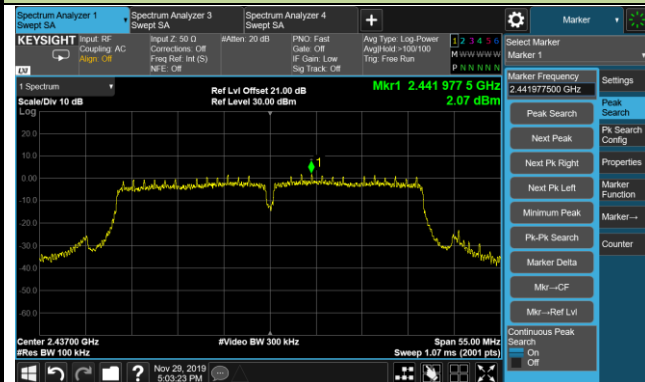


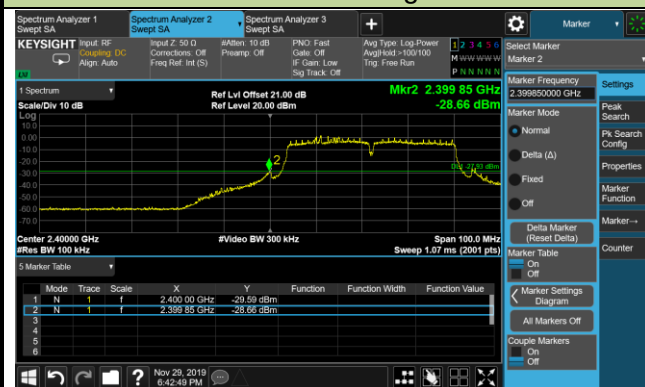
802.11n-HT40 Out-of-Band Emissions - Ant 8 / Ant 8 +9

100kHz PSD reference Level

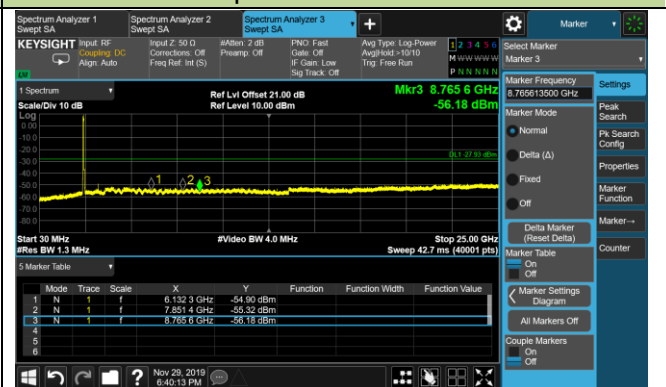


Channel 03 (2422MHz)

Low Band Edge

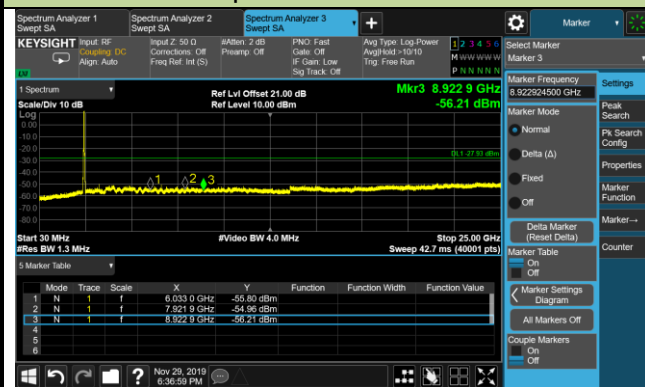


Spurious Emission



Channel 06 (2437MHz)

