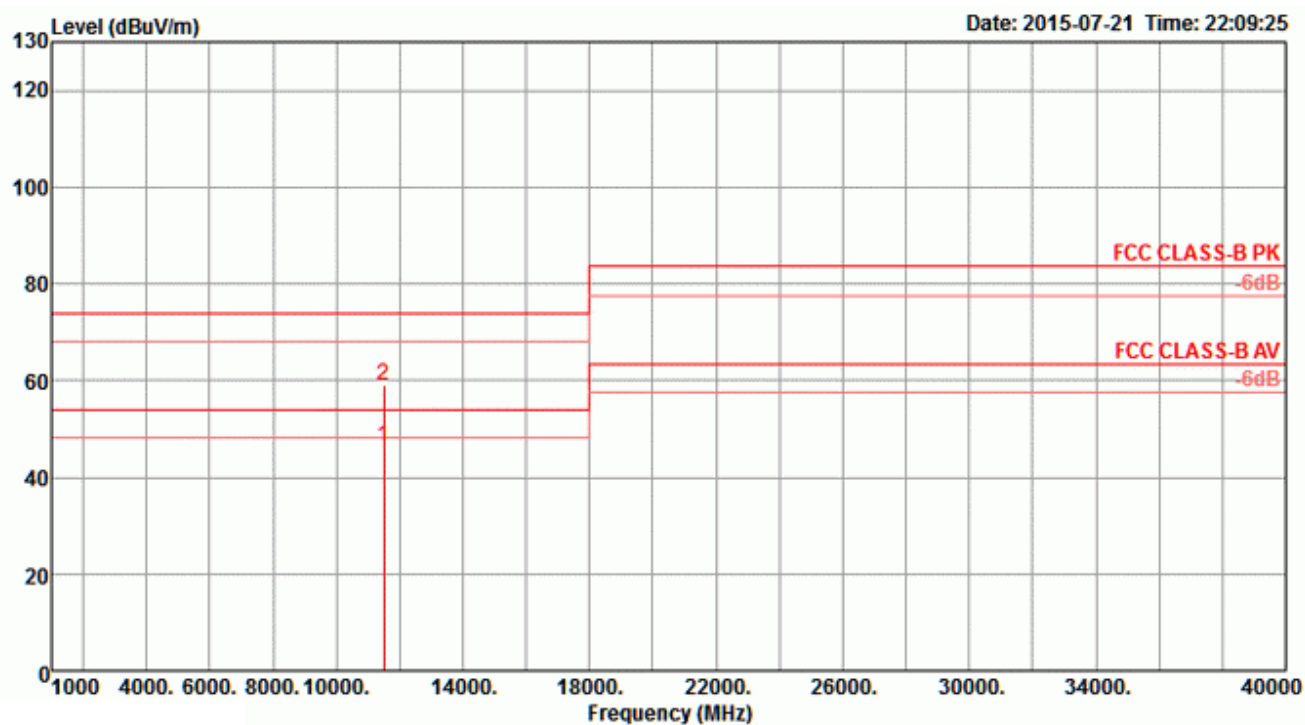
Horizontal

	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	11495.37	46.22	54.00	-7.78	35.61	6.53	38.70	34.62	297	164	Average	HORIZONTAL
2	11498.01	59.00	74.00	-15.00	48.38	6.54	38.70	34.62	297	164	Peak	HORIZONTAL

Vertical

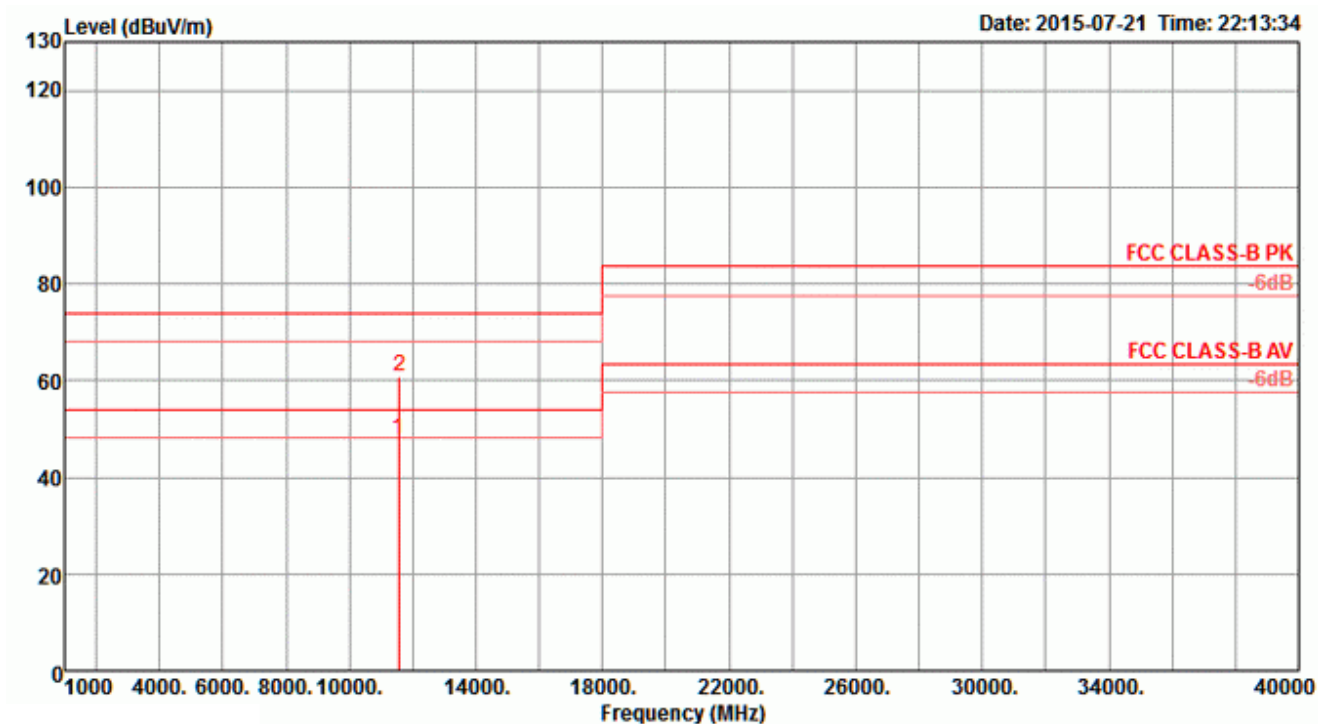|	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	11488.96	47.66	54.00	-6.34	37.05	6.53	38.70	34.62	3	150	Average	VERTICAL
2	11490.56	60.85	74.00	-13.15	50.24	6.53	38.70	34.62	3	150	Peak	VERTICAL

Temperature	24℃	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss2 VHT20 CH 157 / Chain 4 + Chain 5 + Chain 6
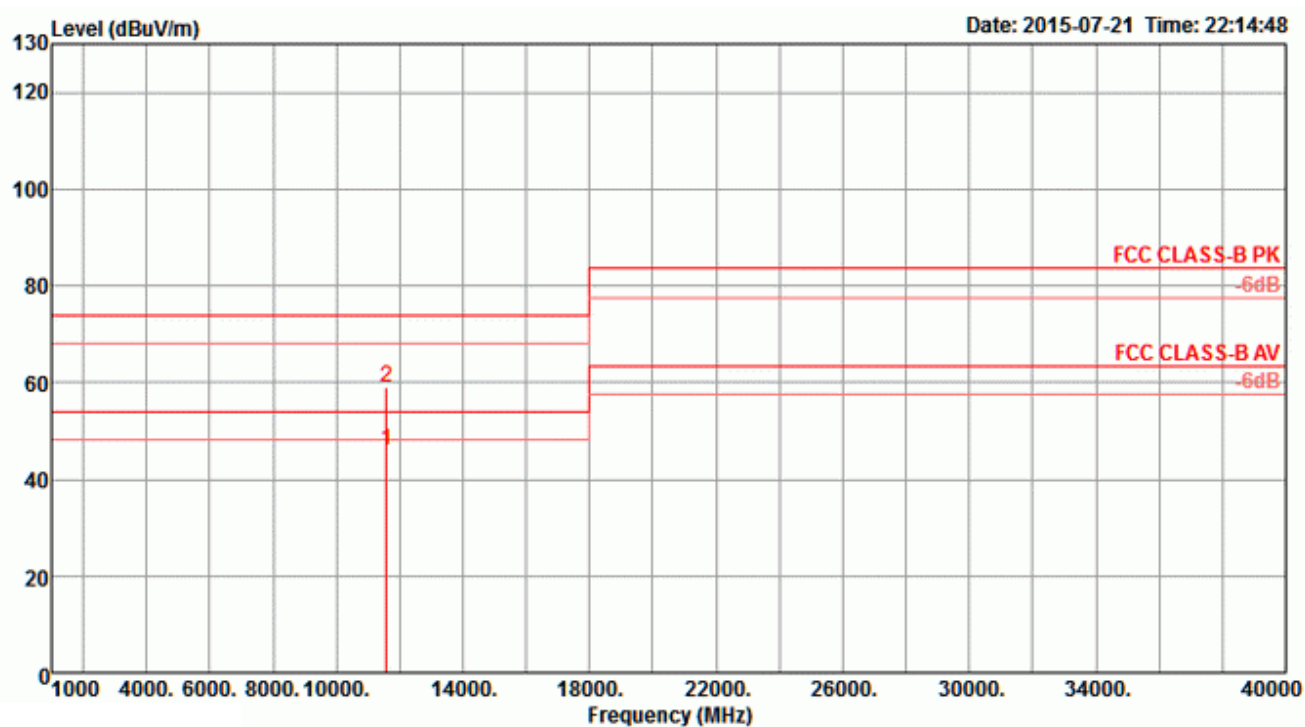
Horizontal

	Freq MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Cable Loss dB	Antenna Factor dB/m	Preamp Factor dB	T/Pos deg	A/Pos cm	Remark	Pol/Phase
1	11570.80	45.86	54.00	-8.14	35.25	6.55	38.71	34.65	286	152	Average	HORIZONTAL
2	11584.10	58.96	74.00	-15.04	48.34	6.55	38.72	34.65	286	152	Peak	HORIZONTAL

Vertical

Level (dBuV/m)   Date: 2015-07-21 Time: 22:13:34

|	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	11565.35	47.74	54.00	-6.26	37.12	6.55	38.71	34.64	360	151	Average	VERTICAL
2	11567.60	60.98	74.00	-13.02	50.36	6.55	38.71	34.64	360	151	Peak	VERTICAL

Temperature	24℃	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss2 VHT20 CH 165 / Chain 4 + Chain 5 + Chain 6
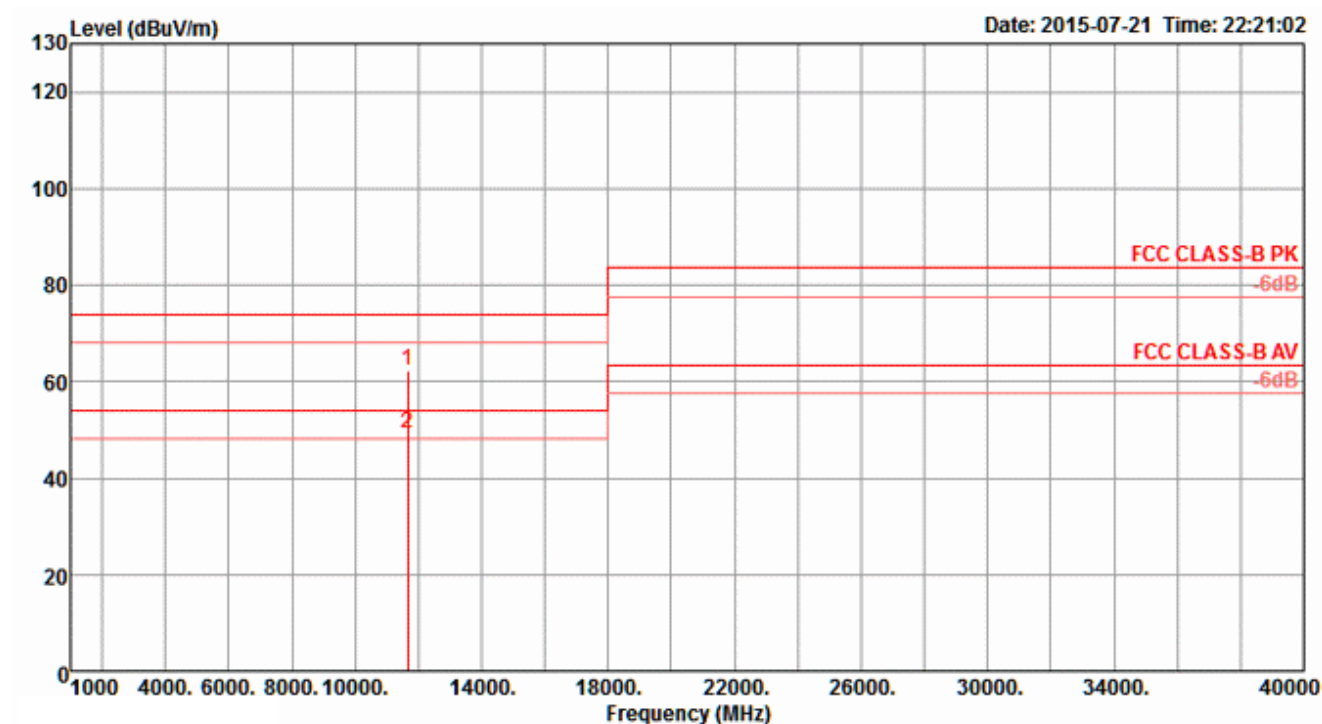
Horizontal

	Freq MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Cable Loss dB	Antenna Factor dB/m	Preamp Factor dB	T/Pos deg	A/Pos cm	Remark	Pol/Phase
1	11650.64	62.17	74.00	-11.83	51.56	6.56	38.73	34.68	294	158	Peak	HORIZONTAL
2	11652.96	49.08	54.00	-4.92	38.47	6.56	38.73	34.68	294	158	Average	HORIZONTAL
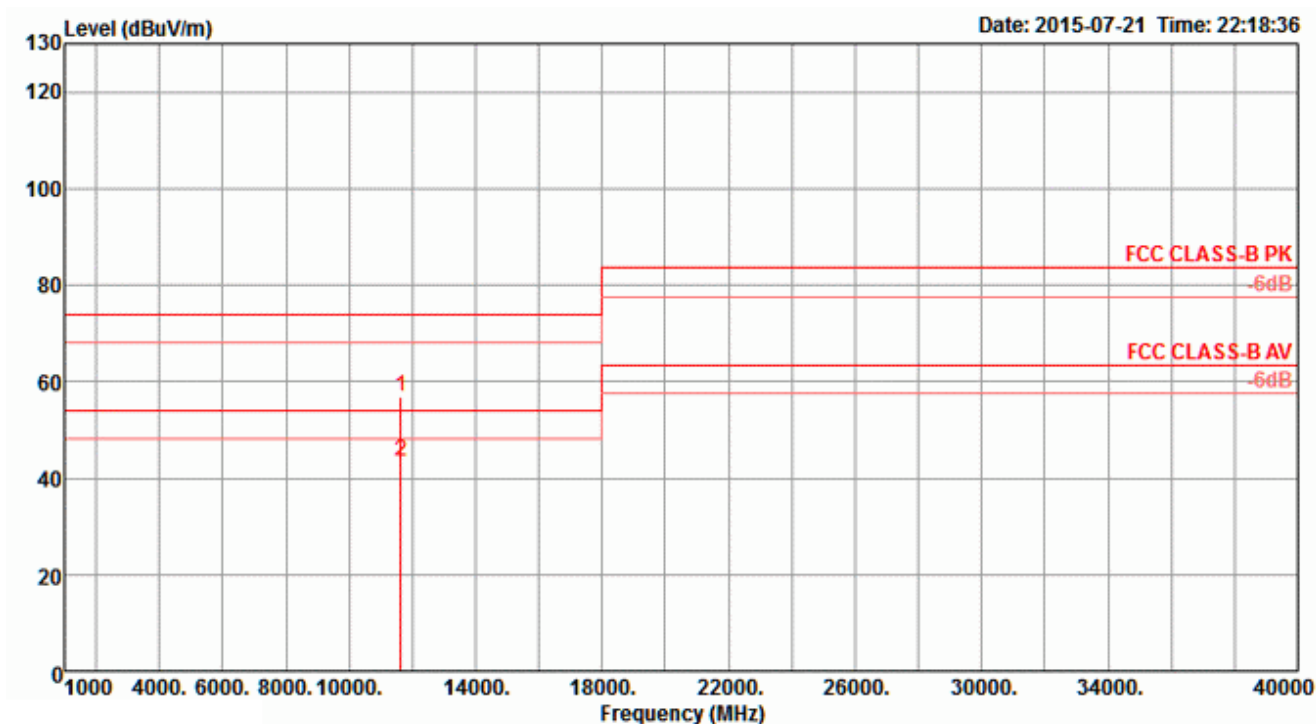
Vertical

|	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	11645.11	56.95	74.00	-17.05	46.33	6.56	38.73	34.67	190	158	Peak	VERTICAL
2	11647.28	43.53	54.00	-10.47	32.92	6.56	38.73	34.68	190	158	Average	VERTICAL

Temperature	22℃	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss2 VHT40 CH 38 / Chain 4 + Chain 5 + Chain 6
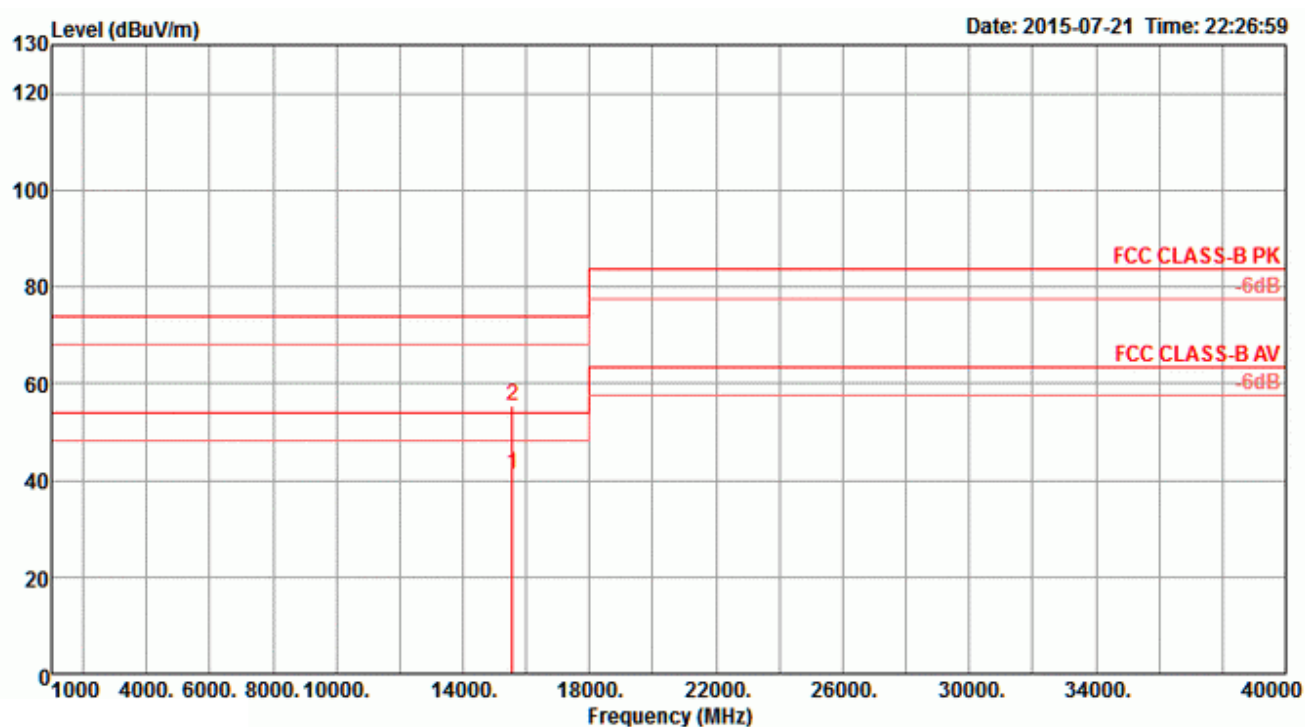
Horizontal

