7.7. Band-edge Compliance Measurement

7.7.1. Test Limit

The maximum permissible emission level is 20dBc. Any emission lying outside of the emission

bandwidth and in authorized band edges to a field strength limit specified in Section 15.209 of the

Title 47 CFR.

7.7.2. Test Procedure Used

ANSI C63.10-2009 - Section 7.7.9

7.7.3. Test Setting

1. Span = wide enough to capture the peak level of the emission operating on the channel closest

   to the band edge, as well as any modulation products which fall outside of the authorized band

   of operation.

2. RBW ≥ 1% of spectrum analyzer display span

3. VBW ≥ RBW

4. Detector = peak

5. Sweep time = auto couple

6. Trace mode = max hold

7. Trace was allowed to stabilize

Allow the trace to stabilize. Set the marker on the emission at the band edge, or on the highest

modulation product outside of the band, if this level is greater than that at the band edge. Enable

the marker-delta function, than use the marker-to-peak function to move the marker to the peak of

the in-band emission.

7.7.4. Test Setup

Spectrum Analyzer
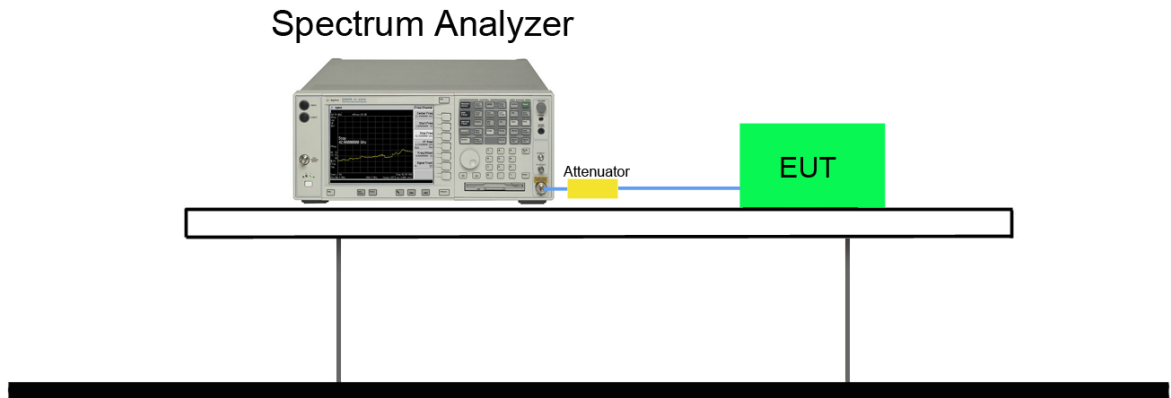
7.7.5. Test Result

Test Mode	Channel No.	Frequency (MHz)	Limit	Result
DH5	00	2402	20dBc	Pass
DH5	78	2480	20dBc	Pass
2DH5	00	2402	20dBc	Pass
2DH5	78	2480	20dBc	Pass
3DH5	00	2402	20dBc	Pass
3DH5	78	2480	20dBc	Pass

DH5 Band-edge Compliance	
Channel 00 (2402MHz)	**Channel 78 (2480MHz)**
2DH5 Band-edge Compliance	
Channel 00 (2402MHz)	**Channel 78 (2480MHz)**
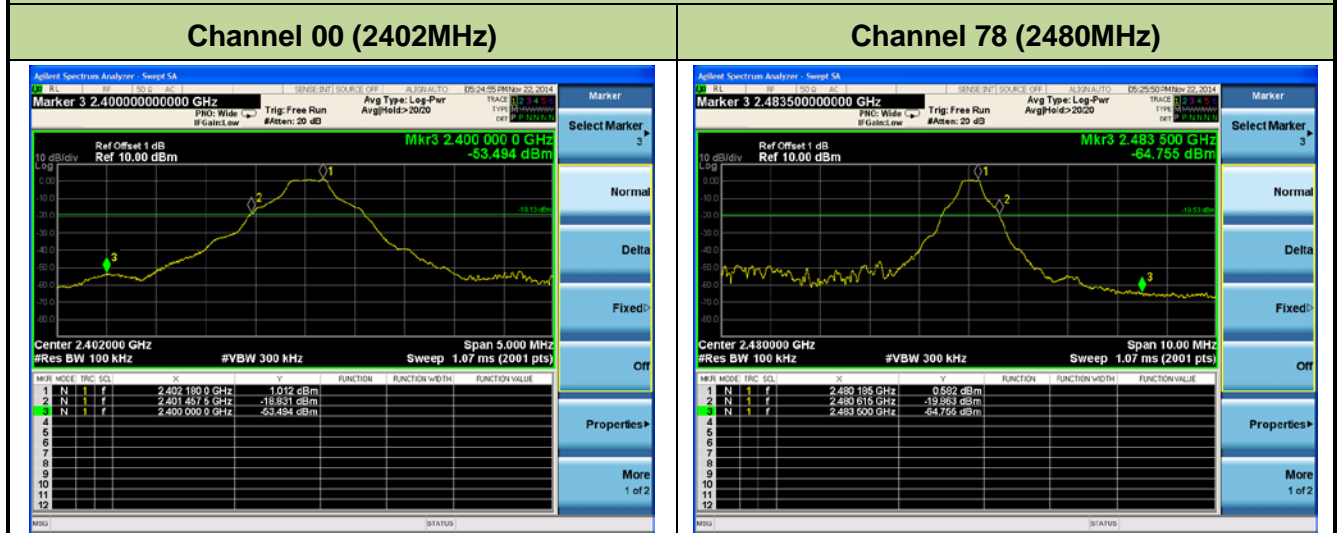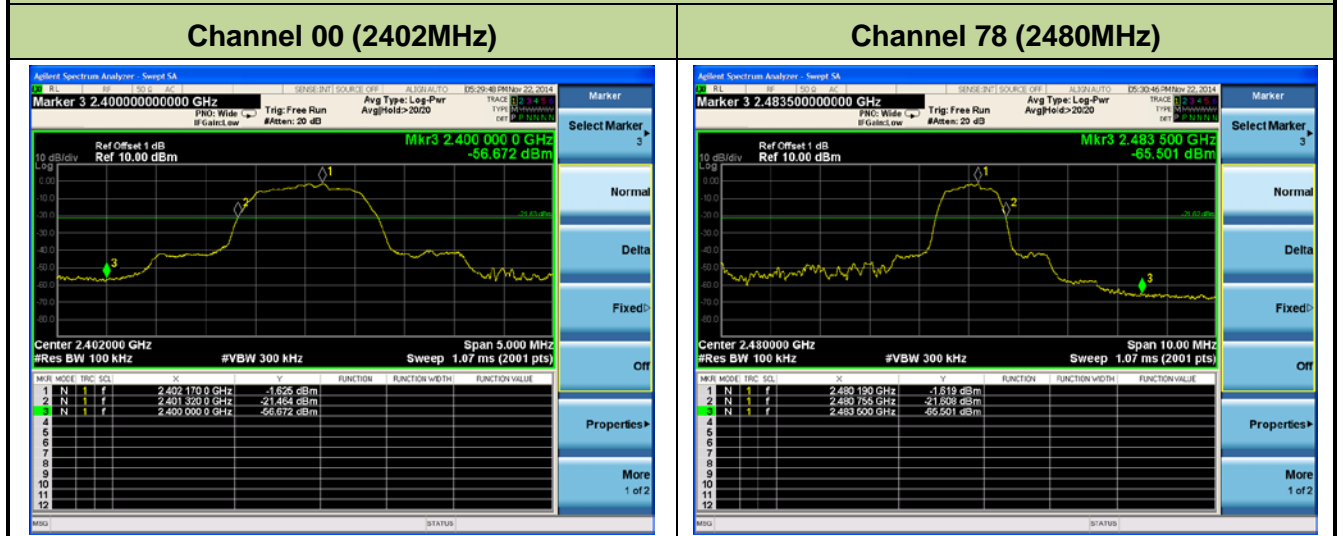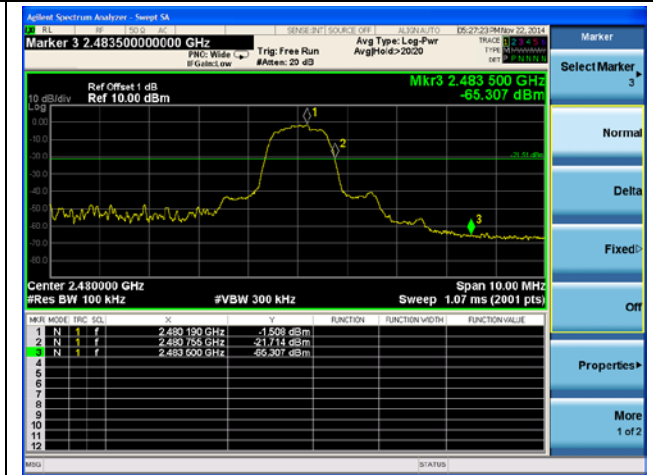
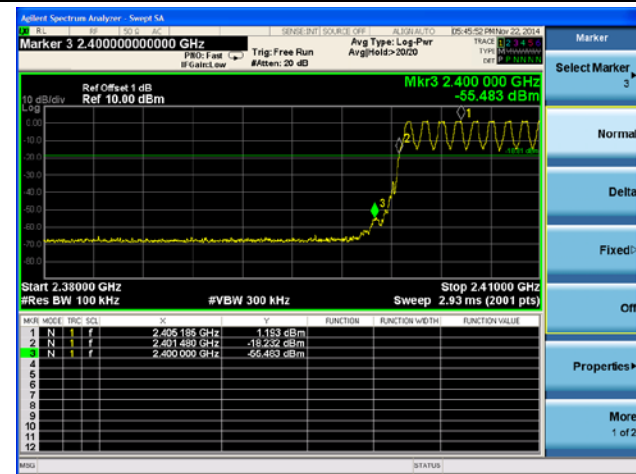| 3DH5 Band-edge Compliance	
Channel 00 (2402MHz)	**Channel 78 (2480MHz)**
DH5 Operation Frequency Range of 20dB Bandwidth within Hopping Mode	
Channel 00 (2402MHz)	**Channel 78 (2480MHz)**
2DH5 Operation Frequency Range of 20dB Bandwidth within Hopping Mode	
Channel 00 (2402MHz)	**Channel 78 (2480MHz)**
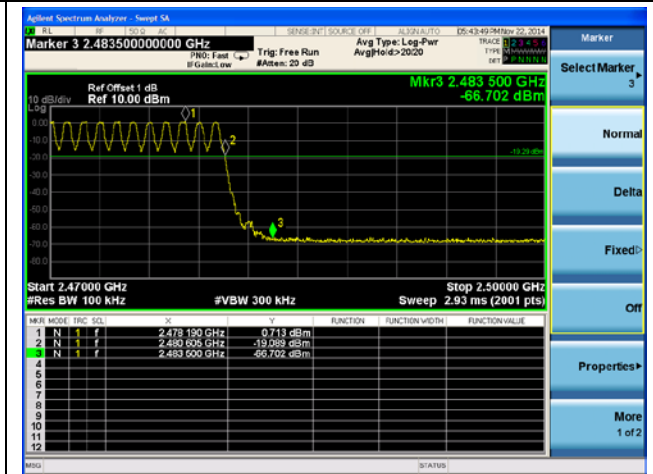
3DH5 Operation Frequency Range of 20dB Bandwidth within Hopping Mode
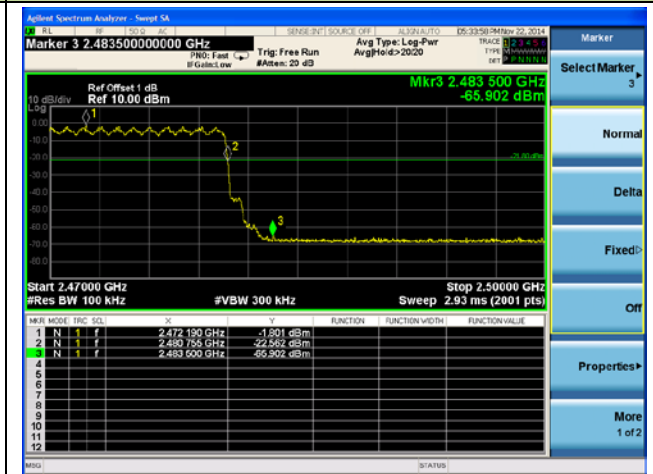
Channel 00 (2402MHz)	Channel 78 (2480MHz)

7.8. Conducted Spurious Emissions Measurement

7.8.1. Test Limit

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.

7.8.2. Test Procedure Used

ANSI C63.10-2009 - Section 7.7.10

7.8.3. Test Setting

1. Span = wide enough to capture the peak level of the in-band emission and all spurious emissions (e.g., harmonics) from the lowest frequency generated in the EUT up through the 10th harmonic. Typically, several plots are required to cover this entire span.

2. RBW = 100 KHz

3. VBW ≥ RBW

4. Detector = peak

5. Sweep time = auto couple

6. Trace mode = max hold
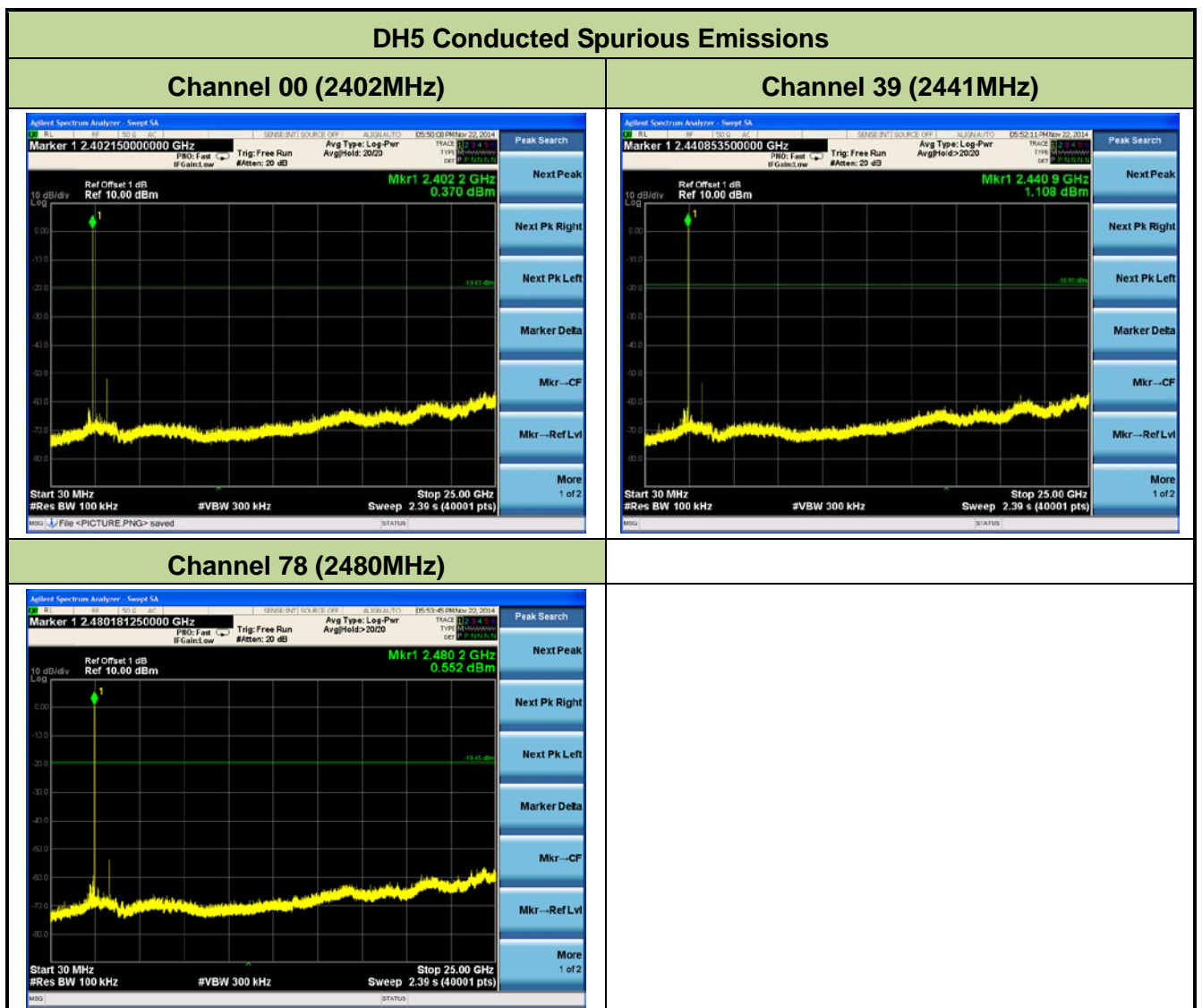
7. Trace was allowed to stabilize

Set the marker on the peak of any spurious emission recorded. The level displayed must comply with the limit specified in this section.