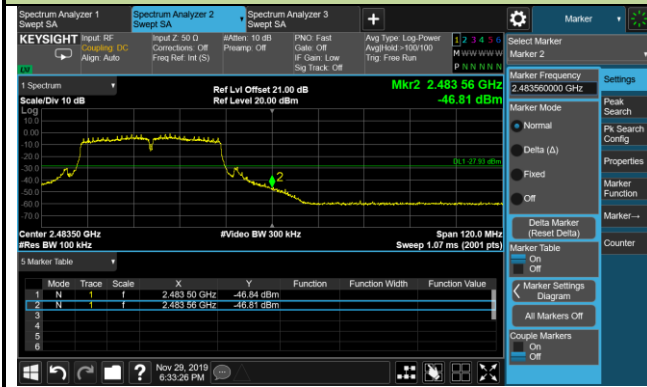
Spurious Emission



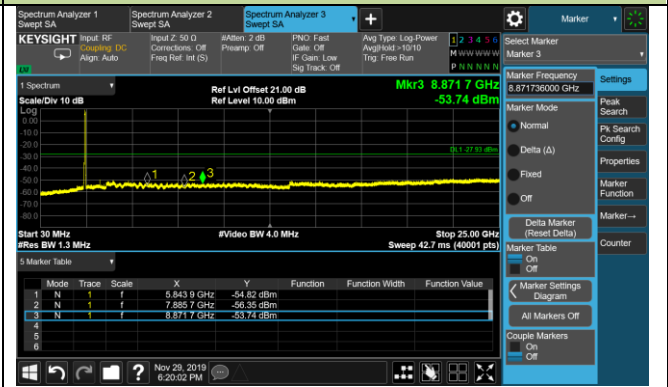
802.11n-HT40 Out-of-Band Emissions - Ant 8 / Ant 8 +9

Channel 09 (2452MHz)

High Band Edge



Spurious Emission



7.6. Radiated Spurious Emission Measurement

7.6.1. Test Limit

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47CFR 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

7.6.2. Test Procedure Used

ANSI C63.10 Section 6.3 (General Requirements)

ANSI C63.10 Section 6.4 (Standard test method below 30MHz)

ANSI C63.10 Section 6.5 (Standard test method above 30MHz to 1GHz)

ANSI C63.10 Section 6.6 (Standard test method above 1GHz)

7.6.3. Test Setting

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

Quasi-Peak Measurements below 1GHz

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. Span was set greater than 1MHz
3. RBW = as specified in Table 1
4. Detector = CISPR quasi-peak
5. Sweep time = auto couple
6. Trace was allowed to stabilize

Peak Measurements above 1GHz

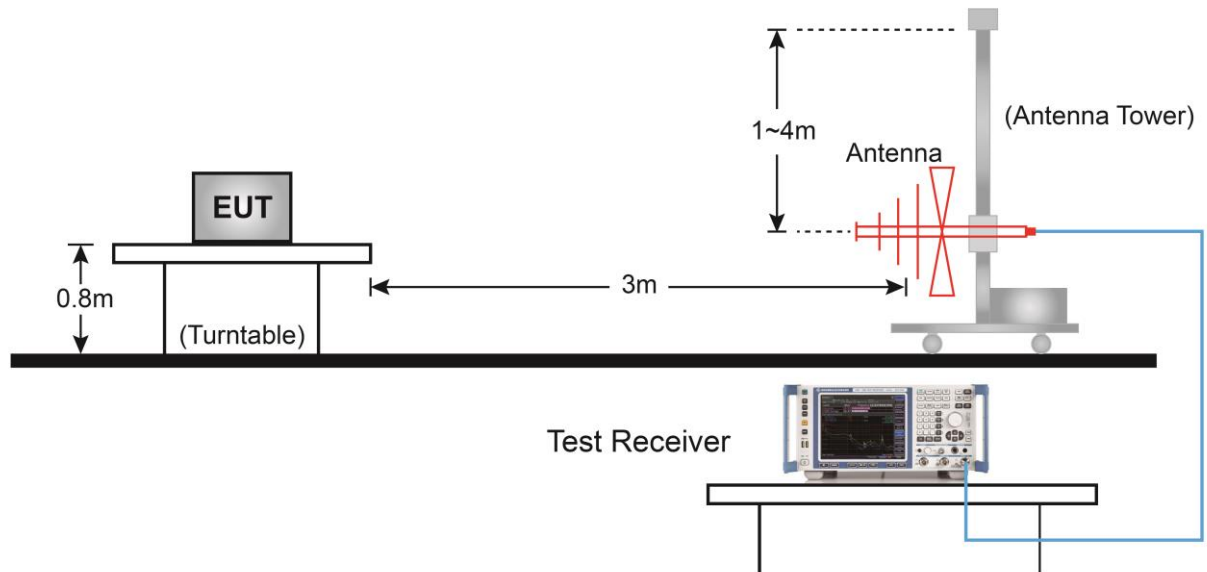
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