	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	15550.37	41.37	54.00	-12.63	30.26	7.56	38.19	34.64	304	150	Average	HORIZONTAL
2	15562.31	55.37	74.00	-18.63	44.22	7.57	38.22	34.64	304	150	Peak	HORIZONTAL
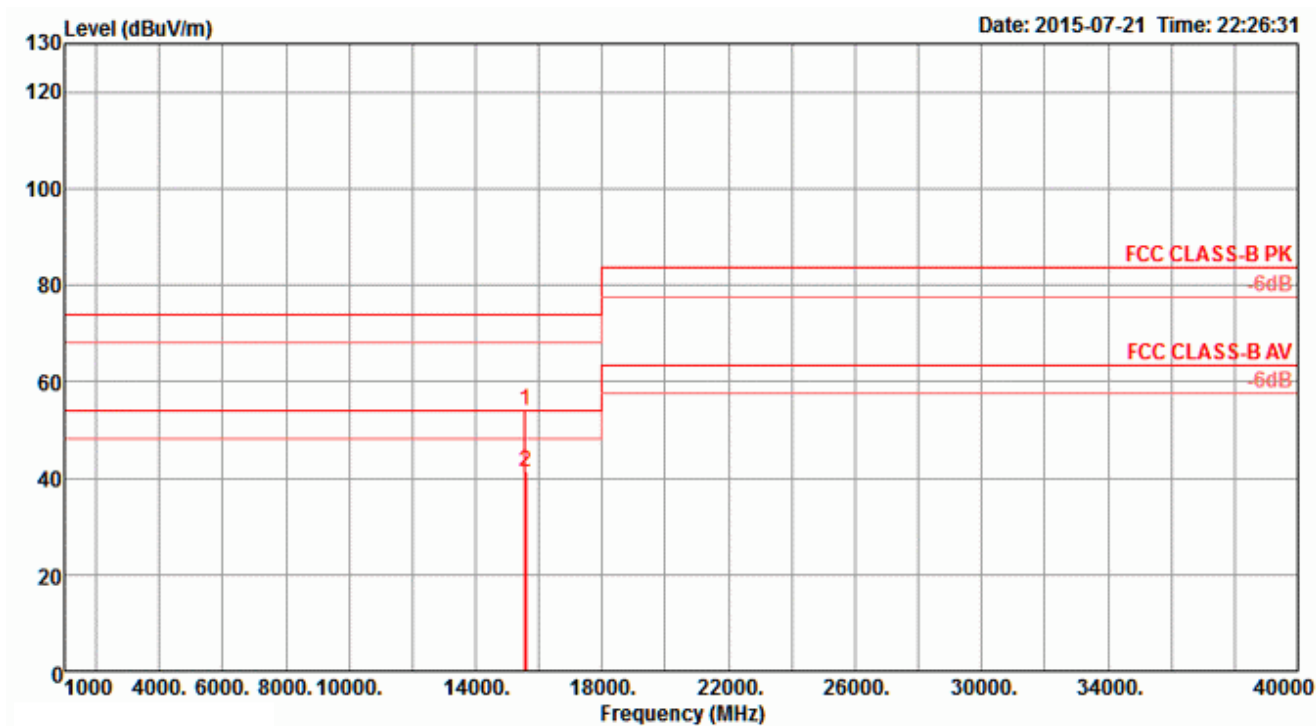
Vertical

|	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	15567.52	54.10	74.00	-19.90	42.95	7.57	38.22	34.64	297	151	Peak	VERTICAL
2	15585.30	41.26	54.00	-12.74	30.10	7.57	38.26	34.67	297	151	Average	VERTICAL

Temperature	22℃	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss2 VHT40 CH 46 / Chain 4 + Chain 5 + Chain 6
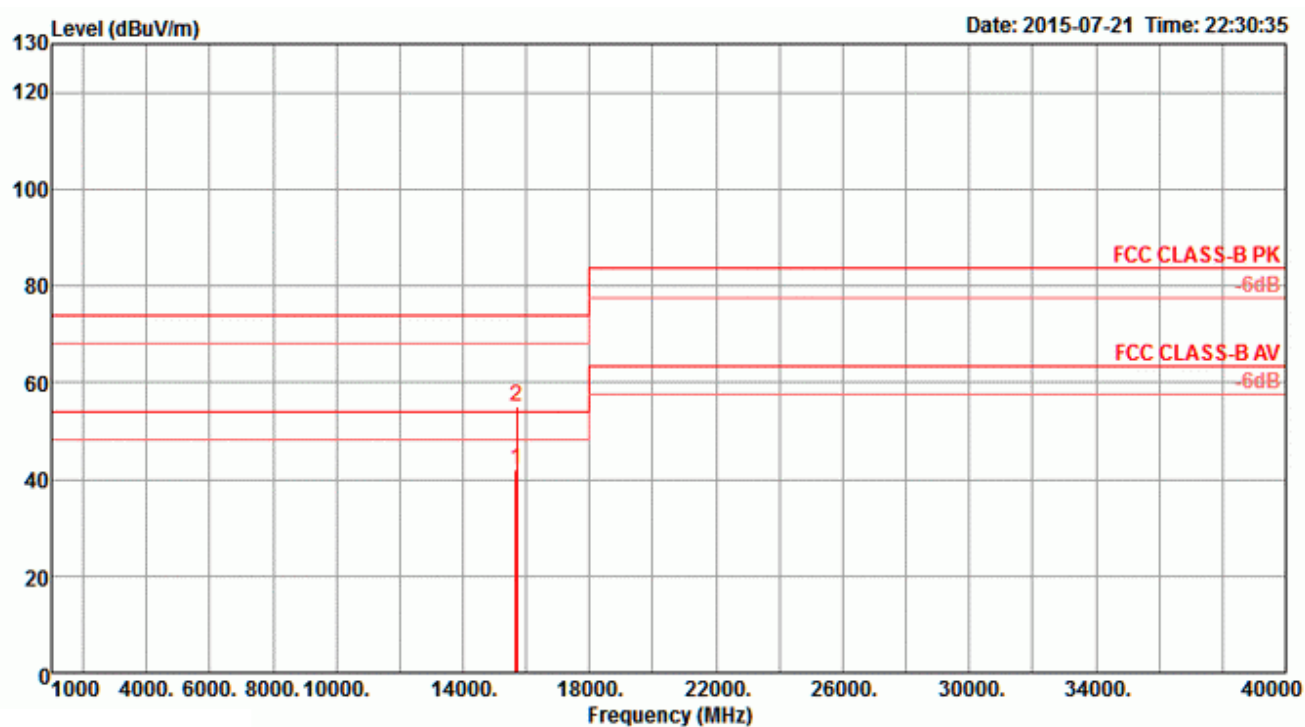
Horizontal

	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	15683.67	42.02	54.00	-11.98	30.72	7.61	38.44	34.75	251	151	Average	HORIZONTAL
2	15689.84	54.99	74.00	-19.01	43.69	7.61	38.44	34.75	251	151	Peak	HORIZONTAL
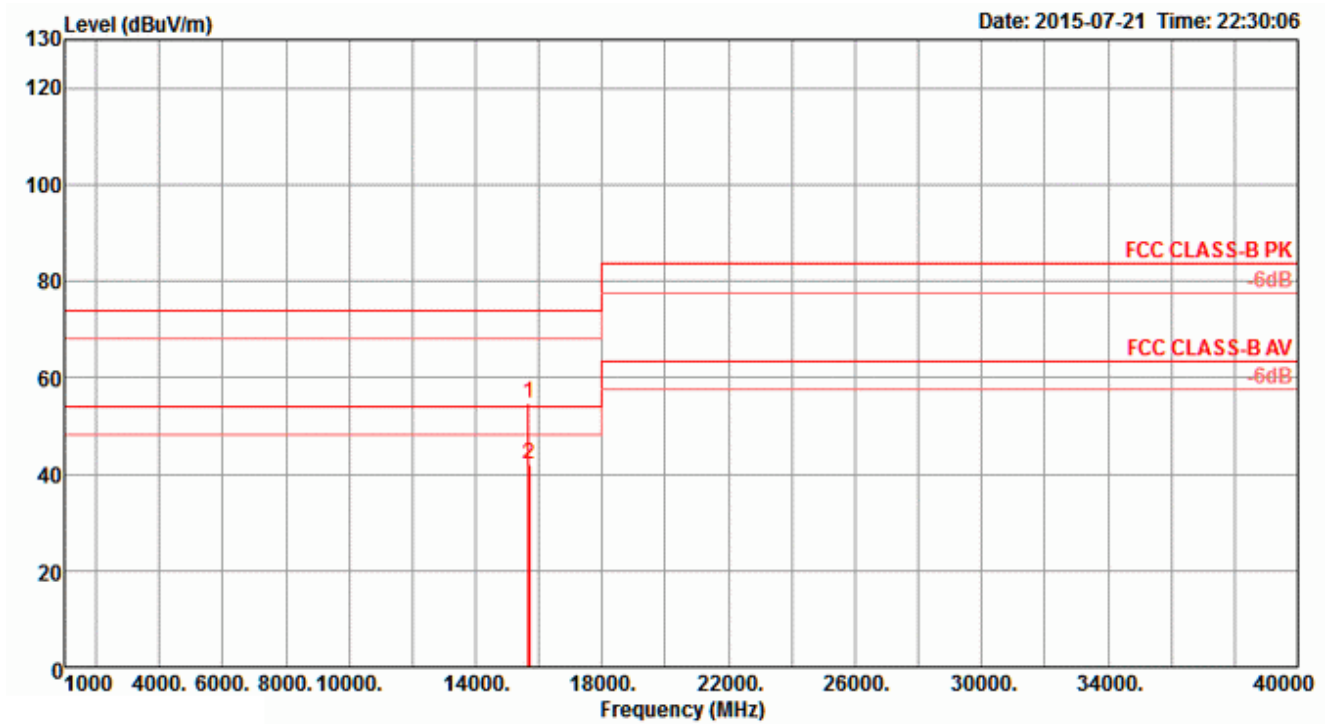
Vertical

|	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	15665.56	54.82	74.00	-19.18	43.54	7.60	38.41	34.73	253	152	Peak	VERTICAL
2	15694.25	41.83	54.00	-12.17	30.53	7.61	38.44	34.75	253	152	Average	VERTICAL

Temperature	24℃	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss2 VHT40 CH 151 / Chain 4 + Chain 5 + Chain 6
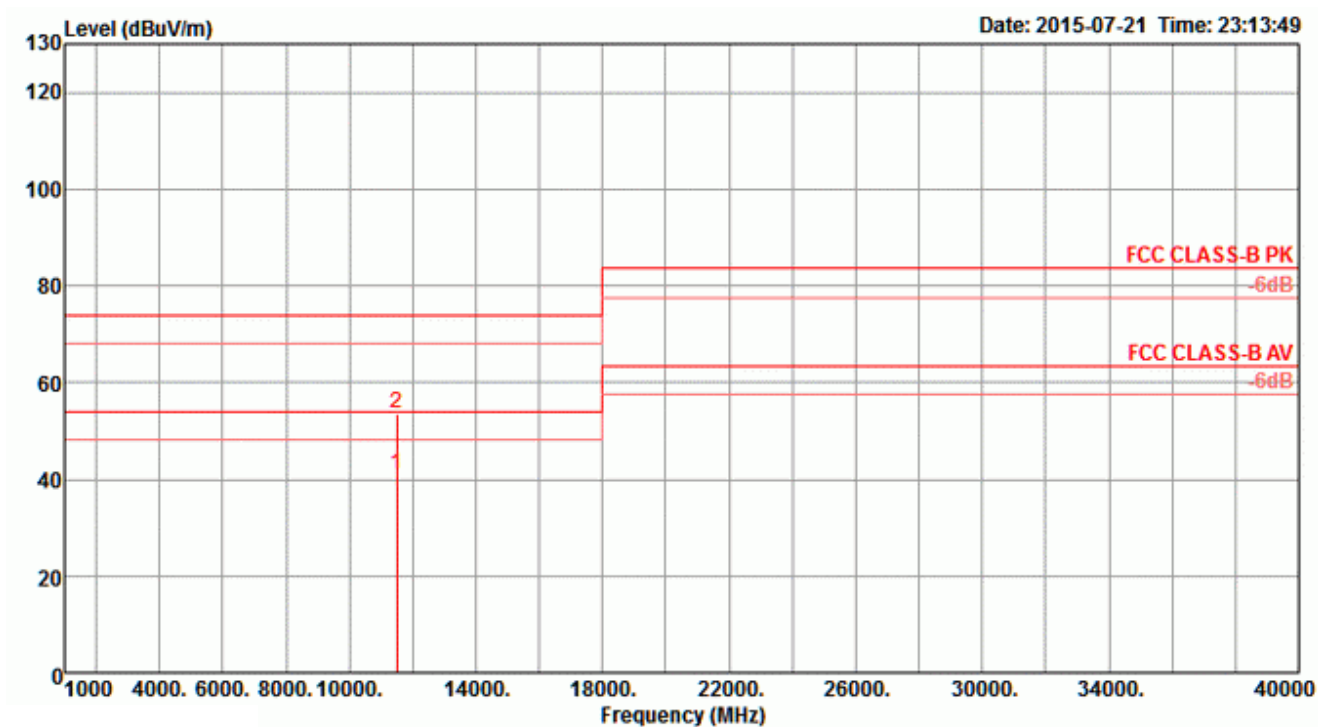
Horizontal

	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	11485.64	40.90	54.00	-13.10	30.29	6.53	38.70	34.62	211	167	Average	HORIZONTAL
2	11492.45	53.60	74.00	-20.40	42.99	6.53	38.70	34.62	211	167	Peak	HORIZONTAL

Vertical
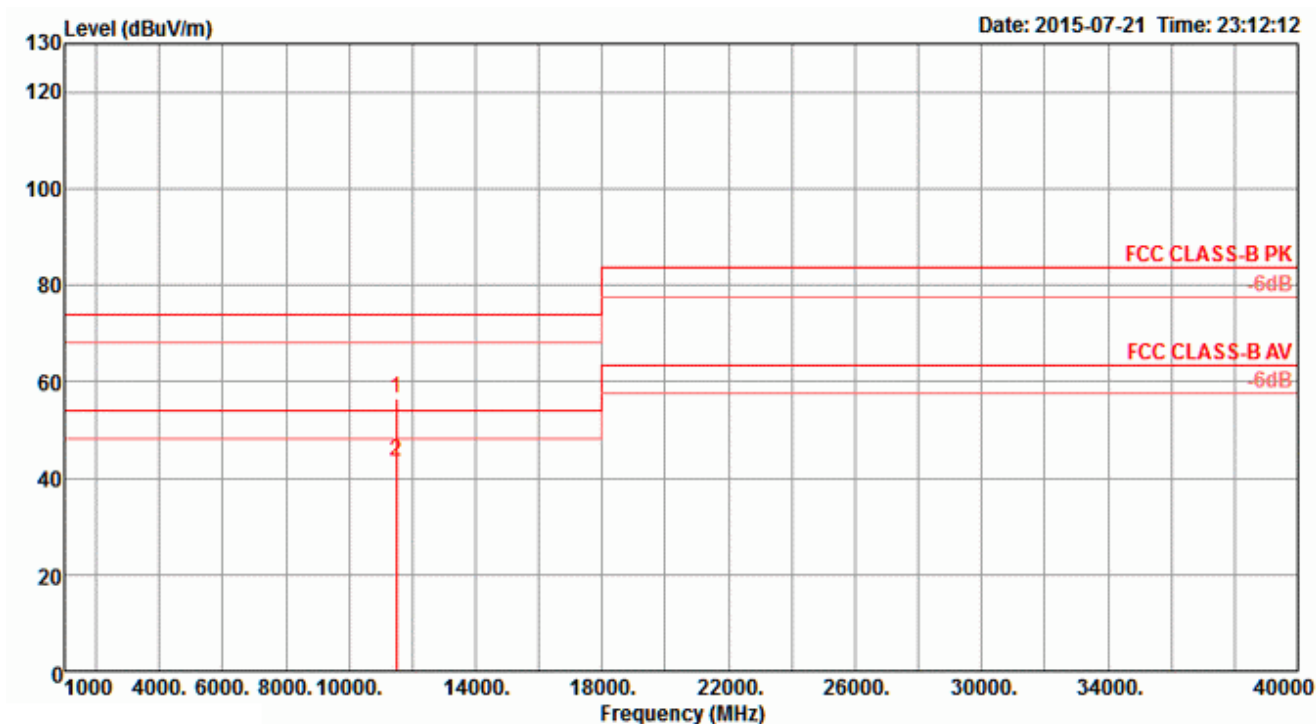
|	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	Cm		
1	11503.19	56.53	74.00	-17.47	45.91	6.54	38.70	34.62	355	167	Peak	VERTICAL
2	11503.59	43.57	54.00	-10.43	32.95	6.54	38.70	34.62	355	167	Average	VERTICAL