7.8.4. Test Setup

Spectrum Analyzer
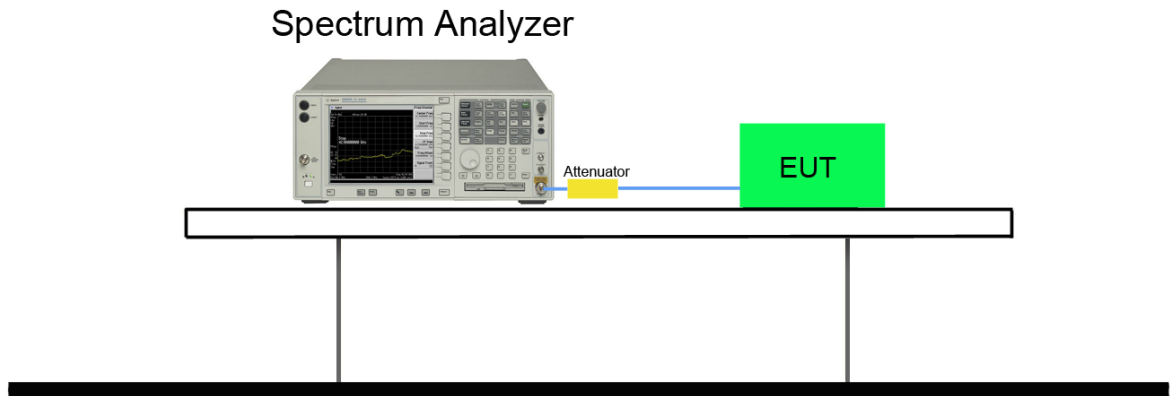
7.8.5. Test Result

Test Mode	Channel No.	Frequency (MHz)	Limit (MHz)	Result
DH5	00	2402	20dBc	Pass
DH5	39	2441	20dBc	Pass
DH5	78	2480	20dBc	Pass
2DH5	00	2402	20dBc	Pass
2DH5	39	2441	20dBc	Pass
2DH5	78	2480	20dBc	Pass
3DH5	00	2402	20dBc	Pass
3DH5	39	2441	20dBc	Pass
3DH5	78	2480	20dBc	Pass

DH5 Conducted Spurious Emissions	
Channel 00 (2402MHz)	**Channel 39 (2441MHz)**
Channel 78 (2480MHz)	
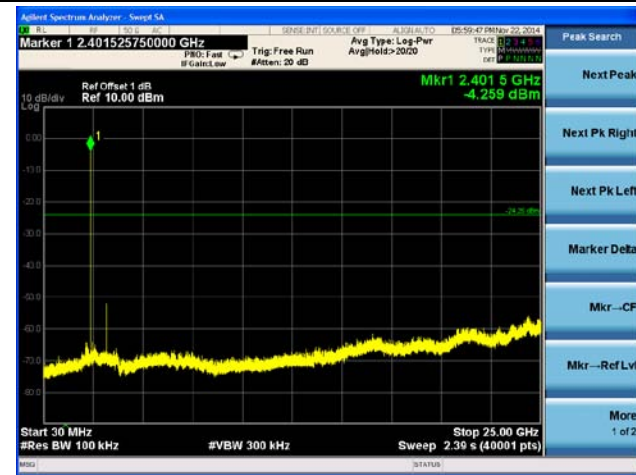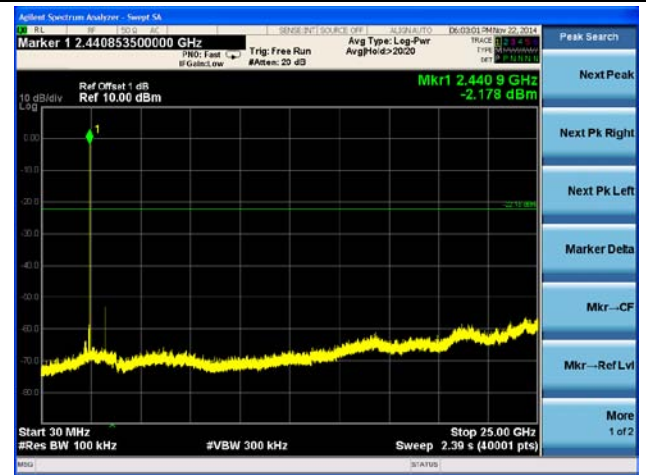
2DH5 Conducted Spurious Emissions	
Channel 00 (2402MHz)	**Channel 39 (2441MHz)**
Channel 78 (2480MHz)	
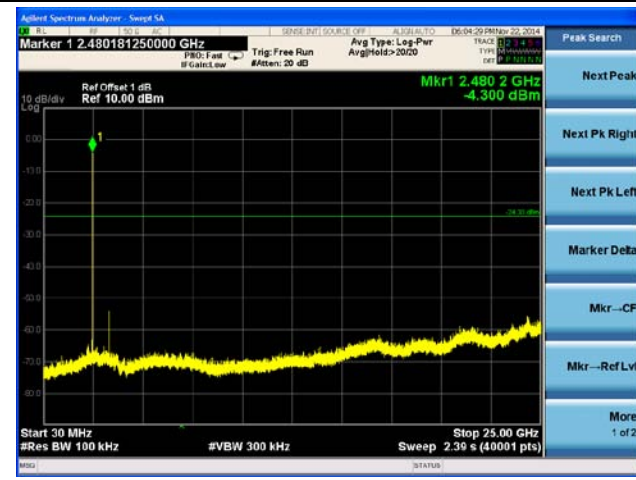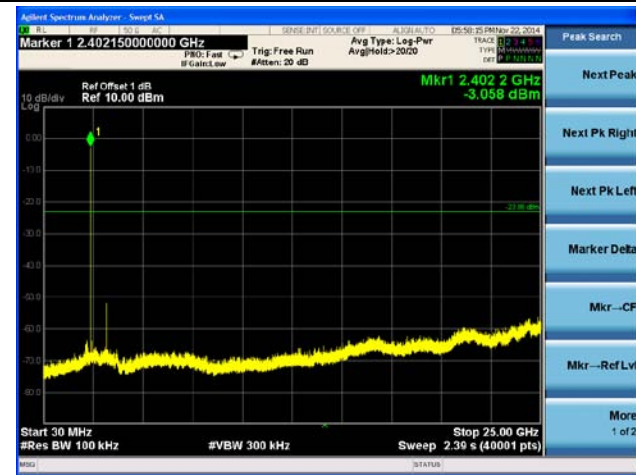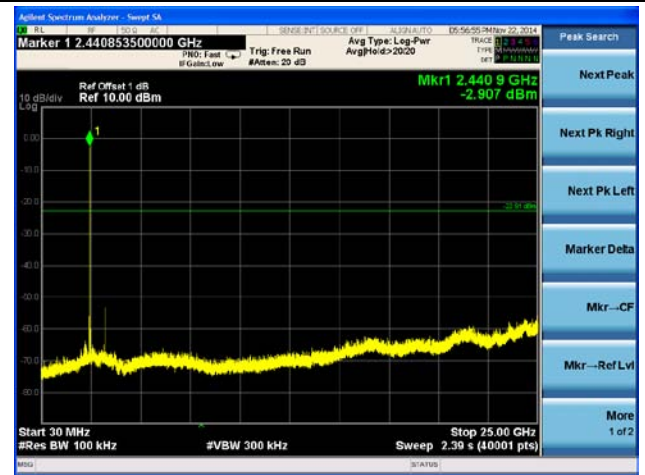
3DH5 Conducted Spurious Emissions	
Channel 00 (2402MHz)	Channel 39 (2441MHz)
Channel 78 (2480MHz)	
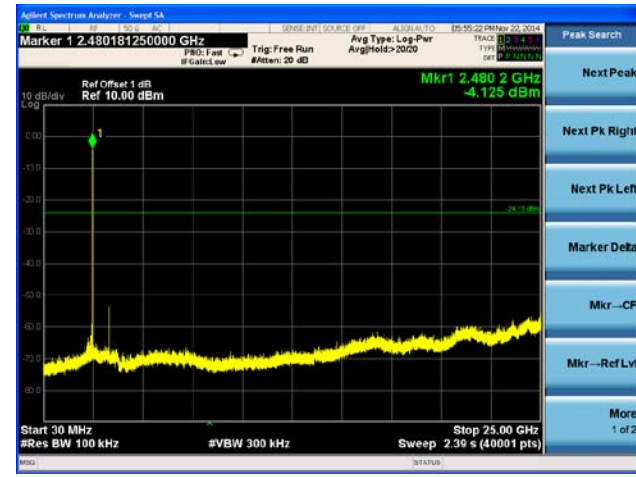
7.9. Radiated Spurious Emission Measurement

7.9.1. Test Limit

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR must not exceed the limits shown in Table per Section 15.209.

FCC Part 15 Subpart C Paragraph 15.209		
Frequency [MHz]	Field Strength [V/m]	Measured Distance [Meters]
0.009 - 0.490	2400/F (kHz)	300
0.490 - 1.705	24000/F (kHz)	30
1.705 - 30	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

7.9.2. Test Procedure Used

ANSI C63.10-2009 - Section 7.10.1 & Section 7.10.2

7.9.3. Test Setting

Peak Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest

2. RBW = as specified in Table 1

3. VBW = 3 * RBW

4. Detector = peak

5. Sweep time = auto couple

6. Trace mode = max hold

7. Trace was allowed to stabilize

Table 1 - RBW as a function of frequency

Frequency	RBW
9 ~ 150 kHz	200 ~ 300 Hz
0.15 ~ 30 MHz	9 ~ 10 kHz
30 ~ 1000 MHz	100 ~ 120 kHz
> 1000 MHz	1 MHz

Average Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest

2. RBW = 1MHz

3. VBW ≥ 1/T

4. De As an alternative, the instrument may be set to linear detector mode. Ensure that video filtering is applied in linear voltage domain (rather than in a log or dB domain). Some instruments require linear display mode in order to accomplish this. Others have a setting for Average-VBW Type, which can be set to "Voltage" regardless of the display mode

5. Detector = Peak

6. Sweep time = auto

7. Trace mode = max hold

8. Allow max hold to run for at least 50 times (1/duty cycle) traces

7.9.4. Test Setup

9kHz ~ 30MHz Test Setup:
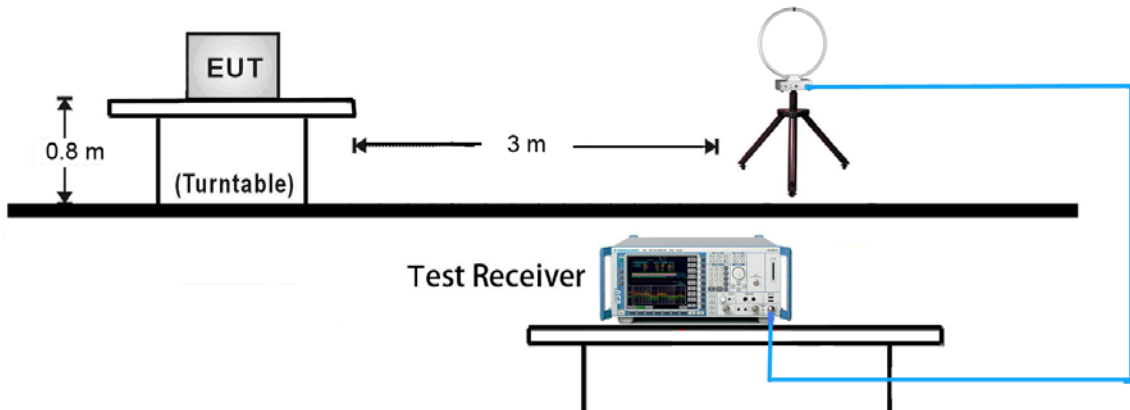
30MHz ~ 1GHz Test Setup:
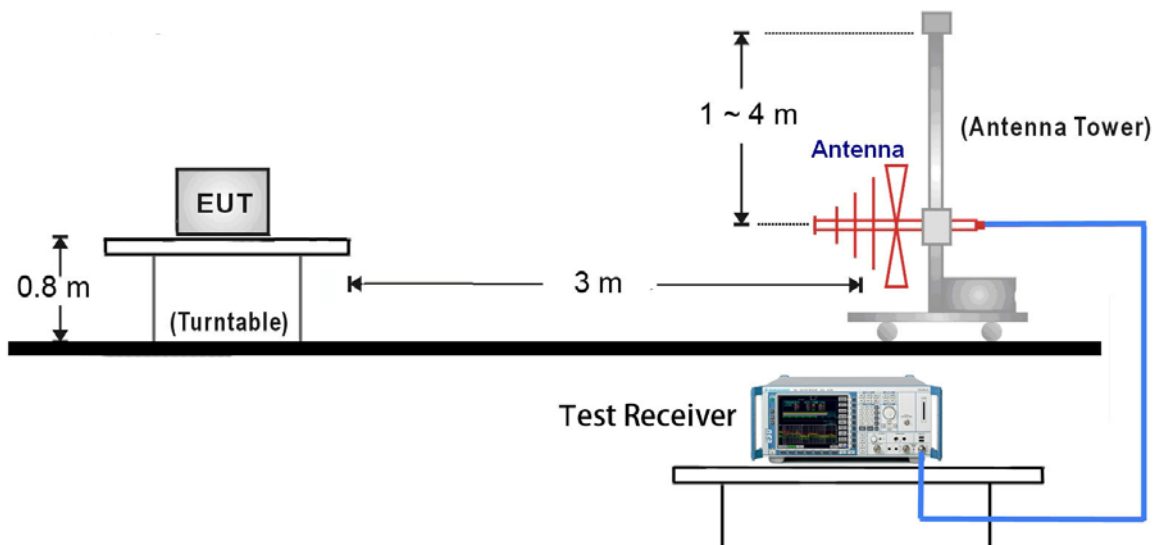
1GHz ~ 25GHz Test Setup:

7.9.5. Test Result

Test Mode:	DH5	Test Site:	AC1
Test Channel:	00	Test Engineer:	Roy Cheng
Remark:	1. Average measurement was not performed if peak level lower than average limit. **2. The worst case of Radiated Spurious Emission.** 3. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

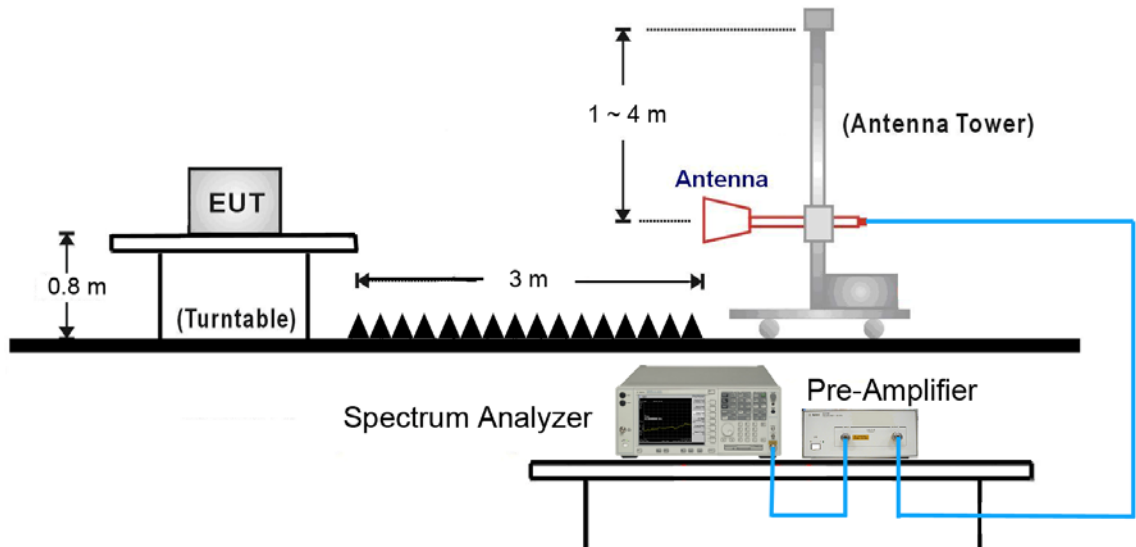| Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	3145.0	36.9	3.6	40.5	74.0	-33.5	Peak	Horizontal
*	4415.0	37.3	5.5	42.8	74.0	-31.2	Peak	Horizontal
	4804.0	36.9	6.4	43.3	74.0	-30.7	Peak	Horizontal
	7255.0	36.0	13.9	49.9	74.0	-24.1	Peak	Horizontal
*	3126.0	36.0	3.6	39.6	74.0	-34.4	Peak	Vertical
*	4413.0	37.0	5.5	42.5	74.0	-31.5	Peak	Vertical
	4804.0	36.8	6.4	43.2	74.0	-30.8	Peak	Vertical
	7254.0	35.1	13.9	49.0	74.0	-25.0	Peak	Vertical
Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (93.2dBμV/m) or 15.209 which is higher.								
Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)								
Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)								