Average Measurements above 1GHz (Method VB)

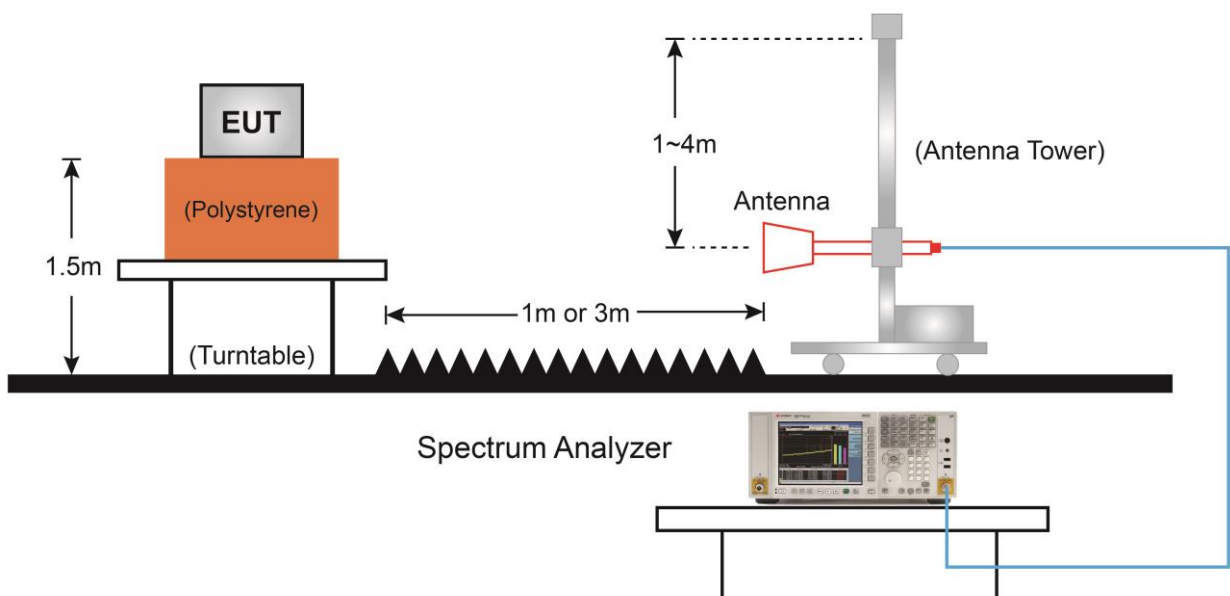
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW; If the EUT is configured to transmit with duty cycle $\geq 98\%$, set VBW = 10 Hz.
If the EUT duty cycle is $< 98\%$, set VBW $\geq 1/T$. T is the minimum transmission duration.
4. Detector = Peak
5. Sweep time = auto
6. Trace mode = max hold
7. Trace was allowed to stabilize

7.6.4. Test Setup

Below 1GHz Test Setup:



Above 1GHz Test Setup:



7.6.5. Test Result

Product	FastMile 4G Gateway	Temperature	25°C
Test Engineer	David Lv	Relative Humidity	52%
Test Site	AC1	Test Date	2019/12/03
Test Mode	802.11b - Ant 8	Test Channel	01
Note	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
*	7230.5	41.0	11.5	52.5	84.0	-31.5	Peak	Horizontal
*	7919.0	37.1	12.3	49.4	84.0	-34.6	Peak	Horizontal
	9109.0	37.4	15.0	52.4	74.0	-21.6	Peak	Horizontal
	11276.5	38.2	17.5	55.7	74.0	-18.3	Peak	Horizontal
	11276.5	32.3	17.5	49.8	54.0	-4.2	Average	Horizontal
*	7236.9	44.9	11.5	56.4	84.0	-27.6	Peak	Vertical
*	10248.0	37.5	17.1	54.6	84.0	-29.4	Peak	Vertical
	11021.5	37.4	17.9	55.3	74.0	-18.7	Peak	Vertical
	11021.5	29.5	17.9	47.4	54.0	-6.6	Average	Vertical
	12347.5	36.9	16.9	53.8	74.0	-20.2	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 30dBc of the fundamental emission level (114.0dBμV/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)

Product	FastMile 4G Gateway	Temperature	25°C
Test Engineer	David Lv	Relative Humidity	52%
Test Site	AC1	Test Date	2019/12/03
Test Mode	802.11b - Ant 8	Test Channel	06
Note	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
*	6457.0	37.4	9.2	46.6	85.9	-39.3	Peak	Horizontal
*	7026.5	37.7	10.9	48.6	85.9	-37.3	Peak	Horizontal
	7307.0	43.1	11.7	54.8	74.0	-19.2	Peak	Horizontal
	7307.0	41.7	11.7	53.4	54.0	-0.6	Average	Horizontal
	11021.5	37.6	17.9	55.5	74.0	-18.5	Peak	Horizontal
	11021.5	32.4	17.9	50.3	54.0	-3.7	Average	Horizontal
*	6380.5	38.1	8.8	46.9	85.9	-39.0	Peak	Vertical
*	7026.5	37.5	10.9	48.4	85.9	-37.5	Peak	Vertical
	7315.5	44.4	11.6	56.0	74.0	-18.0	Peak	Vertical
	7315.5	41.4	11.6	53.0	54.0	-1.0	Average	Vertical
	10860.0	37.8	18.1	55.9	74.0	-18.1	Peak	Vertical
	10860.0	31.3	18.1	49.4	54.0	-4.6	Average	Vertical

Note 1: “*” is not in restricted band, its limit is 30dBc of the fundamental emission level (115.9dBμV/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)

Product	FastMile 4G Gateway	Temperature	25°C
Test Engineer	David Lv	Relative Humidity	52%
Test Site	AC1	Test Date	2019/12/03
Test Mode	802.11b - Ant 8	Test Channel	11
Note	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
*	6482.5	37.8	9.3	47.1	81.6	-34.5	Peak	Horizontal
*	6737.5	38.0	9.8	47.8	81.6	-33.8	Peak	Horizontal
	7383.5	41.8	11.8	53.6	74.0	-20.4	Peak	Horizontal
	10953.5	37.5	17.9	55.4	74.0	-18.6	Peak	Horizontal
	10953.5	29.7	17.9	47.6	54.0	-6.4	Average	Horizontal
*	6270.0	37.5	8.5	46.0	81.6	-35.6	Peak	Vertical
*	6992.5	37.6	10.7	48.3	81.6	-33.3	Peak	Vertical
	7387.0	44.4	11.8	56.2	74.0	-17.8	Peak	Vertical
	7387.0	41.3	11.8	53.1	54.0	-0.9	Average	Vertical
	10970.5	37.3	17.9	55.2	74.0	-18.8	Peak	Vertical
	10970.5	31.4	17.9	49.3	54.0	-4.7	Average	Vertical

Note 1: "*" is not in restricted band, its limit is 30dBc of the fundamental emission level (111.6dBμV/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)