Temperature	24℃	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss2 VHT40 CH 159 / Chain 4 + Chain 5 + Chain 6
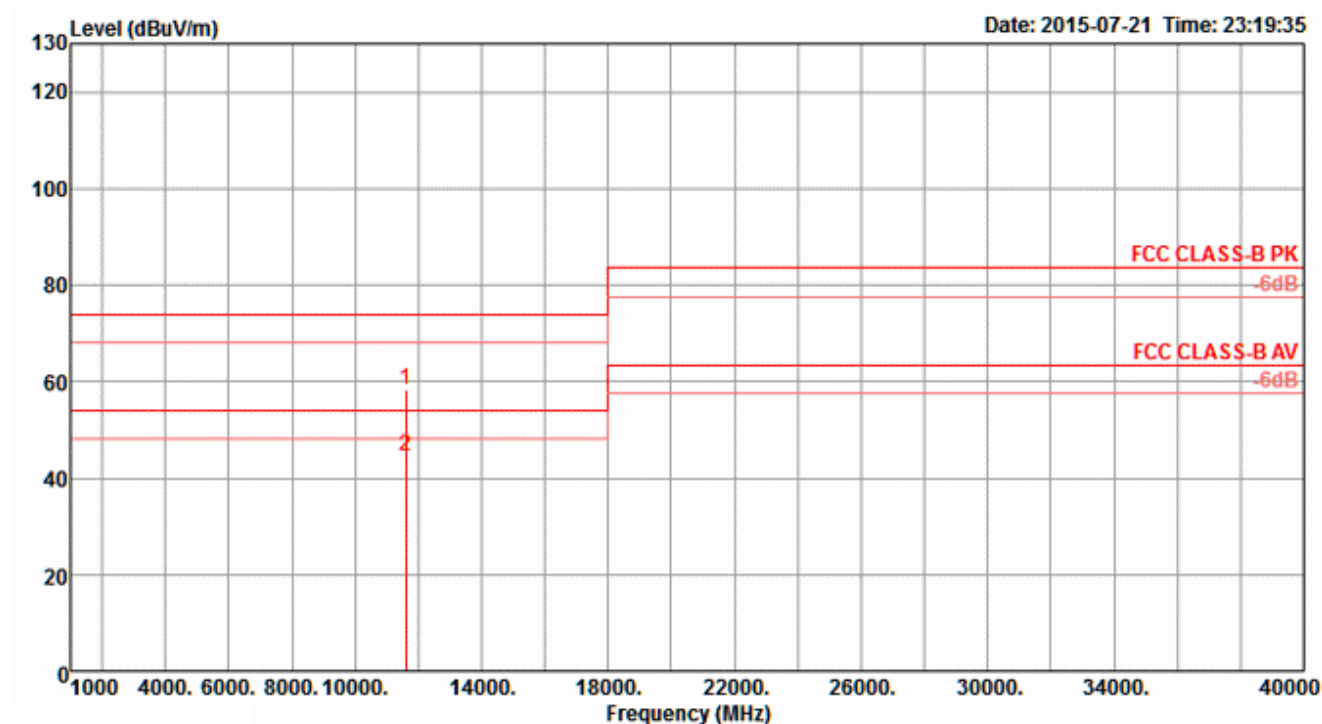
Horizontal

	Freq MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Cable Loss dB	Antenna Factor dB/m	Preamp Factor dB	T/Pos deg	A/Pos cm	Remark	Pol/Phase
1	11599.62	58.37	74.00	-15.63	47.76	6.55	38.72	34.66	282	150	Peak	HORIZONTAL
2	11602.02	44.72	54.00	-9.28	34.11	6.55	38.72	34.66	282	150	Average	HORIZONTAL
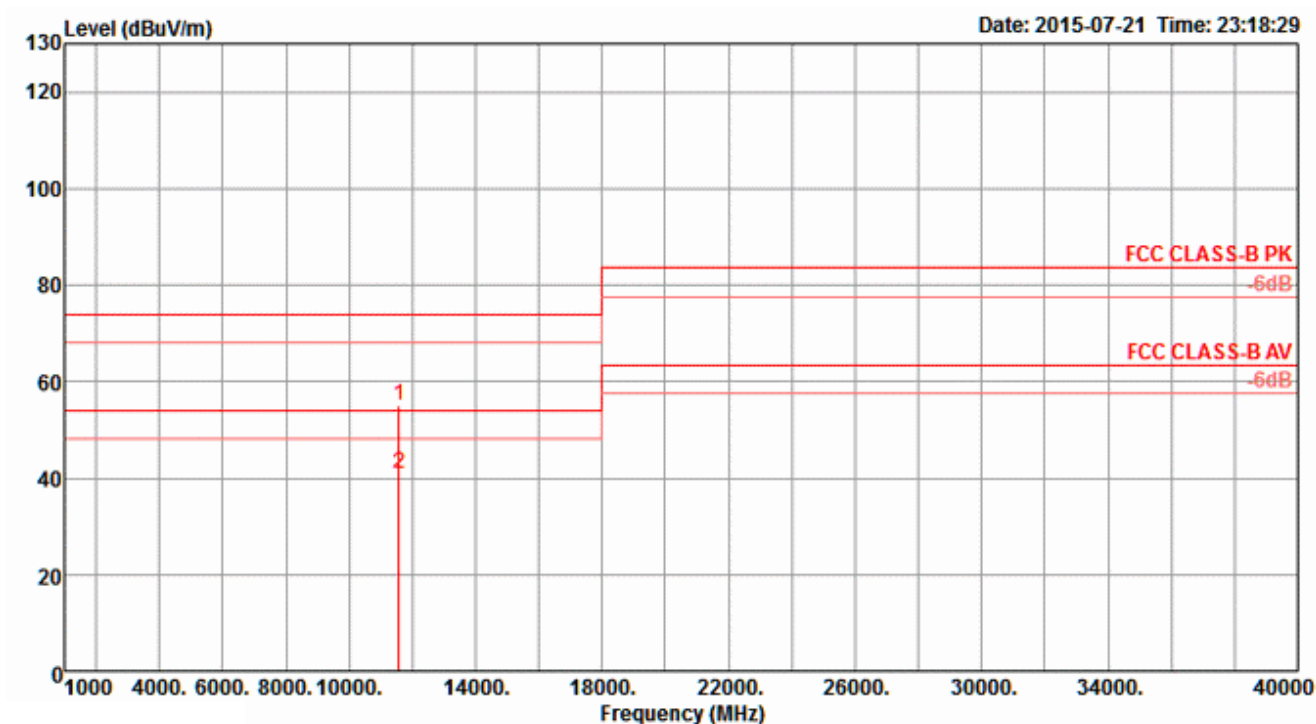
Vertical

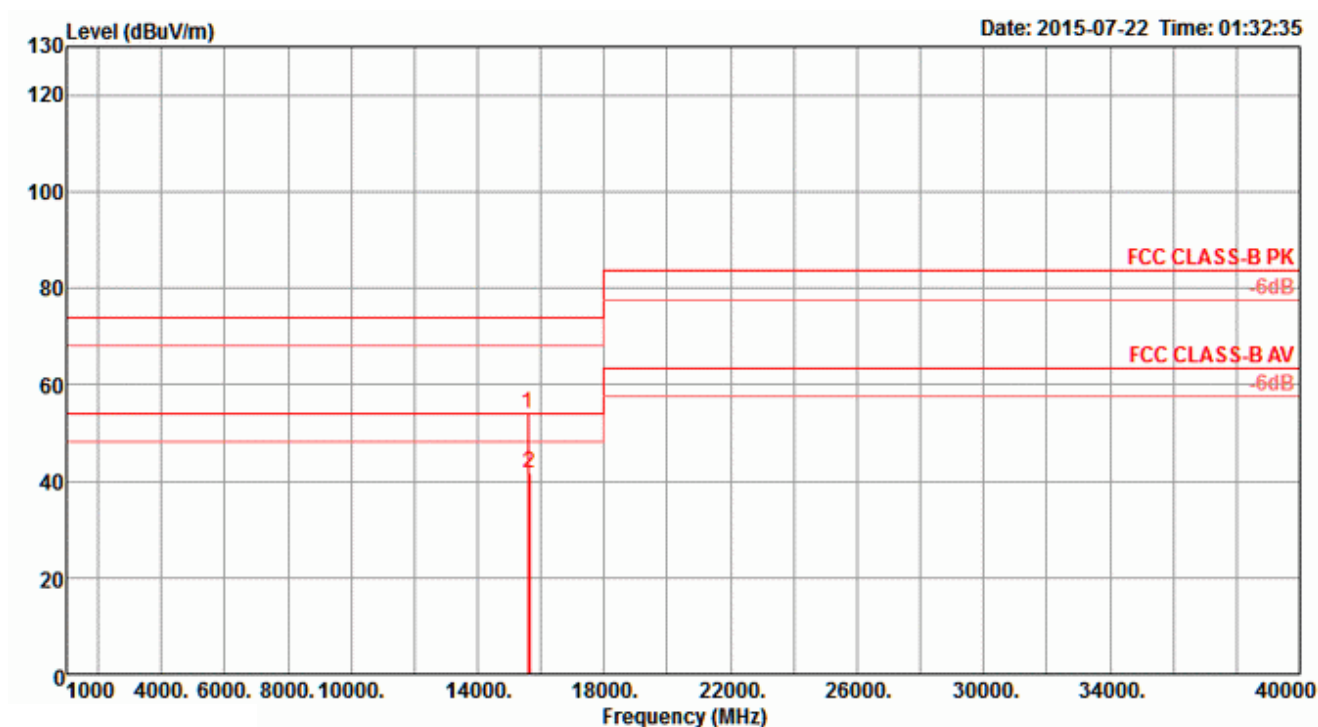|	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	11572.45	55.03	74.00	-18.97	44.42	6.55	38.71	34.65	329	150	Peak	VERTICAL
2	11581.99	40.90	54.00	-13.10	30.29	6.55	38.71	34.65	329	150	Average	VERTICAL

Temperature	22℃	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss2 VHT80 CH 42 / Chain 4 + Chain 5 + Chain 6
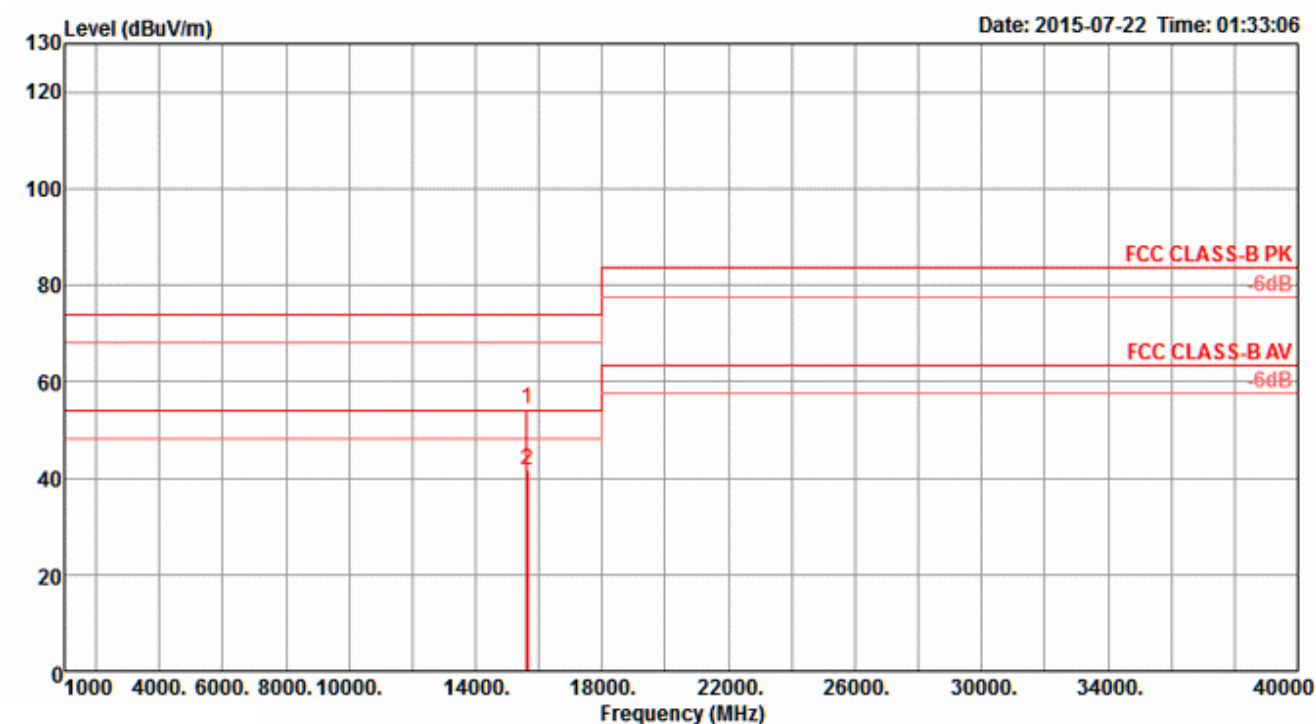
Horizontal

	Freq MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Cable Loss dB	Antenna Factor dB/m	Preamp Factor dB	T/Pos deg	A/Pos cm	Remark	Pol/Phase
1	15622.56	54.23	74.00	-19.77	43.01	7.59	38.32	34.69	283	152	Peak	HORIZONTAL
2	15651.79	41.72	54.00	-12.28	30.47	7.60	38.38	34.73	283	152	Average	HORIZONTAL

Vertical

Date: 2015-07-22 Time: 01:32:35

|	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	15591.67	53.93	74.00	-20.07	42.77	7.57	38.26	34.67	285	151	Peak	VERTICAL
2	15647.69	41.53	54.00	-12.47	30.26	7.60	38.38	34.71	285	151	Average	VERTICAL

Temperature	24℃	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss2 VHT80 CH 155 / Chain 4 + Chain 5 + Chain 6
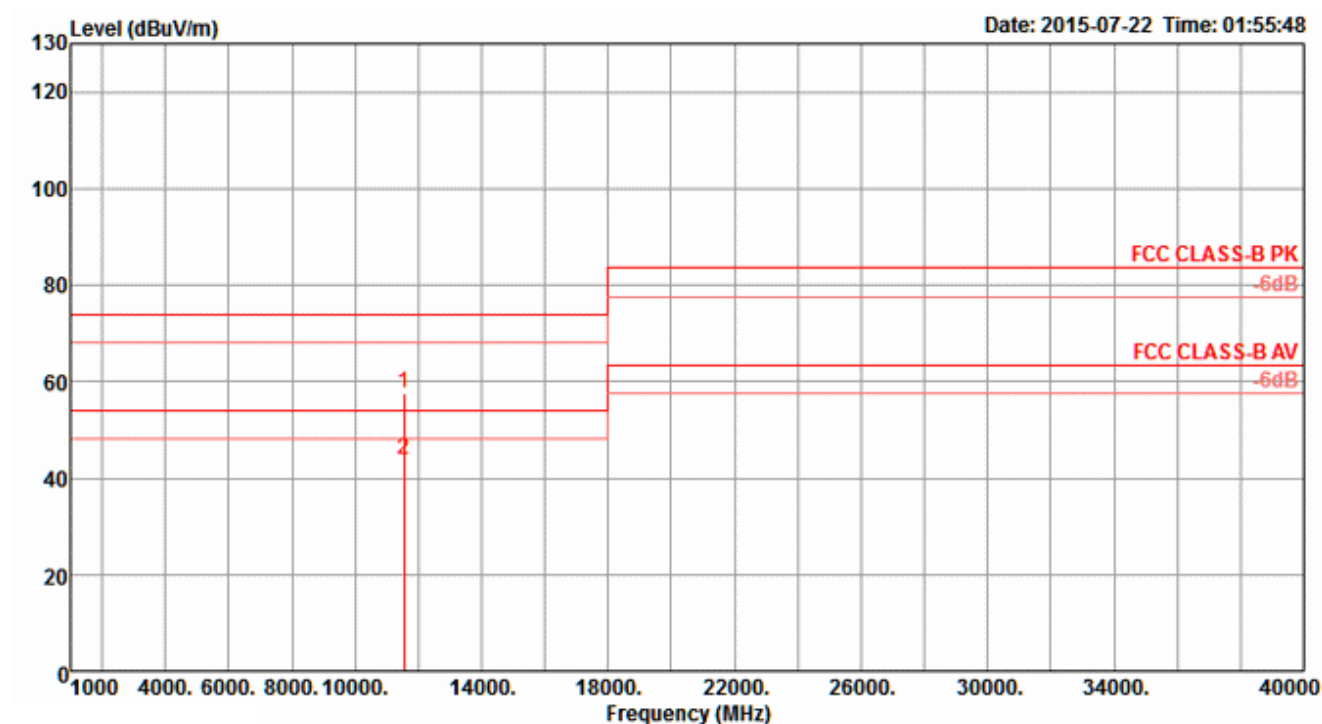
Horizontal

	Freq MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Cable Loss dB	Antenna Factor dB/m	Preamp Factor dB	T/Pos deg	A/Pos cm	Remark	Pol/Phase
1	11555.77	57.40	74.00	-16.60	46.78	6.55	38.71	34.64	317	154	Peak	HORIZONTAL
2	11556.49	43.99	54.00	-10.01	33.37	6.55	38.71	34.64	317	154	Average	HORIZONTAL
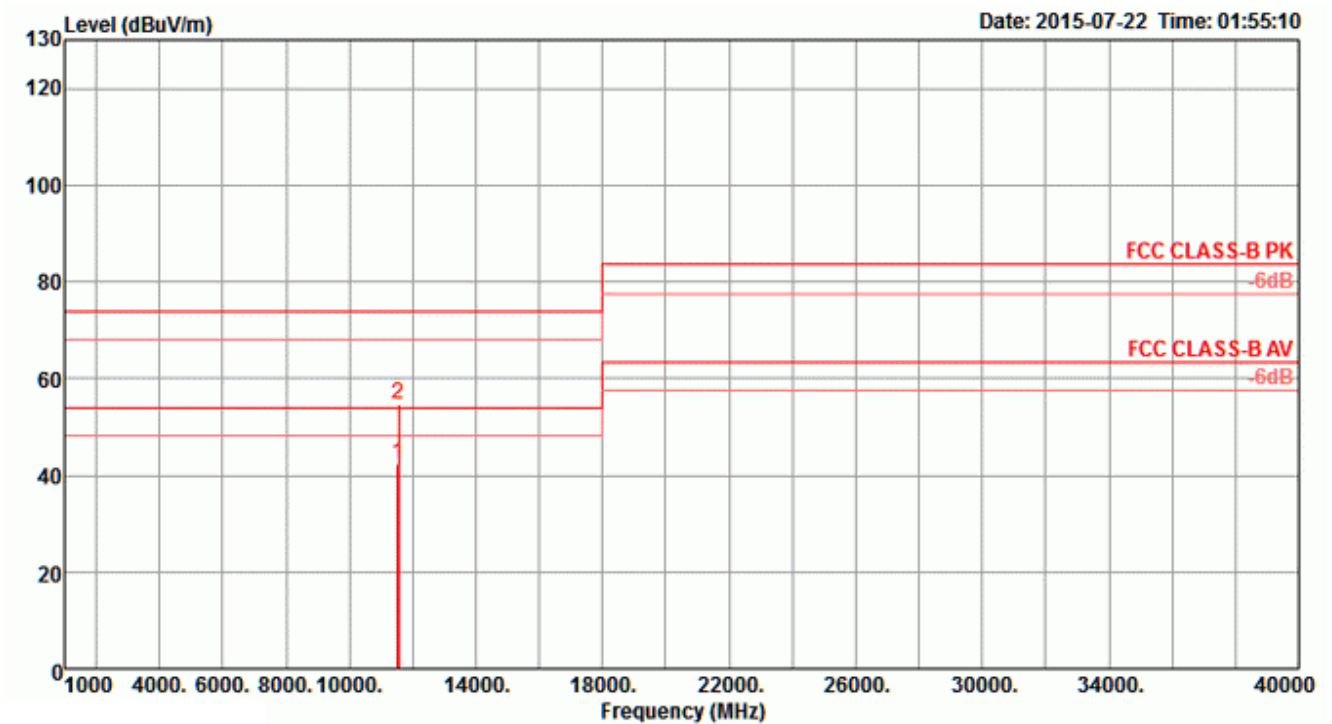
Vertical

	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	11531.65	42.49	54.00	-11.51	31.87	6.54	38.71	34.63	332	155	Average	VERTICAL
2	11554.01	54.75	74.00	-19.25	44.13	6.55	38.71	34.64	332	155	Peak	VERTICAL

Note:

The amplitude of spurious emissions that are attenuated by more than 20dB below the permissible value has no need to be reported.
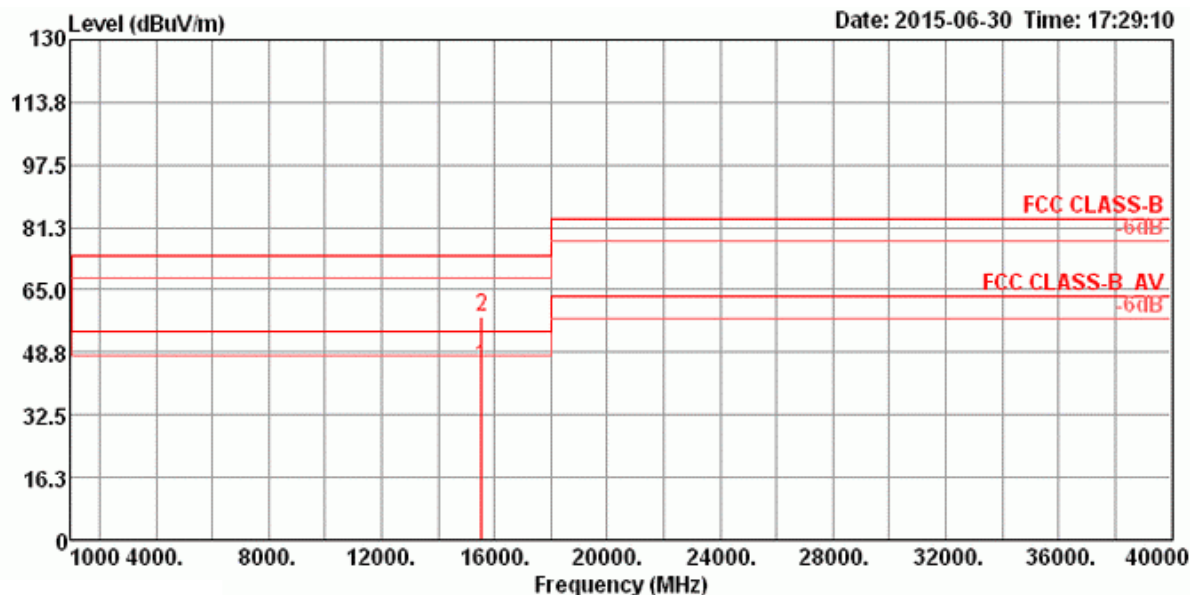
Emission level (dBuV/m) = 20 log Emission level (uV/m).