The worst case of Radiated Emission 9KHz ~ 1GHz and 18GHz ~ 25GHz:

Site: AC1	Time: 2014/12/02 - 16:19
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: VULB9162_0.03-8GHz	Polarity: Horizontal
EUT: IP Multimedia Phone	Power: AC 120V/60Hz

Worse Case Mode : DH5 at channel 2402MHz
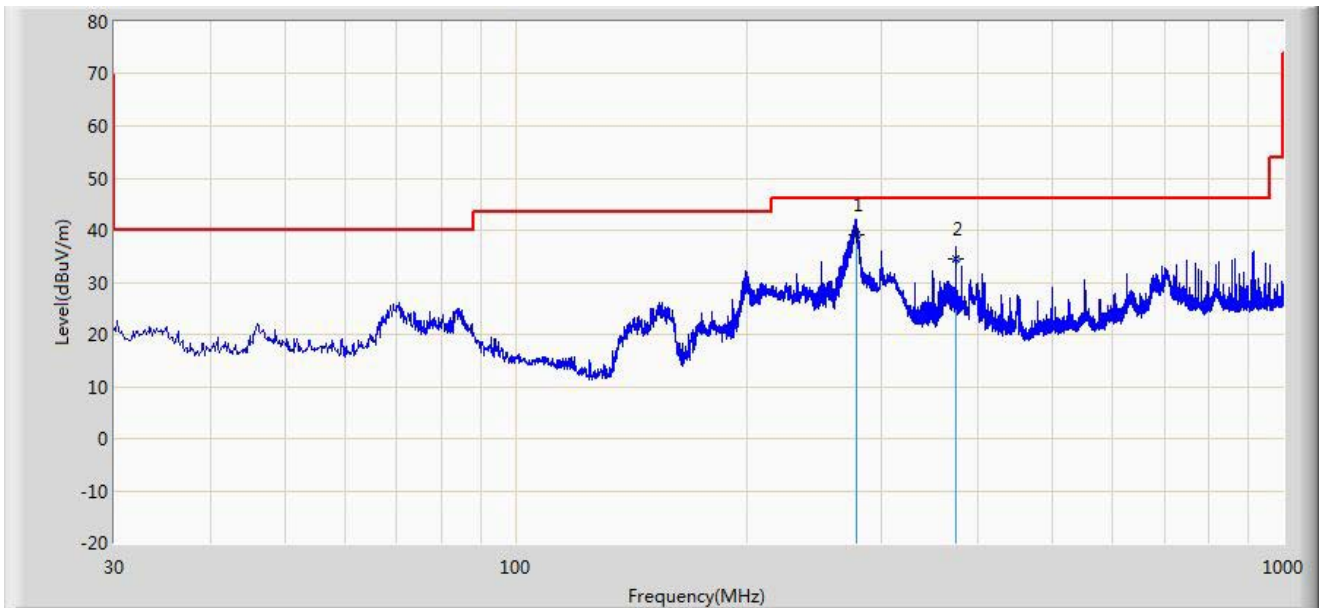
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	278.124	39.240	25.480	-6.760	46.000	13.760	QP
2		375.105	34.574	18.841	-11.426	46.000	15.733	QP

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC1	Time: 2014/12/02 - 16:22
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: VULB9162_0.03-8GHz	Polarity: Vertical
EUT: IP Multimedia Phone	Power: AC 120V/60Hz
Worse Case Mode : DH5 at channel 2402MHz	
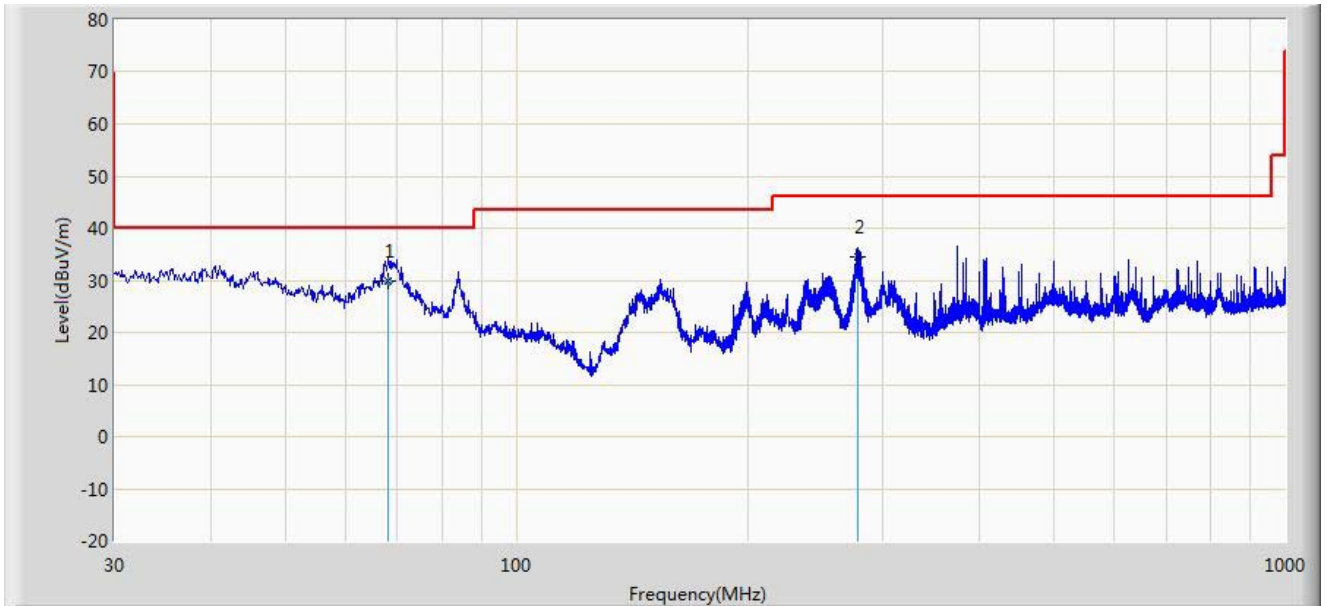
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	68.220	29.963	18.690	-10.037	40.000	11.273	QP
2		277.762	34.366	20.610	-11.634	46.000	13.756	QP

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC1	Time: 2014/12/01 - 13:34
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: FMZB1519_0.009-30MHz	Polarity: Face On
EUT: IP Multimedia Phone	Power: AC 120V/60Hz

Note: There is the ambient noise within frequency range 9kHz~30MHz.
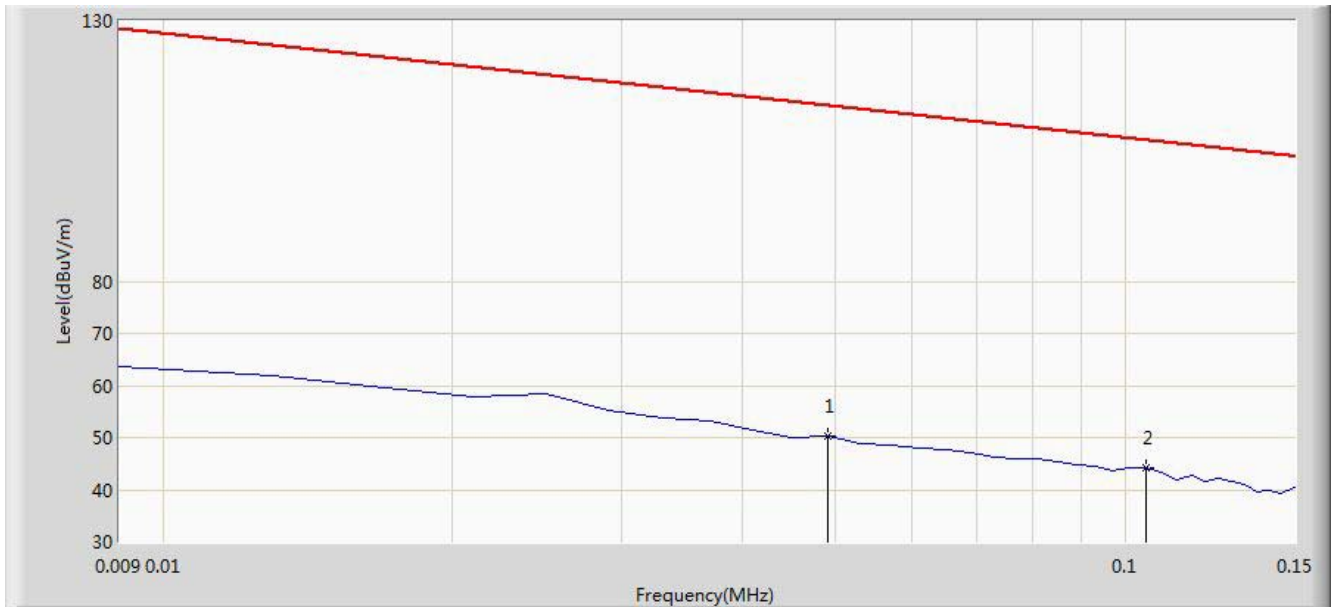
No	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	0.049	50.367	29.861	-63.433	113.800	20.505	QP
2	0.105	44.143	23.996	-63.037	107.180	20.147	QP

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC1	Time: 2014/12/01 - 13:45
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: FMZB1519_0.009-30MHz	Polarity: Face On
EUT: IP Multimedia Phone	Power: AC 120V/60Hz

Note: There is the ambient noise within frequency range 9kHz~30MHz.
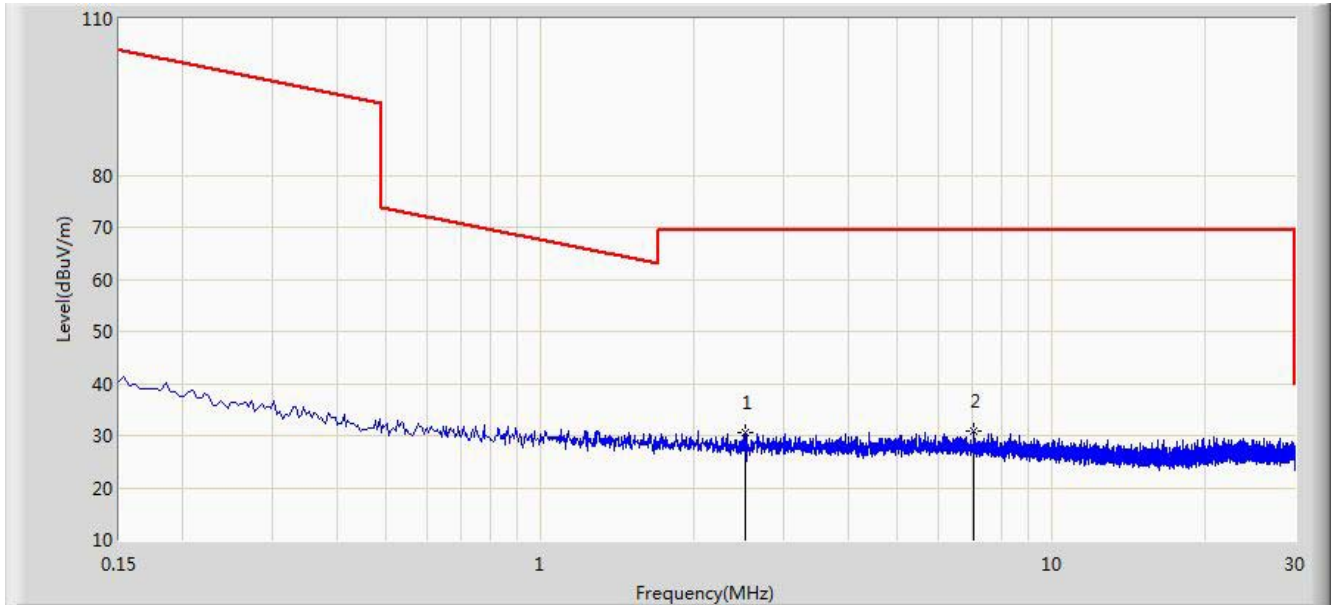
No	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	2.513	30.495	10.336	-39.005	69.500	20.159	QP
2	7.041	30.974	10.579	-38.526	69.500	20.395	QP

Note: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC1	Time: 2014/12/01 - 13:59
Limit: FCC_Part15.209_RE(1m)	Engineer: Roy Cheng
Probe: BBHA9170_18-40GHz	Polarity: Horizontal
EUT: IP Multimedia Phone	Power: AC 120V/60Hz
Note: There is the ambient noise within frequency range 18GHz~25GHz.	
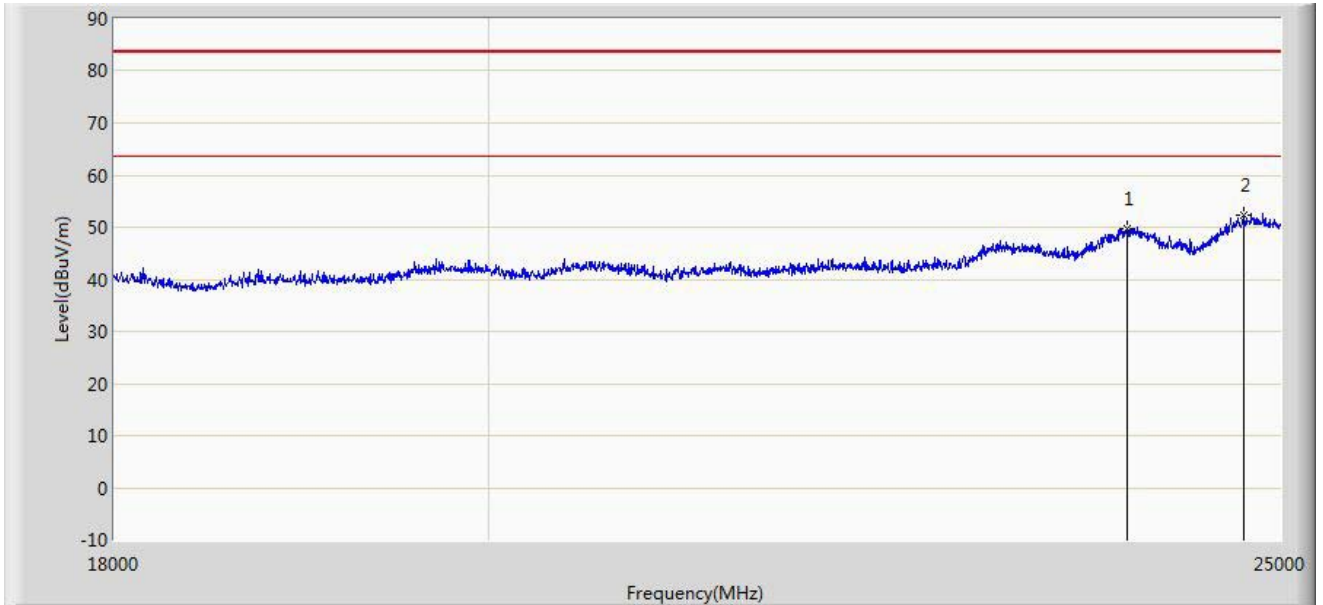
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1		23943.000	49.787	35.877	-33.713	83.500	13.910	PK
2	*	24741.000	52.380	37.686	-31.120	83.500	14.694	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) – Pre_Amplifier Gain (dB)

Site: AC1	Time: 2014/12/01 - 14:05
Limit: FCC_Part15.209_RE(1m)	Engineer: Roy Cheng
Probe: BBHA9170_18-40GHz	Polarity: Vertical
EUT: IP Multimedia Phone	Power: AC 120V/60Hz

