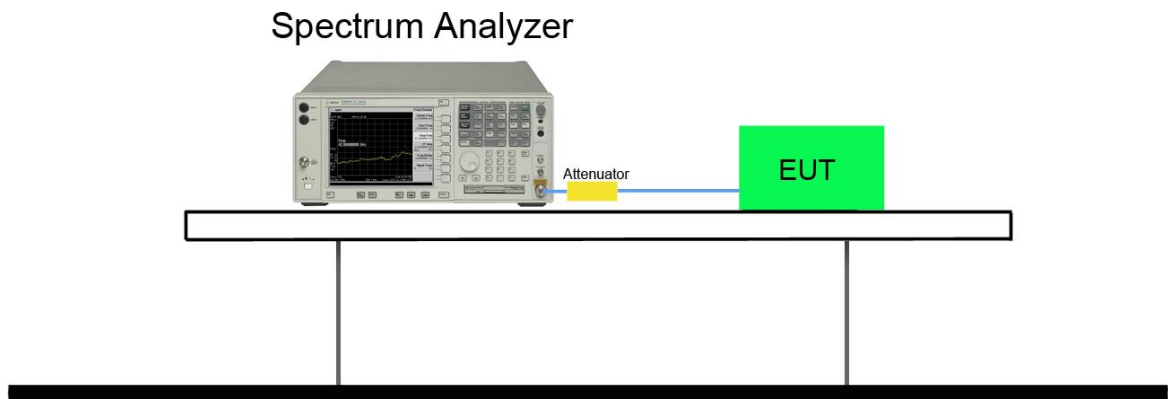


7.7.4. Test Setup

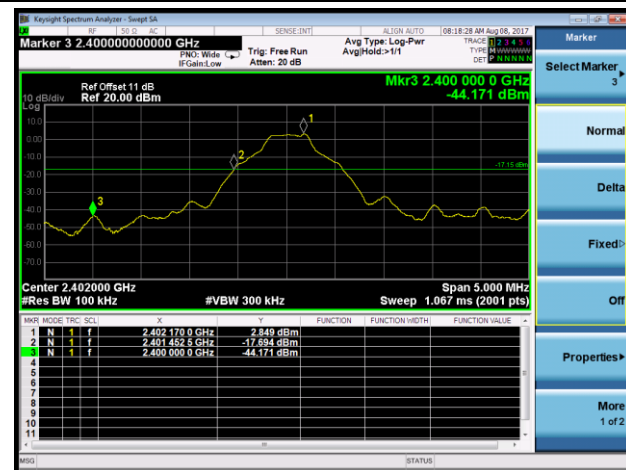


7.7.5. Test Result

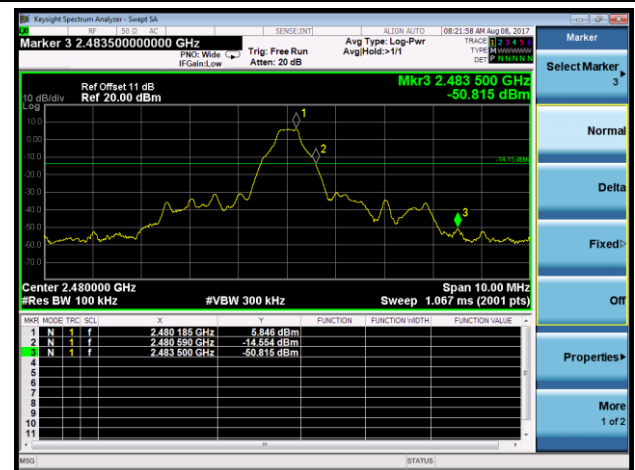
Test Mode	Channel No.	Frequency (MHz)	Limit	Result
DH5	00	2402	20dBc	Pass
DH5	78	2480	20dBc	Pass
2DH5	00	2402	20dBc	Pass
2DH5	78	2480	20dBc	Pass
3DH5	00	2402	20dBc	Pass
3DH5	78	2480	20dBc	Pass

DH5 Band-edge Compliance

Channel 00 (2402MHz)

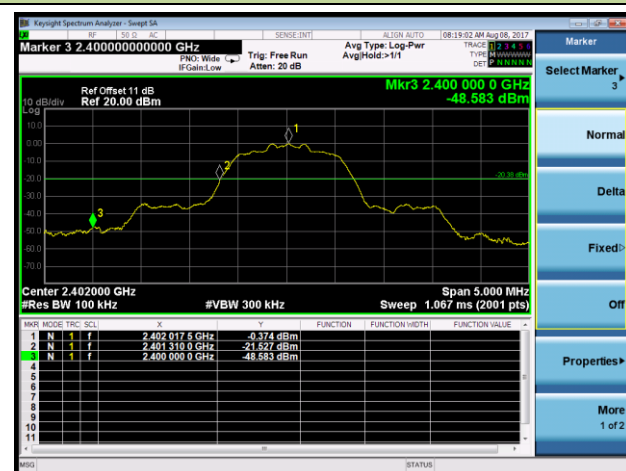


Channel 78 (2480MHz)

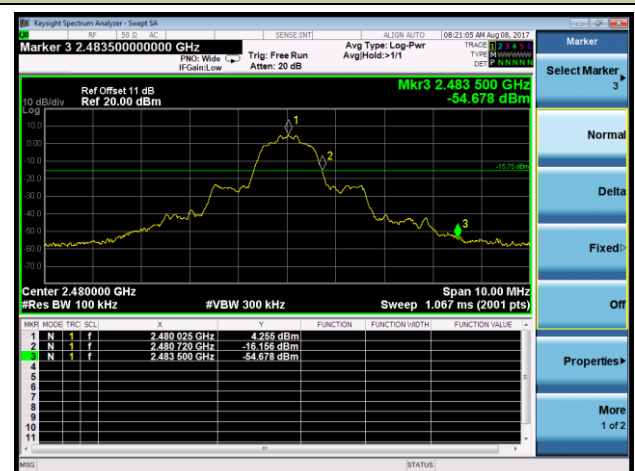


2DH5 Band-edge Compliance

Channel 00 (2402MHz)



Channel 78 (2480MHz)



3DH5 Band-edge Compliance

Channel 00 (2402MHz)

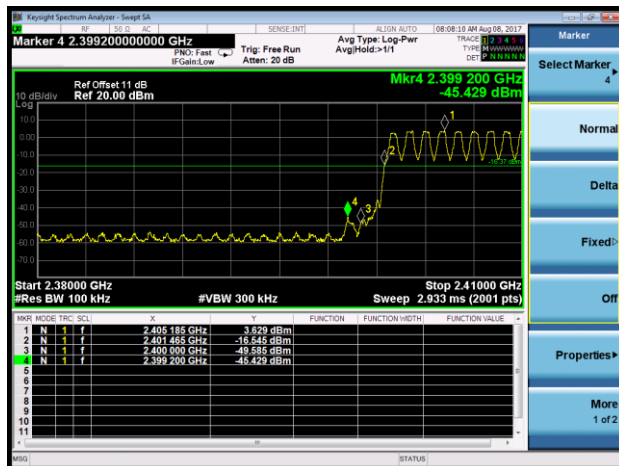


Channel 78 (2480MHz)

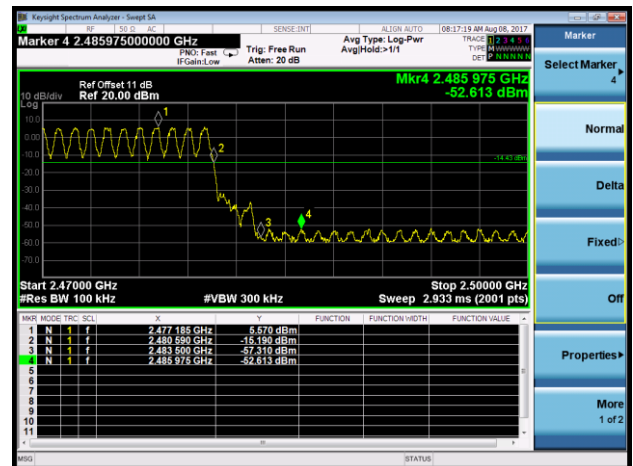


DH5 Operation Frequency Range of 20dB Bandwidth within Hopping Mode

Channel 00 (2402MHz)

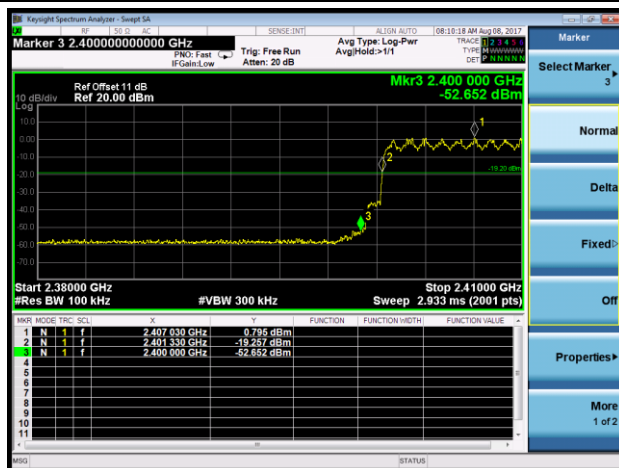


Channel 78 (2480MHz)

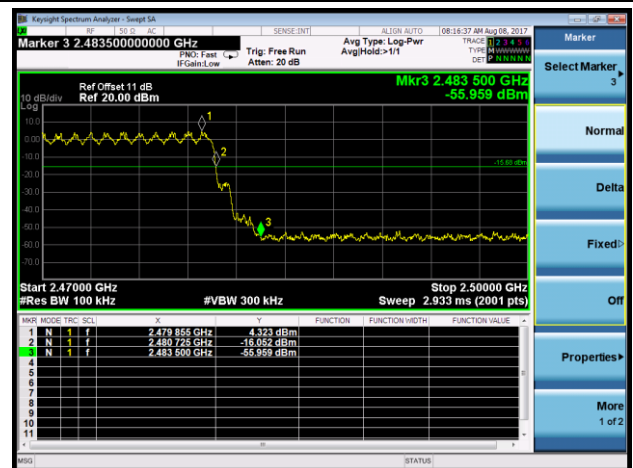


2DH5 Operation Frequency Range of 20dB Bandwidth within Hopping Mode

Channel 00 (2402MHz)

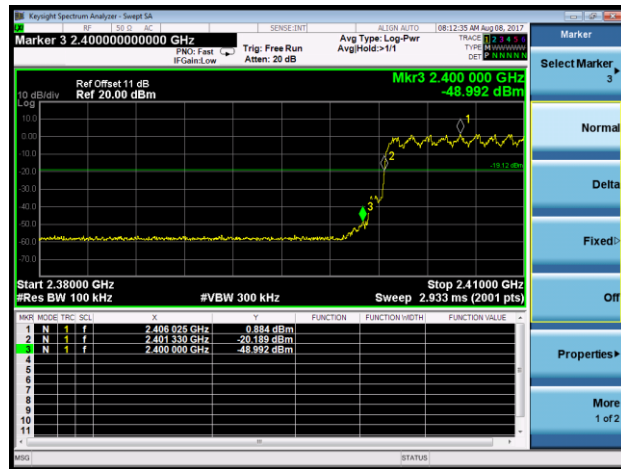


Channel 78 (2480MHz)

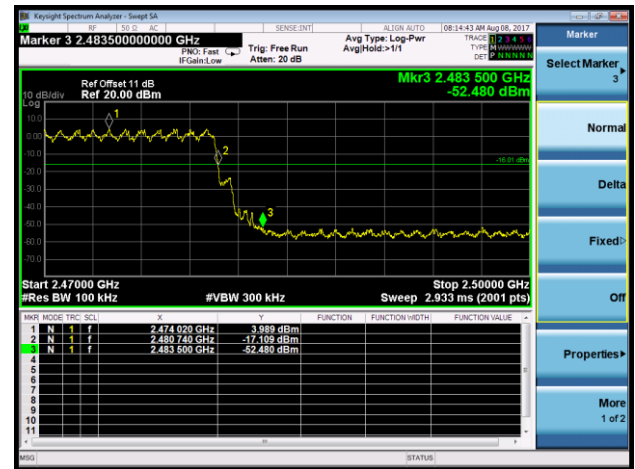


DH5 Operation Frequency Range of 20dB Bandwidth within Hopping Mode

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.

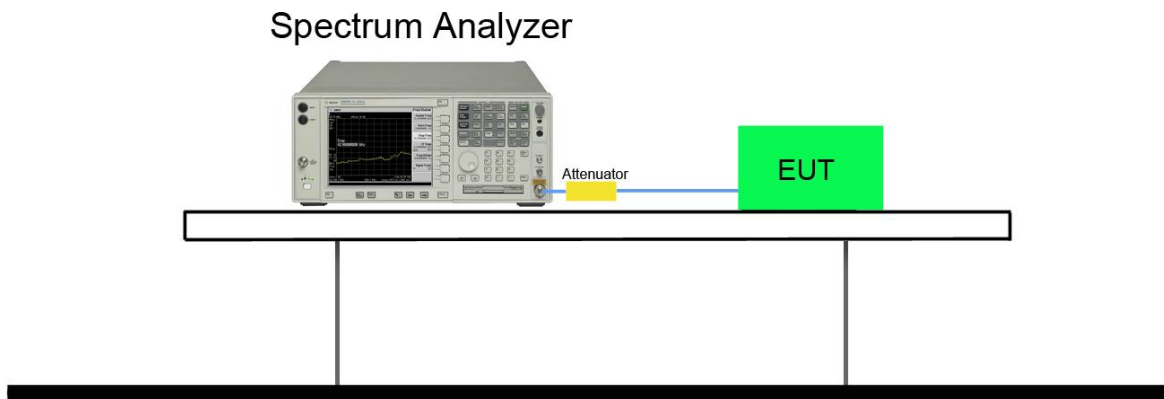
7.8.2. Test Procedure Used

ANSI C63.10-2013 - Section 7.8.8

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 $\geq$ RBW
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize
8. 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

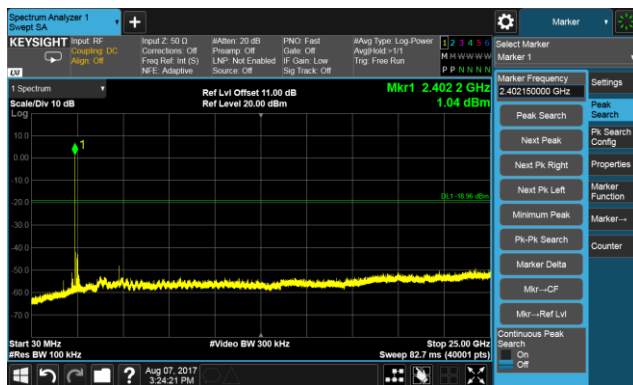


7.8.5. Test Result

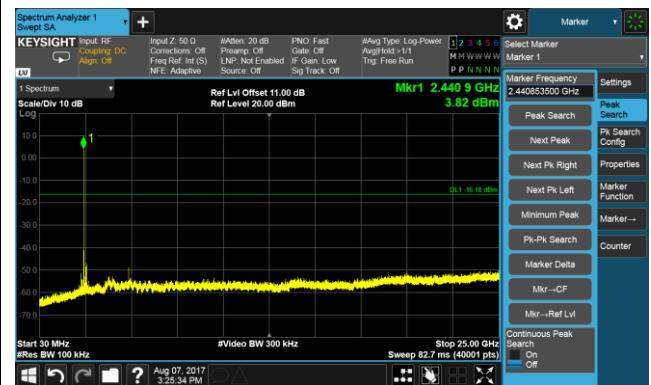
Test Mode	Channel No.	Frequency (MHz)	Limit (MHz)	Result
DH5	00	2402	20dBc	Pass
DH5	39	2441	20dBc	Pass
DH5	78	2480	20dBc	Pass
2DH5	00	2402	20dBc	Pass
2DH5	39	2441	20dBc	Pass
2DH5	78	2480	20dBc	Pass
3DH5	00	2402	20dBc	Pass
3DH5	39	2441	20dBc	Pass
3DH5	78	2480	20dBc	Pass