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.
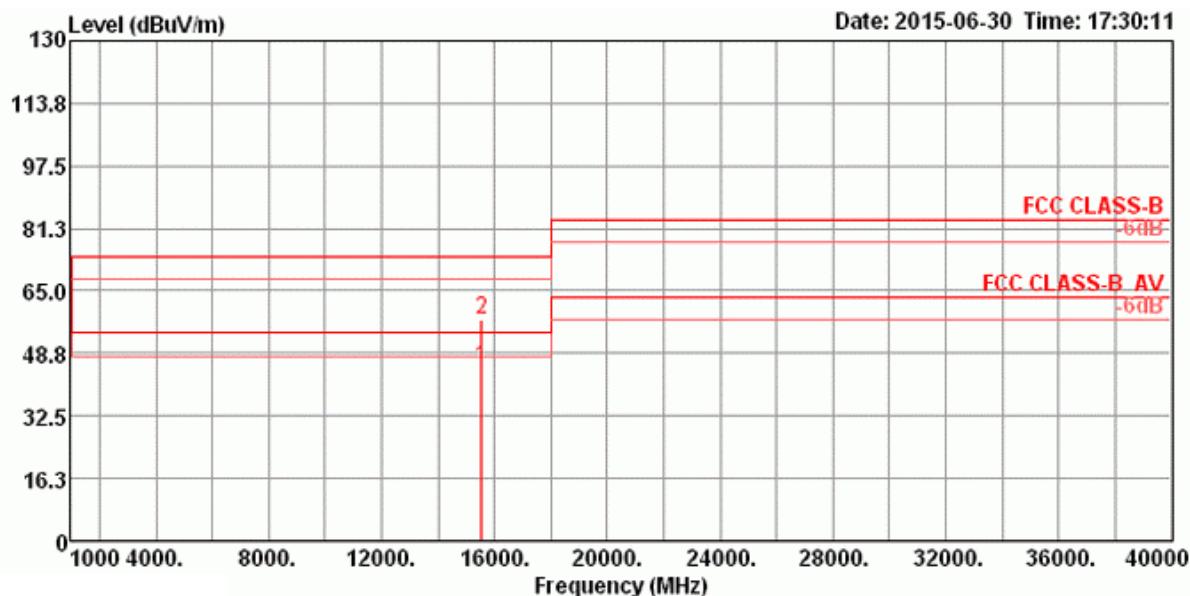
<For Radio 3>

Temperature	22℃	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11a CH 36 / Chain 7

Horizontal

	Freq MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Cable Loss dB	Antenna Factor dB/m	Preamp Factor dB	Remark	A/Pos cm	T/Pos deg	Pol/Phase
1	15536.23	44.89	54.00	-9.11	27.87	12.58	38.14	33.70	Average	132	166	HORIZONTAL
2	15537.28	57.88	74.00	-16.12	40.86	12.58	38.14	33.70	Peak	132	166	HORIZONTAL

Vertical

	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	15539.55	44.96	54.00	-9.04	27.94	12.58	38.14	33.70	Average	155	216	VERTICAL
2	15540.50	57.57	74.00	-16.43	40.55	12.58	38.14	33.70	Peak	155	216	VERTICAL

Temperature	22℃	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11a CH 40 / Chain 7

Horizontal
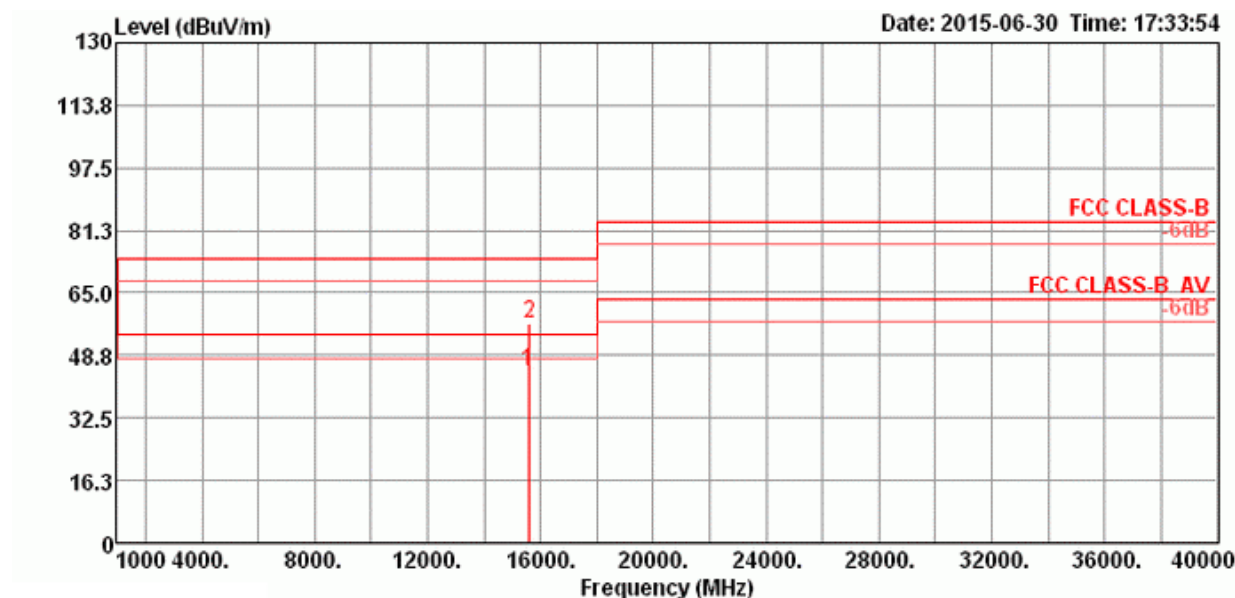
	Freq MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Cable Loss dB	Antenna Factor dB/m	Preamp Factor dB	Remark	A/Pos cm	T/Pos deg	Pol/Phase
1	15598.29	44.77	54.00	-9.23	27.91	12.58	38.03	33.75	Average	198	176	HORIZONTAL
2	15600.69	57.21	74.00	-16.79	40.38	12.58	38.03	33.78	Peak	198	176	HORIZONTAL

Vertical
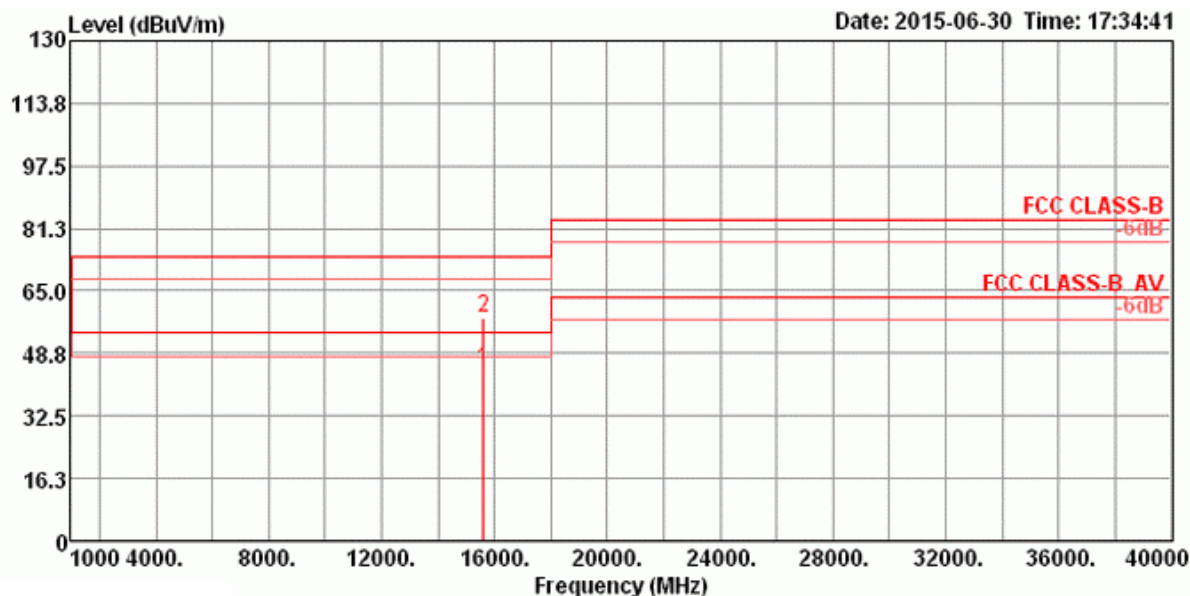
	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15599.02	44.45	54.00	-9.55	27.62	12.58	38.03	33.78	Average	160	227	VERTICAL
2	15600.79	58.28	74.00	-15.72	41.45	12.58	38.03	33.78	Peak	160	227	VERTICAL

Temperature	22℃	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11a CH 48 / Chain 7

Horizontal
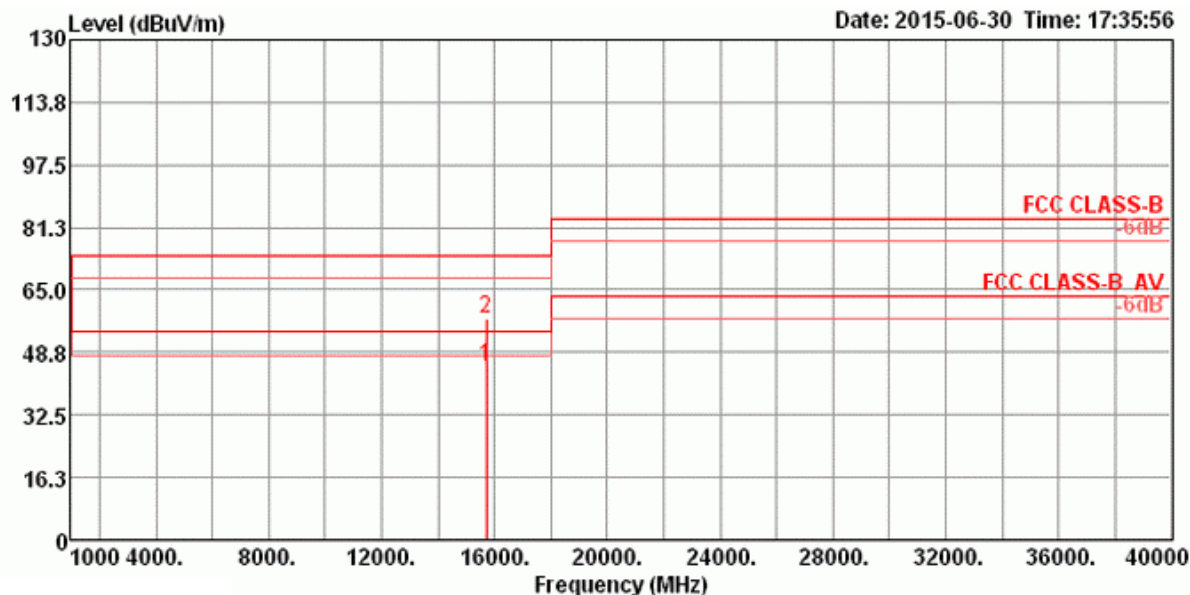
	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15716.36	44.86	54.00	-9.14	28.33	12.57	37.84	33.88	Average	180	137	HORIZONTAL
2	15717.26	57.34	74.00	-16.66	40.81	12.57	37.84	33.88	Peak	180	137	HORIZONTAL

Vertical
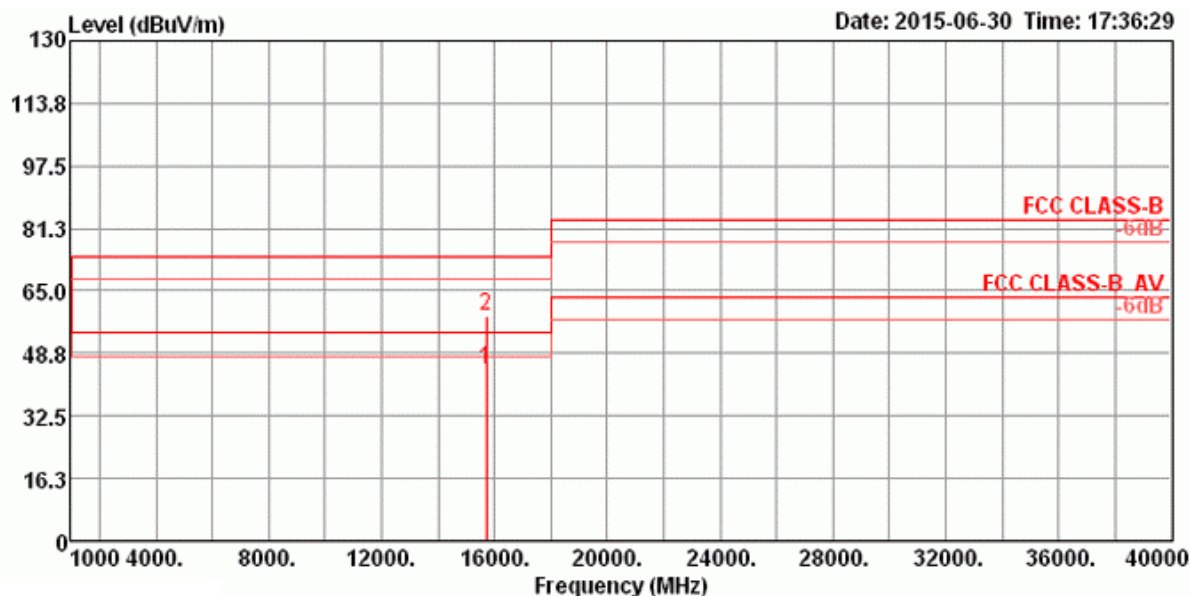
	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15717.08	44.83	54.00	-9.17	28.30	12.57	37.84	33.88	Average	149	187	VERTICAL
2	15724.44	58.57	74.00	-15.43	42.04	12.57	37.84	33.88	Peak	149	187	VERTICAL

Temperature	22℃	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11a CH 149 / Chain 7

Horizontal
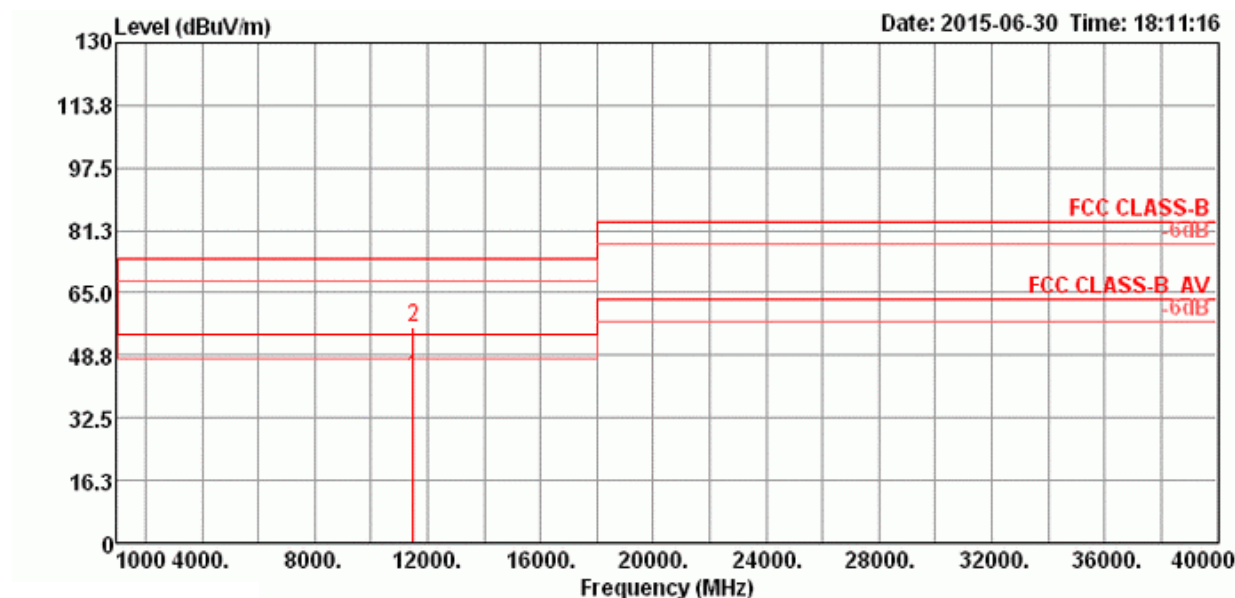
	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11487.48	43.13	54.00	-10.87	26.91	10.71	38.88	33.37	Average	170	194	HORIZONTAL
2	11492.98	56.36	74.00	-17.64	40.14	10.71	38.88	33.37	Peak	170	194	HORIZONTAL