Note: There is the ambient noise within frequency range 18GHz~25GHz.
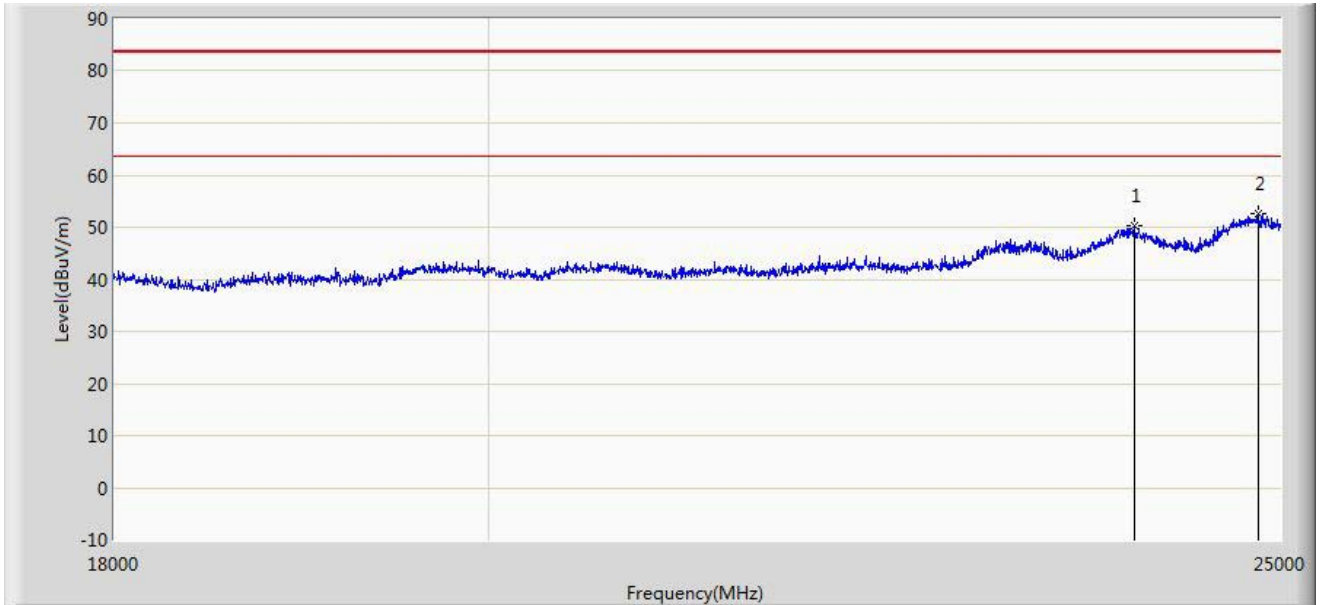
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1		23999.000	50.381	36.437	-33.119	83.500	13.944	PK
2	*	24846.000	52.507	37.739	-30.993	83.500	14.768	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) – Pre_Amplifier Gain (dB)

7.10. Radiated Restricted Band Edge Measurement

7.10.1. Test Result

Site: AC1	Time: 2014/11/29 - 17:53
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: IP Multimedia Phone	Power: AC 120V/60Hz
Note: Mode 1: Transmit at channel 2402MHz by DH5	

No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2364.238	57.848	27.106	-16.152	74.000	30.742	PK
2		2390.000	56.316	25.632	-17.684	74.000	30.684	PK
3	*	2401.932	92.531	61.870	18.531	74.000	30.662	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC1	Time: 2014/11/29 - 18:03
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: IP Multimedia Phone	Power: AC 120V/60Hz
Note: Mode 1: Transmit at channel 2402MHz by DH5	

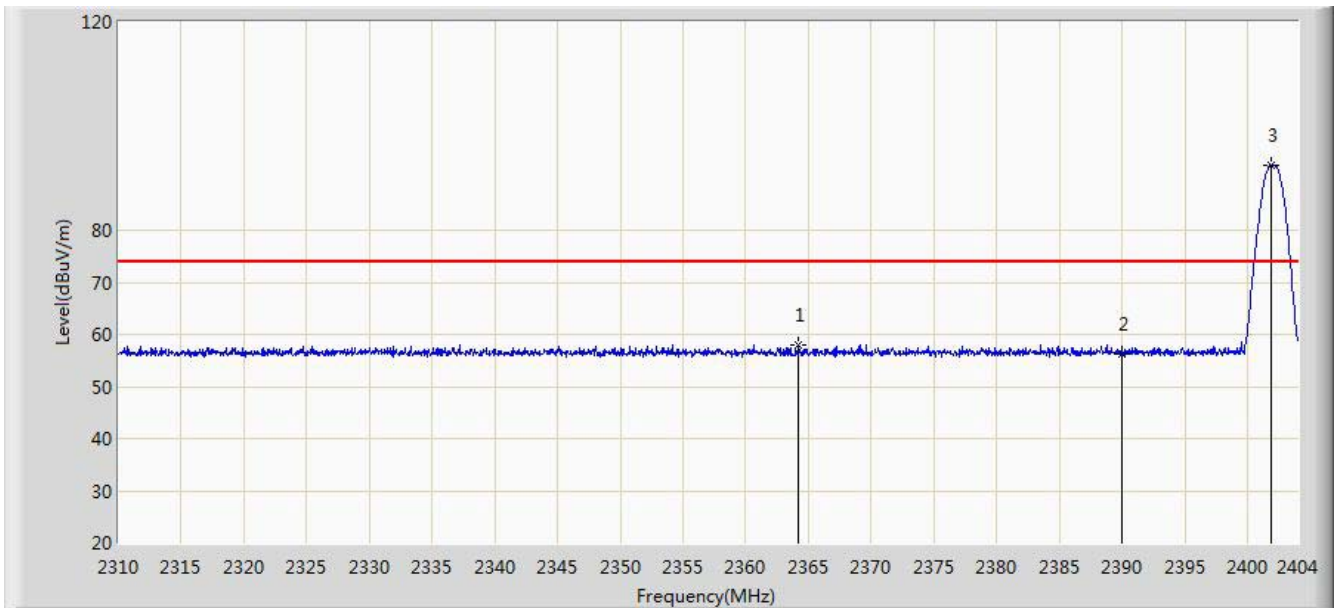| No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	43.260	12.576	-10.740	54.000	30.684	AV
2	*	2401.979	80.792	50.131	26.792	54.000	30.662	AV

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

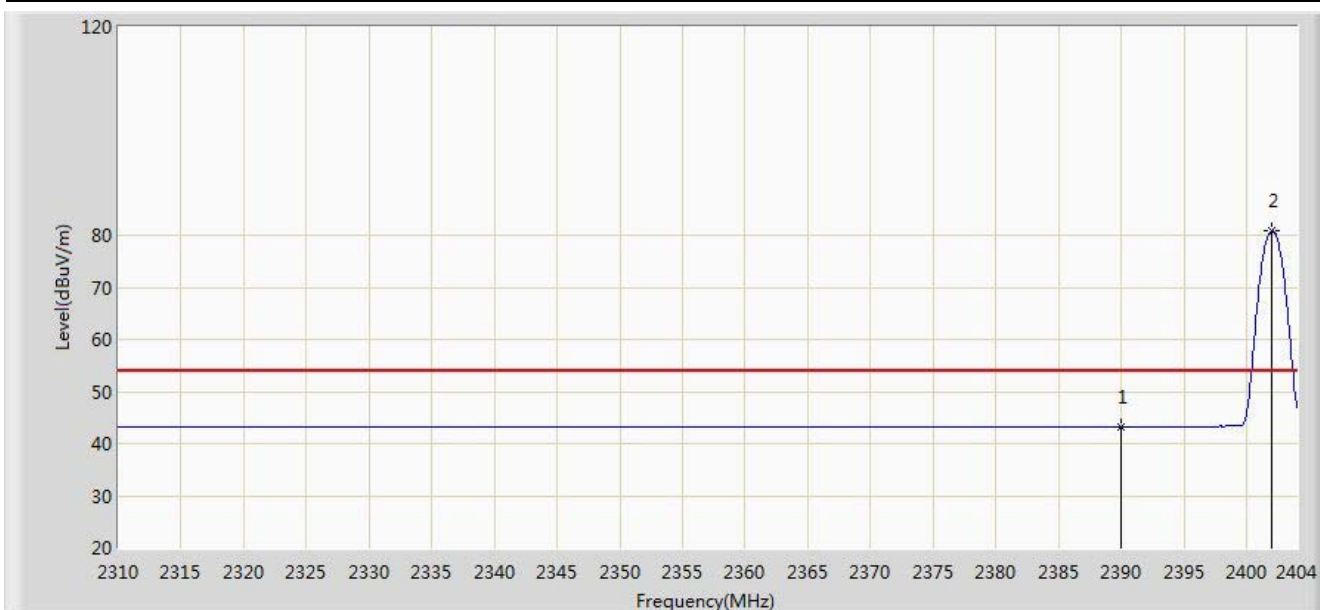| Site: AC1	Time: 2014/11/29 - 18:04
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: IP Multimedia Phone	Power: AC 120V/60Hz
Note: Mode 1: Transmit at channel 2402MHz by DH5	

No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2366.071	58.346	27.608	-15.654	74.000	30.738	PK
2		2390.000	56.238	25.554	-17.762	74.000	30.684	PK
3	*	2401.979	93.190	62.529	19.190	74.000	30.662	PK

Note: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

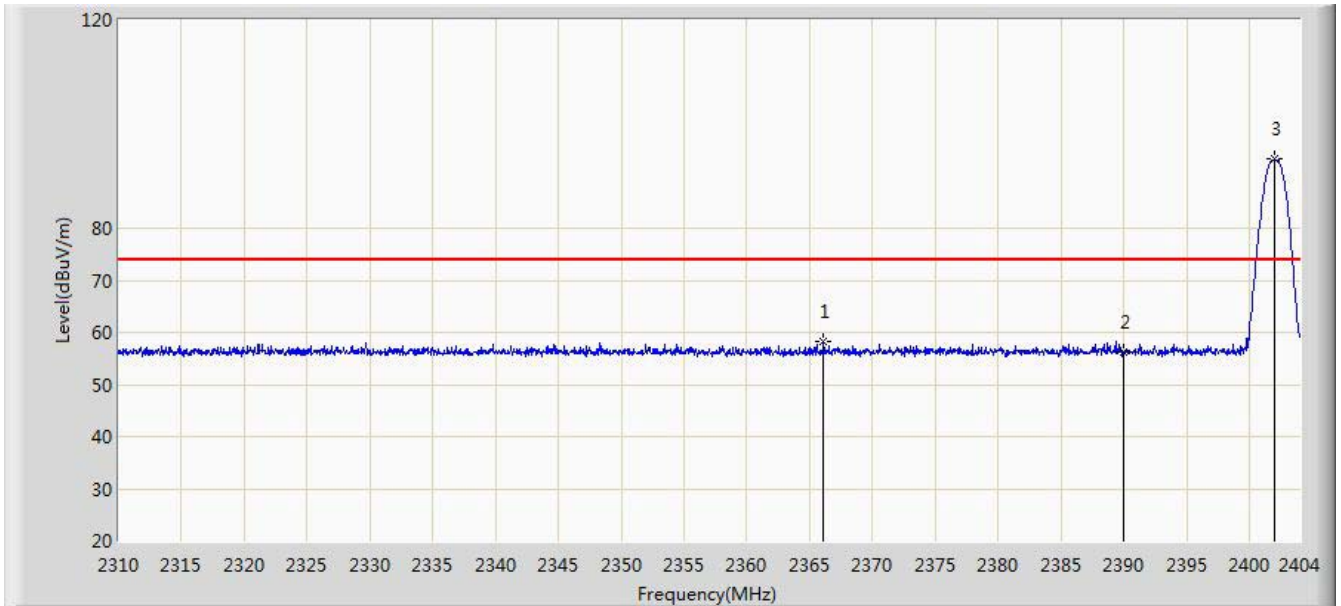| Site: AC1	Time: 2014/11/29 - 18:07
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: IP Multimedia Phone	Power: AC 120V/60Hz
Note: Mode 1: Transmit at channel 2402MHz by DH5	

No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	43.236	12.552	-10.764	54.000	30.684	AV
2	*	2401.979	82.281	51.620	28.281	54.000	30.662	AV

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

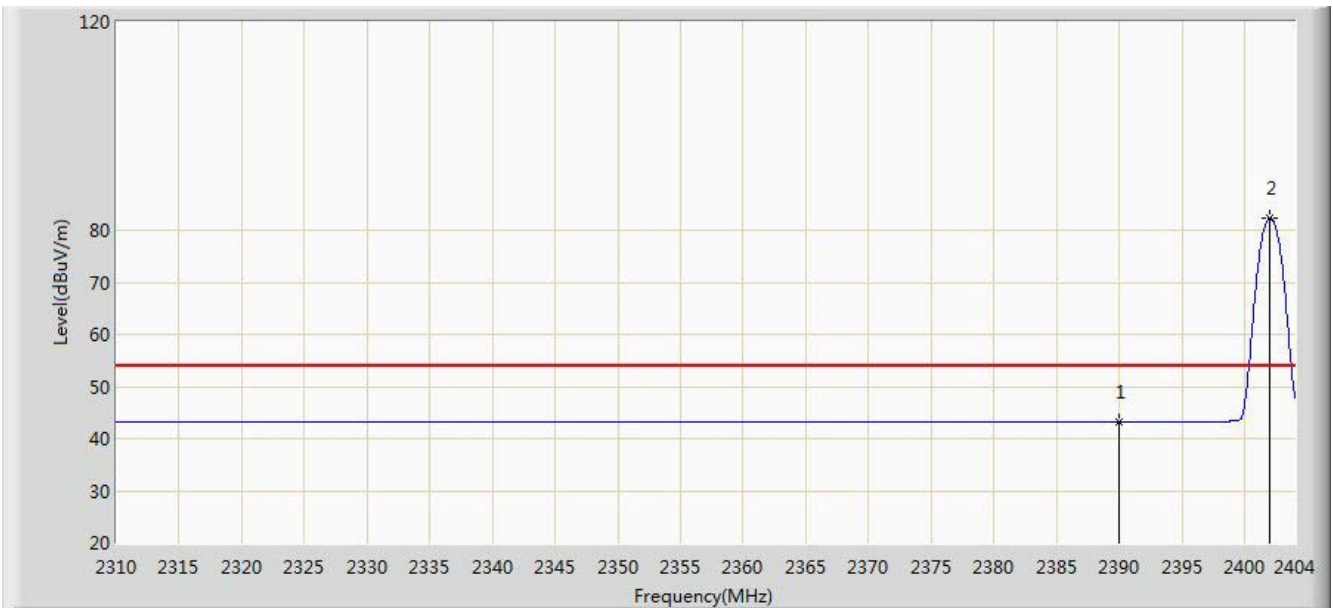| Site: AC1	Time: 2014/11/29 - 18:08
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: IP Multimedia Phone	Power: AC 120V/60Hz
Note: Mode 1: Transmit at channel 2480MHz by DH5	

No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.046	93.560	62.897	19.560	74.000	30.662	PK
2		2483.500	56.384	25.711	-17.616	74.000	30.673	PK
3		2490.760	58.696	28.002	-15.304	74.000	30.694	PK