Product	FastMile 4G Gateway	Temperature	25°C
Test Engineer	David Lv	Relative Humidity	52%
Test Site	AC1	Test Date	2019/12/03
Test Mode	802.11g - Ant 8 + 9	Test Channel	01
Note	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
*	6355.0	38.0	8.9	46.9	83.5	-36.6	Peak	Horizontal
*	7137.0	37.6	11.3	48.9	83.5	-34.6	Peak	Horizontal
	7681.0	38.3	11.6	49.9	74.0	-24.1	Peak	Horizontal
	10979.0	37.4	18.0	55.4	74.0	-18.6	Peak	Horizontal
	10979.0	31.3	18.0	49.3	54.0	-4.7	Average	Horizontal
*	6848.0	37.6	10.0	47.6	83.5	-35.9	Peak	Vertical
*	7230.5	39.9	11.5	51.4	83.5	-32.1	Peak	Vertical
	8335.5	38.5	12.2	50.7	74.0	-23.3	Peak	Vertical
	10860.0	37.2	18.1	55.3	74.0	-18.7	Peak	Vertical
	10860.0	31.3	18.1	49.4	54.0	-4.6	Average	Vertical

Note 1: “*” is not in restricted band, its limit is 30dBc of the fundamental emission level (113.5dBμV/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)

Product	FastMile 4G Gateway	Temperature	25°C
Test Engineer	David Lv	Relative Humidity	52%
Test Site	AC1	Test Date	2019/12/03
Test Mode	802.11g - Ant 8 + 9	Test Channel	06
Note	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
*	5938.5	37.7	7.7	45.4	88.4	-43.0	Peak	Horizontal
*	7069.0	37.6	11.0	48.6	88.4	-39.8	Peak	Horizontal
	7307.0	43.4	11.7	55.1	74.0	-18.9	Peak	Horizontal
	7307.0	41.6	11.7	53.3	54.0	-0.7	Average	Horizontal
	11055.5	38.5	17.8	56.3	74.0	-17.7	Peak	Horizontal
	11055.5	29.6	17.8	47.4	54.0	-6.6	Average	Horizontal
*	5921.5	37.9	7.8	45.7	88.4	-42.7	Peak	Vertical
*	6372.0	38.7	8.8	47.5	88.4	-40.9	Peak	Vertical
	7307.0	43.5	11.7	55.2	74.0	-18.8	Peak	Vertical
	7307.0	40.9	11.7	52.6	54.0	-1.4	Average	Vertical
	11072.5	37.6	17.9	55.5	74.0	-18.5	Peak	Vertical
	11072.5	29.1	17.9	47.0	54.0	-7.0	Average	Vertical

Note 1: “*” is not in restricted band, its limit is 30dBc of the fundamental emission level (118.4dBμV/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)

Product	FastMile 4G Gateway	Temperature	25°C
Test Engineer	David Lv	Relative Humidity	52%
Test Site	AC1	Test Date	2019/12/03
Test Mode	802.11g - Ant 8 + 9	Test Channel	11
Note	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
*	7230.5	38.4	11.5	49.9	83.1	-33.2	Peak	Horizontal
*	10171.5	36.9	17.1	54.0	83.1	-29.1	Peak	Horizontal
	11064.0	37.3	17.9	55.2	74.0	-18.8	Peak	Horizontal
	11064.0	31.0	17.9	48.9	54.0	-5.1	Average	Horizontal
	11429.5	37.2	17.7	54.9	74.0	-19.1	Peak	Horizontal
	11429.5	31.2	17.7	48.9	54.0	-5.1	Average	Horizontal
*	6083.0	38.5	8.1	46.6	83.1	-36.5	Peak	Vertical
*	6559.0	37.7	9.6	47.3	83.1	-35.8	Peak	Vertical
	7392.0	39.5	11.8	51.3	74.0	-22.7	Peak	Vertical
	10860.0	36.6	18.1	54.7	74.0	-19.3	Peak	Vertical
	10860.0	31.4	18.1	49.5	54.0	-4.5	Average	Vertical