Vertical
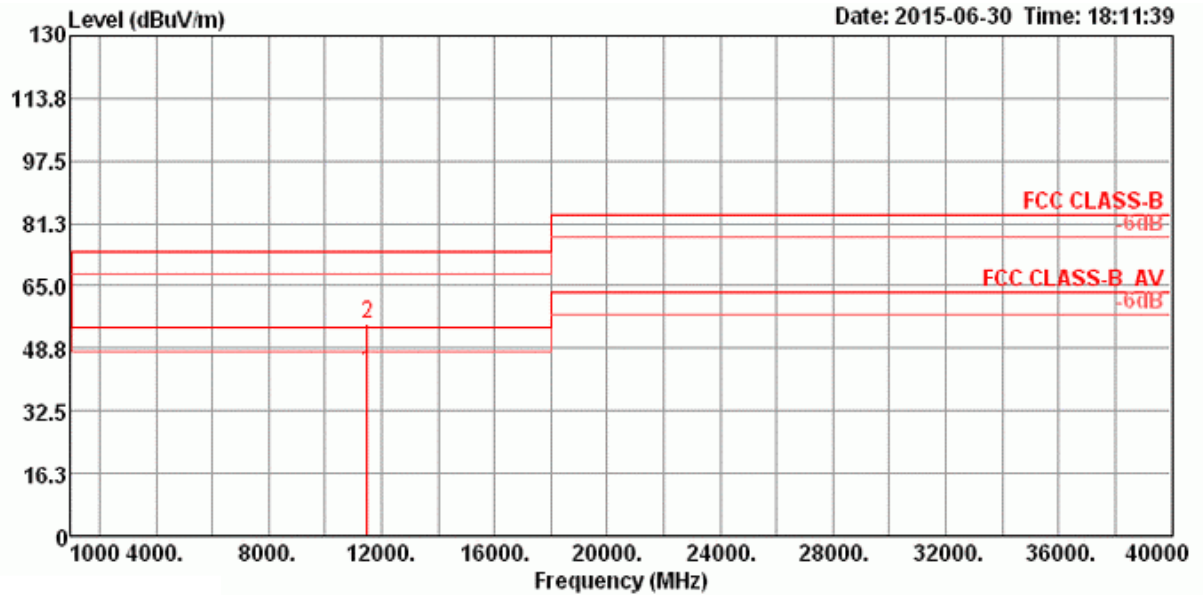
	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11485.42	42.88	54.00	-11.12	26.66	10.71	38.88	33.37	Average	130	236	VERTICAL
2	11487.18	55.22	74.00	-18.78	39.00	10.71	38.88	33.37	Peak	130	236	VERTICAL

Temperature	22℃	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11a CH 157 / Chain 7

Horizontal
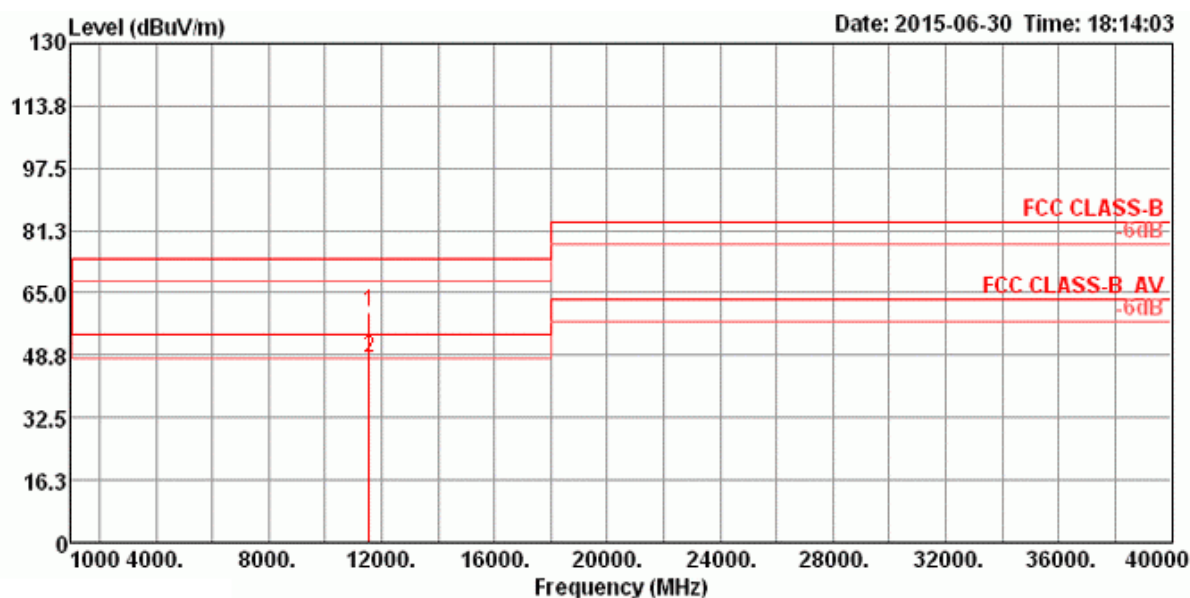
	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11569.63	60.13	74.00	-13.87	43.82	10.75	38.94	33.38	Peak	125	46	HORIZONTAL
2	11570.16	47.75	54.00	-6.25	31.44	10.76	38.94	33.39	Average	125	46	HORIZONTAL

Vertical
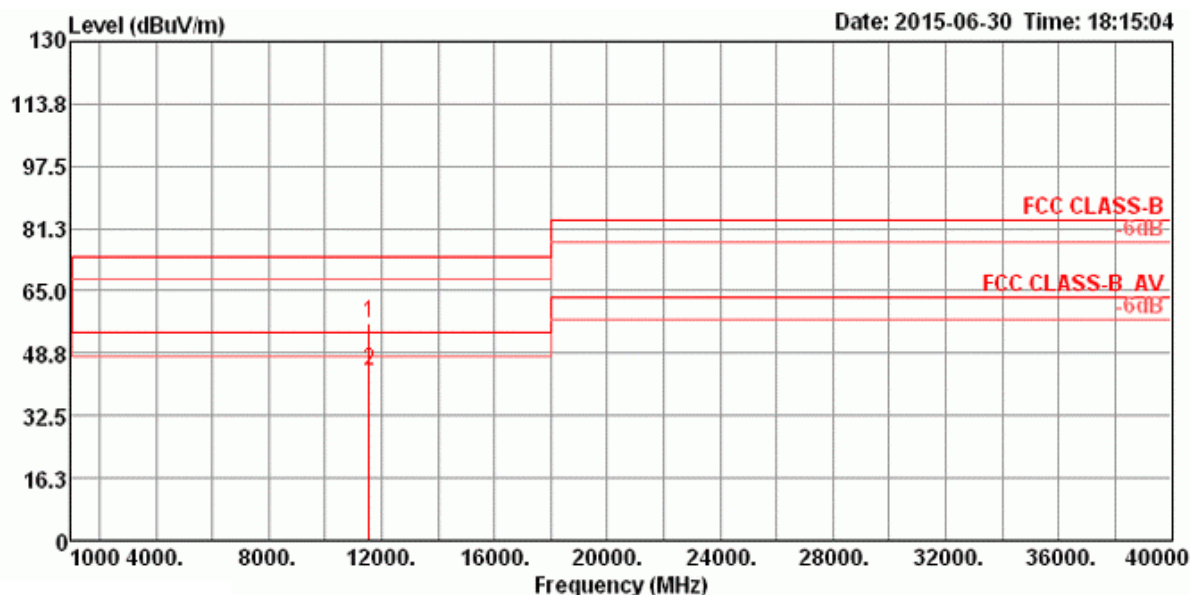
	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11570.99	56.67	74.00	-17.33	40.36	10.76	38.94	33.39	Peak	157	257	VERTICAL
2	11571.81	44.32	54.00	-9.68	28.01	10.76	38.94	33.39	Average	157	257	VERTICAL

Temperature	22℃	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11a CH 165 / Chain 7

Horizontal
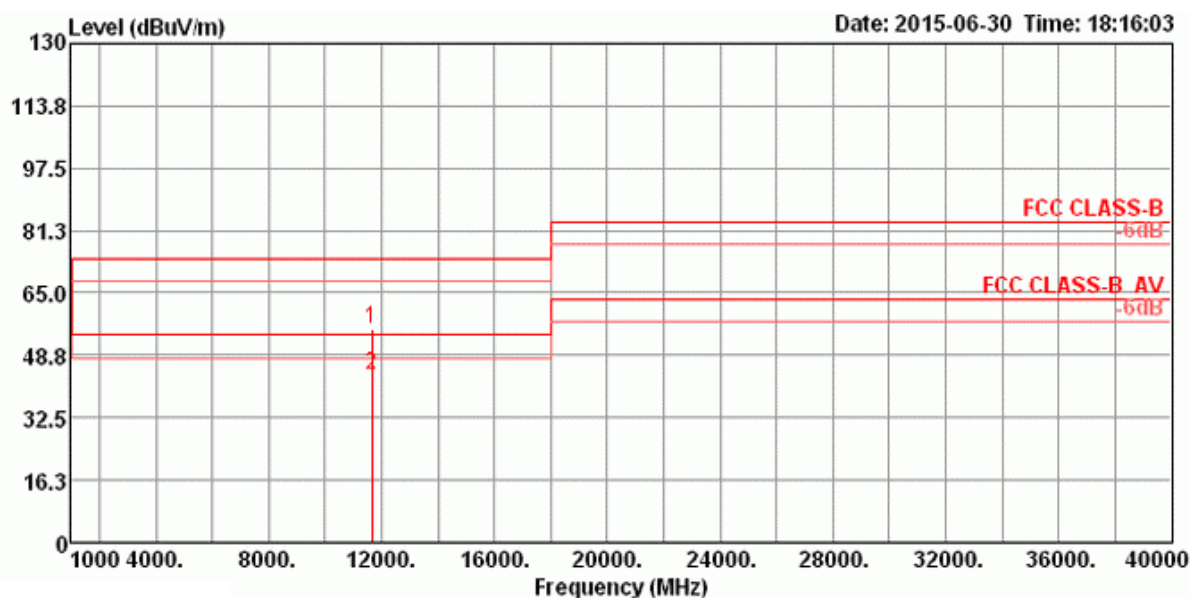
	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11647.79	55.58	74.00	-18.42	39.20	10.81	38.98	33.41	Peak	177	323	HORIZONTAL
2	11650.56	43.67	54.00	-10.33	27.28	10.81	38.99	33.41	Average	177	323	HORIZONTAL

Vertical
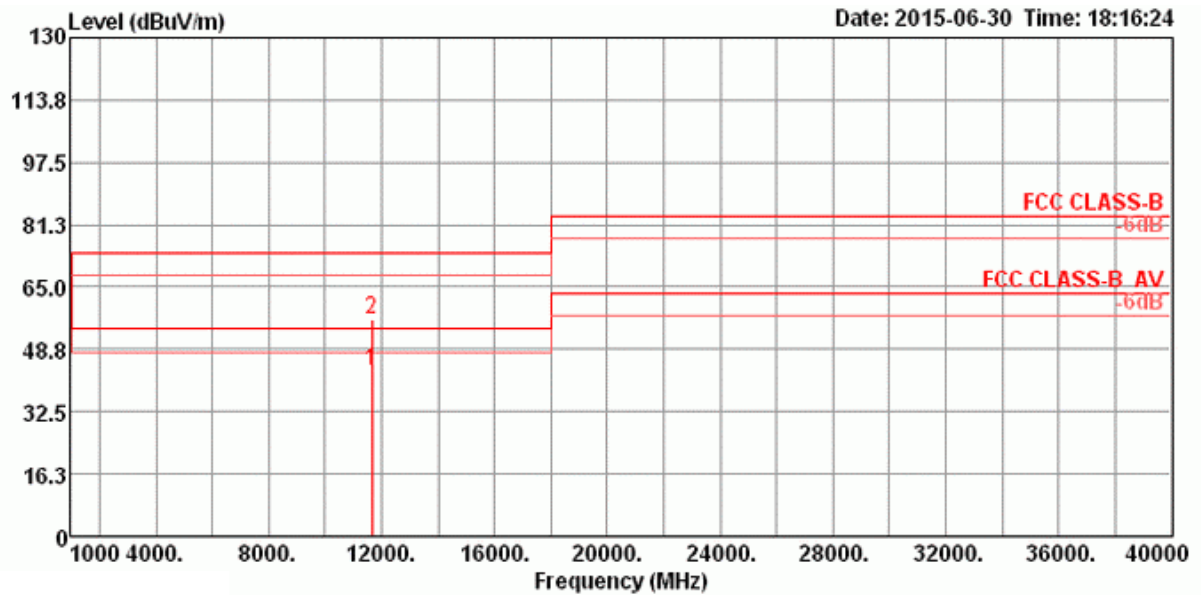
	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11649.68	43.20	54.00	-10.80	26.82	10.81	38.98	33.41	Average	129	253	VERTICAL
2	11651.94	56.68	74.00	-17.32	40.29	10.81	38.99	33.41	Peak	129	253	VERTICAL

Temperature	22℃	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 36 / Chain 7

Horizontal
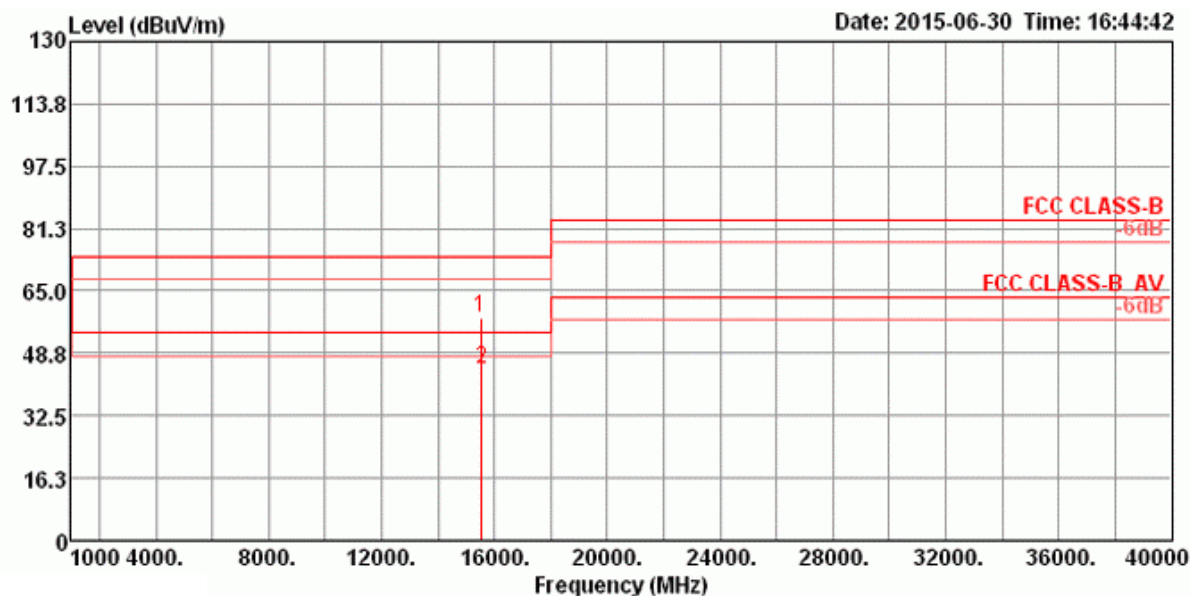
	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15531.54	58.18	74.00	-15.82	41.16	12.58	38.14	33.70	Peak	167	42	HORIZONTAL
2	15546.63	44.57	54.00	-9.43	27.57	12.58	38.12	33.70	Average	167	42	HORIZONTAL
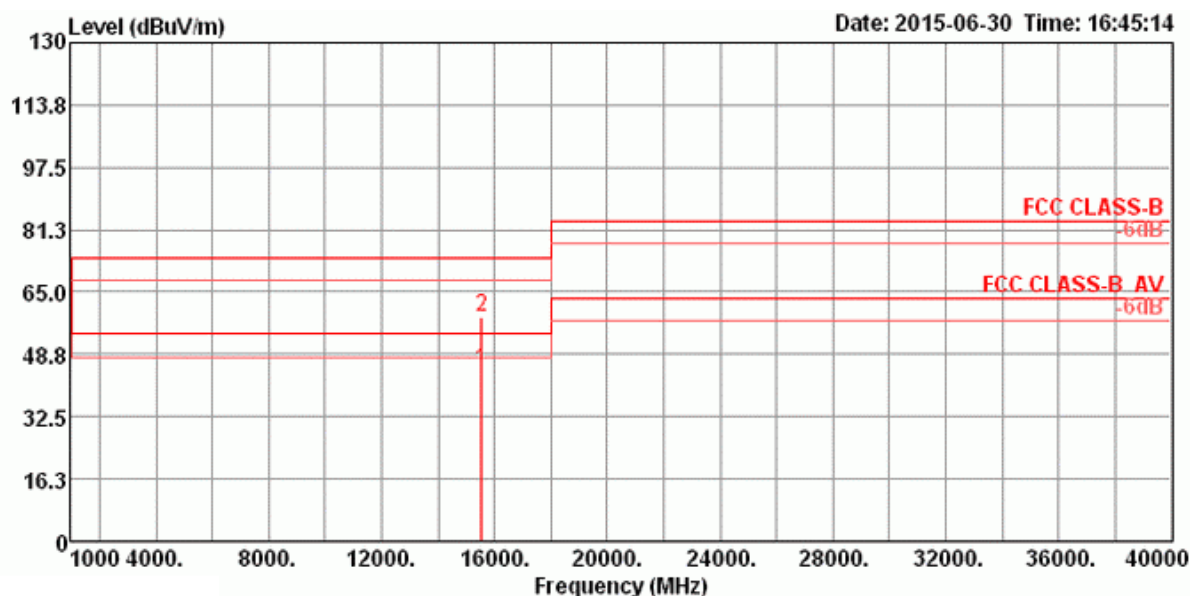
Vertical

	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	15537.02	44.72	54.00	-9.28	27.70	12.58	38.14	33.70	Average	147	166	VERTICAL
2	15541.79	58.64	74.00	-15.36	41.62	12.58	38.14	33.70	Peak	147	166	VERTICAL

Temperature	22℃	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 40 / Chain 7

Horizontal
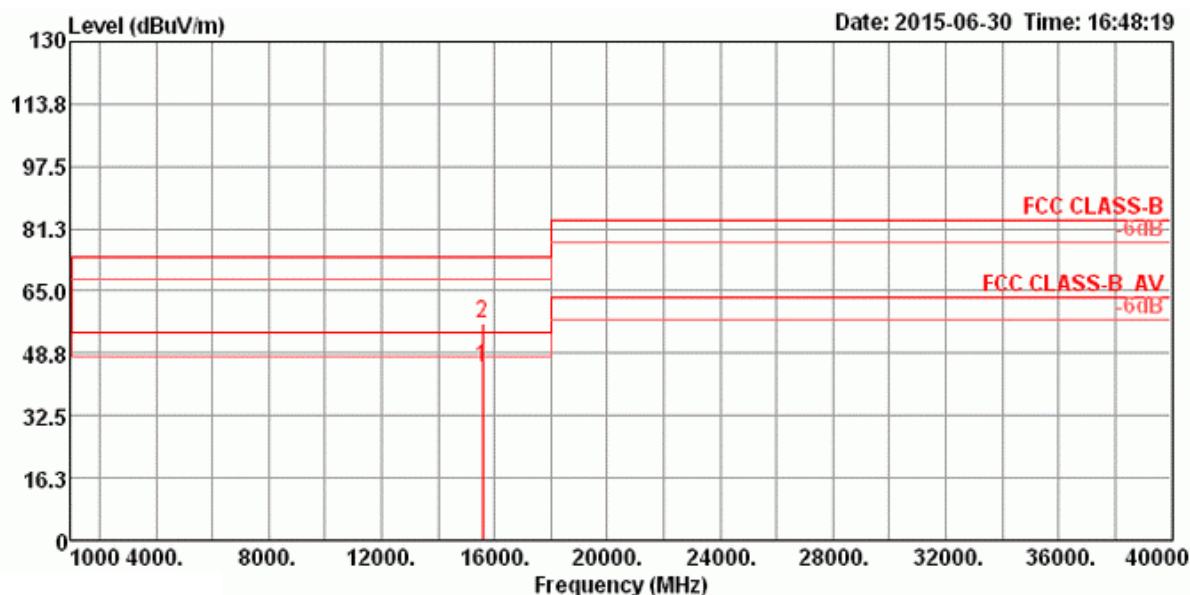
	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15591.99	45.06	54.00	-8.94	28.17	12.58	38.06	33.75	Average	179	255	HORIZONTAL
2	15595.48	56.73	74.00	-17.27	39.87	12.58	38.03	33.75	Peak	179	255	HORIZONTAL