Note: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

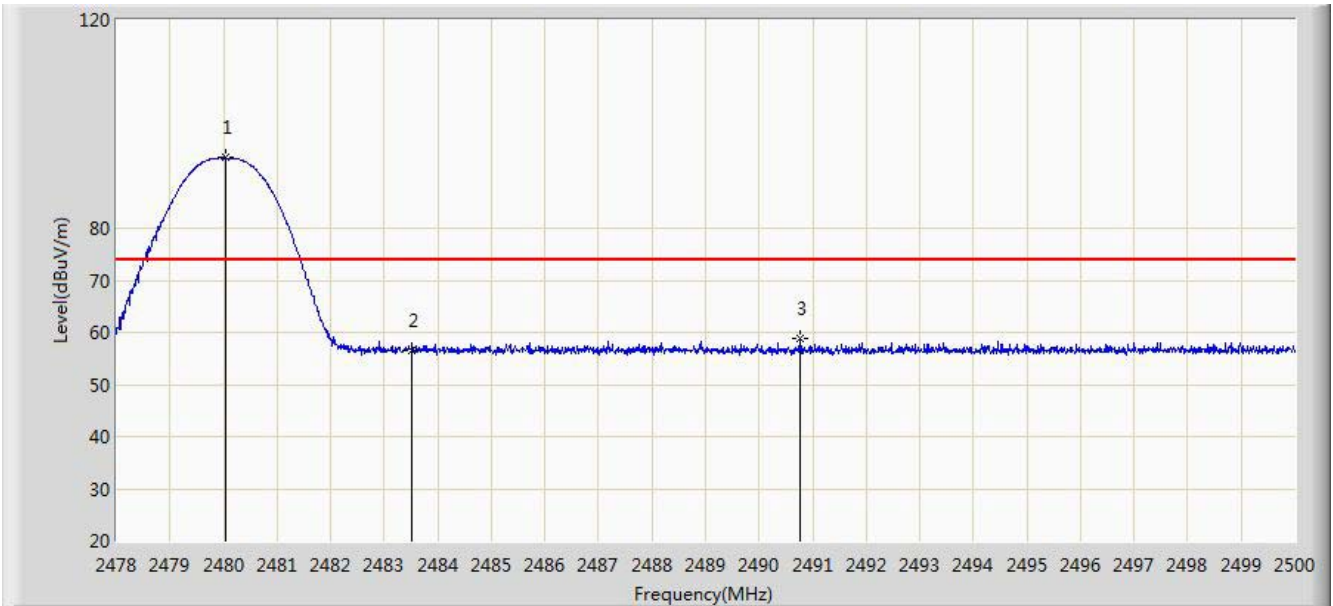| Site: AC1	Time: 2014/11/29 - 18:11
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: IP Multimedia Phone	Power: AC 120V/60Hz
Note: Mode 1: Transmit at channel 2480MHz by DH5	

No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.090	82.586	51.923	28.586	54.000	30.662	AV
2		2483.500	43.576	12.903	-10.424	54.000	30.673	AV

Note: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

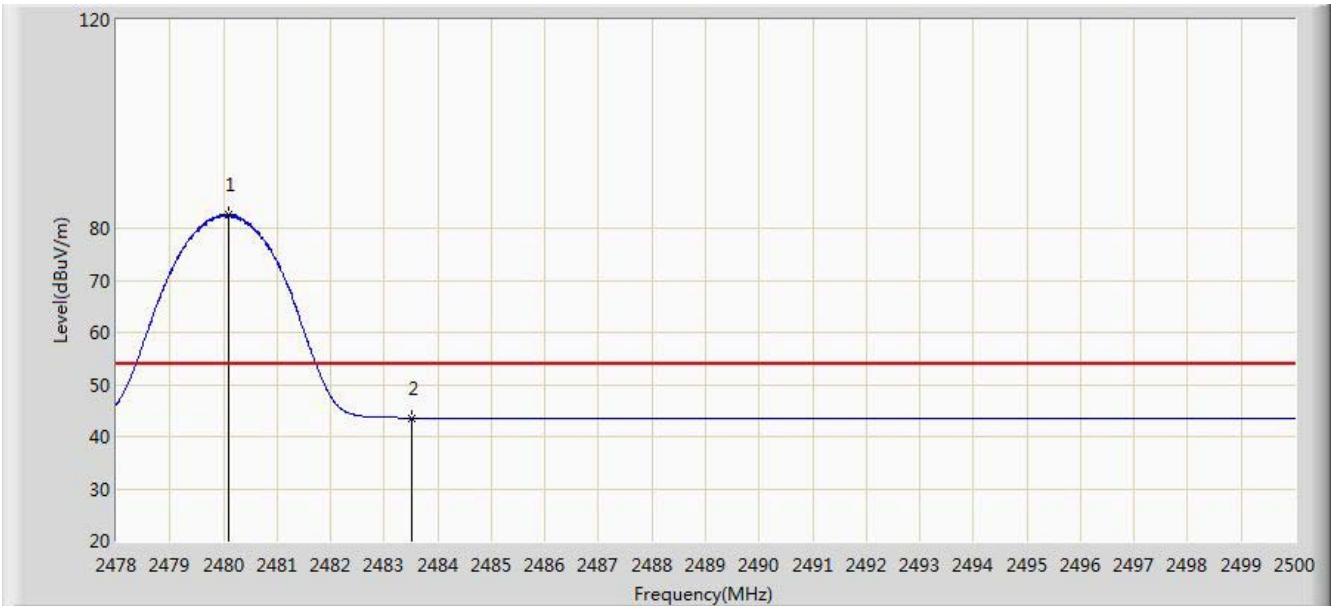| Site: AC1	Time: 2014/11/29 - 18:12
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: IP Multimedia Phone	Power: AC 120V/60Hz
Note: Mode 1: Transmit at channel 2480MHz by DH5	

No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2479.991	91.894	61.232	17.894	74.000	30.662	PK
2		2483.500	57.278	26.605	-16.722	74.000	30.673	PK
3		2493.510	59.003	28.301	-14.997	74.000	30.702	PK

Note: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

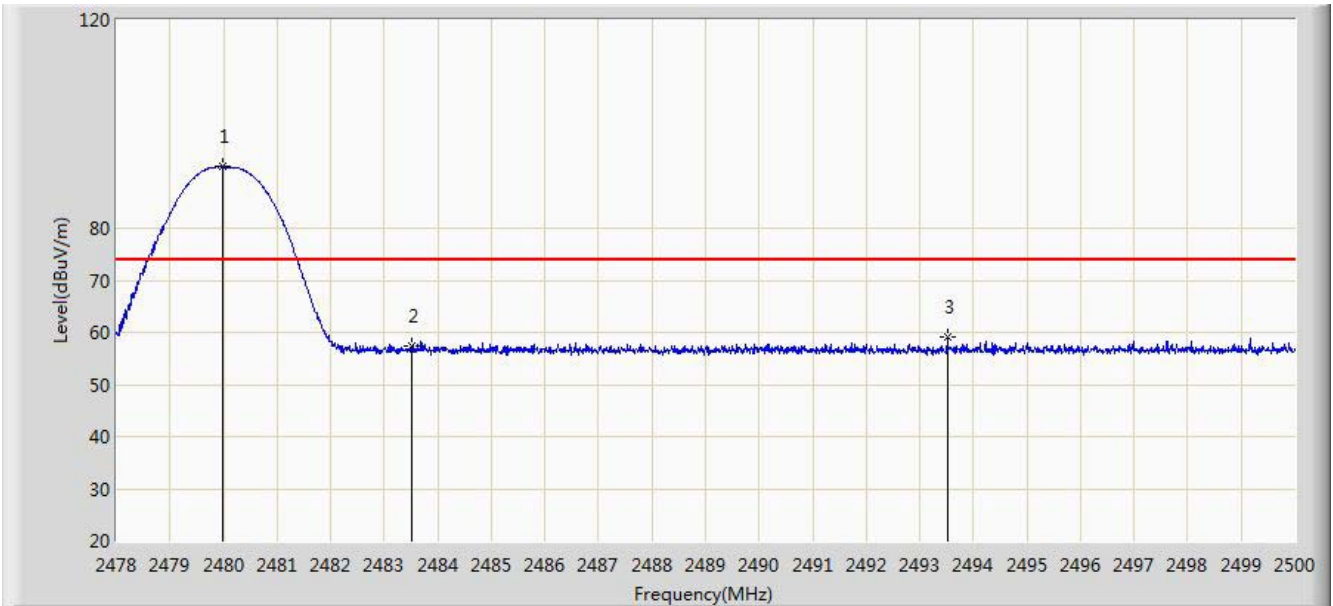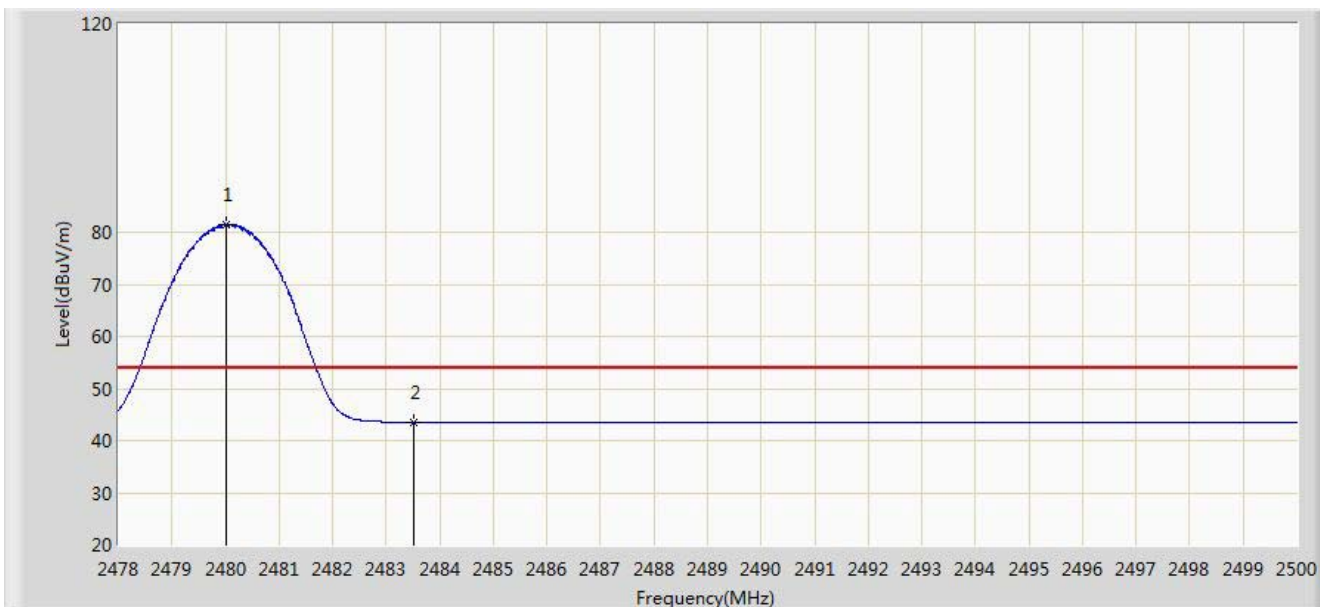| Site: AC1	Time: 2014/11/29 - 18:15
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: IP Multimedia Phone	Power: AC 120V/60Hz
Note: Mode 1: Transmit at channel 2480MHz by DH5	

No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.013	81.509	50.847	27.509	54.000	30.662	AV
2		2483.500	43.561	12.888	-10.439	54.000	30.673	AV

Note: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC1	Time: 2014/11/29 - 18:15
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: IP Multimedia Phone	Power: AC 120V/60Hz
Note: Mode 2: Transmit at channel 2402MHz by 2DH5	

No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2321.750	58.374	27.470	-15.626	74.000	30.904	PK
2		2390.000	56.334	25.650	-17.666	74.000	30.684	PK
3	*	2402.073	92.941	62.280	18.941	74.000	30.661	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

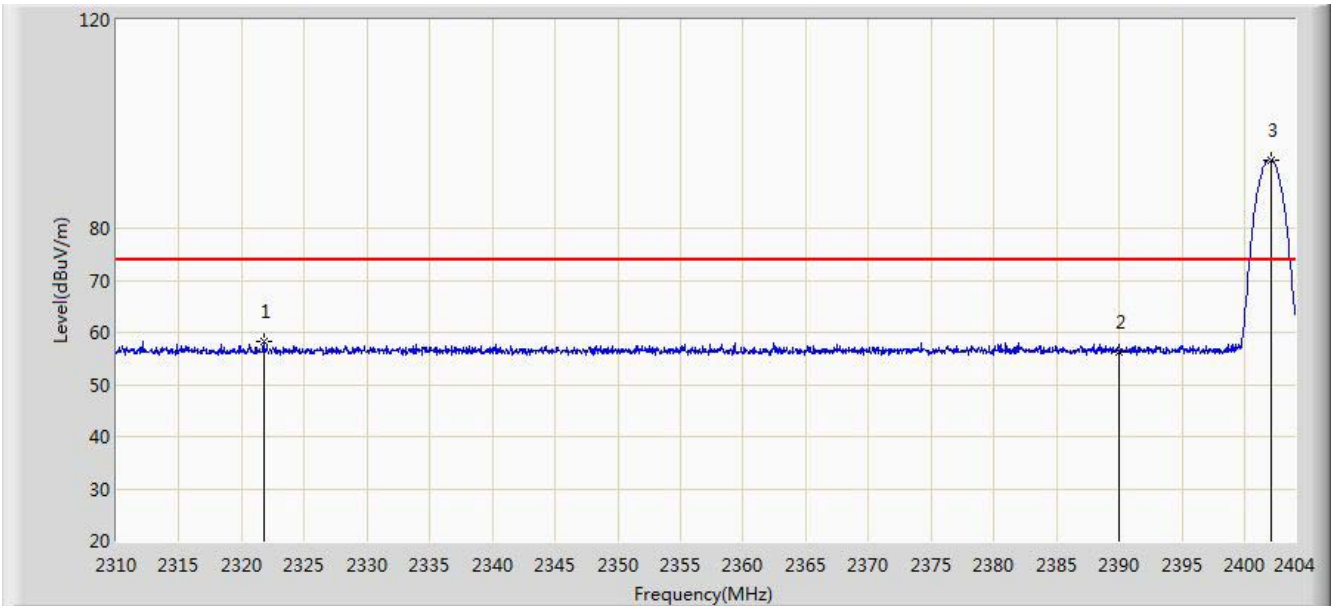| Site: AC1	Time: 2014/11/29 - 18:22
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: IP Multimedia Phone	Power: AC 120V/60Hz
Note: Mode 2: Transmit at channel 2402MHz by 2DH5	

No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	43.277	12.593	-10.723	54.000	30.684	AV
2	*	2401.885	79.547	48.886	25.547	54.000	30.661	AV

Note: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

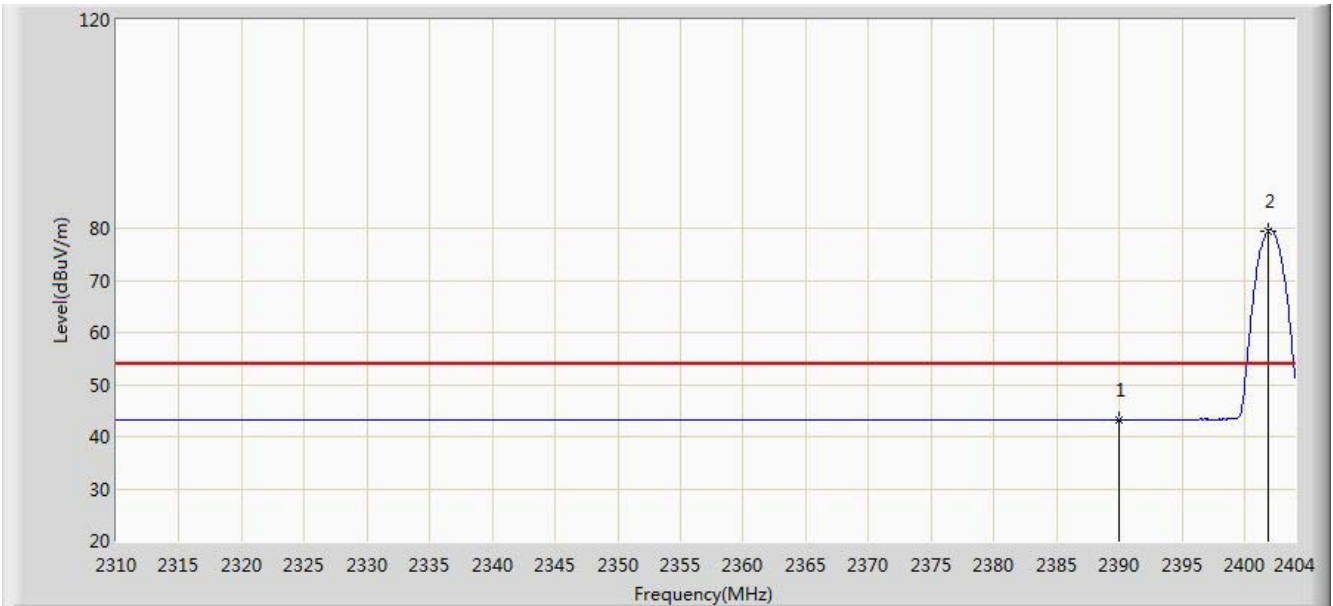| Site: AC1	Time: 2014/11/29 - 18:22
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: IP Multimedia Phone	Power: AC 120V/60Hz
Note: Mode 2: Transmit at channel 2402MHz by 2DH5	

No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	56.597	25.913	-17.403	74.000	30.684	PK
2	*	2402.120	92.858	62.197	18.858	74.000	30.661	PK