DH5 Conducted Spurious Emissions

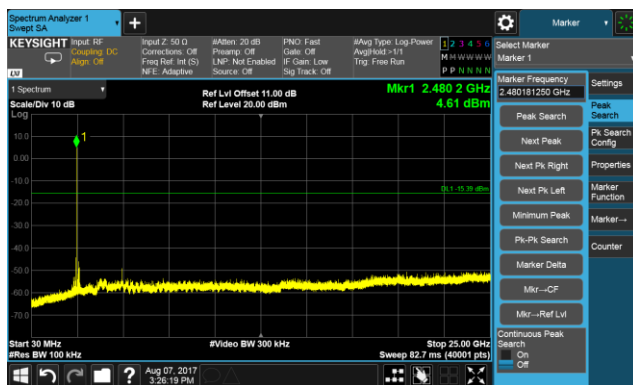
Channel 00 (2402MHz)



Channel 39 (2441MHz)

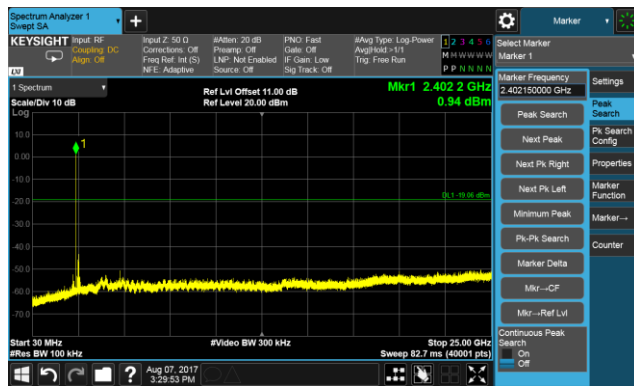


Channel 78 (2480MHz)

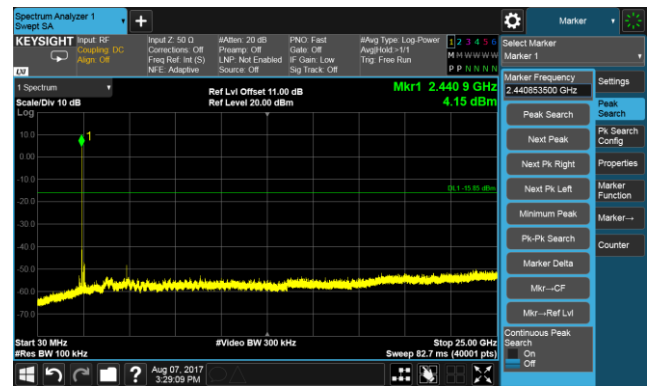


2DH5 Conducted Spurious Emissions

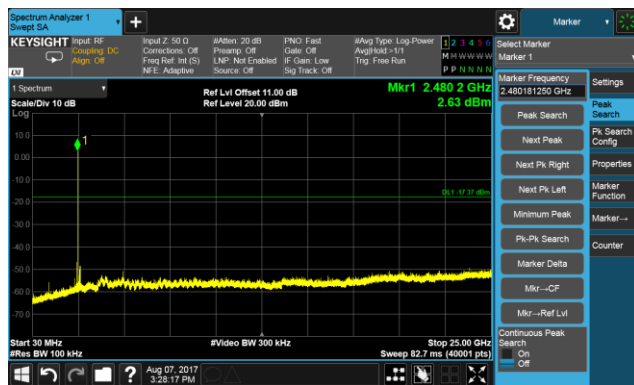
Channel 00 (2402MHz)



Channel 39 (2441MHz)

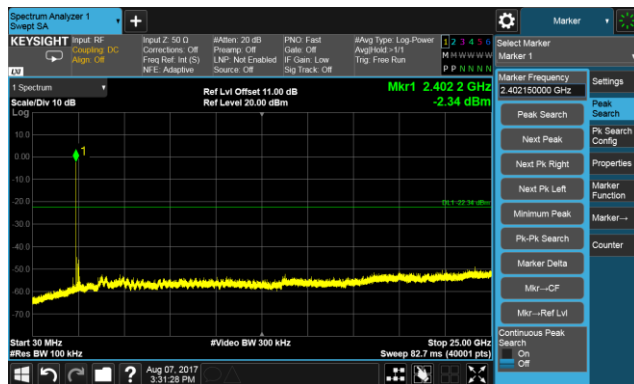


Channel 78 (2480MHz)

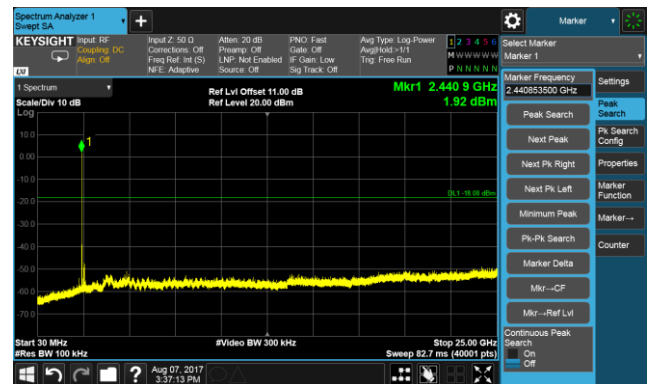


3DH5 Conducted Spurious Emissions

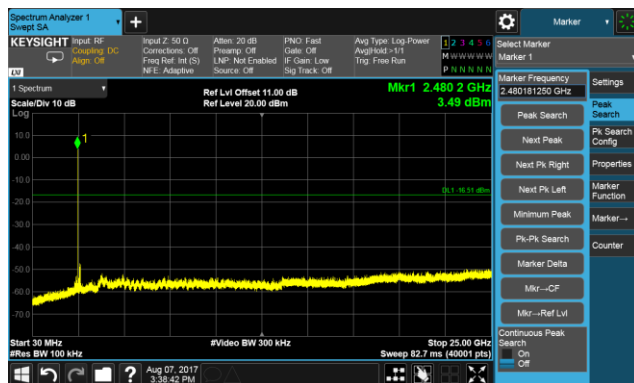
Channel 00 (2402MHz)



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 [uV/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 C63.10-2013 - Section 11.12.1

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

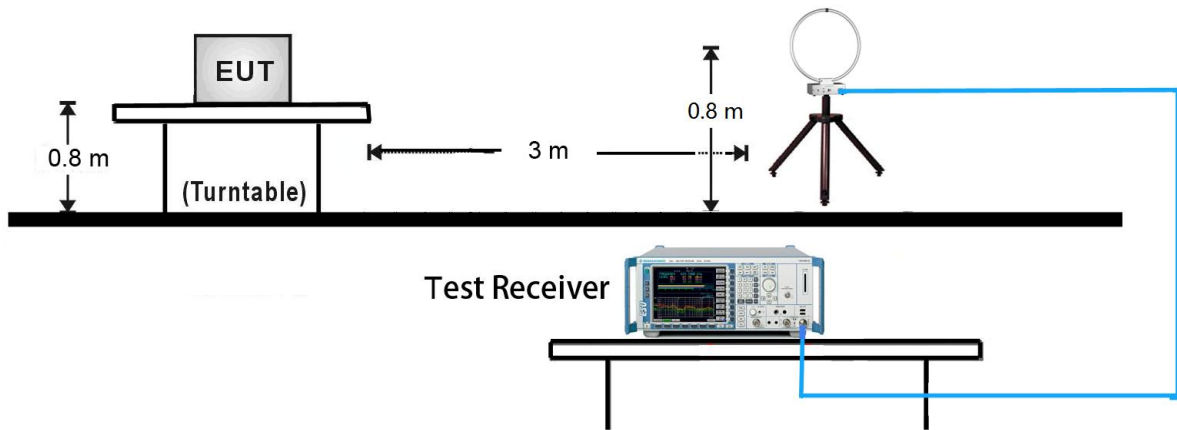
Frequency	RBW
9 ~ 150 kHz	200 ~ 300 Hz
0.15 ~ 30 MHz	9 ~ 10 kHz
30 ~ 1000 MHz	100 ~ 120 kHz
> 1000 MHz	1 MHz

Average Field Strength Measurements

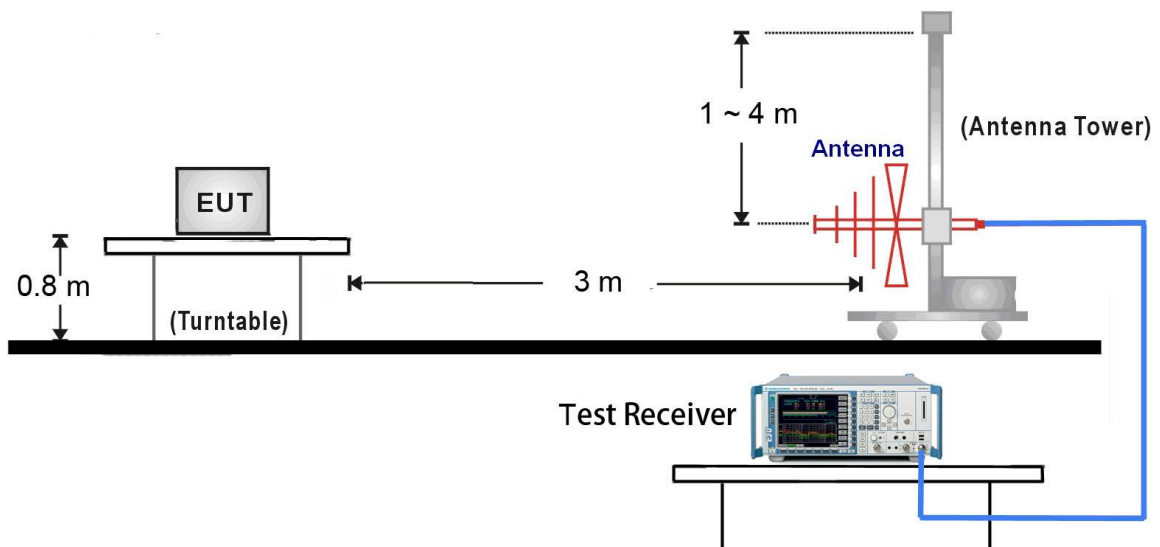
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW $\geq 1/T$
4. De As an alternative, the instrument may be set to linear detector mode. Ensure that video filtering is applied in linear voltage domain (rather than in a log or dB domain). 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

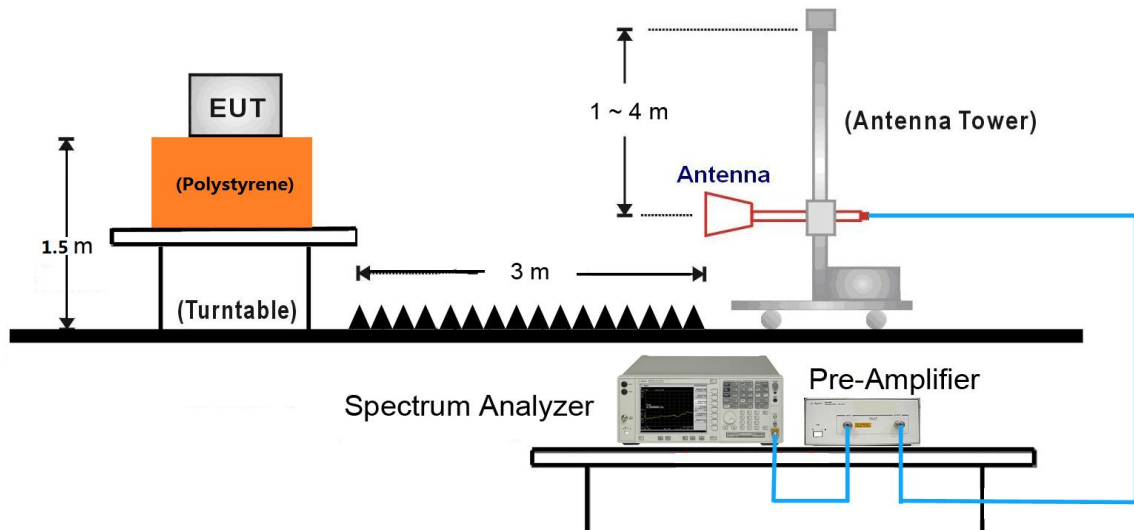
9kHz ~ 30MHz Test Setup:



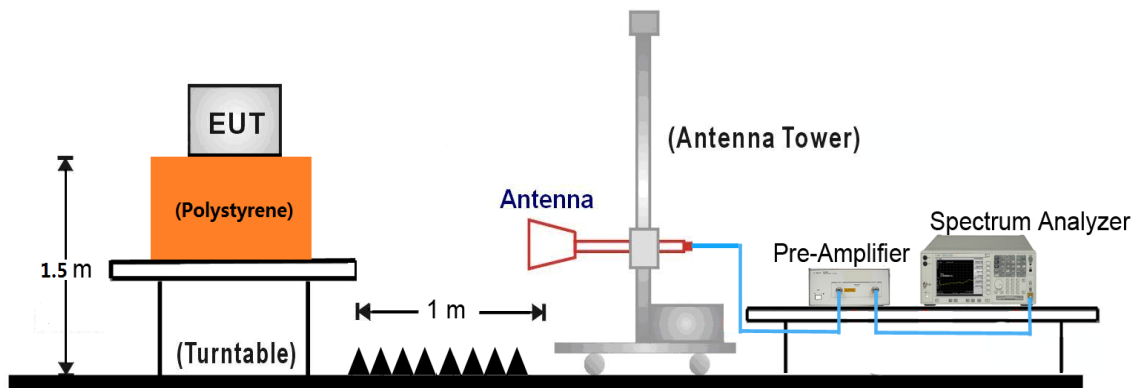
30MHz ~ 1GHz Test Setup:



1GHz ~ 18GHz Test Setup:



18GHz ~ 25GHz Test Setup:



7.9.5. Test Result

Test Mode:	DH5	Test Site:	AC1
Test Channel:	00	Test Engineer:	Bruce Wang
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. 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
	4808.0	47.2	2.7	49.9	74.0	-24.1	Peak	Horizontal
*	7205.0	40.2	7.8	48.0	78.5	-30.5	Peak	Horizontal
	11047.0	35.7	12.9	48.6	74.0	-25.4	Peak	Horizontal
*	14132.5	35.9	15.3	51.2	78.5	-27.3	Peak	Horizontal
	4808.0	45.9	2.7	48.6	74.0	-25.4	Peak	Vertical
*	7205.0	41.2	7.8	49.0	78.5	-29.5	Peak	Vertical
	10783.5	35.3	12.6	47.9	74.0	-26.1	Peak	Vertical
*	13741.5	36.7	14.2	50.9	78.5	-27.6	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (98.5dBμV/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)

Test Mode:	DH5	Test Site:	AC1
Test channel:	39	Test Engineer:	Bruce Wang
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. 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
	4884.5	45.8	2.7	48.5	74.0	-25.5	Peak	Horizontal
	7324.0	42.9	8.0	50.9	74.0	-23.1	Peak	Horizontal
*	9721.0	36.2	11.1	47.3	79.0	-31.7	Peak	Horizontal
*	13724.5	36.1	14.1	50.2	79.0	-28.8	Peak	Horizontal
	4884.5	45.3	2.7	48.0	74.0	-26.0	Peak	Vertical
	7324.0	43.0	8.0	51.0	74.0	-23.0	Peak	Vertical
*	9559.5	36.1	10.9	47.0	79.0	-32.0	Peak	Vertical
*	13852.0	36.5	14.5	51.0	79.0	-28.0	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (99.0dBμV/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)

Test Mode:	DH5	Test Site:	AC1
Test channel:	78	Test Engineer:	Bruce Wang
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. 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
	4961.0	46.0	2.9	48.9	74.0	-25.1	Peak	Horizontal
	7443.0	42.4	8.0	50.4	74.0	-23.6	Peak	Horizontal
*	10171.5	34.4	11.7	46.1	80.8	-34.7	Peak	Horizontal
*	13733.0	36.3	14.2	50.5	80.8	-30.3	Peak	Horizontal
	4961.0	44.1	2.9	47.0	74.0	-27.0	Peak	Vertical
	7443.0	43.0	8.0	51.0	74.0	-23.0	Peak	Vertical
*	10358.5	35.0	12.2	47.2	80.8	-33.6	Peak	Vertical
*	13520.5	34.8	13.8	48.6	80.8	-32.2	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (100.8dBμV/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)