Note 1: "*" is not in restricted band, its limit is 30dBc of the fundamental emission level (113.1dBμV/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)

Product	FastMile 4G Gateway	Temperature	25°C
Test Engineer	David Lv	Relative Humidity	52%
Test Site	AC1	Test Date	2019/12/03
Test Mode	802.11n-HT20 - Ant 8 + 9	Test Channel	01
Note	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
*	6261.5	37.5	8.6	46.1	82.0	-35.9	Peak	Horizontal
*	6873.5	38.0	10.1	48.1	82.0	-33.9	Peak	Horizontal
	7358.0	37.6	11.9	49.5	74.0	-24.5	Peak	Horizontal
	10851.5	37.9	18.0	55.9	74.0	-18.1	Peak	Horizontal
	10851.5	30.0	18.0	48.0	54.0	-6.0	Average	Horizontal
*	6720.5	37.7	9.6	47.3	82.0	-34.7	Peak	Vertical
*	7230.5	38.5	11.5	50.0	82.0	-32.0	Peak	Vertical
	8157.0	37.7	12.5	50.2	74.0	-23.8	Peak	Vertical
	10962.0	37.4	17.8	55.2	74.0	-18.8	Peak	Vertical
	10962.0	29.7	17.8	47.5	54.0	-6.5	Average	Vertical

Note 1: “*” is not in restricted band, its limit is 30dBc of the fundamental emission level (112.0dBμV/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)

Product	FastMile 4G Gateway	Temperature	25°C
Test Engineer	David Lv	Relative Humidity	52%
Test Site	AC1	Test Date	2019/12/03
Test Mode	802.11n-HT20 - Ant 8 + 9	Test Channel	06
Note	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
*	6448.5	38.4	9.2	47.6	88.0	-40.4	Peak	Horizontal
*	7128.5	37.8	11.3	49.1	88.0	-38.9	Peak	Horizontal
	7315.5	40.0	11.6	51.6	74.0	-22.4	Peak	Horizontal
	11191.5	37.3	17.5	54.8	74.0	-19.2	Peak	Horizontal
	11191.5	29.9	17.5	47.4	54.0	-6.6	Average	Horizontal
*	5904.5	37.1	7.8	44.9	88.0	-43.1	Peak	Vertical
*	6746.0	37.6	9.8	47.4	88.0	-40.6	Peak	Vertical
	7313.1	44.8	11.7	56.5	74.0	-17.5	Peak	Vertical
	7313.1	38.4	11.7	50.1	54.0	-3.9	Average	Vertical
	11497.5	37.2	17.7	54.9	74.0	-19.1	Peak	Vertical
	11497.5	31.0	17.7	48.7	54.0	-5.3	Average	Vertical

Note 1: “*” is not in restricted band, its limit is 30dBc of the fundamental emission level (118.0dBμV/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)

Product	FastMile 4G Gateway	Temperature	25°C
Test Engineer	David Lv	Relative Humidity	52%
Test Site	AC1	Test Date	2019/12/03
Test Mode	802.11n-HT20 - Ant 8 + 9	Test Channel	11
Note	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
*	6278.5	38.3	8.5	46.8	80.9	-34.1	Peak	Horizontal
*	6780.0	37.9	9.9	47.8	80.9	-33.1	Peak	Horizontal
	7290.0	38.3	11.7	50.0	74.0	-24.0	Peak	Horizontal
	11514.5	37.7	17.7	55.4	74.0	-18.6	Peak	Horizontal
	11514.5	29.5	17.7	47.2	54.0	-6.8	Average	Horizontal
*	6414.5	37.7	9.0	46.7	80.9	-34.2	Peak	Vertical
*	7060.5	38.2	11.0	49.2	80.9	-31.7	Peak	Vertical
	7392.0	38.2	11.8	50.0	74.0	-24.0	Peak	Vertical
	10724.0	37.5	17.8	55.3	74.0	-18.7	Peak	Vertical
	10724.0	29.3	17.8	47.1	54.0	-6.9	Average	Vertical