Note: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

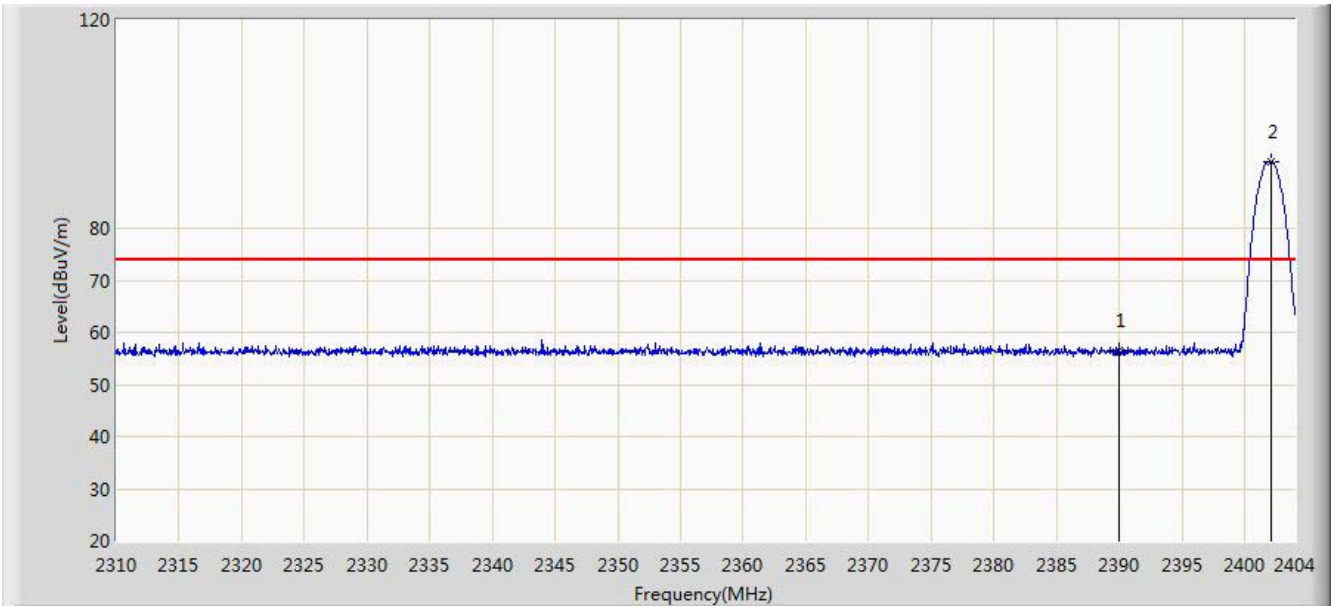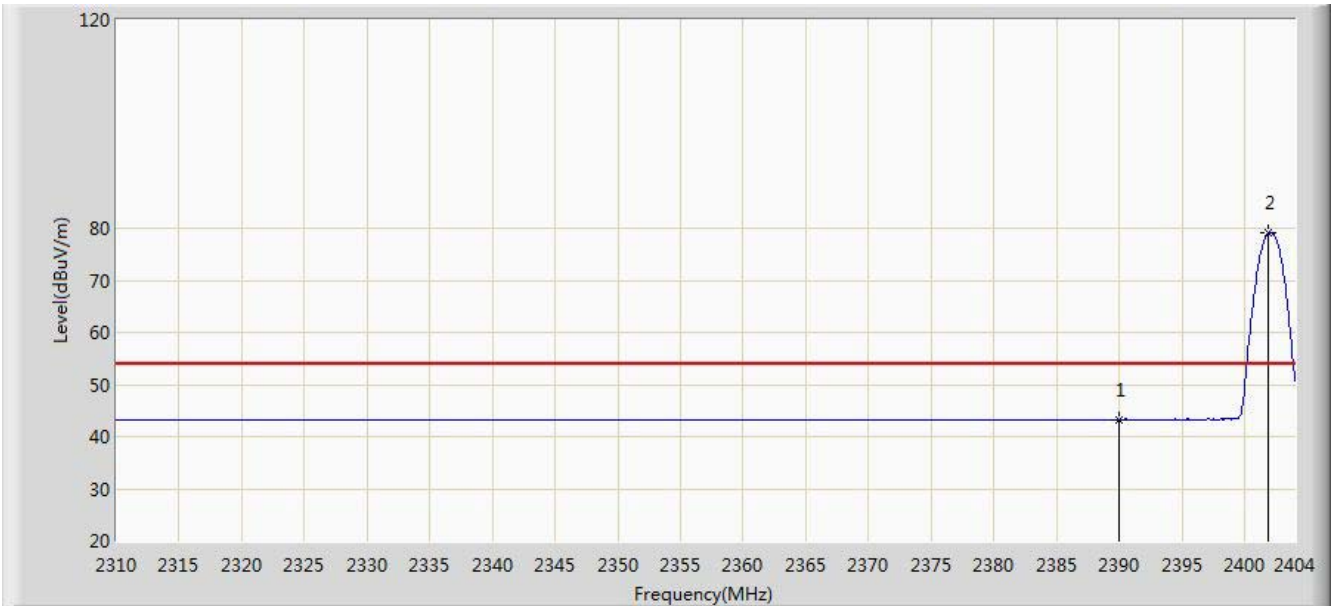| Site: AC1	Time: 2014/11/29 - 18:25
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: IP Multimedia Phone	Power: AC 120V/60Hz
Note: Mode 2: Transmit at channel 2402MHz by 2DH5	

No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	43.242	12.558	-10.758	54.000	30.684	AV
2	*	2401.932	79.211	48.550	25.211	54.000	30.662	AV

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC1	Time: 2014/11/29 - 18:26
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: IP Multimedia Phone	Power: AC 120V/60Hz
Note: Mode 2: Transmit at channel 2480MHz by 2DH5	

No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.211	91.697	61.034	17.697	74.000	30.663	PK
2		2483.500	56.491	25.818	-17.509	74.000	30.673	PK

Note: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

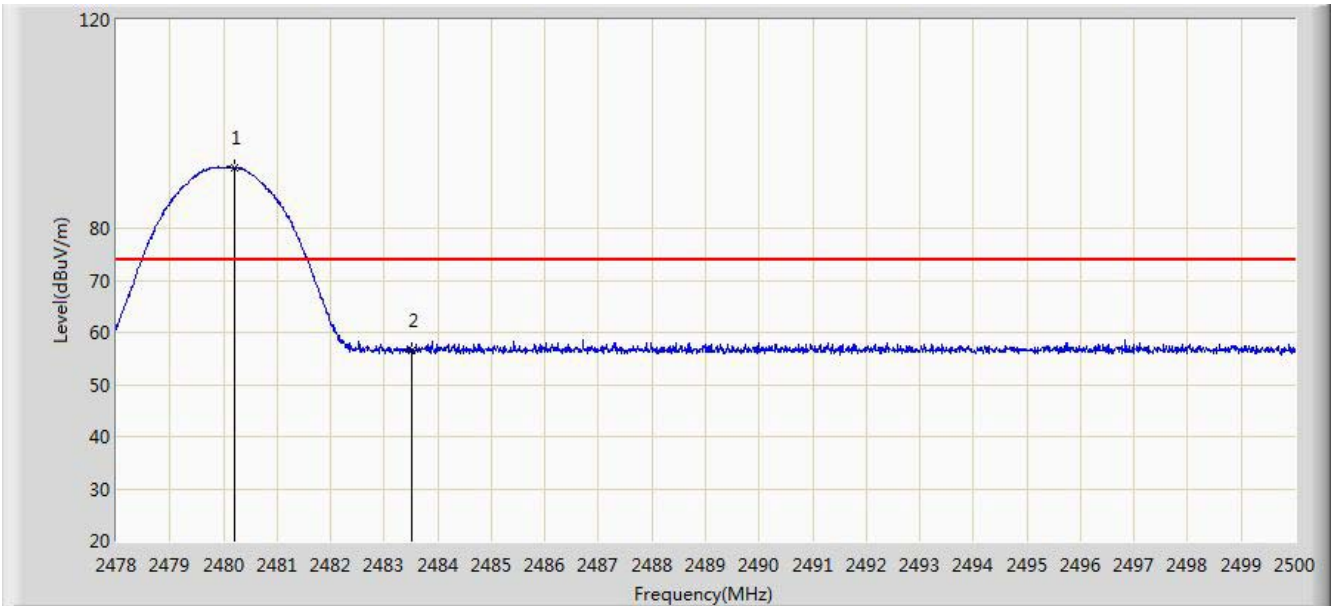| Site: AC1	Time: 2014/11/29 - 18:30
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: IP Multimedia Phone	Power: AC 120V/60Hz
Note: Mode 2: Transmit at channel 2480MHz by 2DH5	

No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.090	79.049	48.386	25.049	54.000	30.662	AV
2		2483.500	43.560	12.887	-10.440	54.000	30.673	AV

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

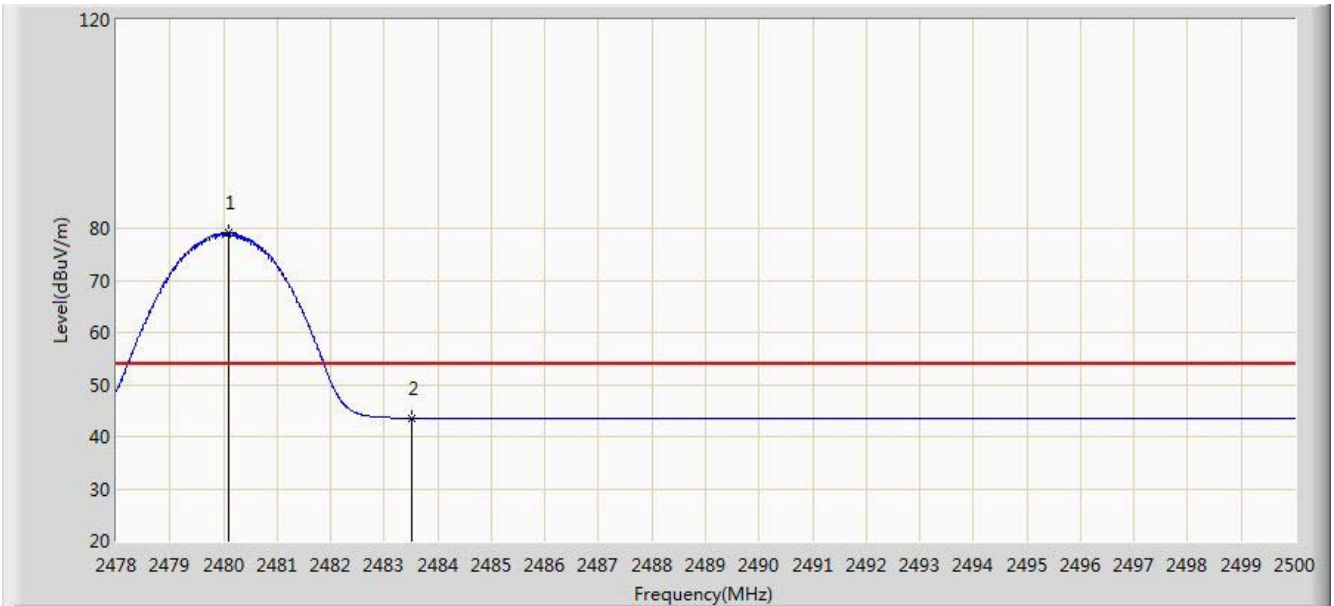| Site: AC1	Time: 2014/11/29 - 18:30
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: IP Multimedia Phone	Power: AC 120V/60Hz
Note: Mode 2: Transmit at channel 2480MHz by 2DH5	

No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.167	91.613	60.950	17.613	74.000	30.663	PK
2		2483.500	56.799	26.126	-17.201	74.000	30.673	PK
3		2484.083	58.516	27.842	-15.484	74.000	30.675	PK

Note: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

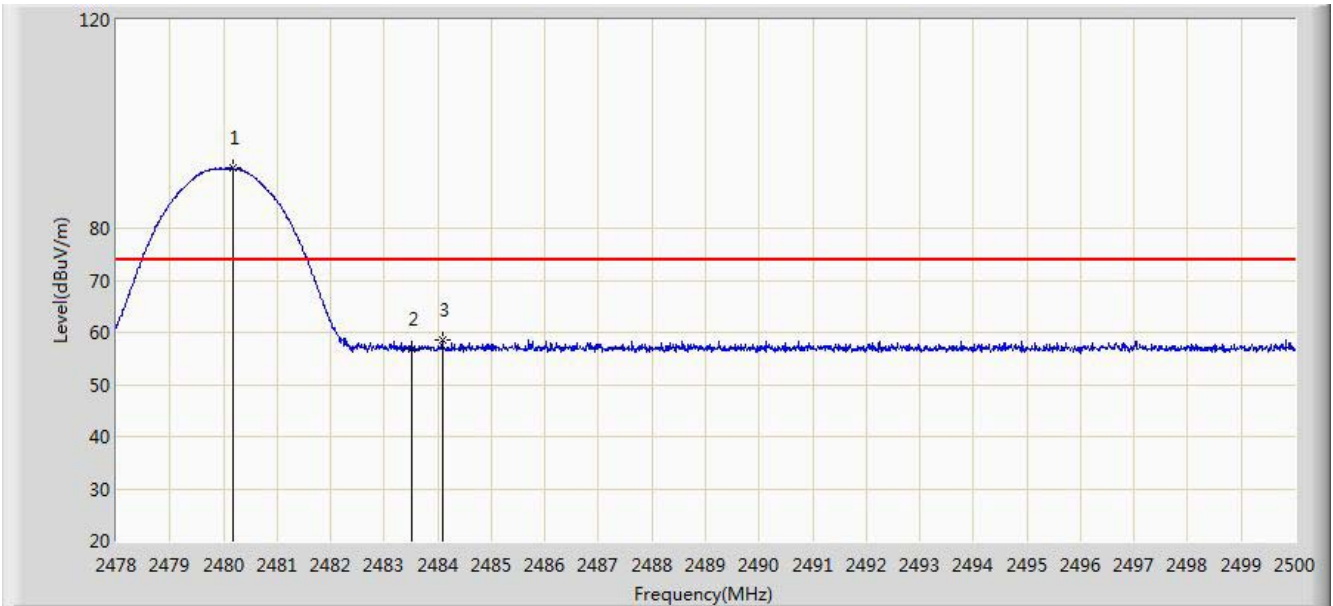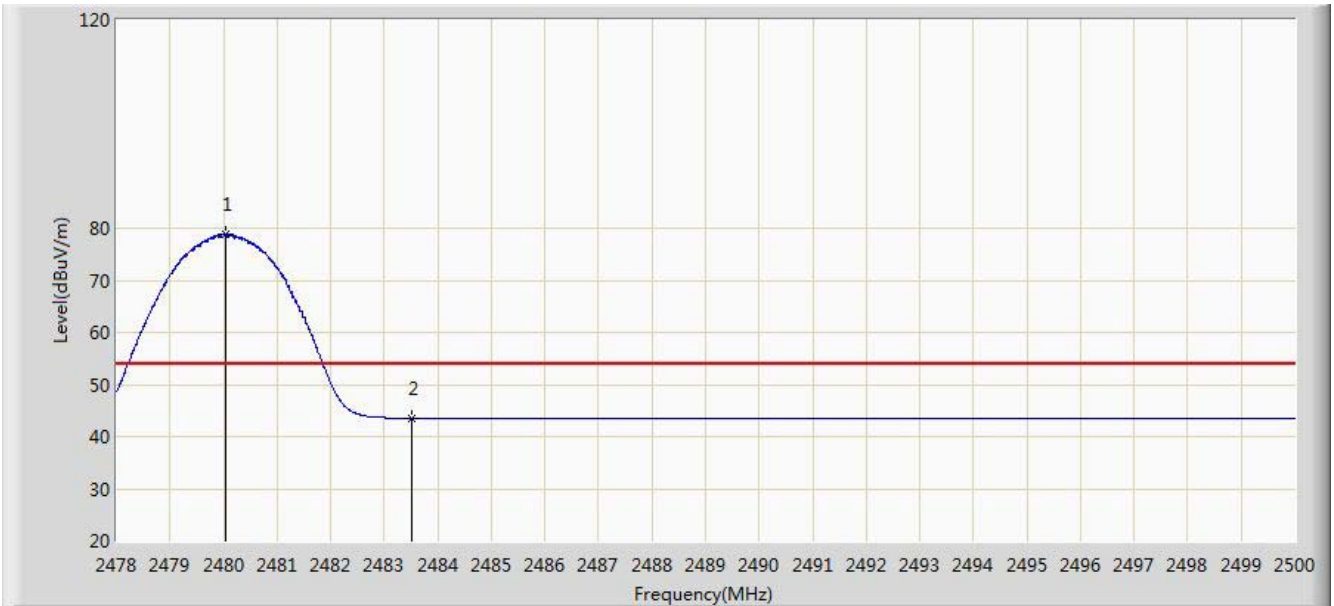| Site: AC1	Time: 2014/11/29 - 18:37
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: IP Multimedia Phone	Power: AC 120V/60Hz
Note: Mode 2: Transmit at channel 2480MHz by 2DH5	