Test Mode:	2DH5	Test Site:	AC1
Test channel:	00	Test Engineer:	Bruce Wang
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. 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
	4808.0	43.6	2.7	46.3	74.0	-27.7	Peak	Horizontal
*	7205.0	37.2	7.8	45.0	74.8	-29.8	Peak	Horizontal
	11030.0	35.5	13.0	48.5	74.0	-25.5	Peak	Horizontal
*	13699.0	35.9	14.0	49.9	74.8	-24.9	Peak	Horizontal
	4799.5	41.5	2.7	44.2	74.0	-29.8	Peak	Vertical
*	7205.0	37.7	7.8	45.5	74.8	-29.3	Peak	Vertical
	10690.0	35.0	12.4	47.4	74.0	-26.6	Peak	Vertical
*	13801.0	35.7	14.4	50.1	74.8	-24.7	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (94.8dBμV/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)

Test Mode:	2DH5	Test Site:	AC1
Test channel:	39	Test Engineer:	Bruce Wang
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. 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
	4884.5	42.8	2.7	45.5	74.0	-28.5	Peak	Horizontal
	7324.0	38.5	8.0	46.5	74.0	-27.5	Peak	Horizontal
*	10307.5	33.1	12.0	45.1	76.0	-30.9	Peak	Horizontal
*	14022.0	35.3	14.9	50.2	76.0	-25.8	Peak	Horizontal
	4884.5	41.8	2.7	44.5	74.0	-29.5	Peak	Vertical
	7324.0	39.3	8.0	47.3	74.0	-26.7	Peak	Vertical
*	10163.0	34.8	11.7	46.5	76.0	-29.5	Peak	Vertical
*	13843.5	36.3	14.5	50.8	76.0	-25.2	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (96.0dBμV/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)

Test Mode:	2DH5	Test Site:	AC1
Test channel:	78	Test Engineer:	Bruce Wang
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. 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
	4961.0	39.6	2.9	42.5	74.0	-31.5	Peak	Horizontal
	7443.0	39.0	8.0	47.0	74.0	-27.0	Peak	Horizontal
*	10299.0	34.8	12.0	46.8	79.0	-32.2	Peak	Horizontal
*	13665.0	34.3	13.9	48.2	79.0	-30.8	Peak	Horizontal
	4961.0	39.4	2.9	42.3	74.0	-31.7	Peak	Vertical
	7443.0	38.8	8.0	46.8	74.0	-27.2	Peak	Vertical
*	11404.0	36.2	12.6	48.8	79.0	-30.2	Peak	Vertical
*	13928.5	35.7	14.7	50.4	79.0	-28.6	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (99.0dBμV/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)

Test Mode:	3DH5	Test Site:	AC1
Test channel:	00	Test Engineer:	Bruce Wang
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. 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
	4799.5	43.0	2.7	45.7	74.0	-28.3	Peak	Horizontal
	7545.0	36.2	8.3	44.5	74.0	-29.5	Peak	Horizontal
*	10333.0	35.2	12.2	47.4	75.1	-27.7	Peak	Horizontal
*	14166.5	35.7	15.3	51.0	75.1	-24.1	Peak	Horizontal
	4808.0	41.3	2.7	44.0	74.0	-30.0	Peak	Vertical
	7205.0	37.6	7.8	45.4	75.1	-29.7	Peak	Vertical
*	10962.0	34.9	13.1	48.0	74.0	-26.0	Peak	Vertical
*	13622.5	36.4	13.9	50.3	75.1	-24.8	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (95.1dBμV/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)

Test Mode:	3DH5	Test Site:	AC1
Test channel:	39	Test Engineer:	Bruce Wang
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. 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
	4884.5	45.5	2.7	48.2	74.0	-25.8	Peak	Horizontal
	7324.0	42.7	8.0	50.7	74.0	-23.3	Peak	Horizontal
*	9763.5	36.0	11.4	47.4	77.0	-29.6	Peak	Horizontal
*	13750.0	35.6	14.2	49.8	77.0	-27.2	Peak	Horizontal
	4884.5	44.9	2.7	47.6	74.0	-26.4	Peak	Vertical
	7324.0	41.4	8.0	49.4	74.0	-24.6	Peak	Vertical
*	10095.0	35.1	11.6	46.7	77.0	-30.3	Peak	Vertical
*	13801.0	36.2	14.4	50.6	77.0	-26.4	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (97.0dBμV/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)

Test Mode:	3DH5	Test Site:	AC1
Test channel:	78	Test Engineer:	Bruce Wang
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. 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
	4961.0	45.7	2.9	48.6	74.0	-25.4	Peak	Horizontal
	7443.0	42.6	8.0	50.6	74.0	-23.4	Peak	Horizontal
*	10273.5	35.6	12.0	47.6	79.2	-31.6	Peak	Horizontal
*	13733.0	37.2	14.2	51.4	79.2	-27.8	Peak	Horizontal
	4961.0	42.5	2.9	45.4	74.0	-28.6	Peak	Vertical
	7443.0	42.6	8.0	50.6	74.0	-23.4	Peak	Vertical
*	10163.0	35.4	11.7	47.1	79.2	-32.1	Peak	Vertical
*	13988.0	35.2	14.9	50.1	79.2	-29.1	Peak	Vertical

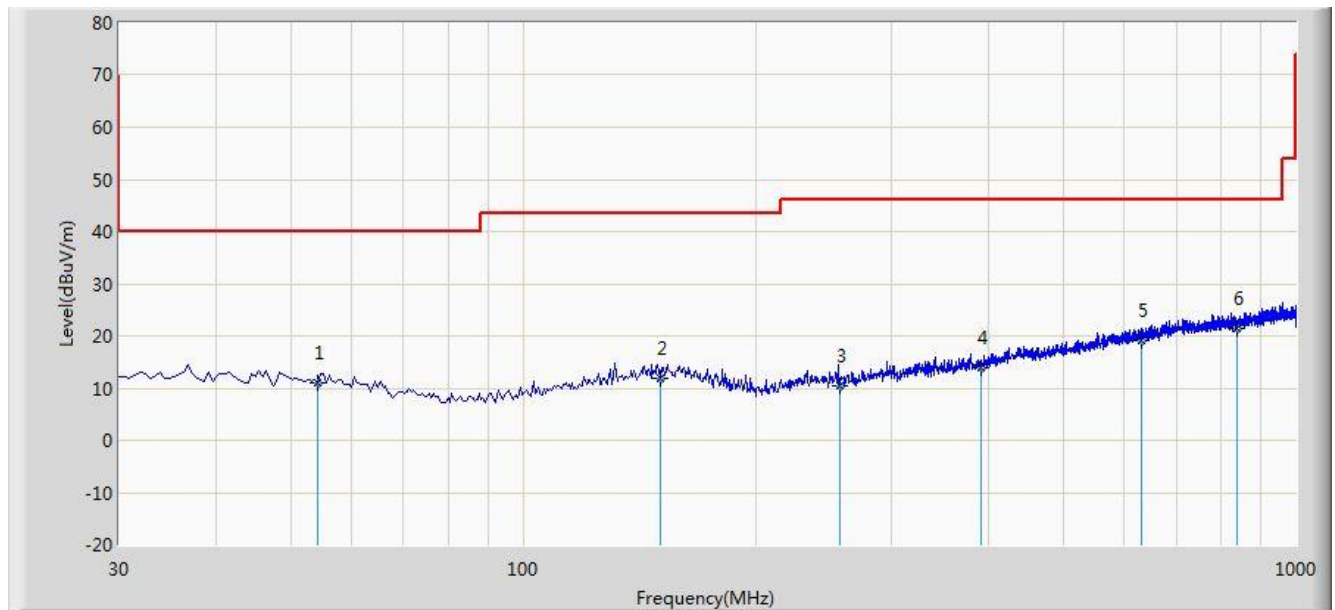
Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (99.2dBμV/m) or 15.209 which is higher.

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 30MHz ~ 1GHz:

Site: AC1	Time: 2017/09/02 - 21:54
Limit: FCC_Part15.209_RE(3m)	Engineer: Lewis Huang
Probe: VULB 9168 _20-2000MHz	Polarity: Horizontal
EUT: E20	Power: AC 120V/60Hz
Worst Case Mode: Transmit by DH5 at channel 2402MHz	



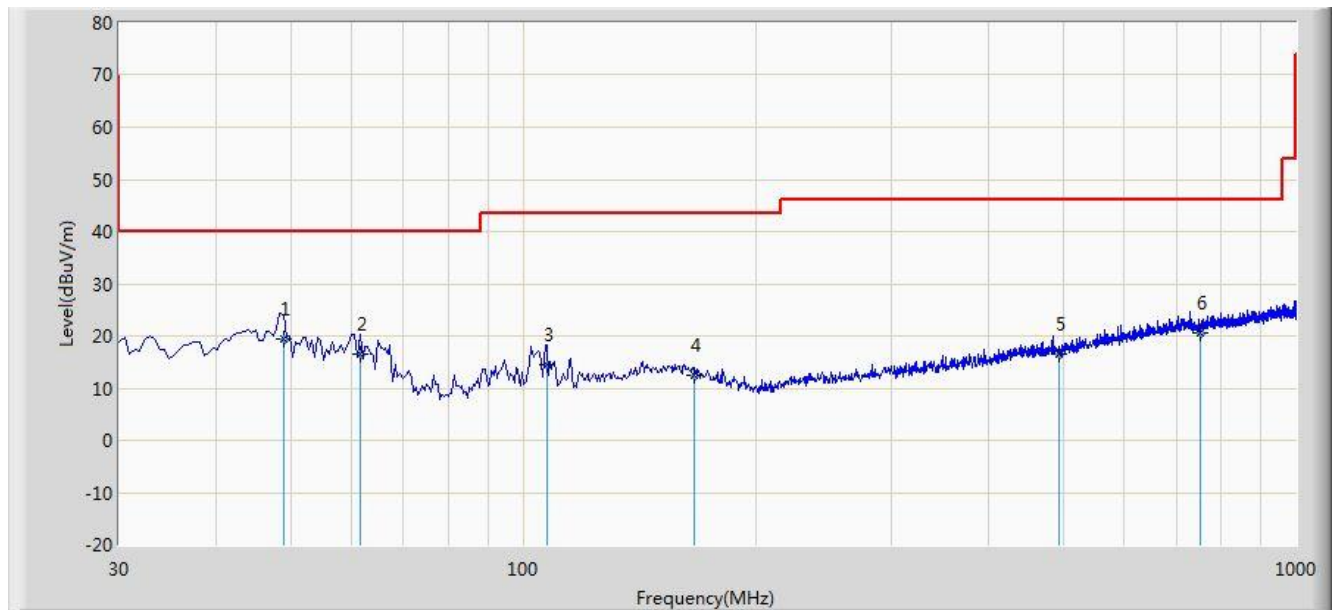
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			54.250	10.959	-2.804	-29.041	40.000	13.763	QP
2			150.765	11.820	-3.362	-31.680	43.500	15.182	QP
3			256.980	10.481	-2.587	-35.519	46.000	13.068	QP
4			391.325	13.866	-2.460	-32.134	46.000	16.325	QP
5			630.915	19.091	-2.006	-26.909	46.000	21.097	QP
6		*	840.920	21.406	-2.162	-24.594	46.000	23.568	QP

Note 1: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

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

Note 2: The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible (the test frequency range: 9kHz ~ 30MHz, 18GHz ~ 25GHz), therefore no data appear in the report.

Site: AC1	Time: 2017/09/02 - 21:56
Limit: FCC_Part15.209_RE(3m)	Engineer: Lewis Huang
Probe: VULB 9168 _20-2000MHz	Polarity: Vertical
EUT: E20	Power: AC 120V/60Hz
Worst Case Mode: Transmit by DH5 at channel 2402MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	48.915	19.457	5.360	-20.543	40.000	14.097	QP
2			61.525	16.619	3.540	-23.381	40.000	13.079	QP
3			107.600	14.370	2.630	-29.130	43.500	11.740	QP
4			166.770	12.410	-2.154	-31.090	43.500	14.564	QP
5			494.630	16.481	-1.923	-29.519	46.000	18.404	QP
6			751.195	20.715	-2.015	-25.285	46.000	22.730	QP

Note 1: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

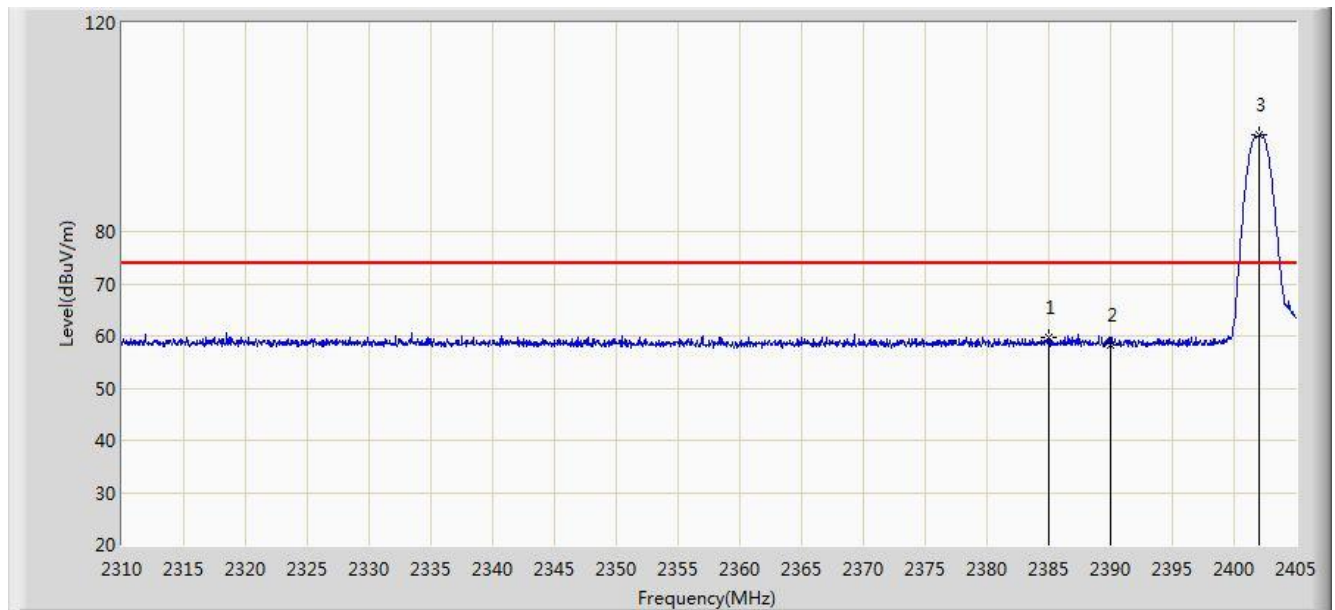
Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Note 2: The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible (the test frequency range: 9kHz ~ 30MHz, 18GHz ~ 25GHz), therefore no data appear in the report.