Vertical
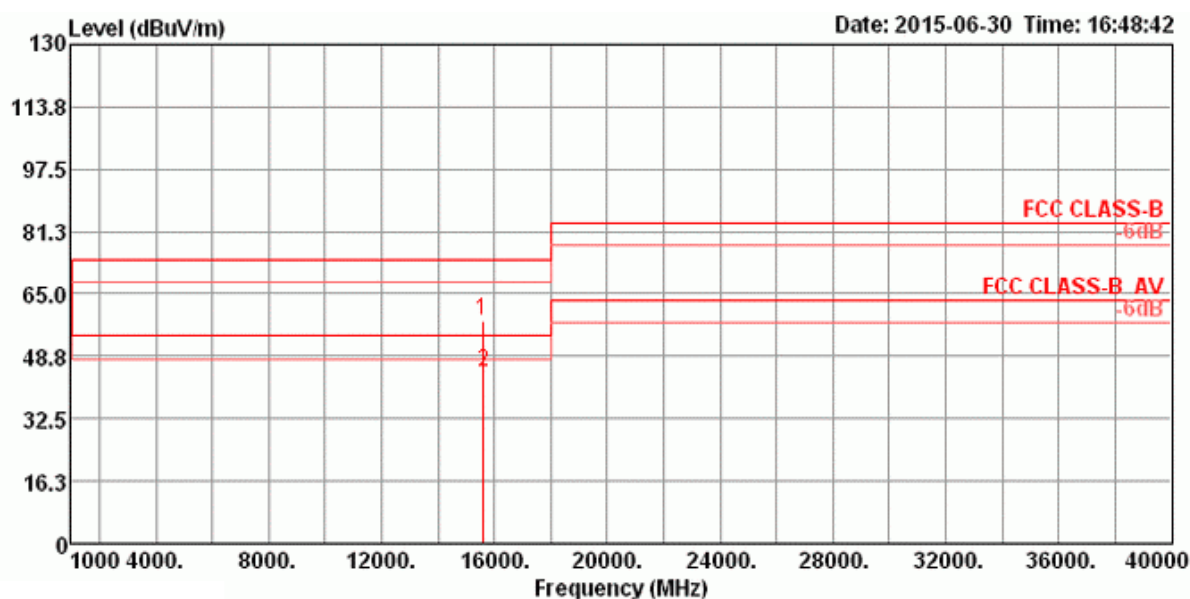
	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15597.15	58.07	74.00	-15.93	41.21	12.58	38.03	33.75	Peak	159	215	VERTICAL
2	15602.69	44.51	54.00	-9.49	27.68	12.58	38.03	33.78	Average	159	215	VERTICAL

Temperature	22℃	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 48 / Chain 7

Horizontal
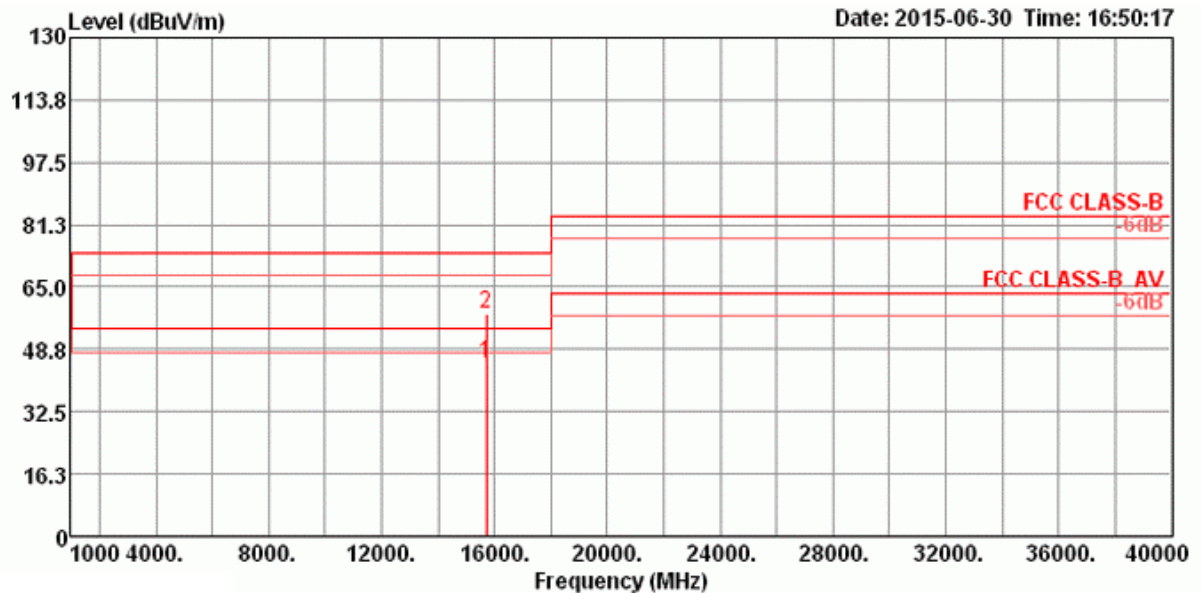

```
                Limit  Over   Read  CableAntenna Preamp        A/Pos T/Pos
          Freq  Level  Line   Limit Level  Loss Factor Factor Remark            Pol/Phase

          MHz  dBuV/m dBuV/m   dB   dBuV    dB   dB/m    dB                cm   deg

1    15716.55  45.14  54.00  -8.86  28.61  12.57  37.84  33.88 Average      181   237 HORIZONTAL
2    15719.57  58.05  74.00 -15.95  41.52  12.57  37.84  33.88 Peak         181   237 HORIZONTAL
```
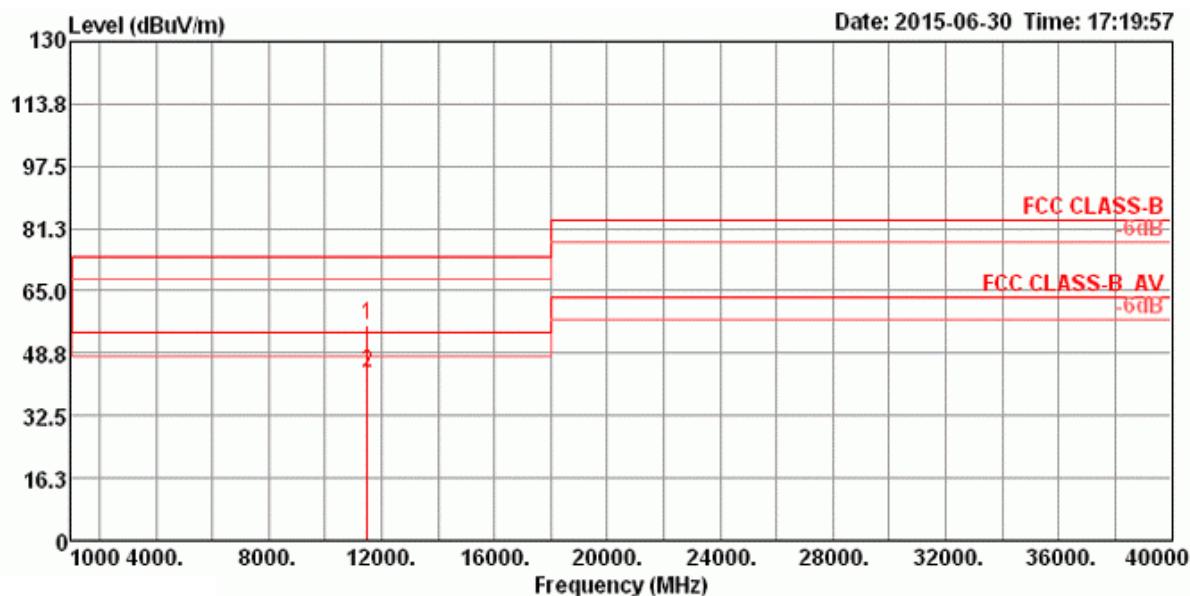
Vertical
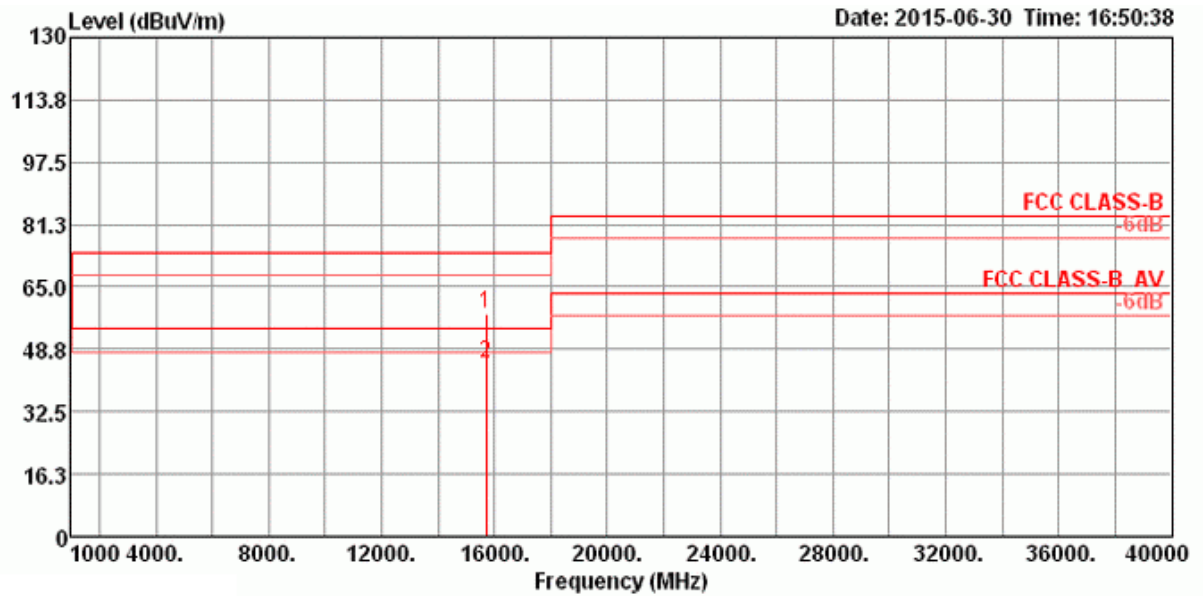
	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15717.58	58.25	74.00	-15.75	41.72	12.57	37.84	33.88	Peak	150	201	VERTICAL
2	15720.11	44.92	54.00	-9.08	28.39	12.57	37.84	33.88	Average	150	201	VERTICAL

Temperature	24℃	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 149 / Chain 7

Horizontal

	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	11488.57	56.33	74.00	-17.67	40.11	10.71	38.88	33.37	Peak	175	61	HORIZONTAL
2	11491.38	43.48	54.00	-10.52	27.26	10.71	38.88	33.37	Average	175	61	HORIZONTAL

Vertical
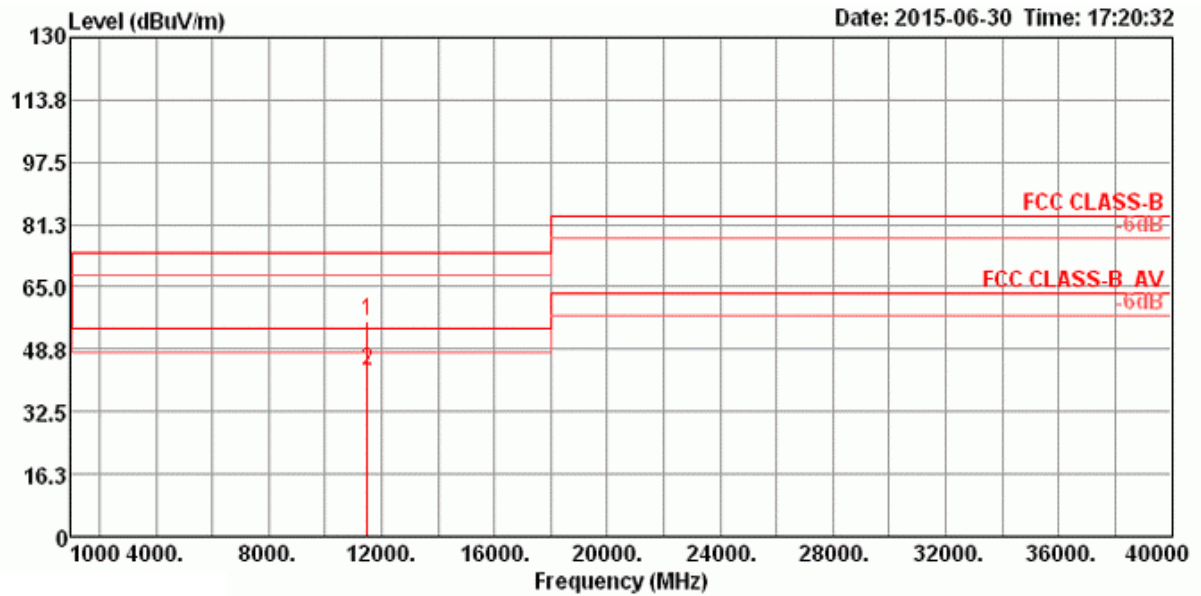
	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11485.11	55.95	74.00	-18.05	39.73	10.71	38.88	33.37	Peak	147	158	VERTICAL
2	11486.39	43.00	54.00	-11.00	26.78	10.71	38.88	33.37	Average	147	158	VERTICAL

Temperature	24℃	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 157 / Chain 7

Horizontal
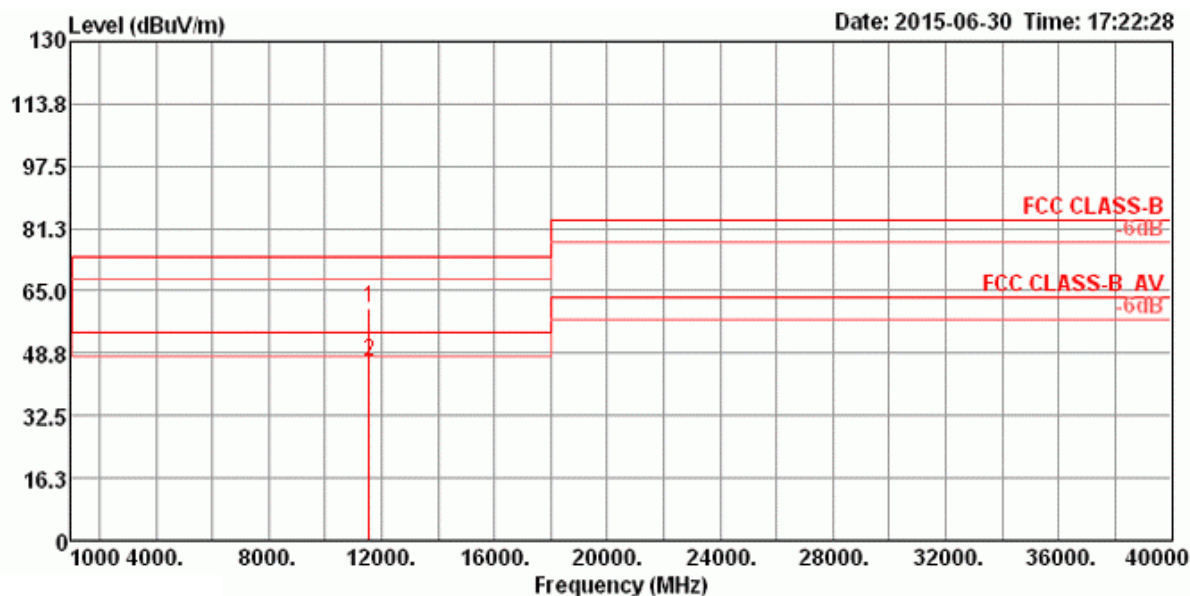
	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11569.17	60.21	74.00	-13.79	43.90	10.75	38.94	33.38	Peak	265	324	HORIZONTAL
2	11570.08	46.33	54.00	-7.67	30.02	10.76	38.94	33.39	Average	265	324	HORIZONTAL
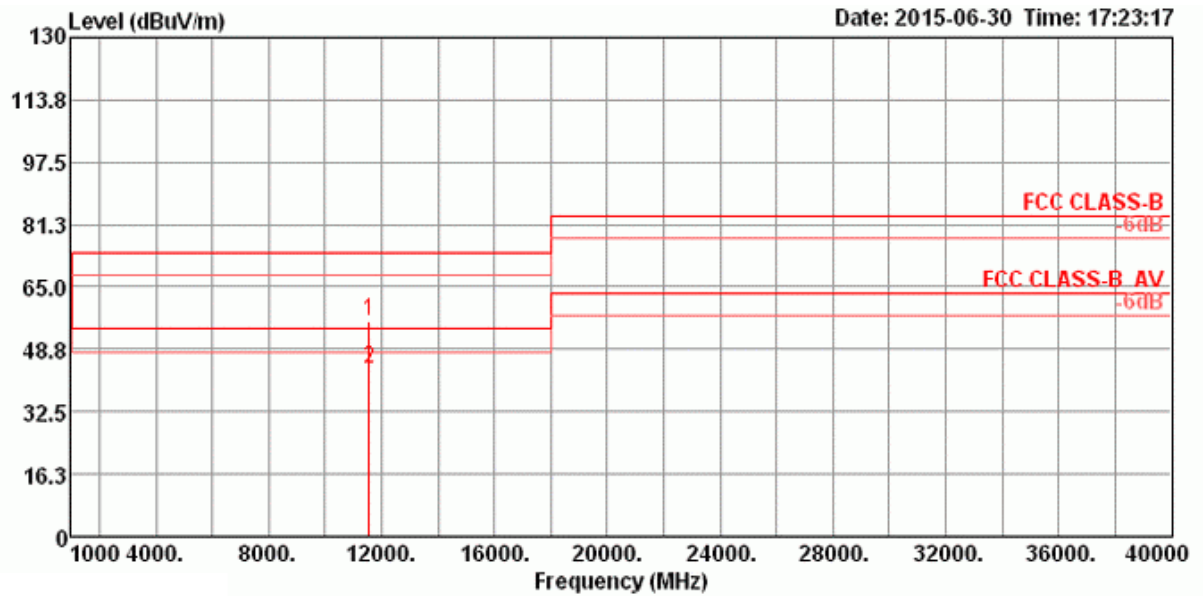
Vertical

	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	11572.77	56.17	74.00	-17.83	39.86	10.76	38.94	33.39	Peak	115	79	VERTICAL
2	11574.26	43.50	54.00	-10.50	27.19	10.76	38.94	33.39	Average	115	79	VERTICAL

Temperature	24℃	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 165 / Chain 7