No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.046	78.822	48.159	24.822	54.000	30.662	AV
2		2483.500	43.563	12.890	-10.437	54.000	30.673	AV

Note: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC1	Time: 2014/11/29 - 18:38
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: IP Multimedia Phone	Power: AC 120V/60Hz
Note: Mode 3: Transmit at channel 2402MHz by 3DH5	

No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2330.774	58.750	27.886	-15.250	74.000	30.864	PK
2		2390.000	56.639	25.955	-17.361	74.000	30.684	PK
3	*	2402.026	93.138	62.477	19.138	74.000	30.662	PK

Note: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

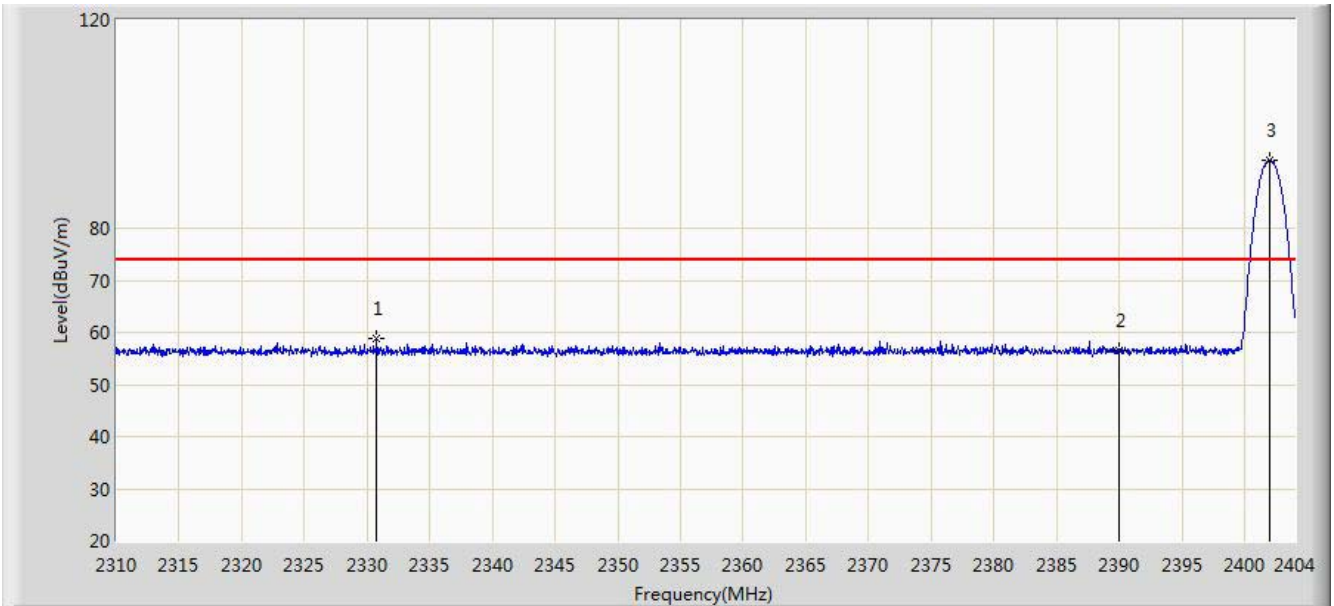| Site: AC1	Time: 2014/11/29 - 18:42
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: IP Multimedia Phone	Power: AC 120V/60Hz
Note: Mode 3: Transmit at channel 2402MHz by 3DH5	

No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	43.284	12.600	-10.716	54.000	30.684	AV
2	*	2401.932	79.240	48.579	25.240	54.000	30.662	AV

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

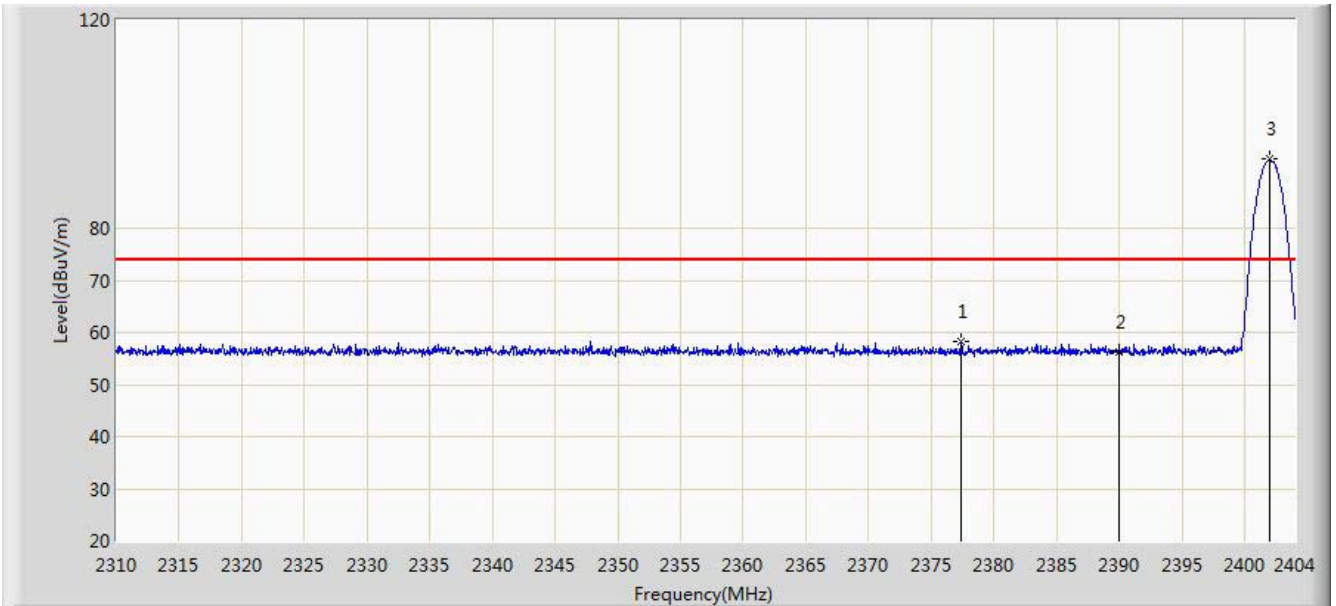| Site: AC1	Time: 2014/11/29 - 18:43
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: IP Multimedia Phone	Power: AC 120V/60Hz
Note: Mode 3: Transmit at channel 2402MHz by 3DH5	

No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2377.398	58.143	27.430	-15.857	74.000	30.713	PK
2		2390.000	56.302	25.618	-17.698	74.000	30.684	PK
3	*	2401.979	93.196	62.535	19.196	74.000	30.662	PK

Note: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

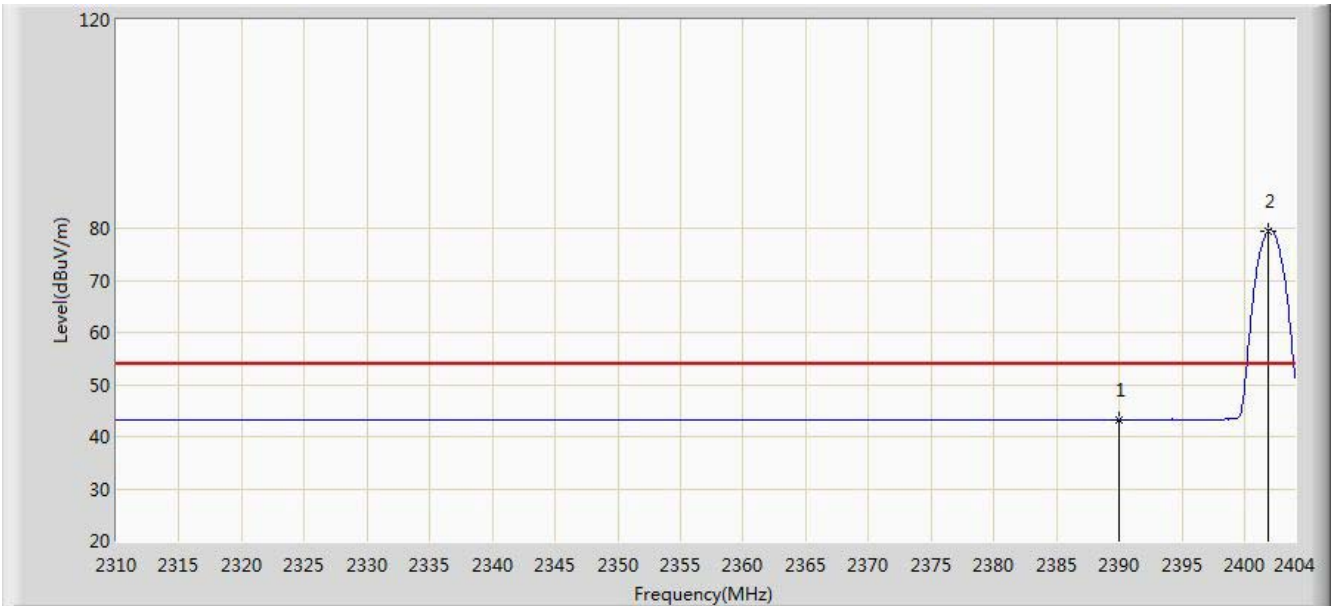| Site: AC1	Time: 2014/11/29 - 18:46
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: IP Multimedia Phone	Power: AC 120V/60Hz
Note: Mode 3: Transmit at channel 2402MHz by 3DH5	

No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	43.256	12.572	-10.744	54.000	30.684	AV
2	*	2401.885	79.522	48.861	25.522	54.000	30.661	AV

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

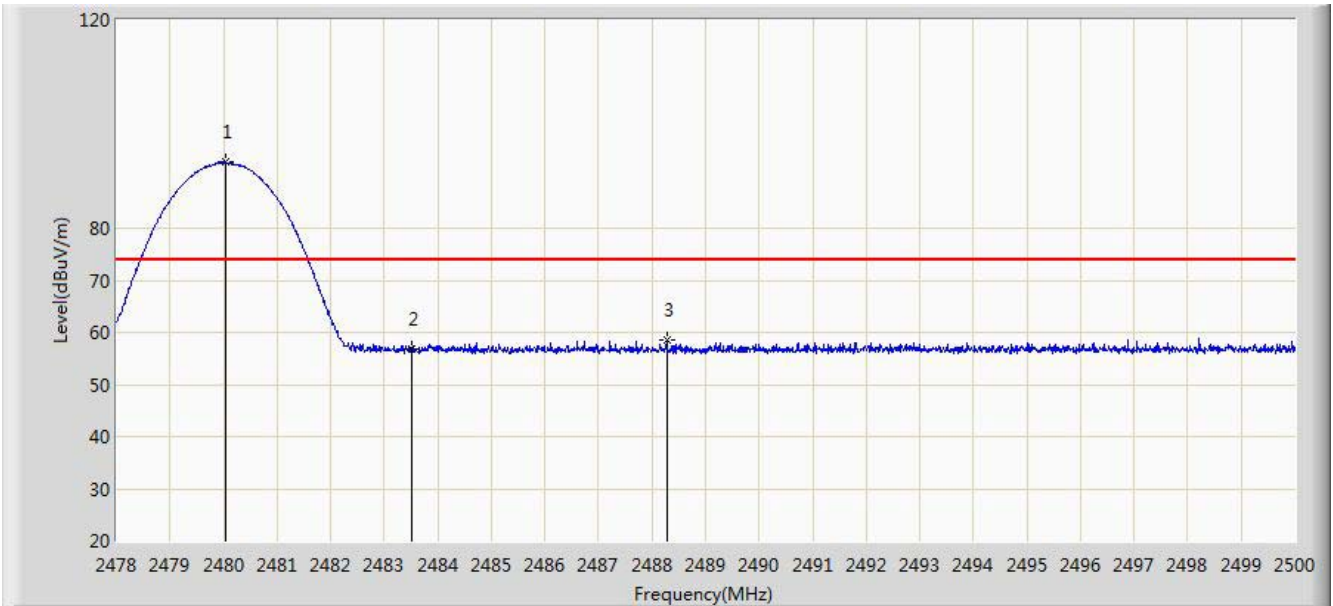| Site: AC1	Time: 2014/11/29 - 18:47
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: IP Multimedia Phone	Power: AC 120V/60Hz
Note: Mode 3: Transmit at channel 2480MHz by 3DH5	

No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.046	92.639	61.976	18.639	74.000	30.662	PK
2		2483.500	56.775	26.102	-17.225	74.000	30.673	PK
3		2488.274	58.435	27.748	-15.565	74.000	30.686	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

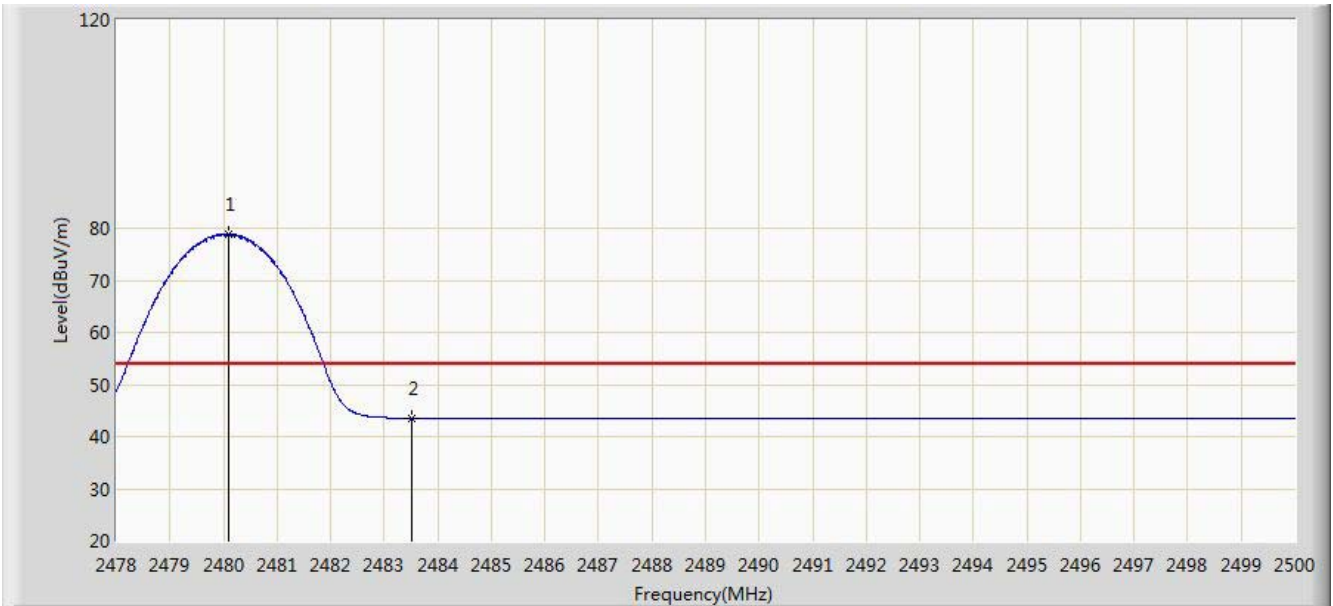| Site: AC1	Time: 2014/11/29 - 18:51
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: IP Multimedia Phone	Power: AC 120V/60Hz
Note: Mode 3: Transmit at channel 2480MHz by 3DH5	

No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.090	78.952	48.289	24.952	54.000	30.662	AV
2		2483.500	43.572	12.899	-10.428	54.000	30.673	AV