7.10. Radiated Restricted Band Edge Measurement

7.10.1. Test Result

Site: AC1	Time: 2017/08/09 - 05:33
Limit: FCC_Part15.209_RE(3m)	Engineer: Alex Ma
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: E20	Power: AC 120V/60Hz
Test Mode: Transmit by DH5 at channel 2402MHz	

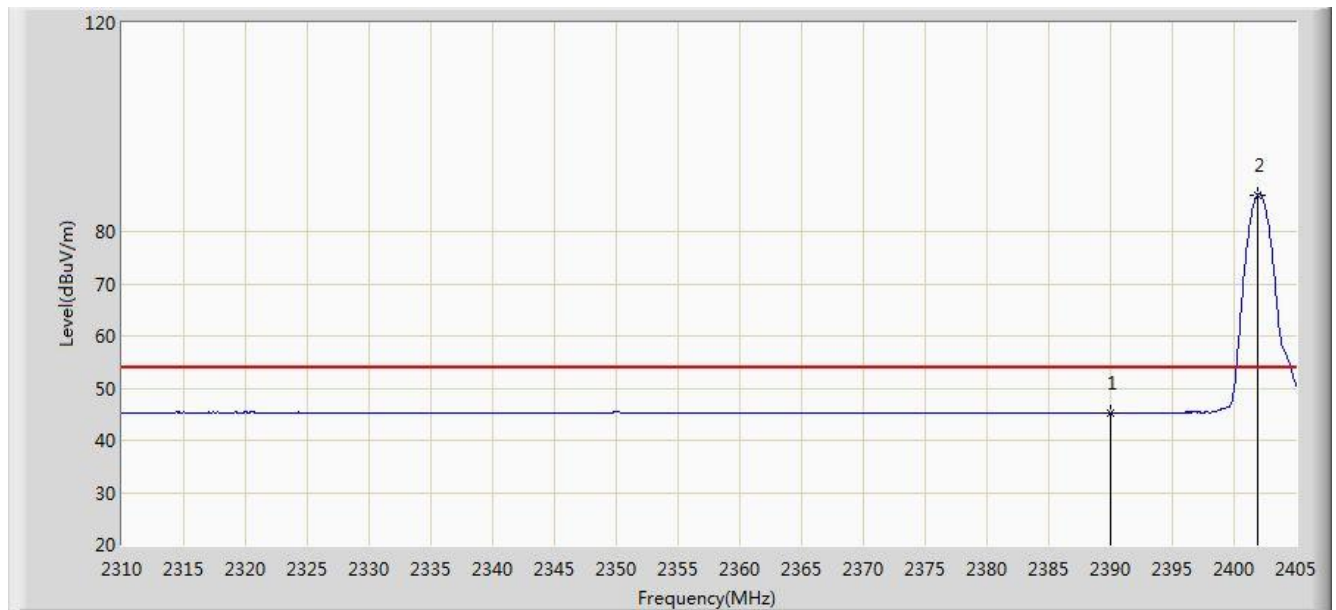


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2384.955	59.838	28.626	-14.162	74.000	31.212	PK
2			2390.000	58.384	27.181	-15.616	74.000	31.203	PK
3		*	2402.008	98.459	67.275	24.459	74.000	31.184	PK

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

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

Site: AC1	Time: 2017/08/09 - 05:42
Limit: FCC_Part15.209_RE(3m)	Engineer: Alex Ma
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: E20	Power: AC 120V/60Hz
Test Mode: Transmit by DH5 at channel 2402MHz	

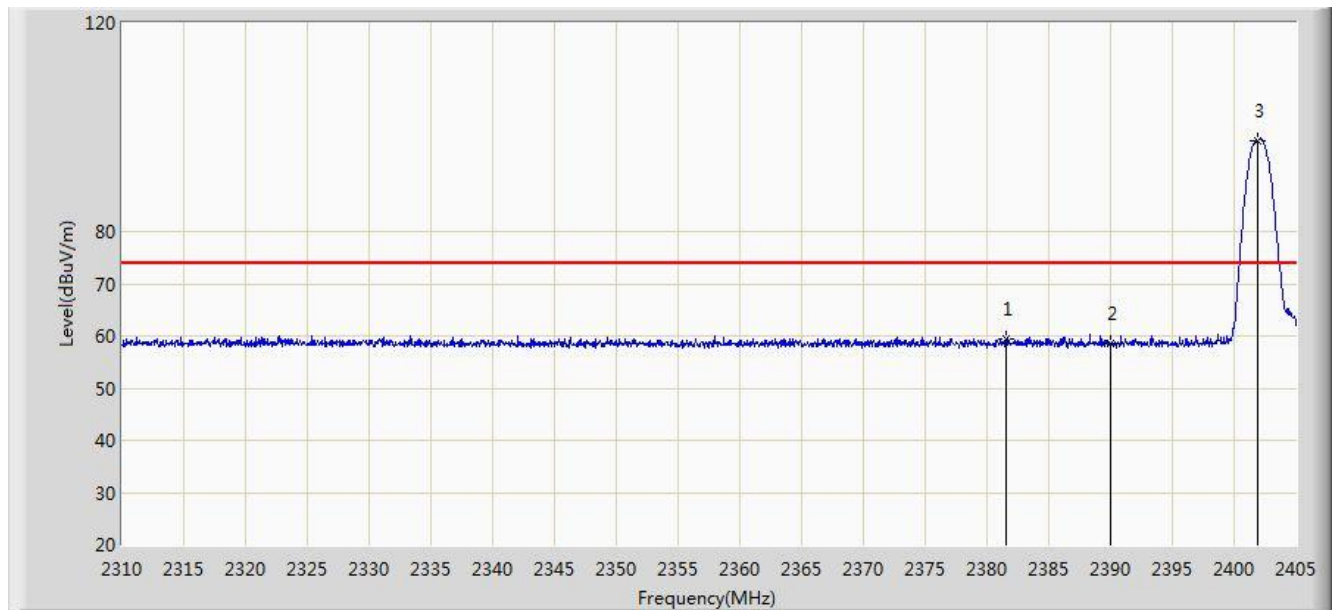


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	45.300	14.097	-8.700	54.000	31.203	AV
2		*	2401.913	87.029	55.845	33.029	54.000	31.184	AV

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

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

Site: AC1	Time: 2017/08/09 - 05:42
Limit: FCC_Part15.209_RE(3m)	Engineer: Alex Ma
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: E20	Power: AC 120V/60Hz
Test Mode: Transmit by DH5 at channel 2402MHz	

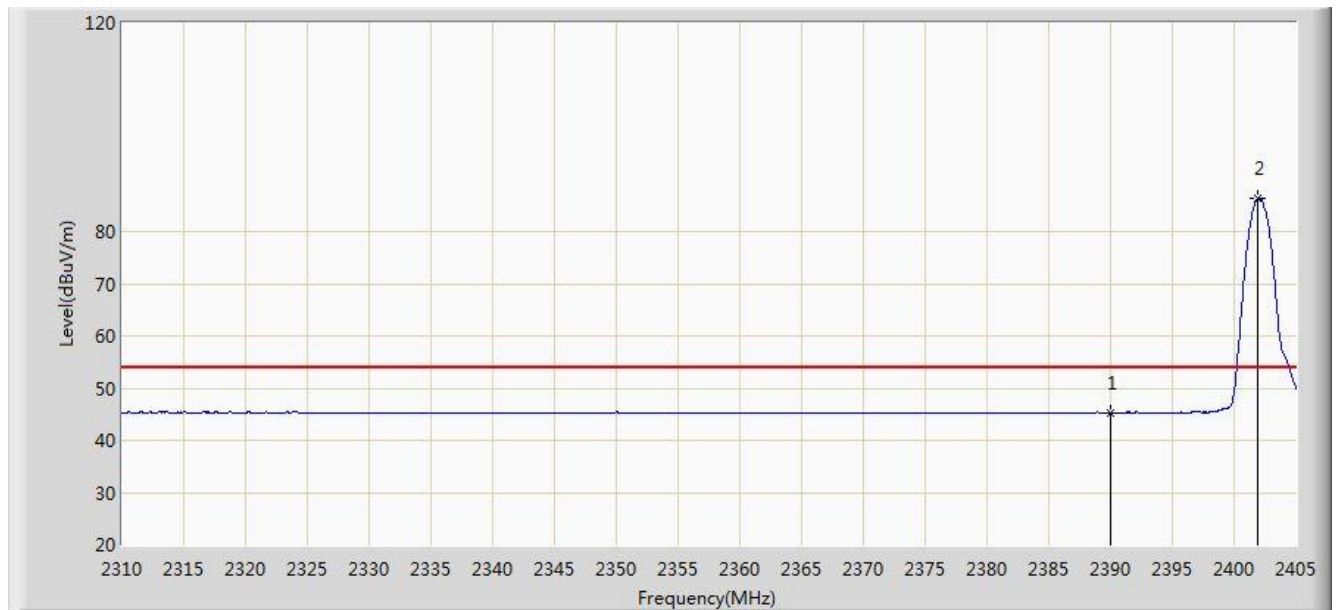


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2381.535	59.391	28.173	-14.609	74.000	31.218	PK
2			2390.000	58.556	27.353	-15.444	74.000	31.203	PK
3		*	2401.960	97.518	66.334	23.518	74.000	31.184	PK

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

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

Site: AC1	Time: 2017/08/09 - 05:45
Limit: FCC_Part15.209_RE(3m)	Engineer: Alex Ma
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: E20	Power: AC 120V/60Hz
Test Mode: Transmit by DH5 at channel 2402MHz	

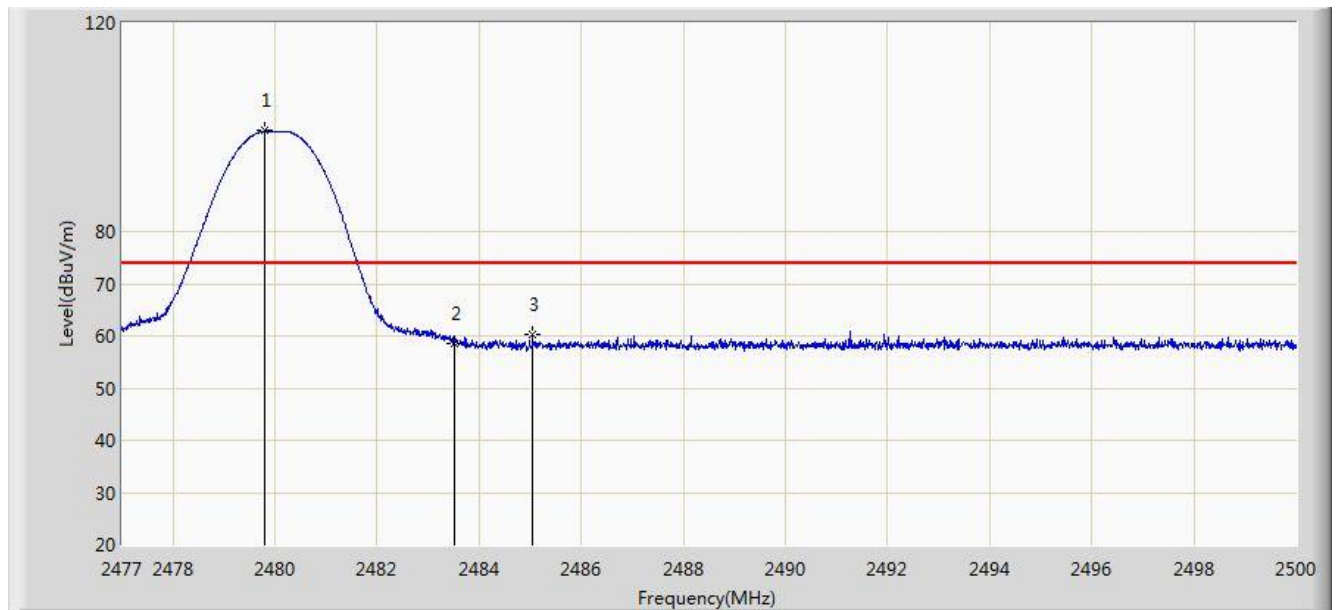


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	45.288	14.085	-8.712	54.000	31.203	AV
2		*	2401.913	86.358	55.174	32.358	54.000	31.184	AV

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

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

Site: AC1	Time: 2017/08/09 - 05:46
Limit: FCC_Part15.209_RE(3m)	Engineer: Alex Ma
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: E20	Power: AC 120V/60Hz
Test Mode: Transmit by DH5 at channel 2480MHz	

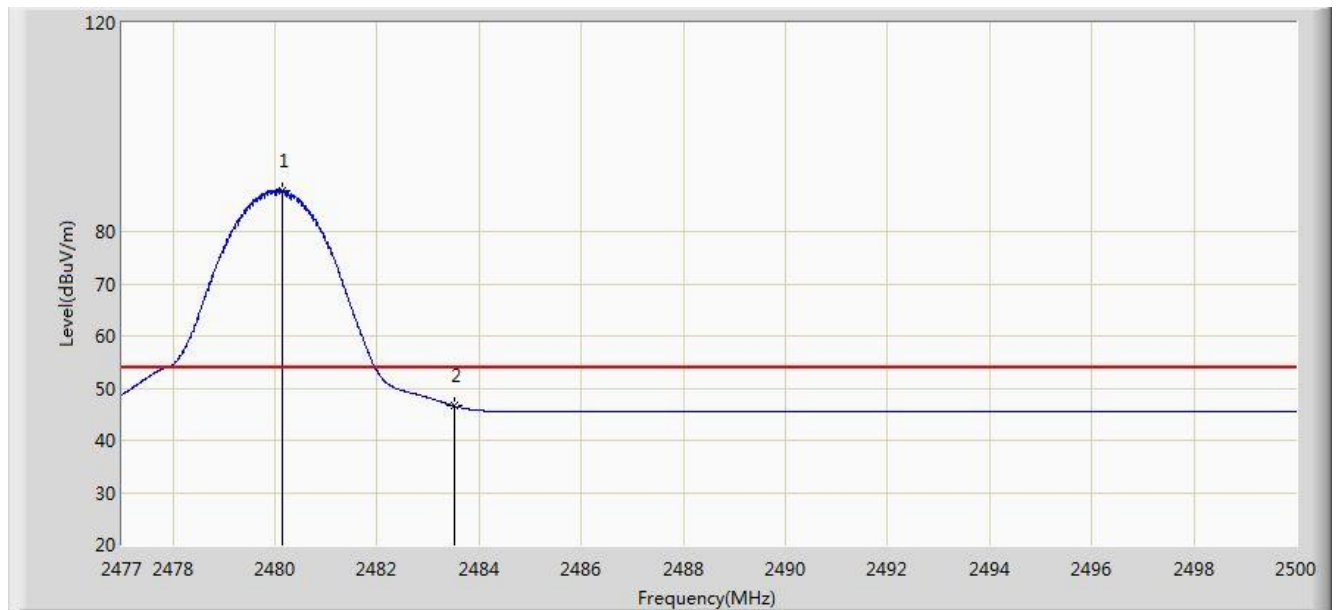


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2479.794	99.293	68.109	25.293	74.000	31.184	PK
2			2483.500	58.671	27.478	-15.329	74.000	31.194	PK
3			2485.039	60.322	29.125	-13.678	74.000	31.197	PK

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

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

Site: AC1	Time: 2017/08/09 - 05:48
Limit: FCC_Part15.209_RE(3m)	Engineer: Alex Ma
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: E20	Power: AC 120V/60Hz
Test Mode: Transmit by DH5 at channel 2480MHz	