Horizontal
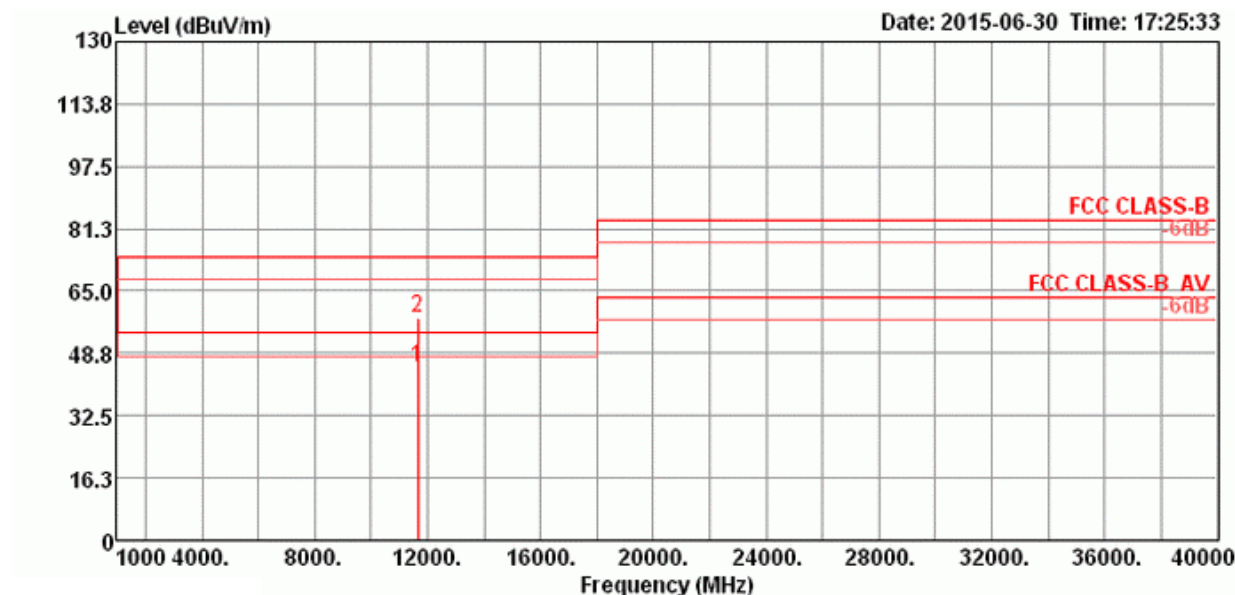
	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11650.13	45.14	54.00	-8.86	28.76	10.81	38.98	33.41	Average	206	65	HORIZONTAL
2	11652.63	58.14	74.00	-15.86	41.75	10.81	38.99	33.41	Peak	206	65	HORIZONTAL

Vertical
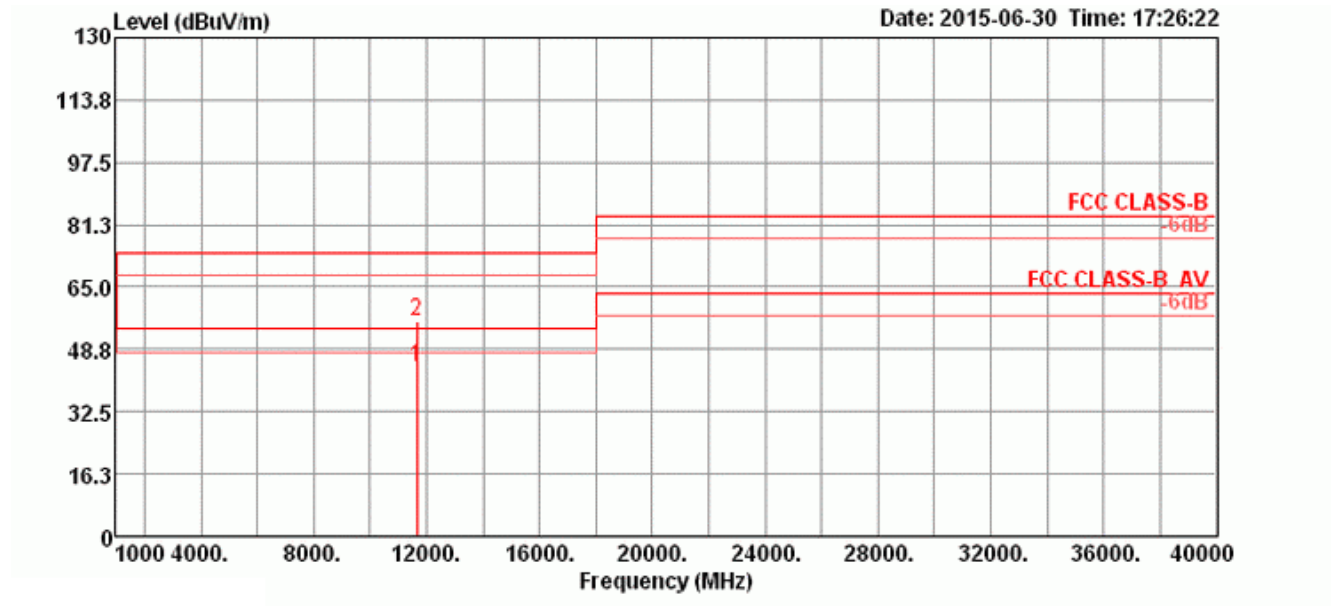
	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11650.08	43.91	54.00	-10.09	27.53	10.81	38.98	33.41	Average	172	72	VERTICAL
2	11654.89	56.21	74.00	-17.79	39.82	10.81	38.99	33.41	Peak	172	72	VERTICAL

Temperature	22℃	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 38 / Chain 7

Horizontal
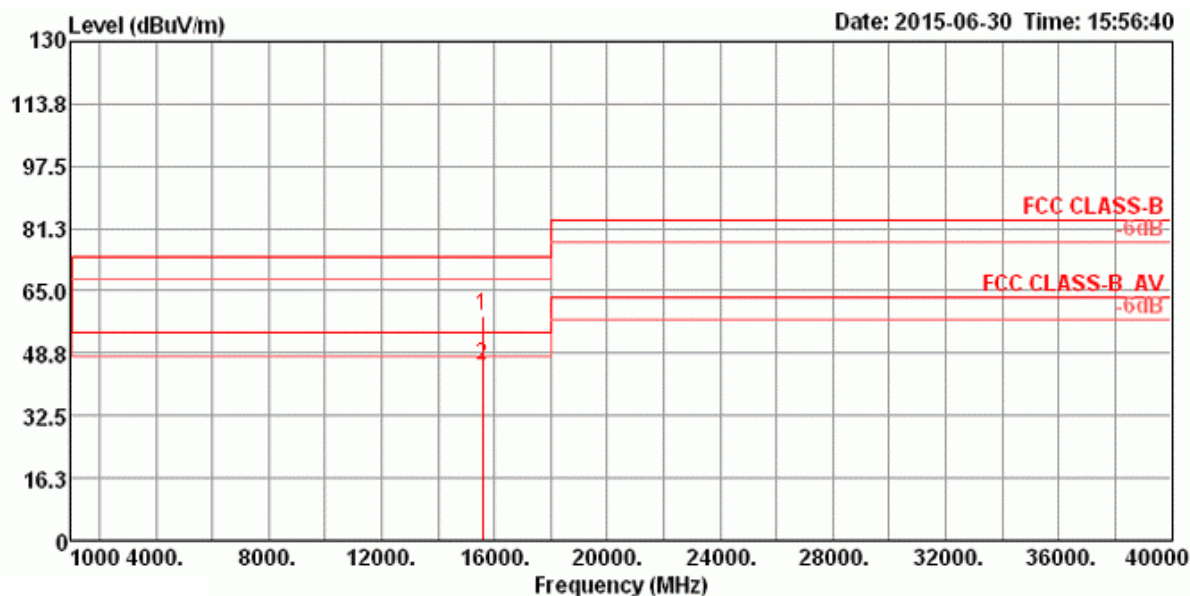
	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15572.31	58.61	74.00	-15.39	41.67	12.58	38.09	33.73	Peak	152	230	HORIZONTAL
2	15572.53	45.57	54.00	-8.43	28.63	12.58	38.09	33.73	Average	152	230	HORIZONTAL
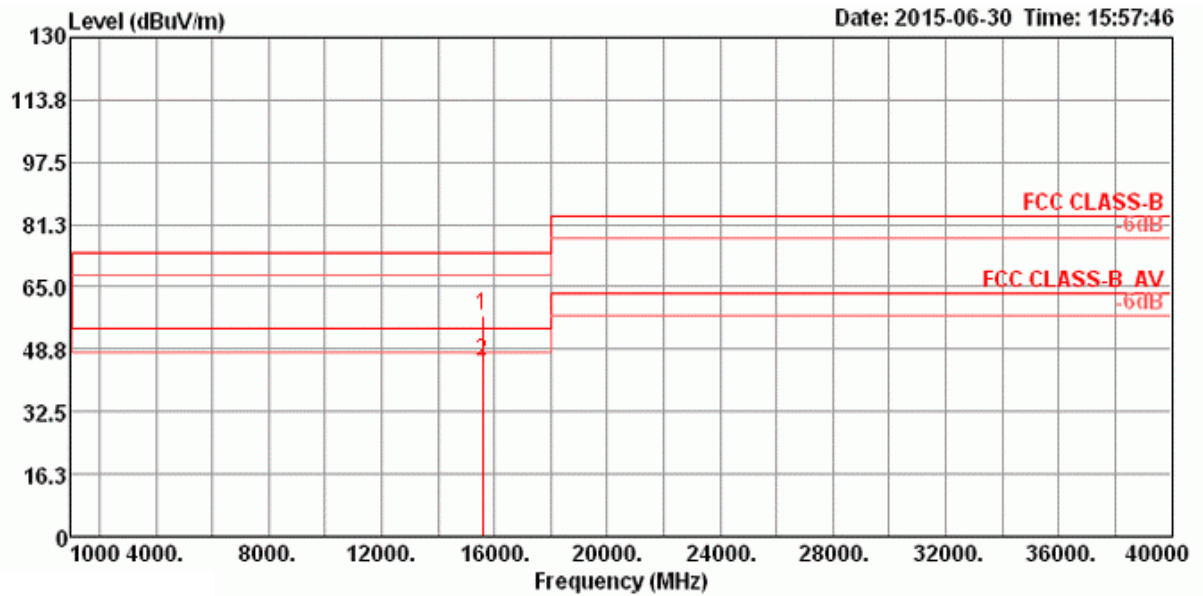
Vertical

	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	15568.89	57.72	74.00	-16.28	40.78	12.58	38.09	33.73	Peak	207	67	VERTICAL
2	15574.46	45.36	54.00	-8.64	28.44	12.58	38.09	33.75	Average	207	67	VERTICAL

Temperature	22℃	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 46 / Chain 7

Horizontal
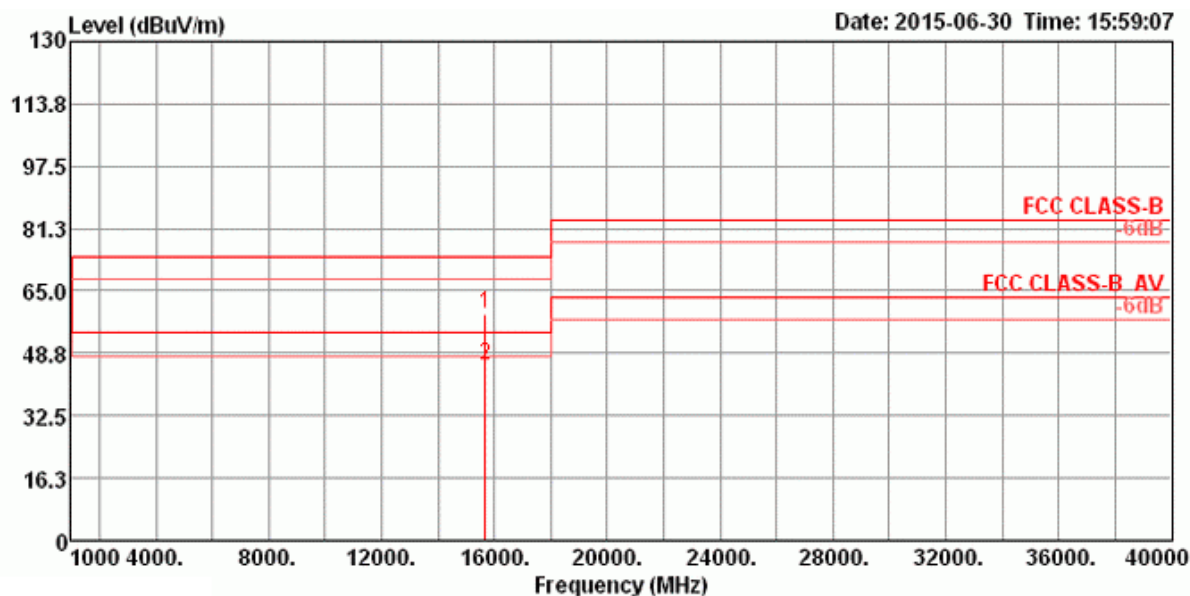
	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15690.46	58.90	74.00	-15.10	42.27	12.58	37.90	33.85	Peak	174	116	HORIZONTAL
2	15691.99	45.44	54.00	-8.56	28.81	12.58	37.90	33.85	Average	174	116	HORIZONTAL

Vertical
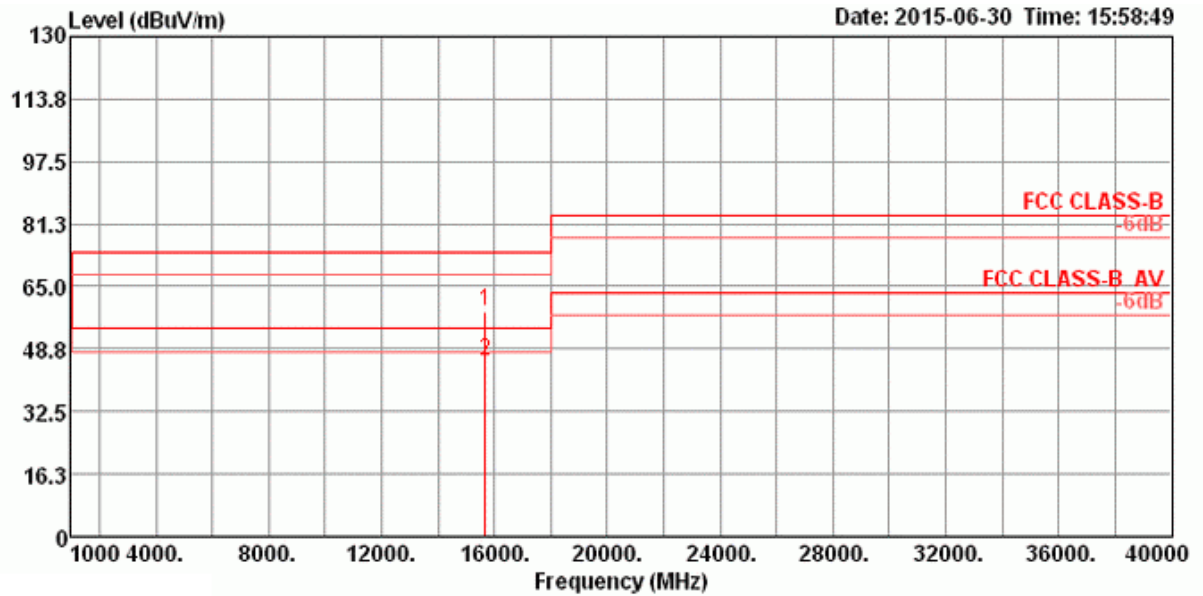
	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15687.87	58.55	74.00	-15.45	41.92	12.58	37.90	33.85	Peak	185	88	VERTICAL
2	15694.82	45.47	54.00	-8.53	28.84	12.58	37.90	33.85	Average	185	88	VERTICAL

Temperature	24℃	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 151 / Chain 7

Horizontal
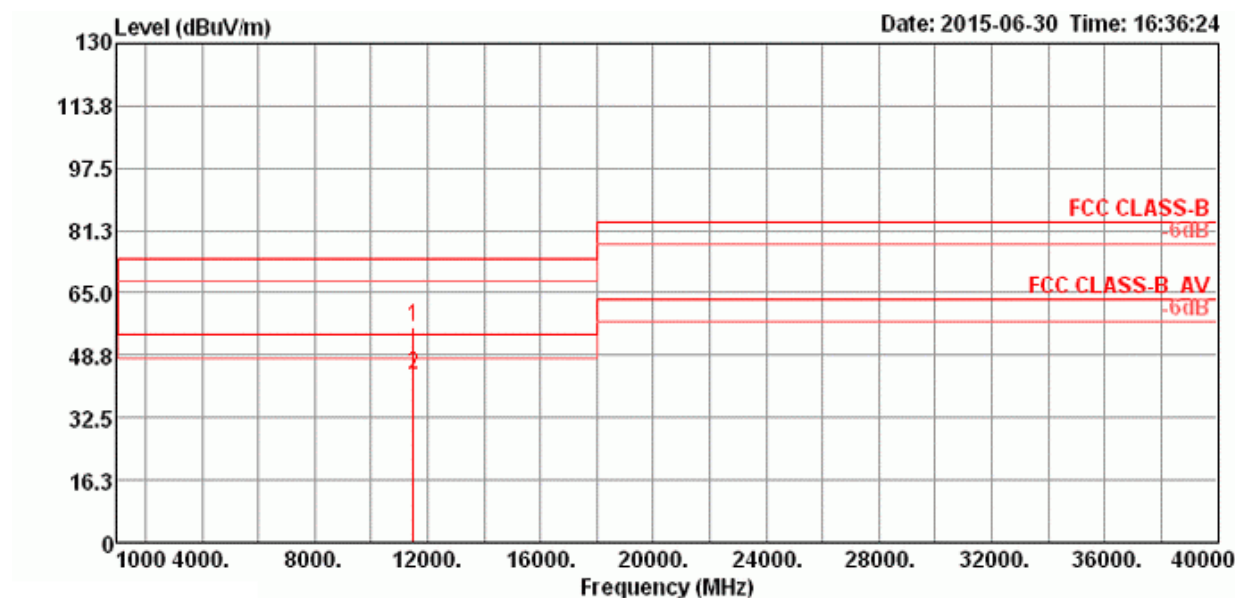
	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11502.13	56.30	74.00	-17.70	40.05	10.72	38.90	33.37	Peak	177	172	HORIZONTAL
2	11512.56	43.88	54.00	-10.12	27.63	10.72	38.90	33.37	Average	177	172	HORIZONTAL