Note: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

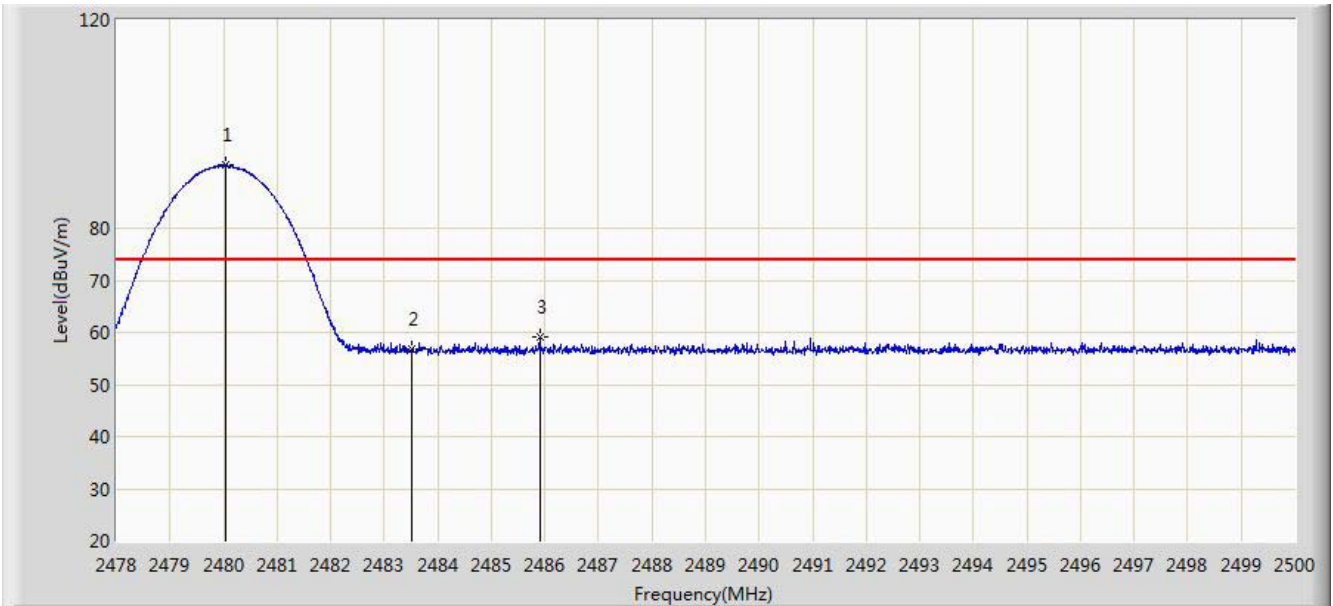| Site: AC1	Time: 2014/11/29 - 18:52
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: IP Multimedia Phone	Power: AC 120V/60Hz
Note: Mode 3: Transmit at channel 2480MHz by 3DH5	

No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.046	92.032	61.369	18.032	74.000	30.662	PK
2		2483.500	56.920	26.247	-17.080	74.000	30.673	PK
3		2485.909	59.109	28.429	-14.891	74.000	30.680	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

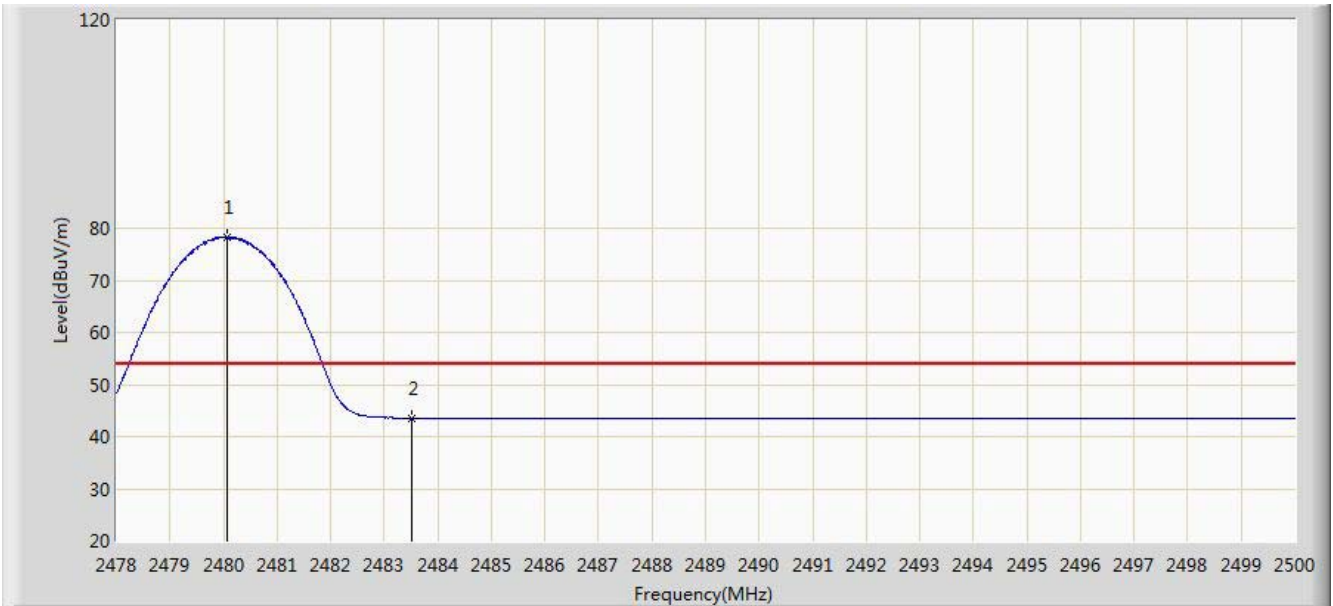| Site: AC1	Time: 2014/11/29 - 18:55
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: IP Multimedia Phone	Power: AC 120V/60Hz
Note: Mode 3: Transmit at channel 2480MHz by 3DH5	

No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.079	78.377	47.714	24.377	54.000	30.662	AV
2		2483.500	43.591	12.918	-10.409	54.000	30.673	AV

Note: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

7.11. AC Conducted Emissions Measurement

7.11.1. Test Limit

FCC Part 15 Subpart C Paragraph 15.207 Limits		
Frequency (MHz)	QP (dBµV)	Average (dBµV)
0.15 - 0.50	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30	60	50

Note 1: The lower limit shall apply at the transition frequencies.

Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to

0.5MHz.

7.11.2. Test Setup
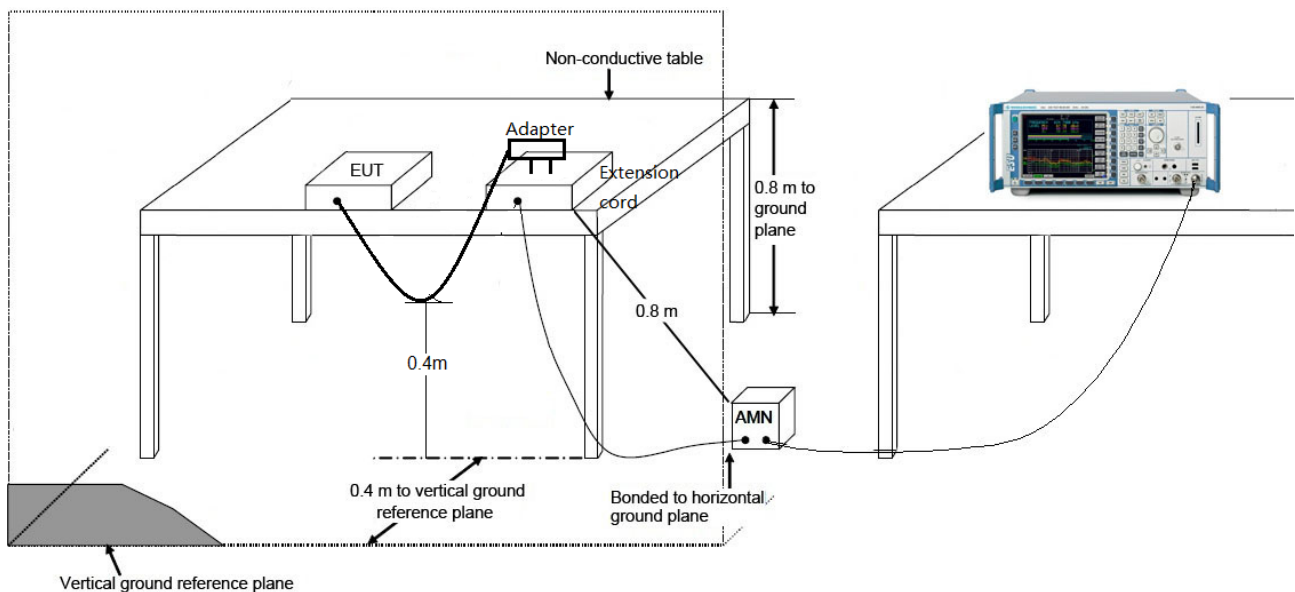
7.11.3. Test Result

Site: SR2	Time: 2014/12/01 - 18:53
Limit: FCC_Part15.207_CE_AC Power	Engineer: Milo Li
Probe: ENV216_101683_Filter On	Polarity: Line
EUT: IP Multimedia Phone	Power: AC 120V/60Hz
Note: Mode1	
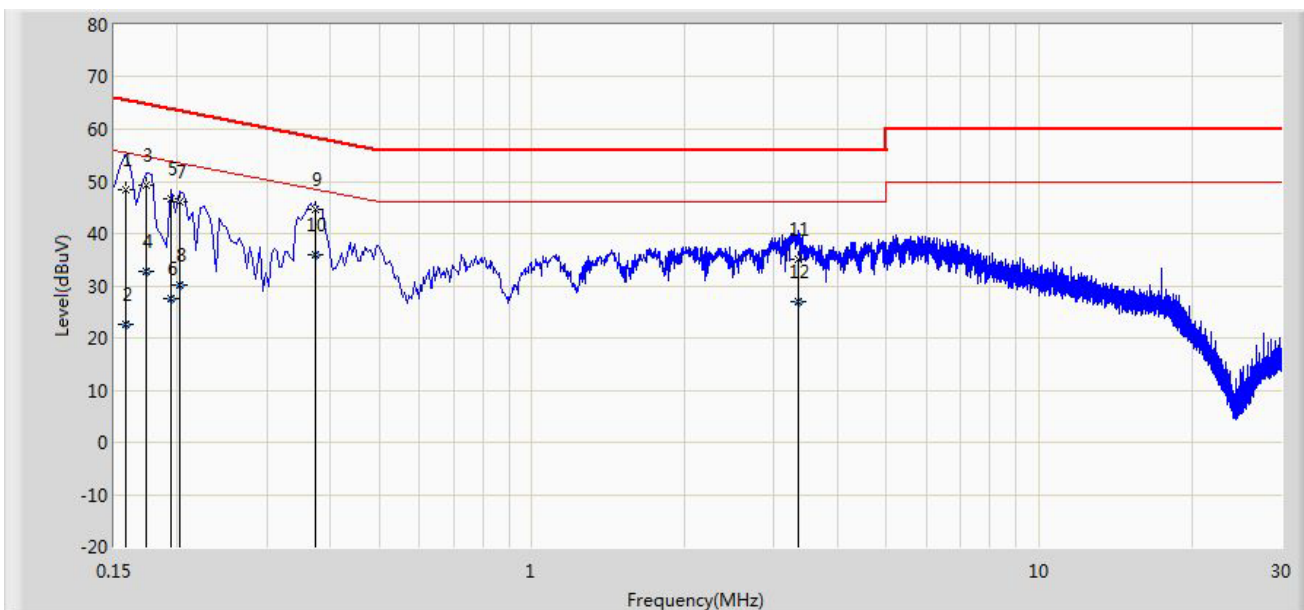
No	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Factor (dB)	Type
1		0.158	48.387	38.076	-17.181	65.568	10.311	QP
2		0.158	22.580	12.269	-32.989	55.568	10.311	AV
3		0.174	49.362	39.294	-15.405	64.767	10.068	QP
4		0.174	32.856	22.789	-21.911	54.767	10.068	AV
5		0.194	46.594	36.577	-17.269	63.864	10.017	QP
6		0.194	27.588	17.571	-26.276	53.864	10.017	AV
7		0.202	45.994	36.001	-17.534	63.528	9.993	QP
8		0.202	30.187	20.194	-23.341	53.528	9.993	AV
9		0.374	44.668	34.604	-13.744	58.412	10.064	QP
10	*	0.374	35.962	25.898	-12.449	48.412	10.064	AV
11		3.358	35.204	25.307	-20.796	56.000	9.897	QP
12		3.358	27.015	17.119	-18.985	46.000	9.897	AV

Note: Measure Level (dBµV) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + LISN Factor (dB)

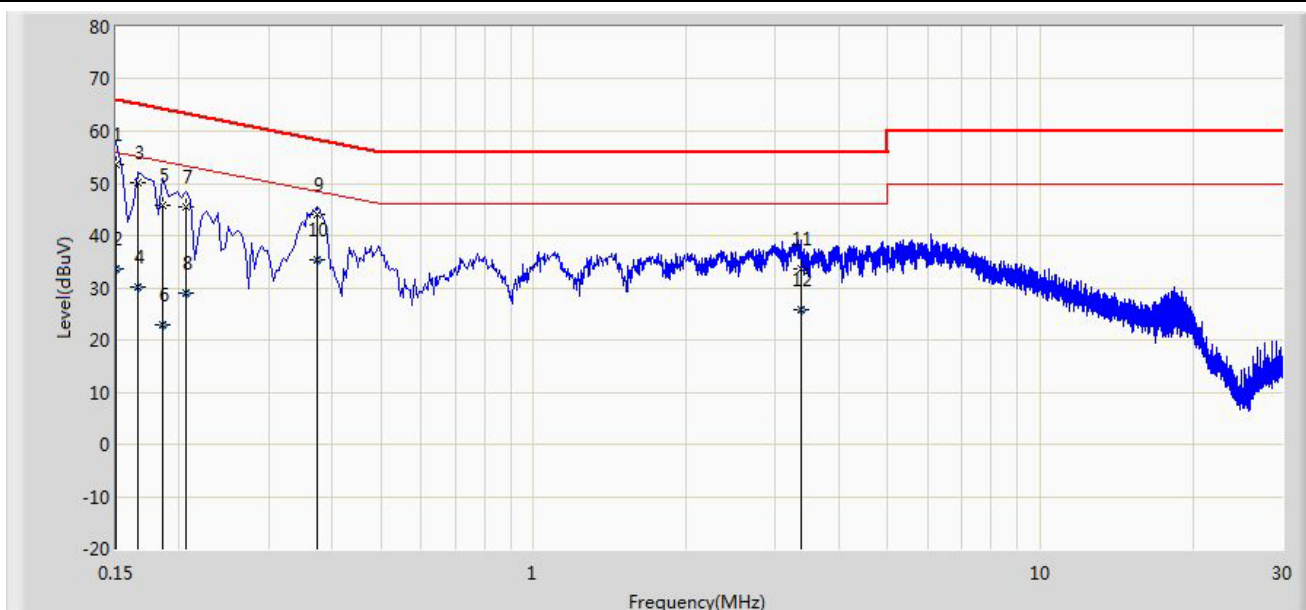| Site: SR2 | Time: 2014/12/01 - 18:57 |
Limit: FCC_Part15.207_CE_AC Power	Engineer: Milo Li
Probe: ENV216_101683_Filter On	Polarity: Neutral
EUT: IP Multimedia Phone	Power: AC 120V/60Hz
Note: Mode1	

No	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Factor (dB)	Type
1	*	0.150	53.571	42.429	-12.429	66.000	11.142	QP
2		0.150	33.563	22.421	-22.437	56.000	11.142	AV
3		0.166	50.043	39.971	-15.116	65.158	10.071	QP
4		0.166	30.007	19.936	-25.151	55.158	10.071	AV
5		0.186	45.819	35.784	-18.395	64.213	10.035	QP
6		0.186	22.782	12.747	-31.431	54.213	10.035	AV
7		0.206	45.627	35.626	-17.738	63.365	10.001	QP
8		0.206	29.035	19.033	-24.331	53.365	10.001	AV
9		0.374	44.106	34.013	-14.305	58.412	10.093	QP
10		0.374	35.430	25.337	-12.981	48.412	10.093	AV
11		3.362	33.768	23.866	-22.232	56.000	9.902	QP
12		3.362	25.905	16.003	-20.095	46.000	9.902	AV

Note: Measure Level (dBµV) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + LISN Factor (dB)

8. CONCLUSION

The data collected relate only the item(s) tested and show that the **IP Multimedia Phone FCC ID:**

YZZGXV3240D is in compliance with Part 15C of the FCC Rules.

—————————————— The End ——————————————