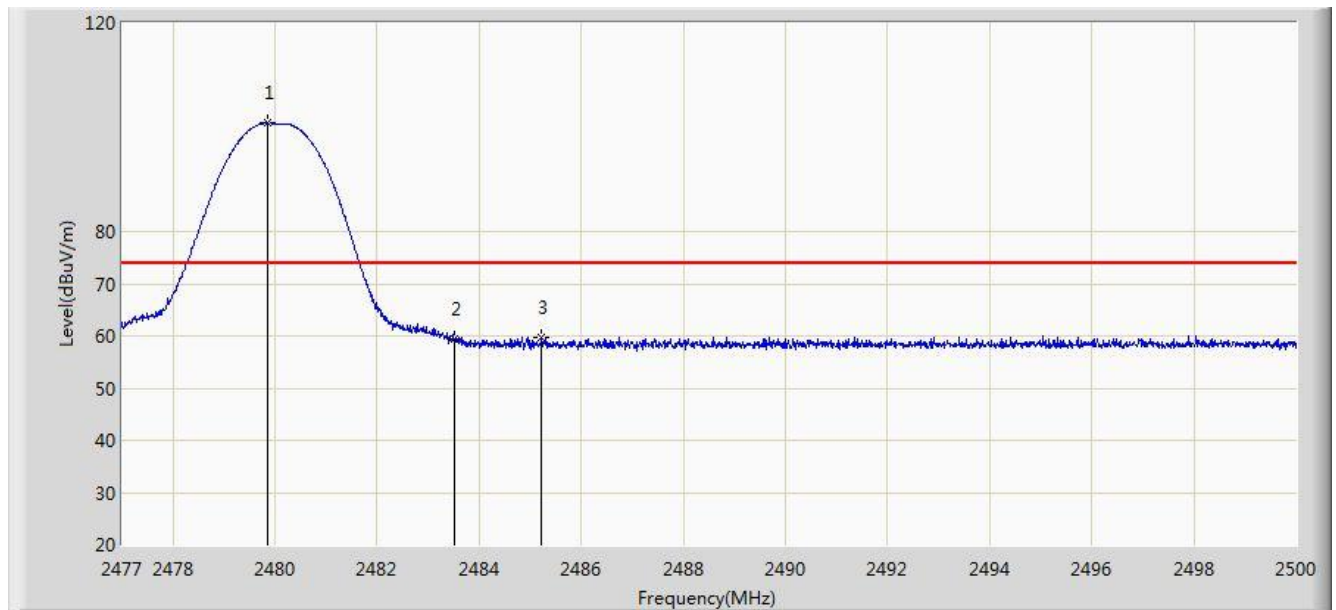


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2480.151	87.870	56.685	33.870	54.000	31.185	AV
2			2483.500	46.593	15.400	-7.407	54.000	31.194	AV

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

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

Site: AC1	Time: 2017/08/09 - 05:48
Limit: FCC_Part15.209_RE(3m)	Engineer: Alex Ma
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: E20	Power: AC 120V/60Hz
Test Mode: Transmit by DH5 at channel 2480MHz	

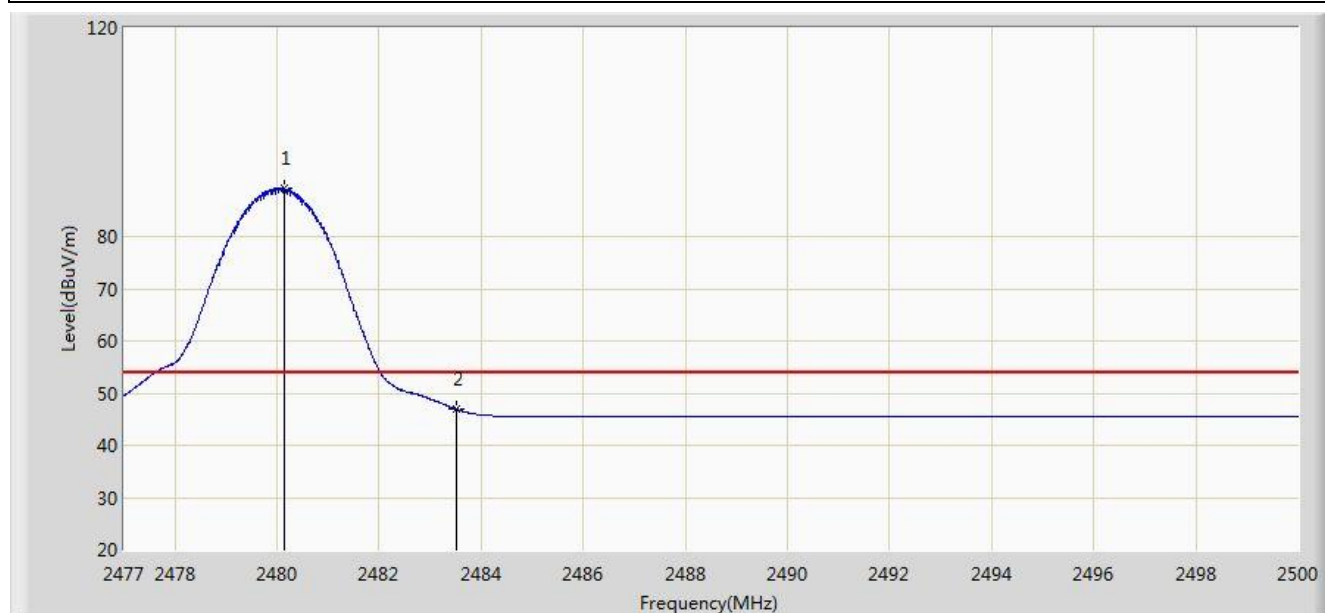


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2479.841	100.768	69.584	26.768	74.000	31.184	PK
2			2483.500	59.557	28.364	-14.443	74.000	31.194	PK
3			2485.222	59.756	28.558	-14.244	74.000	31.198	PK

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

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

Site: AC1	Time: 2017/08/09 - 05:49
Limit: FCC_Part15.209_RE(3m)	Engineer: Alex Ma
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: E20	Power: AC 120V/60Hz
Test Mode: Transmit by DH5 at channel 2480MHz	

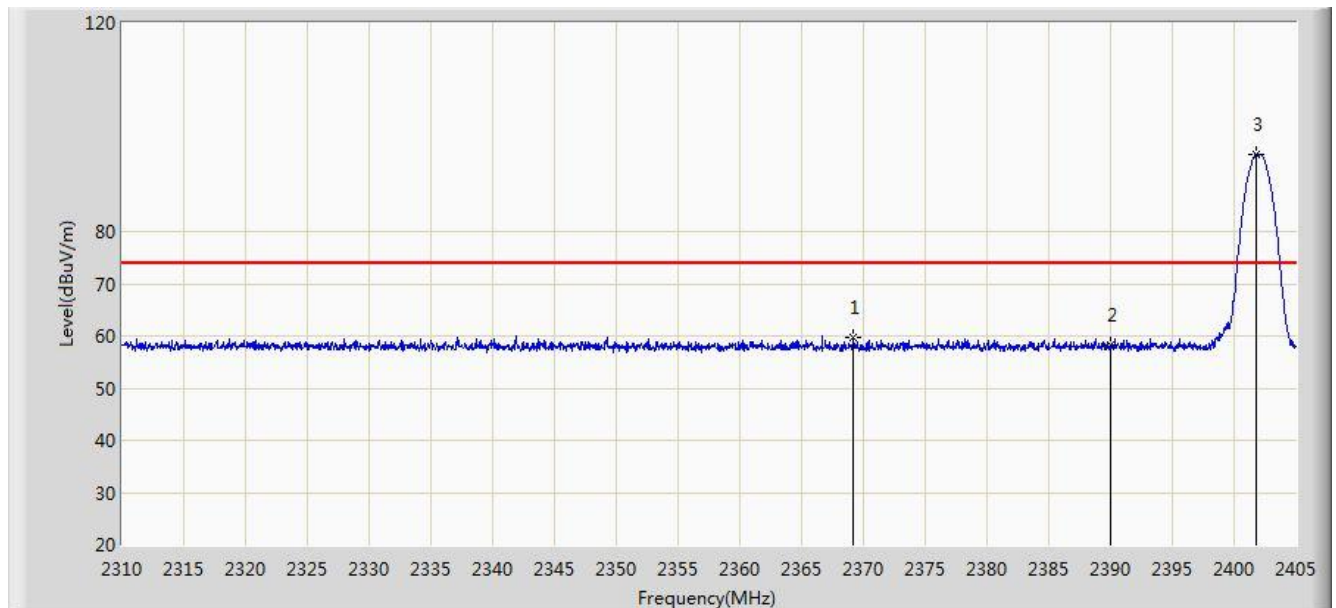


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2480.139	89.189	58.005	35.189	54.000	31.185	AV
2			2483.500	46.964	15.771	-7.036	54.000	31.194	AV

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

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

Site: AC1	Time: 2017/08/09 - 05:50
Limit: FCC_Part15.209_RE(3m)	Engineer: Alex Ma
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: E20	Power: AC 120V/60Hz
Test Mode: Transmit by 2DH5 at channel 2402MHz	

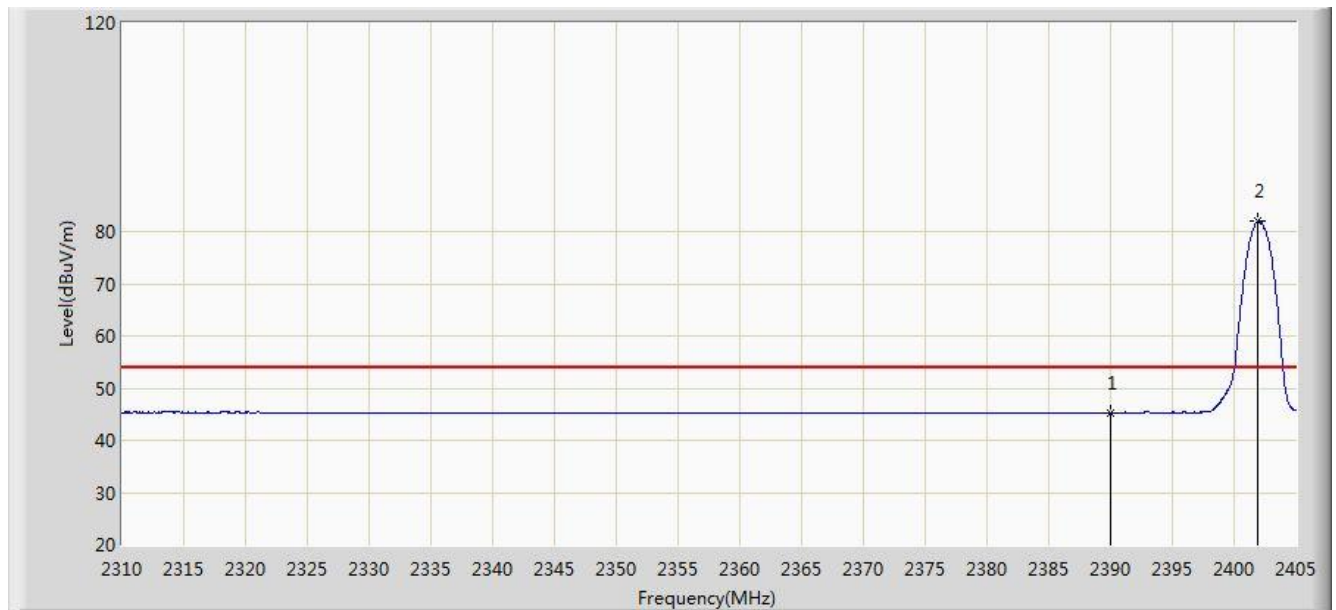


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2369.185	59.794	28.553	-14.206	74.000	31.241	PK
2			2390.000	58.216	27.013	-15.784	74.000	31.203	PK
3		*	2401.770	94.715	63.531	20.715	74.000	31.184	PK

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

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

Site: AC1	Time: 2017/08/09 - 05:51
Limit: FCC_Part15.209_RE(3m)	Engineer: Alex Ma
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: E20	Power: AC 120V/60Hz
Test Mode: Transmit by 2DH5 at channel 2402MHz	

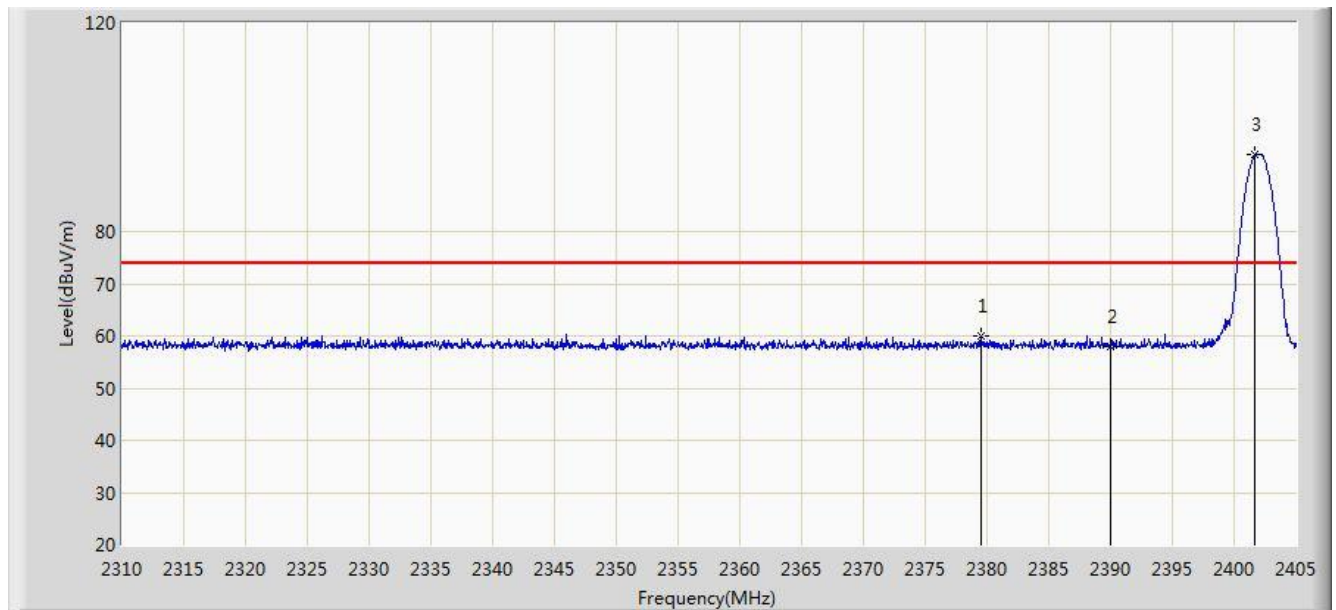


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	45.308	14.105	-8.692	54.000	31.203	AV
2		*	2401.865	81.970	50.786	27.970	54.000	31.184	AV

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

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

Site: AC1	Time: 2017/08/09 - 05:53
Limit: FCC_Part15.209_RE(3m)	Engineer: Alex Ma
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: E20	Power: AC 120V/60Hz
Test Mode: Transmit by 2DH5 at channel 2402MHz	

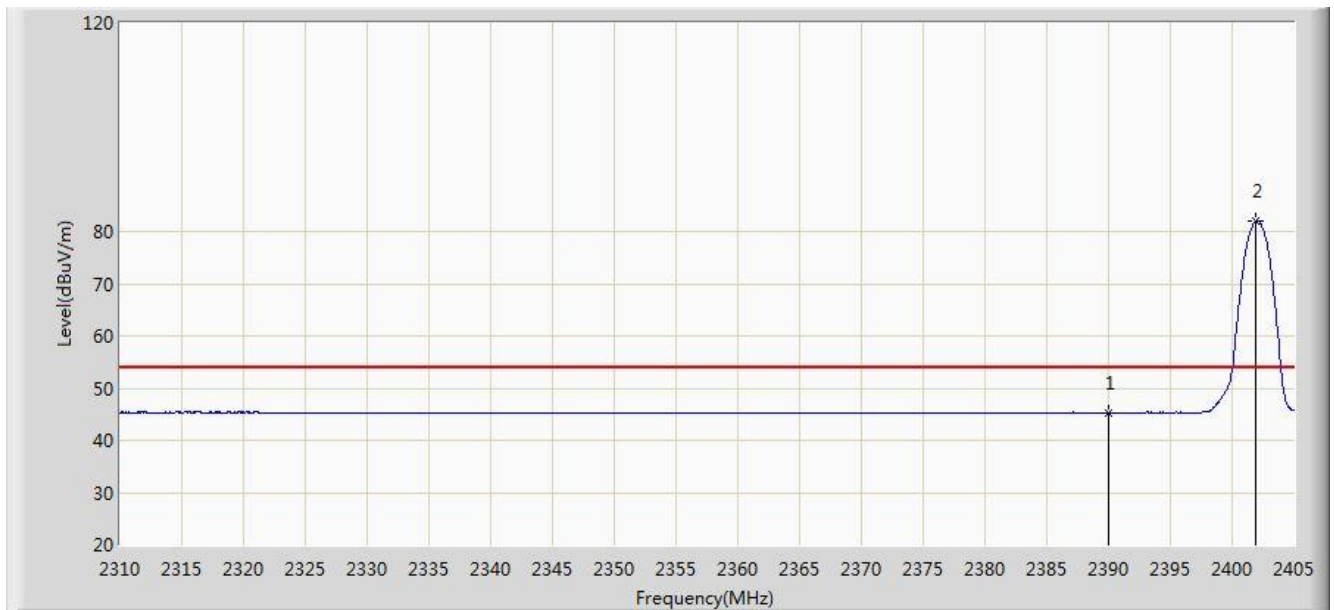


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2379.492	59.947	28.725	-14.053	74.000	31.222	PK
2			2390.000	57.928	26.725	-16.072	74.000	31.203	PK
3		*	2401.722	94.779	63.595	20.779	74.000	31.184	PK