Vertical
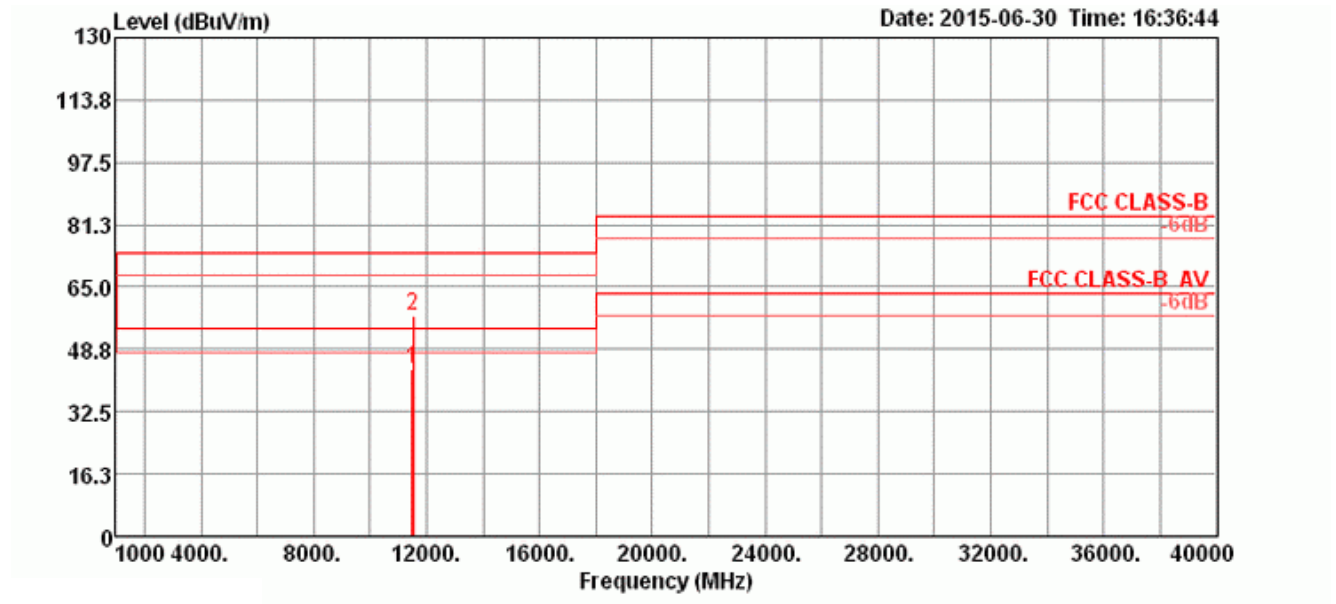
	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11511.23	43.72	54.00	-10.28	27.47	10.72	38.90	33.37	Average	188	125	VERTICAL
2	11515.02	57.49	74.00	-16.51	41.23	10.72	38.91	33.37	Peak	188	125	VERTICAL

Temperature	24℃	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 159 / Chain 7

Horizontal
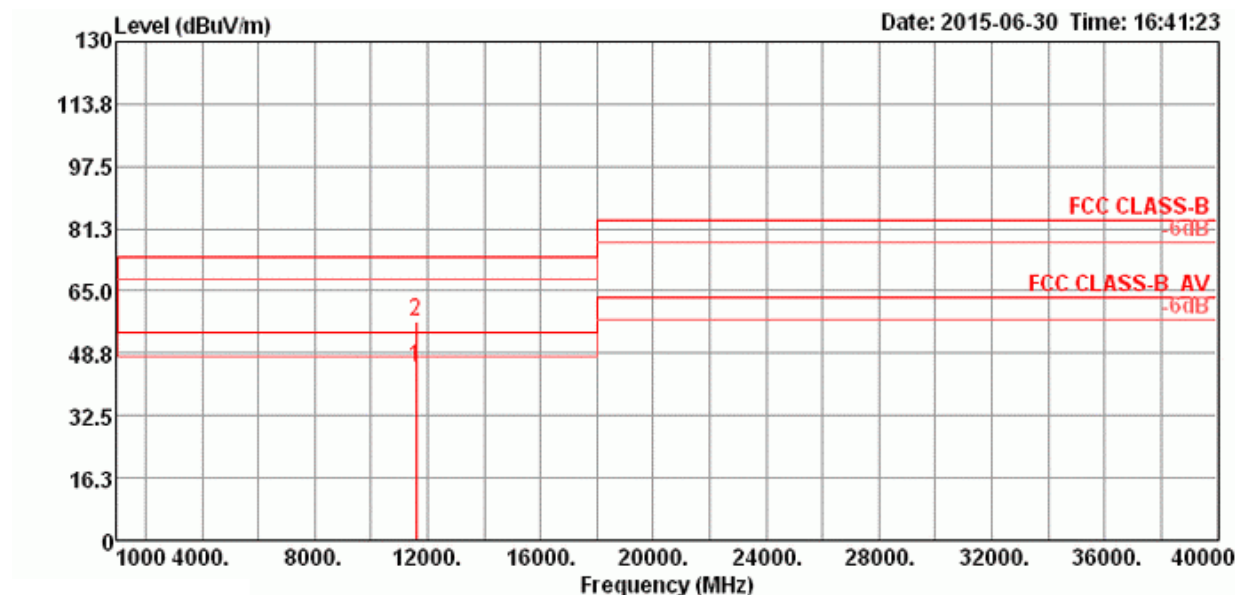
	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11590.16	44.89	54.00	-9.11	28.57	10.76	38.95	33.39	Average	182	341	HORIZONTAL
2	11607.23	56.95	74.00	-17.05	40.61	10.78	38.96	33.40	Peak	182	341	HORIZONTAL

Vertical
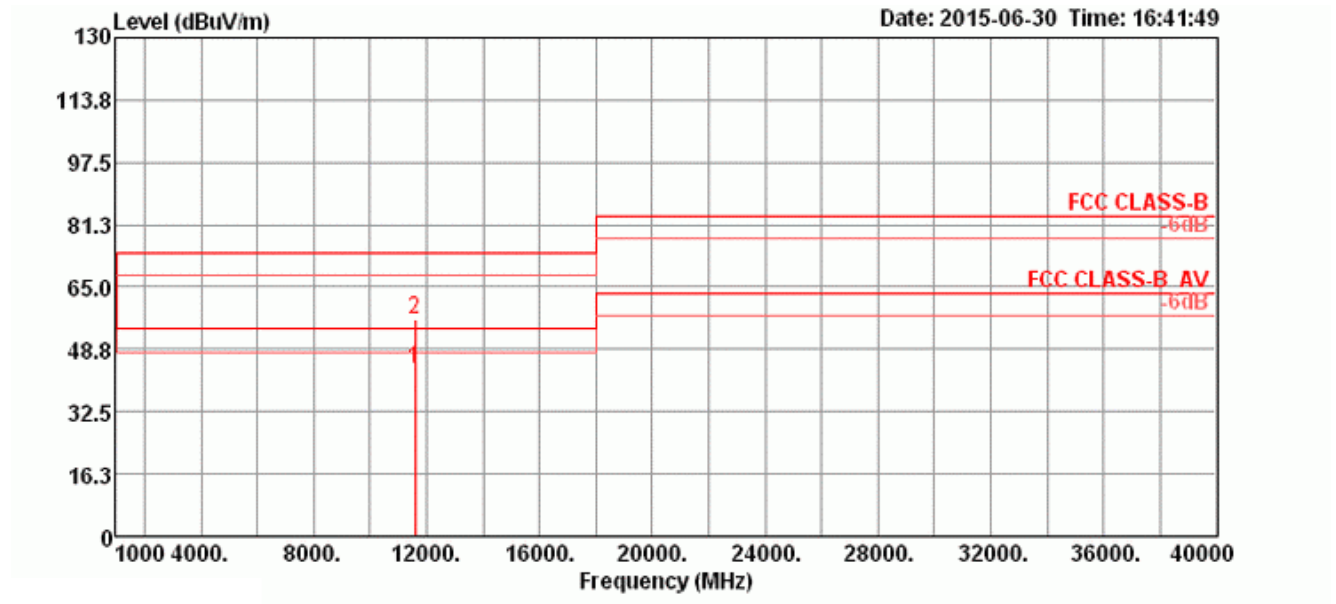
	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11609.87	43.46	54.00	-10.54	27.12	10.78	38.96	33.40	Average	193	288	VERTICAL
2	11611.88	56.82	74.00	-17.18	40.48	10.78	38.96	33.40	Peak	193	288	VERTICAL

Temperature	22℃	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT80 CH 42 / Chain 7

Horizontal
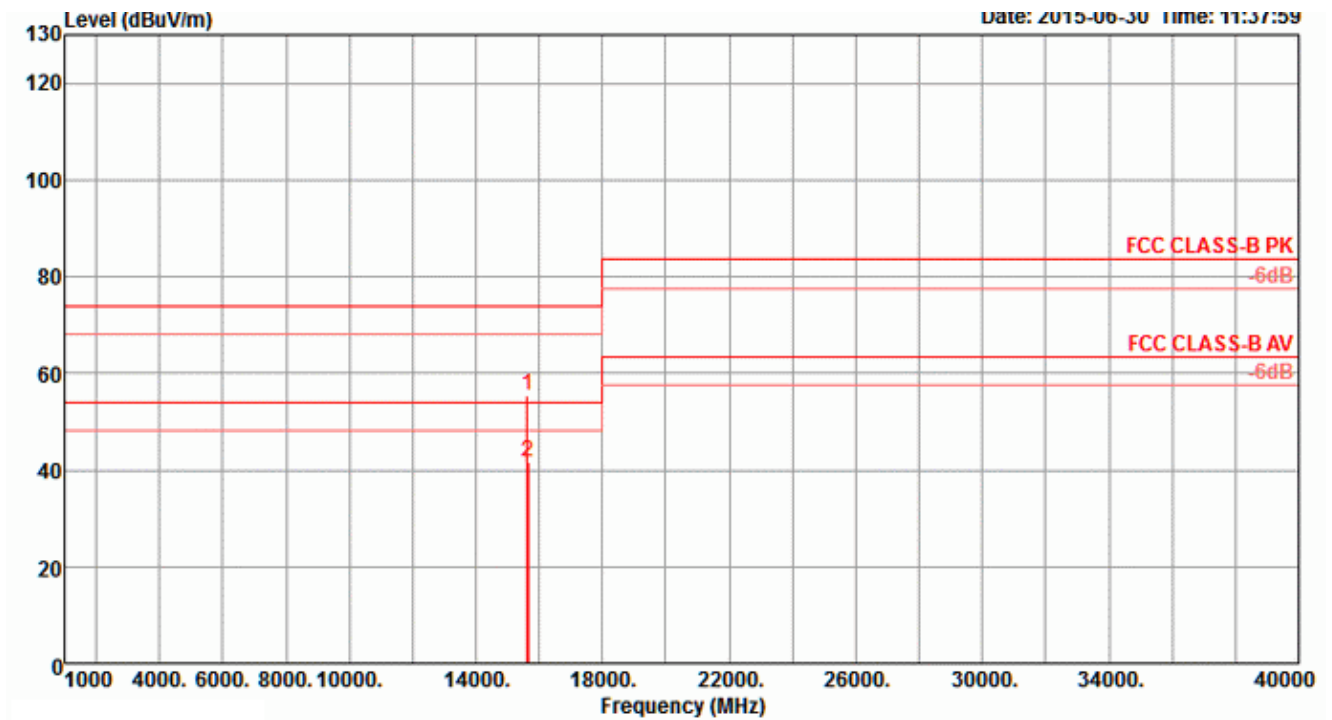
	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	15627.93	55.34	74.00	-18.66	44.14	7.59	38.32	34.71	283	135	Peak	HORIZONTAL
2	15632.61	41.70	54.00	-12.30	30.47	7.59	38.35	34.71	282	135	Average	HORIZONTAL
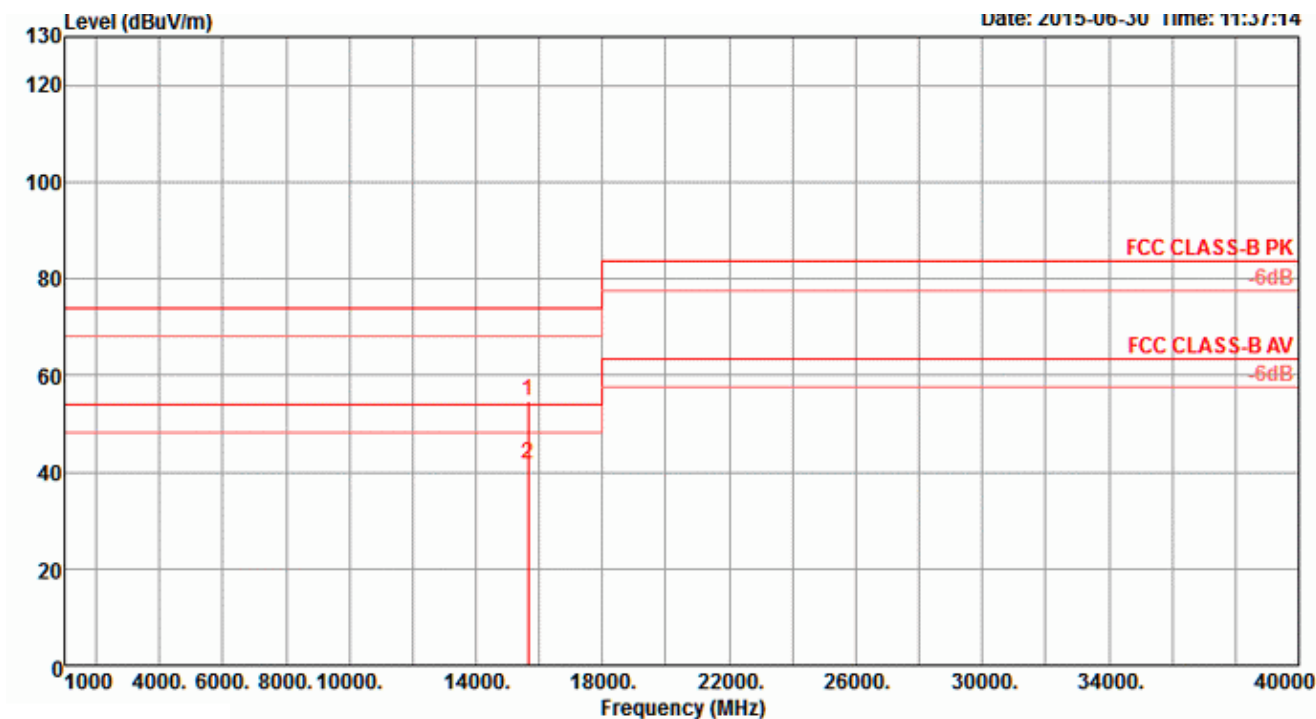
Vertical

	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	15632.50	54.58	74.00	-19.42	43.35	7.59	38.35	34.71	333	160	Peak	VERTICAL
2	15634.13	41.67	54.00	-12.33	30.44	7.59	38.35	34.71	333	160	Average	VERTICAL

Temperature	24℃	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT80 CH 155 / Chain 7

Horizontal
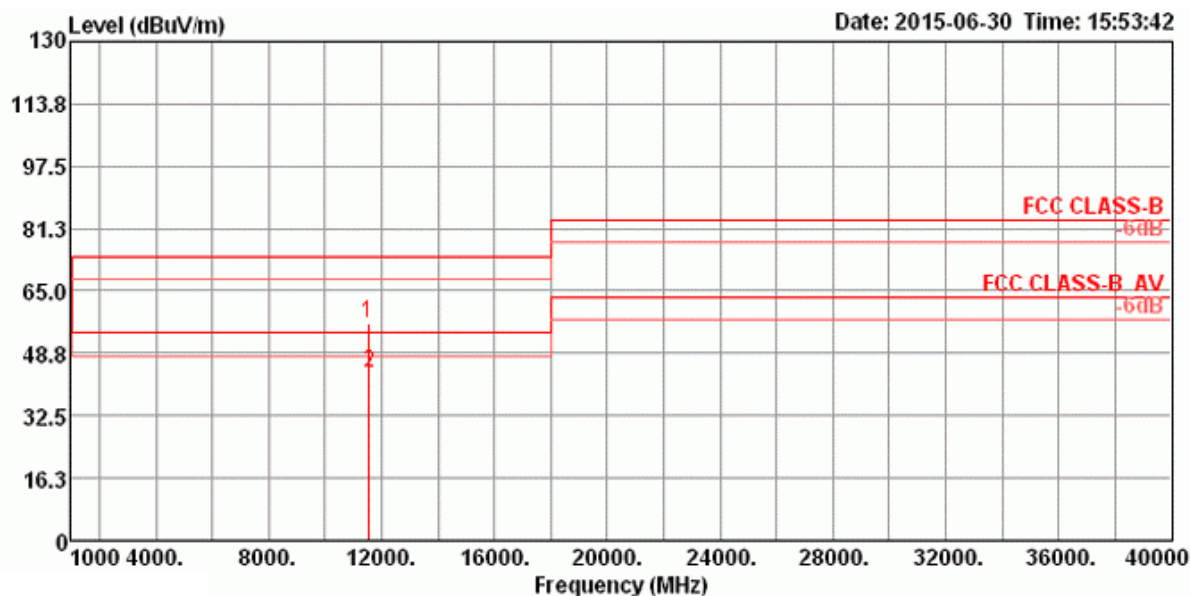
	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11546.30	56.69	74.00	-17.31	40.40	10.75	38.92	33.38	Peak	152	174	HORIZONTAL
2	11549.47	43.70	54.00	-10.30	27.40	10.75	38.93	33.38	Average	152	174	HORIZONTAL

Vertical
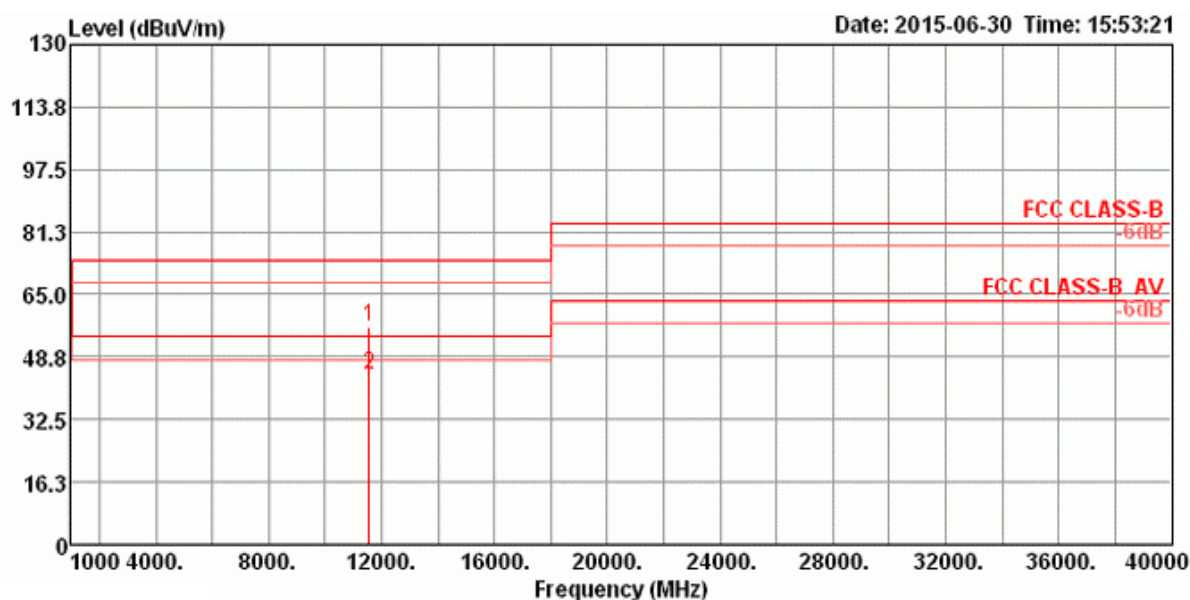
	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11550.48	56.39	74.00	-17.61	40.09	10.75	38.93	33.38	Peak	142	138	VERTICAL
2	11554.09	44.21	54.00	-9.79	27.91	10.75	38.93	33.38	Average	142	138	VERTICAL

Note:

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

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

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