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

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

Site: AC1	Time: 2017/08/09 - 05:55
Limit: FCC_Part15.209_RE(3m)	Engineer: Alex Ma
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: E20	Power: AC 120V/60Hz
Test Mode: Transmit by 2DH5 at channel 2402MHz	

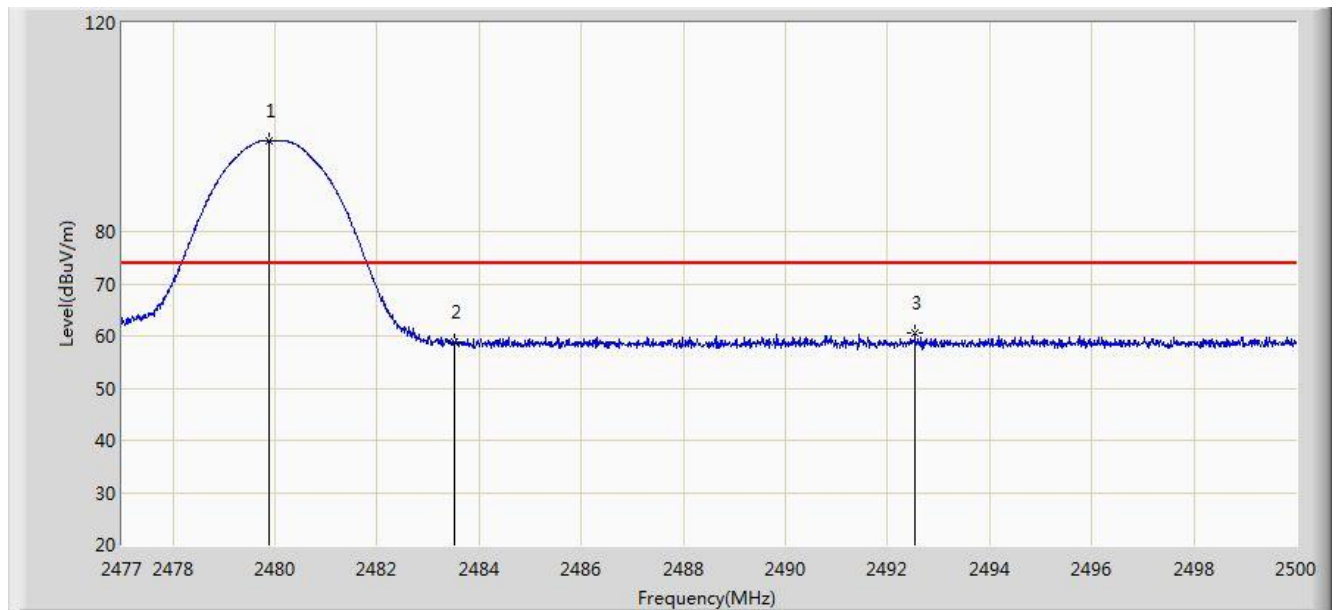


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	45.295	14.092	-8.705	54.000	31.203	AV
2		*	2401.913	82.015	50.831	28.015	54.000	31.184	AV

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

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

Site: AC1	Time: 2017/08/09 - 05:55
Limit: FCC_Part15.209_RE(3m)	Engineer: Alex Ma
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: E20	Power: AC 120V/60Hz
Test Mode: Transmit by 2DH5 at channel 2480MHz	

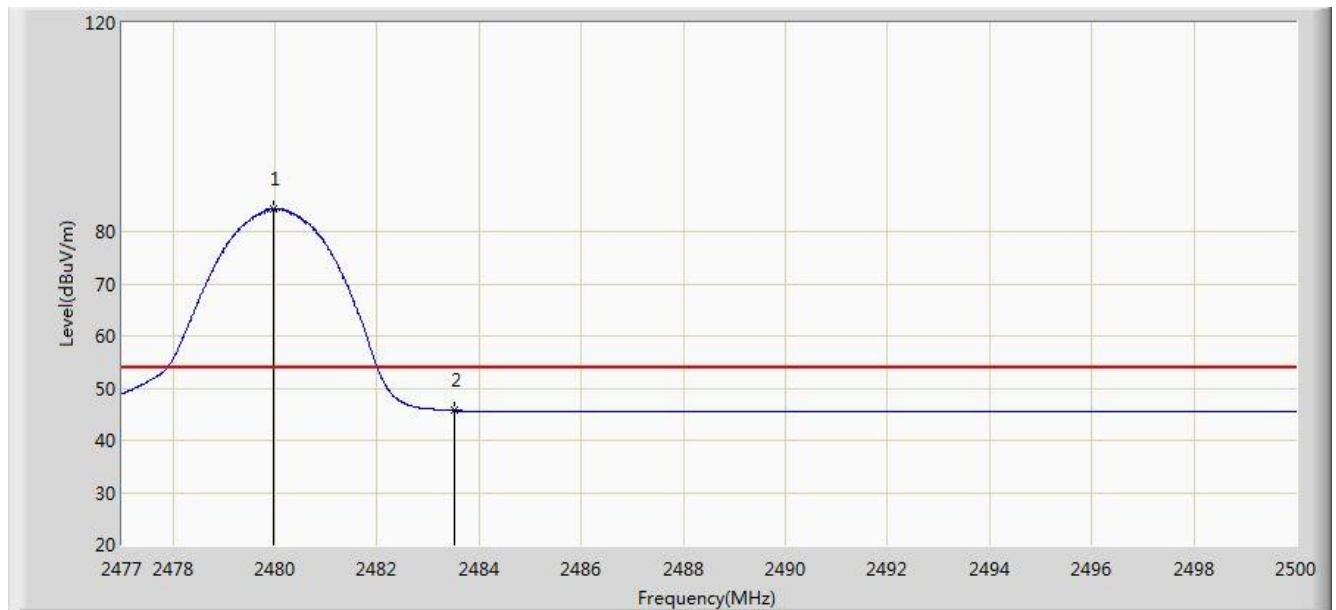


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2479.886	97.494	66.310	23.494	74.000	31.184	PK
2			2483.500	58.716	27.523	-15.284	74.000	31.194	PK
3			2492.537	60.496	29.279	-13.504	74.000	31.217	PK

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

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

Site: AC1	Time: 2017/08/09 - 05:57
Limit: FCC_Part15.209_RE(3m)	Engineer: Alex Ma
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: E20	Power: AC 120V/60Hz
Test Mode: Transmit by 2DH5 at channel 2480MHz	

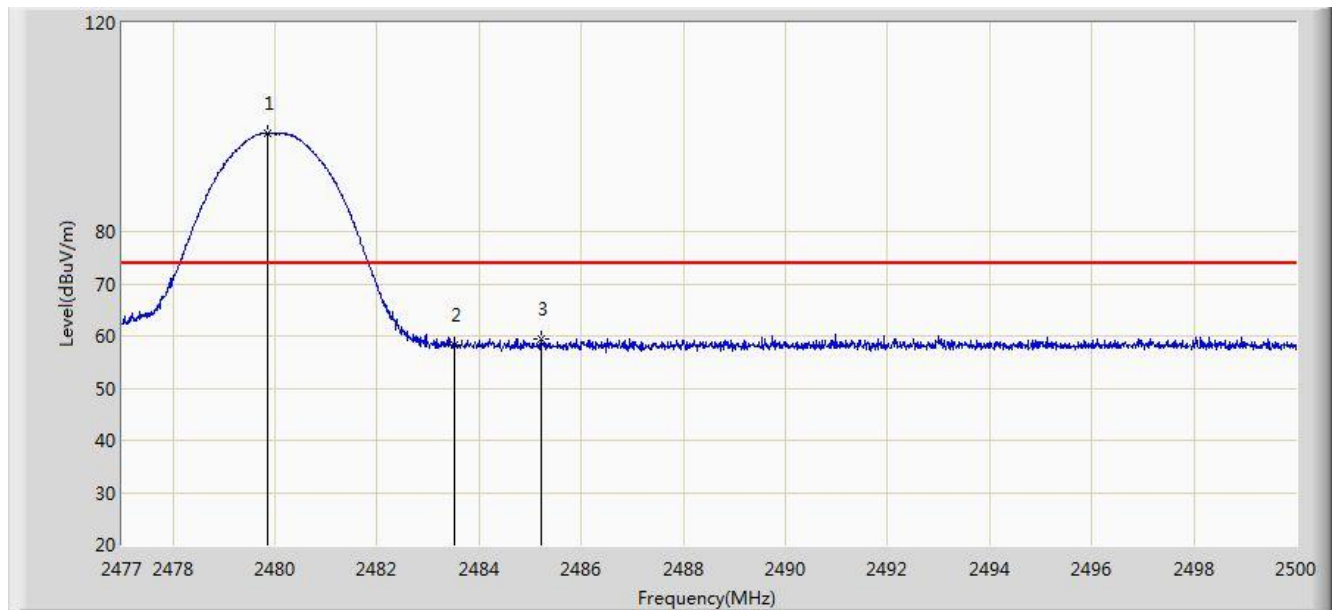


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2479.979	84.375	53.191	30.375	54.000	31.184	AV
2			2483.500	45.703	14.510	-8.297	54.000	31.194	AV

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

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

Site: AC1	Time: 2017/08/09 - 05:57
Limit: FCC_Part15.209_RE(3m)	Engineer: Alex Ma
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: E20	Power: AC 120V/60Hz
Test Mode: Transmit by 2DH5 at channel 2480MHz	

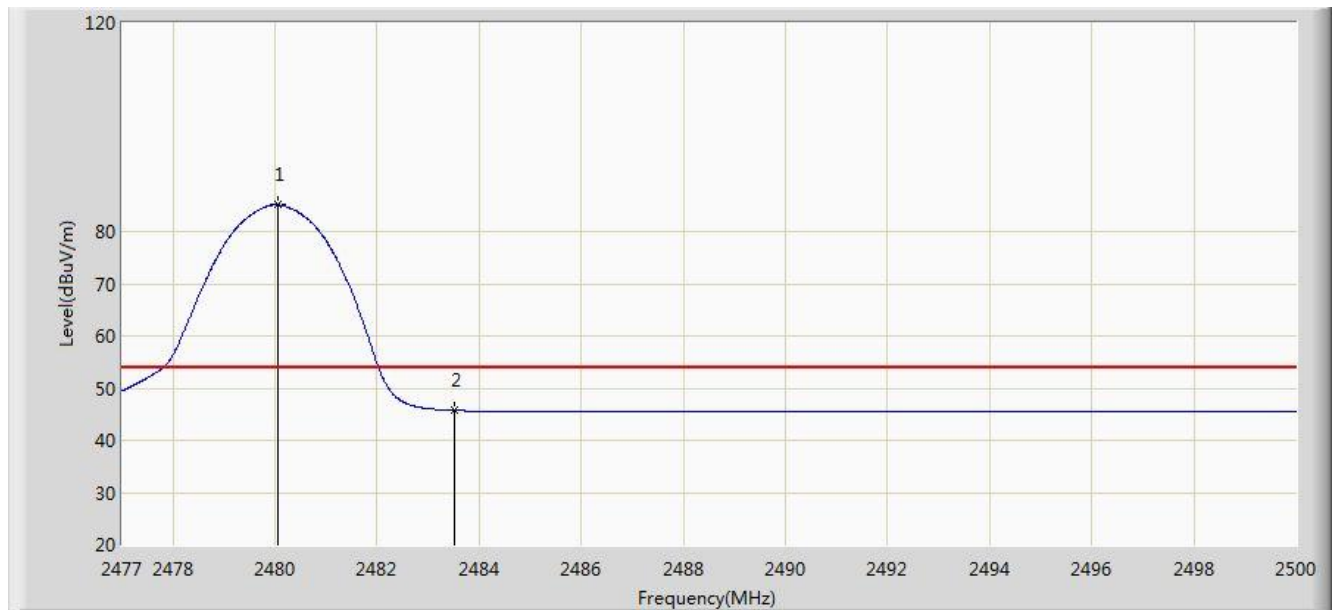


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2479.841	98.958	67.774	24.958	74.000	31.184	PK
2			2483.500	58.295	27.102	-15.705	74.000	31.194	PK
3			2485.222	59.315	28.117	-14.685	74.000	31.198	PK

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

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

Site: AC1	Time: 2017/08/09 - 05:58
Limit: FCC_Part15.209_RE(3m)	Engineer: Alex Ma
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: E20	Power: AC 120V/60Hz
Test Mode: Transmit by 2DH5 at channel 2480MHz	

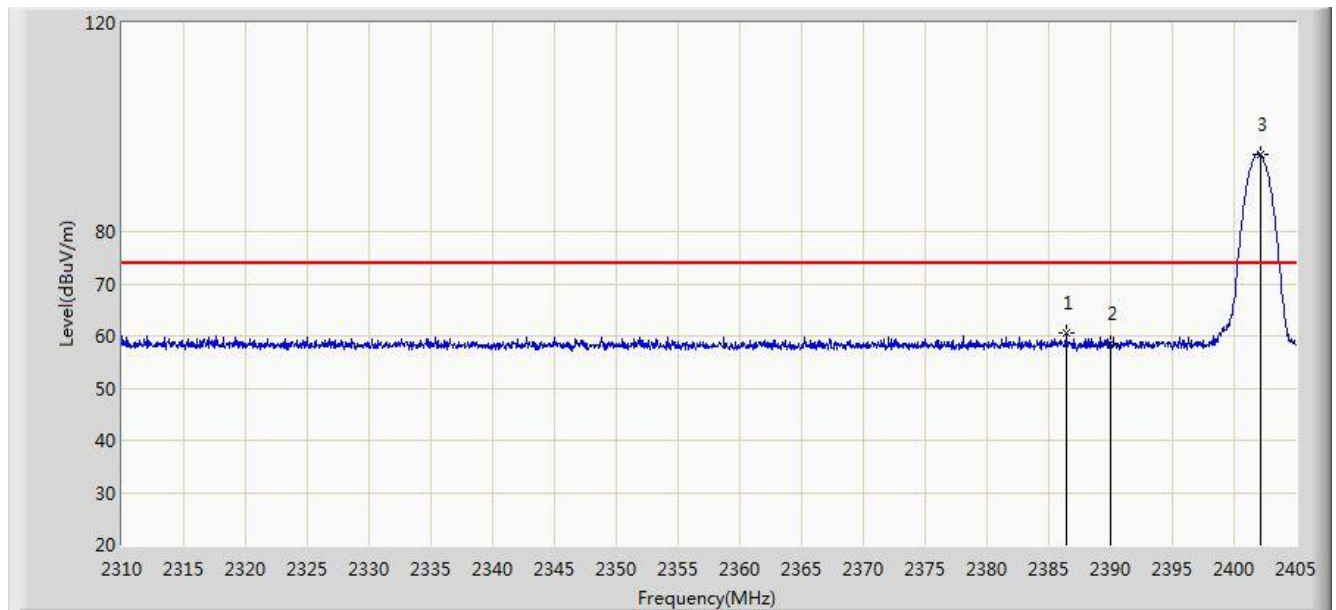


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2480.059	85.110	53.926	31.110	54.000	31.184	AV
2			2483.500	45.716	14.523	-8.284	54.000	31.194	AV

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

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

Site: AC1	Time: 2017/08/09 - 05:59
Limit: FCC_Part15.209_RE(3m)	Engineer: Alex Ma
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: E20	Power: AC 120V/60Hz
Test Mode: Transmit by 3DH5 at channel 2402MHz	

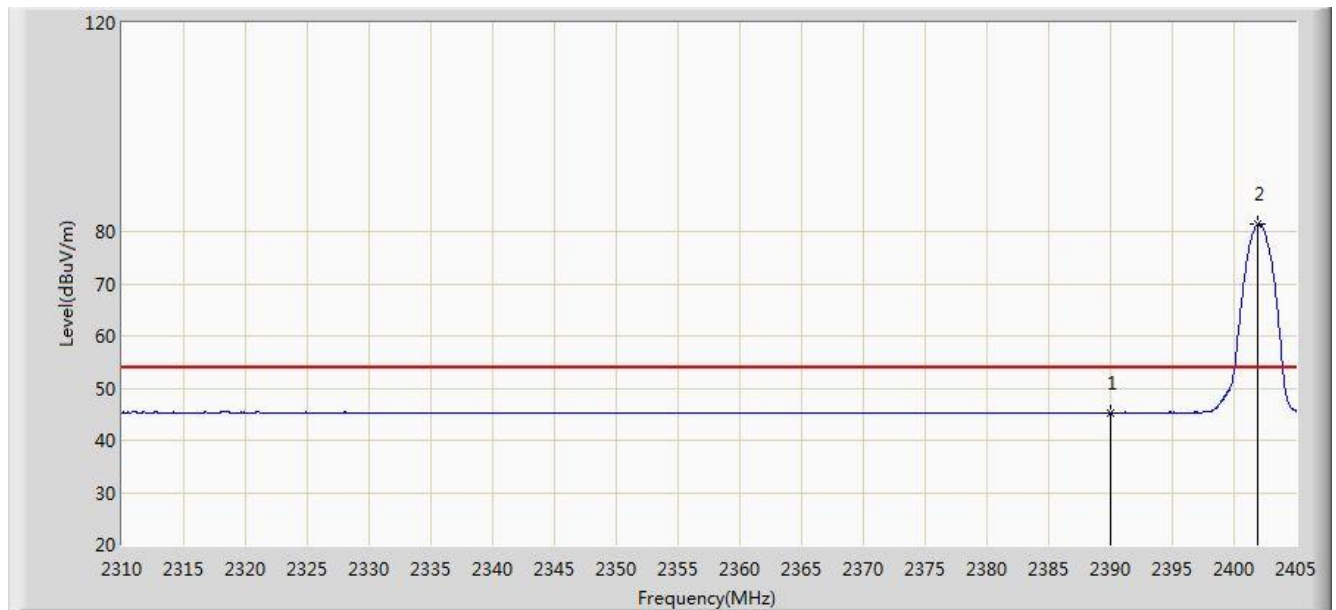


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2386.380	60.524	29.315	-13.476	74.000	31.209	PK
2			2390.000	58.598	27.395	-15.402	74.000	31.203	PK
3		*	2402.150	94.691	63.507	20.691	74.000	31.184	PK

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

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

Site: AC1	Time: 2017/08/09 - 06:01
Limit: FCC_Part15.209_RE(3m)	Engineer: Alex Ma
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: E20	Power: AC 120V/60Hz
Test Mode: Transmit by 3DH5 at channel 2402MHz	

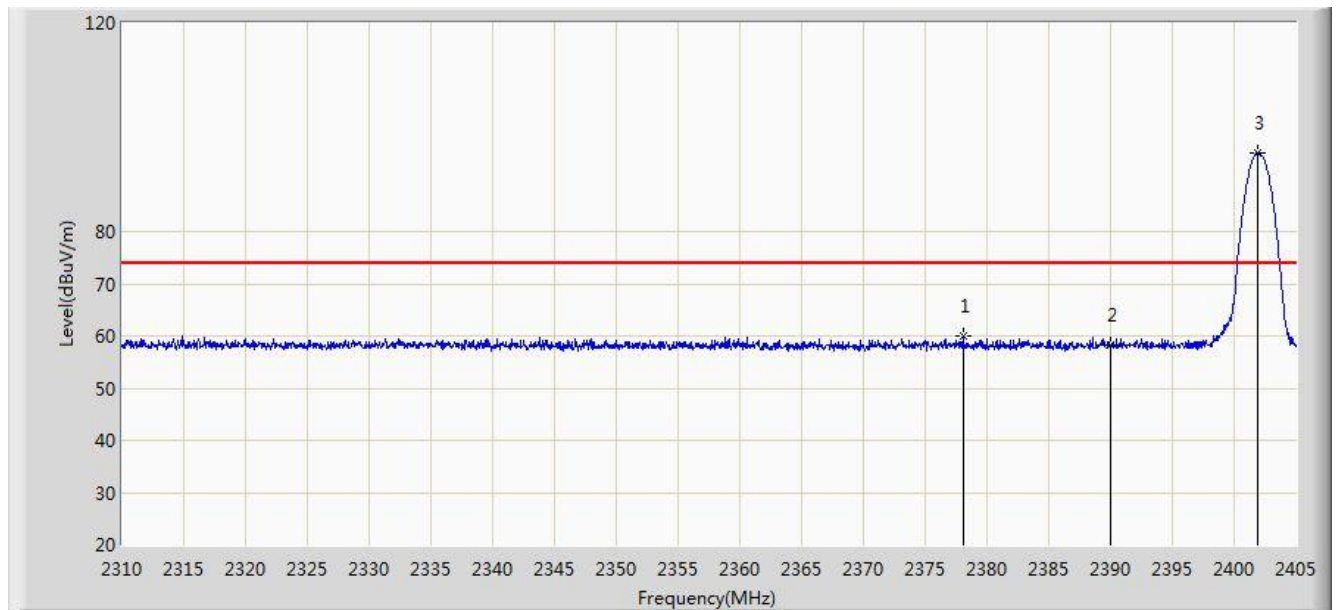


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	45.294	14.091	-8.706	54.000	31.203	AV
2		*	2401.913	81.369	50.185	27.369	54.000	31.184	AV

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

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

Site: AC1	Time: 2017/08/09 - 06:02
Limit: FCC_Part15.209_RE(3m)	Engineer: Alex Ma
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: E20	Power: AC 120V/60Hz
Test Mode: Transmit by 3DH5 at channel 2402MHz	

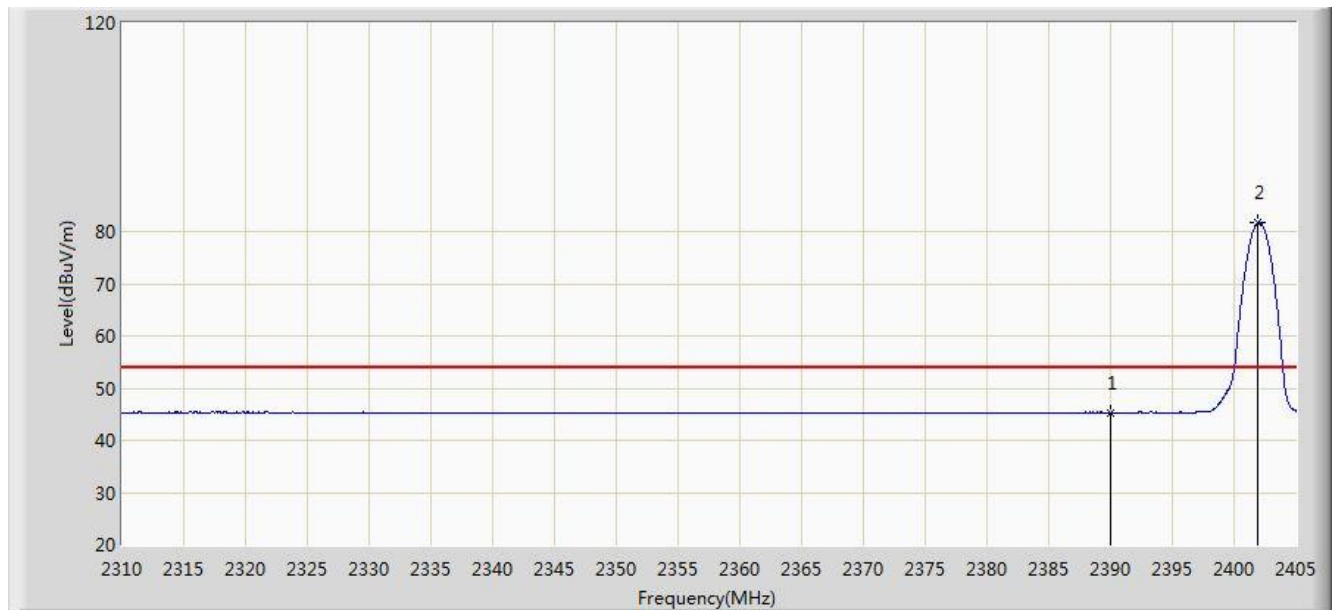


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2378.067	59.930	28.705	-14.070	74.000	31.225	PK
2			2390.000	58.259	27.056	-15.741	74.000	31.203	PK
3		*	2401.913	95.143	63.959	21.143	74.000	31.184	PK

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

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

Site: AC1	Time: 2017/08/09 - 06:03
Limit: FCC_Part15.209_RE(3m)	Engineer: Alex Ma
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: E20	Power: AC 120V/60Hz
Test Mode: Transmit by 3DH5 at channel 2402MHz	

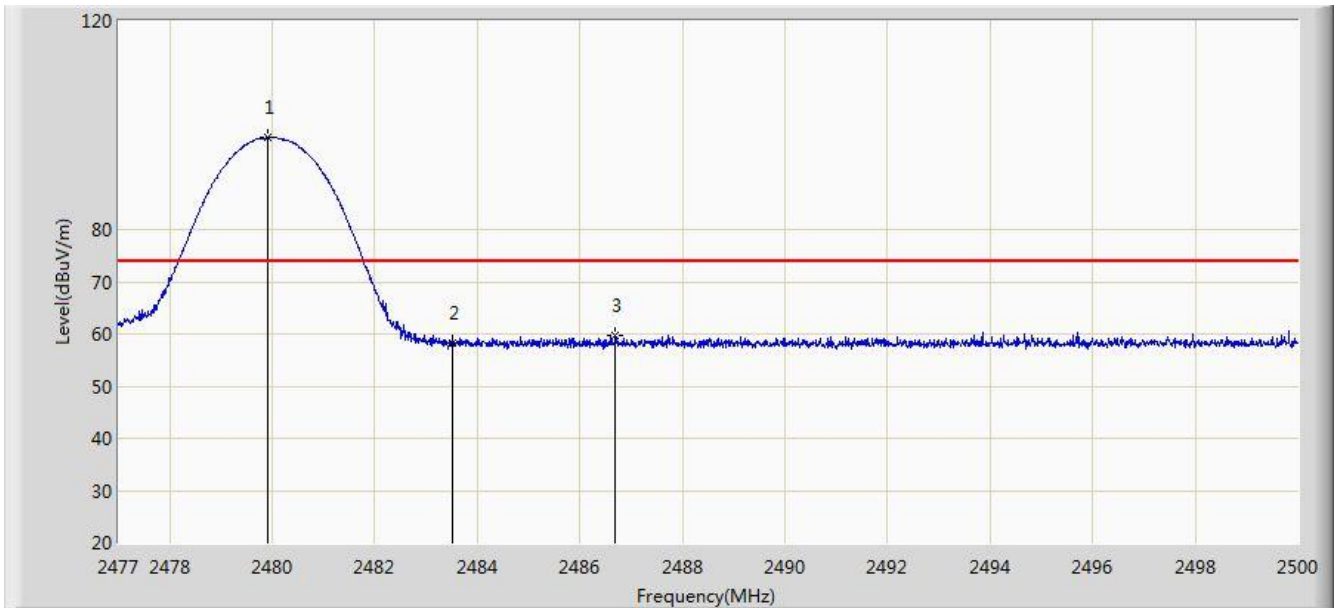


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	45.311	14.108	-8.689	54.000	31.203	AV
2		*	2401.960	81.654	50.470	27.654	54.000	31.184	AV

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

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

Site: AC1	Time: 2017/08/09 - 06:03
Limit: FCC_Part15.209_RE(3m)	Engineer: Alex Ma
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: E20	Power: AC 120V/60Hz
Test Mode: Transmit by 3DH5 at channel 2480MHz	

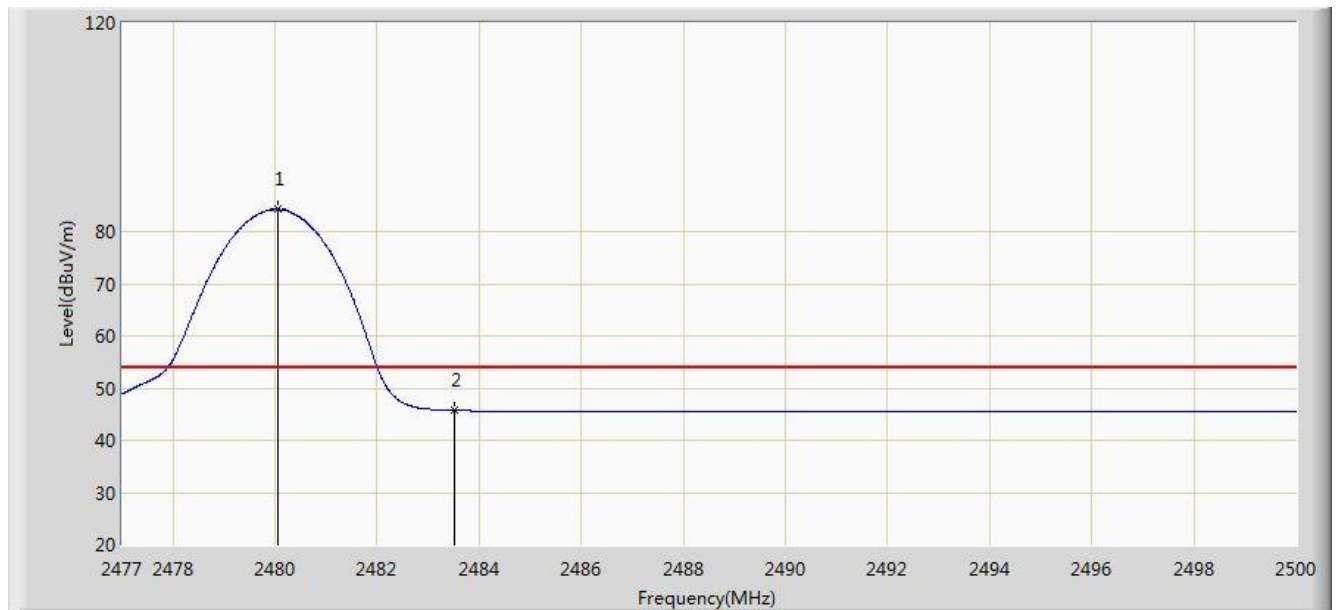


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2479.921	97.591	66.407	23.591	74.000	31.184	PK
2			2483.500	58.196	27.003	-15.804	74.000	31.194	PK
3			2486.683	59.799	28.597	-14.201	74.000	31.201	PK

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

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

Site: AC1	Time: 2017/08/09 - 06:05
Limit: FCC_Part15.209_RE(3m)	Engineer: Alex Ma
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: E20	Power: AC 120V/60Hz
Test Mode: Transmit by 3DH5 at channel 2480MHz	

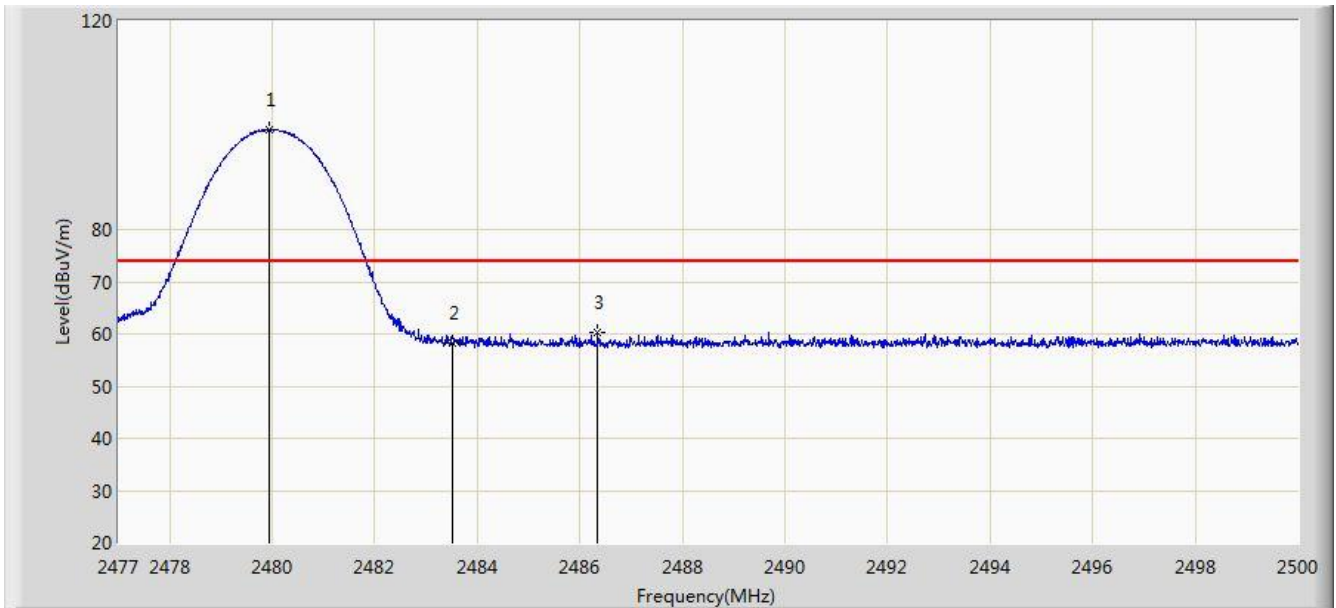


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2480.059	84.230	53.046	30.230	54.000	31.184	AV
2			2483.500	45.753	14.560	-8.247	54.000	31.194	AV

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

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

Site: AC1	Time: 2017/08/09 - 06:05
Limit: FCC_Part15.209_RE(3m)	Engineer: Alex Ma
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: E20	Power: AC 120V/60Hz
Test Mode: Transmit by 3DH5 at channel 2480MHz	

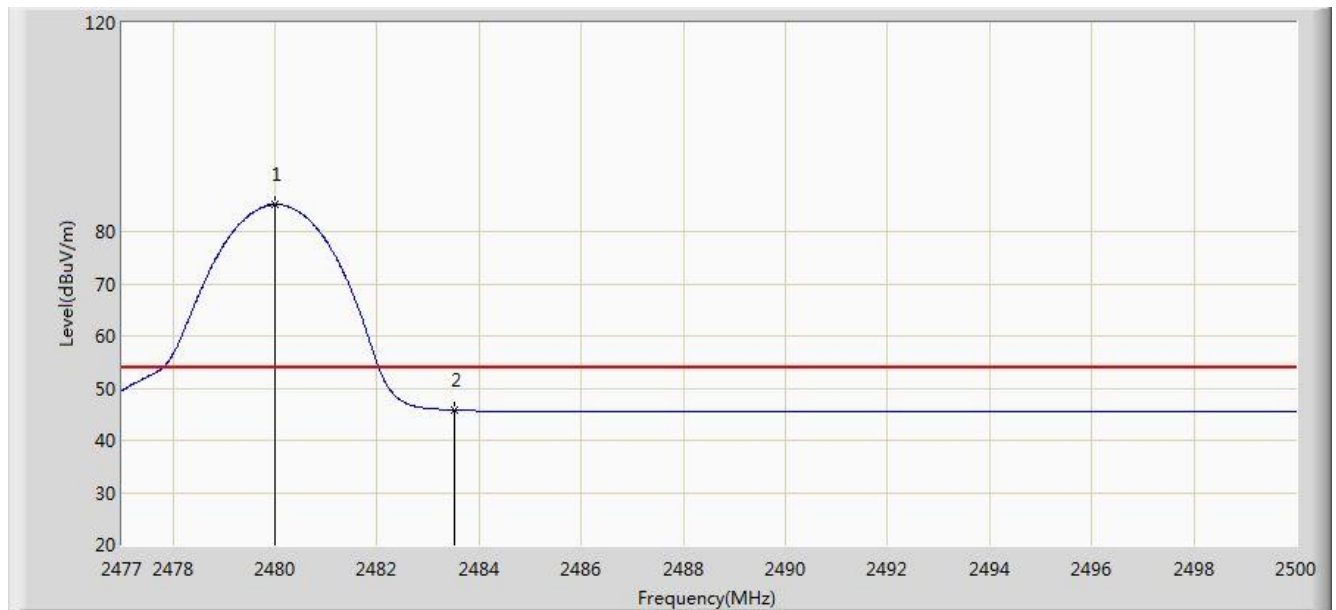


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2479.933	99.171	67.987	25.171	74.000	31.184	PK
2			2483.500	58.125	26.932	-15.875	74.000	31.194	PK
3			2486.350	60.311	29.110	-13.689	74.000	31.201	PK

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

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

Site: AC1	Time: 2017/08/09 - 06:06
Limit: FCC_Part15.209_RE(3m)	Engineer: Alex Ma
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: E20	Power: AC 120V/60Hz
Test Mode: Transmit by 3DH5 at channel 2480MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2479.990	85.145	53.961	31.145	54.000	31.184	AV
2			2483.500	45.772	14.579	-8.228	54.000	31.194	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

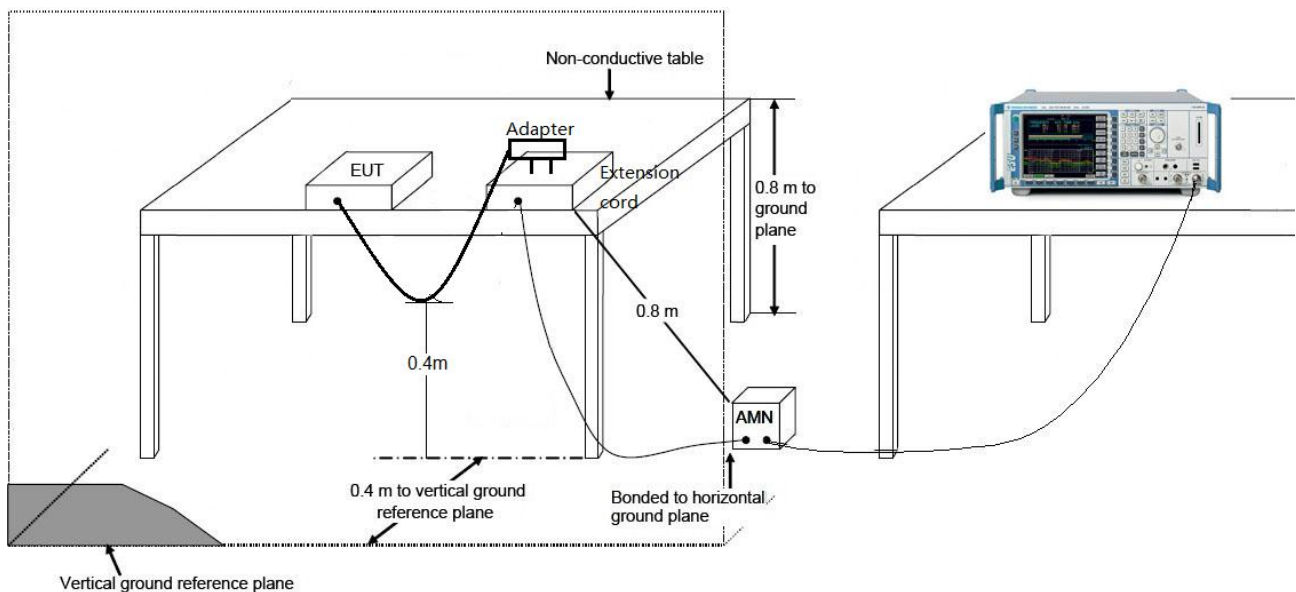
7.11.1. Test Limit

FCC Part 15 Subpart C Paragraph 15.207 Limits		
Frequency (MHz)	QP (dB μ V)	Average (dB μ V)
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.

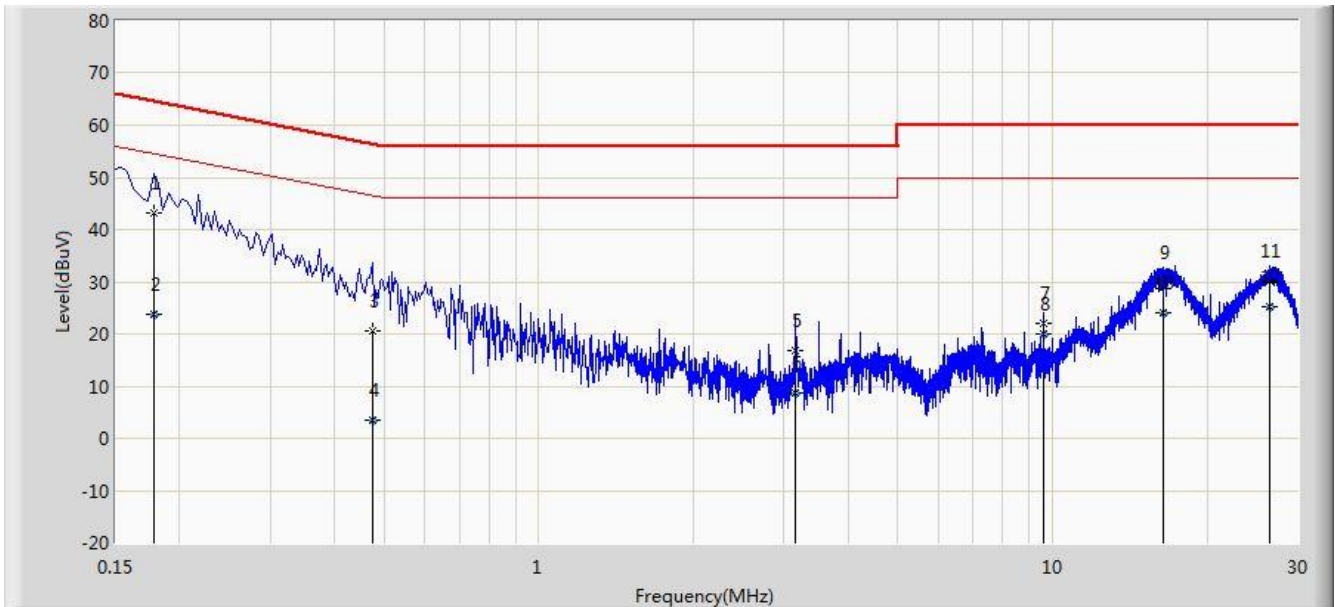
Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.5MHz.

7.11.2. Test Setup



7.11.3. Test Result

Site: SR2	Time: 2017/08/19 - 18:44
Limit: FCC_Part15.107_CE_AC Power_ClassB	Engineer: Bacon Dong
Probe: ENV216_101683_Filter On	Polarity: Line
EUT: Wireless speaker ENEBY 30-E20	Power: AC 120V/60Hz
Worst Case Mode: Transmit by DH5 at channel 2402MHz	

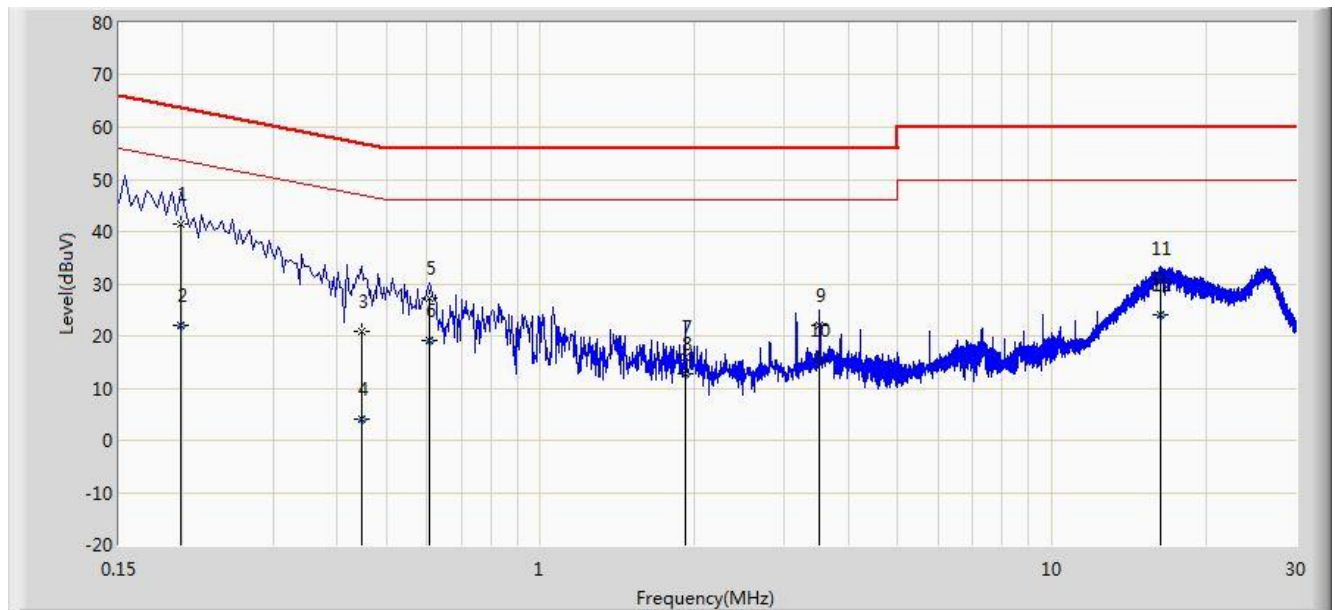


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Factor (dB)	Type
1		*	0.178	43.249	33.191	-21.330	64.578	10.058	QP
2			0.178	23.843	13.785	-30.735	54.578	10.058	AV
3			0.474	20.591	10.446	-35.852	56.444	10.145	QP
4			0.474	3.542	-6.603	-42.901	46.444	10.145	AV
5			3.166	16.733	6.875	-39.267	56.000	9.858	QP
6			3.166	8.690	-1.169	-37.310	46.000	9.858	AV
7			9.598	21.897	11.731	-38.103	60.000	10.167	QP
8			9.598	19.990	9.824	-30.010	50.000	10.167	AV
9			16.434	29.932	19.859	-30.068	60.000	10.073	QP
10			16.434	24.122	14.049	-25.878	50.000	10.073	AV
11			26.494	30.197	19.950	-29.803	60.000	10.246	QP
12			26.494	25.143	14.897	-24.857	50.000	10.246	AV

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

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

Site: SR2	Time: 2017/08/19 - 18:48
Limit: FCC_Part15.107_CE_AC Power_ClassB	Engineer: Bacon Dong
Probe: ENV216_101683_Filter On	Polarity: Neutral
EUT: Wireless speaker ENEBY 30-E20	Power: AC 120V/60Hz
Worst Case Mode: Transmit by DH5 at channel 2402MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Factor (dB)	Type
1		*	0.198	41.312	31.298	-22.382	63.694	10.015	QP
2			0.198	21.900	11.886	-31.794	53.694	10.015	AV
3			0.446	20.825	10.678	-36.124	56.949	10.147	QP
4			0.446	4.020	-6.127	-42.929	46.949	10.147	AV
5			0.606	27.185	17.057	-28.815	56.000	10.128	QP
6			0.606	19.235	9.107	-26.765	46.000	10.128	AV
7			1.922	16.036	6.159	-39.964	56.000	9.876	QP
8			1.922	12.777	2.901	-33.223	46.000	9.876	AV
9			3.514	21.972	12.056	-34.028	56.000	9.915	QP
10			3.514	15.460	5.545	-30.540	46.000	9.915	AV
11			16.310	30.936	20.823	-29.064	60.000	10.112	QP
12			16.310	24.103	13.991	-25.897	50.000	10.112	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 **Wireless speaker ENEBY 20** is in compliance with Part 15C of the FCC Rules and IC Rules.

The End