Note 1: “*” is not in restricted band, its limit is 30dBc of the fundamental emission level (110.9dBμV/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)

Product	FastMile 4G Gateway	Temperature	25°C
Test Engineer	David Lv	Relative Humidity	52%
Test Site	AC1	Test Date	2019/12/03
Test Mode	802.11n-HT40 - Ant 8 + 9	Test Channel	03
Note	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
*	5777.0	37.7	7.6	45.3	78.5	-33.2	Peak	Horizontal
*	6414.5	38.1	9.0	47.1	78.5	-31.4	Peak	Horizontal
	7358.0	38.1	11.9	50.0	74.0	-24.0	Peak	Horizontal
	10877.0	37.0	18.1	55.1	74.0	-18.9	Peak	Horizontal
	10877.0	31.8	18.1	49.9	54.0	-4.1	Average	Horizontal
*	6202.0	38.1	8.1	46.2	78.5	-32.3	Peak	Vertical
*	6559.0	37.7	9.6	47.3	78.5	-31.2	Peak	Vertical
	7375.0	38.2	11.9	50.1	74.0	-23.9	Peak	Vertical
	10894.0	37.2	18.0	55.2	74.0	-18.8	Peak	Vertical
	10894.0	29.2	18.0	47.2	54.0	-6.8	Average	Vertical

Note 1: “*” is not in restricted band, its limit is 30dBc of the fundamental emission level (108.5dBμV/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)

Product	FastMile 4G Gateway	Temperature	25°C
Test Engineer	David Lv	Relative Humidity	52%
Test Site	AC1	Test Date	2019/12/03
Test Mode	802.11n-HT40 - Ant 8 + 9	Test Channel	06
Note	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
*	5913.0	37.9	7.9	45.8	81.6	-35.8	Peak	Horizontal
*	6516.5	38.0	9.6	47.6	81.6	-34.0	Peak	Horizontal
	7341.0	38.0	11.8	49.8	74.0	-24.2	Peak	Horizontal
	10996.0	37.2	18.1	55.3	74.0	-18.7	Peak	Horizontal
	10996.0	29.6	18.1	47.7	54.0	-6.3	Average	Horizontal
*	5998.0	38.6	7.9	46.5	81.6	-35.1	Peak	Vertical
*	7009.5	37.8	10.9	48.7	81.6	-32.9	Peak	Vertical
	7341.0	40.1	11.8	51.9	74.0	-22.1	Peak	Vertical
	10868.5	36.7	18.1	54.8	74.0	-19.2	Peak	Vertical
	10868.5	30.1	18.1	48.2	54.0	-5.8	Average	Vertical

Note 1: “*” is not in restricted band, its limit is 30dBc of the fundamental emission level (111.6dBμV/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)

Product	FastMile 4G Gateway	Temperature	25°C
Test Engineer	David Lv	Relative Humidity	52%
Test Site	AC1	Test Date	2019/12/03
Test Mode	802.11n-HT40 - Ant 8 + 9	Test Channel	09
Note	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
*	5913.0	37.0	7.9	44.9	78.5	-33.6	Peak	Horizontal
*	6661.0	37.8	9.7	47.5	78.5	-31.0	Peak	Horizontal
	7485.5	38.0	11.8	49.8	74.0	-24.2	Peak	Horizontal
	10962.0	37.5	17.8	55.3	74.0	-18.7	Peak	Horizontal
	10962.0	31.4	17.8	49.2	54.0	-4.8	Average	Horizontal
*	6168.0	37.7	8.3	46.0	78.5	-32.5	Peak	Vertical
*	6865.0	37.8	10.2	48.0	78.5	-30.5	Peak	Vertical
	7400.5	37.3	11.8	49.1	74.0	-24.9	Peak	Vertical
	11081.0	37.1	17.9	55.0	74.0	-19.0	Peak	Vertical
	11081.0	30.4	17.9	48.3	54.0	-5.7	Average	Vertical

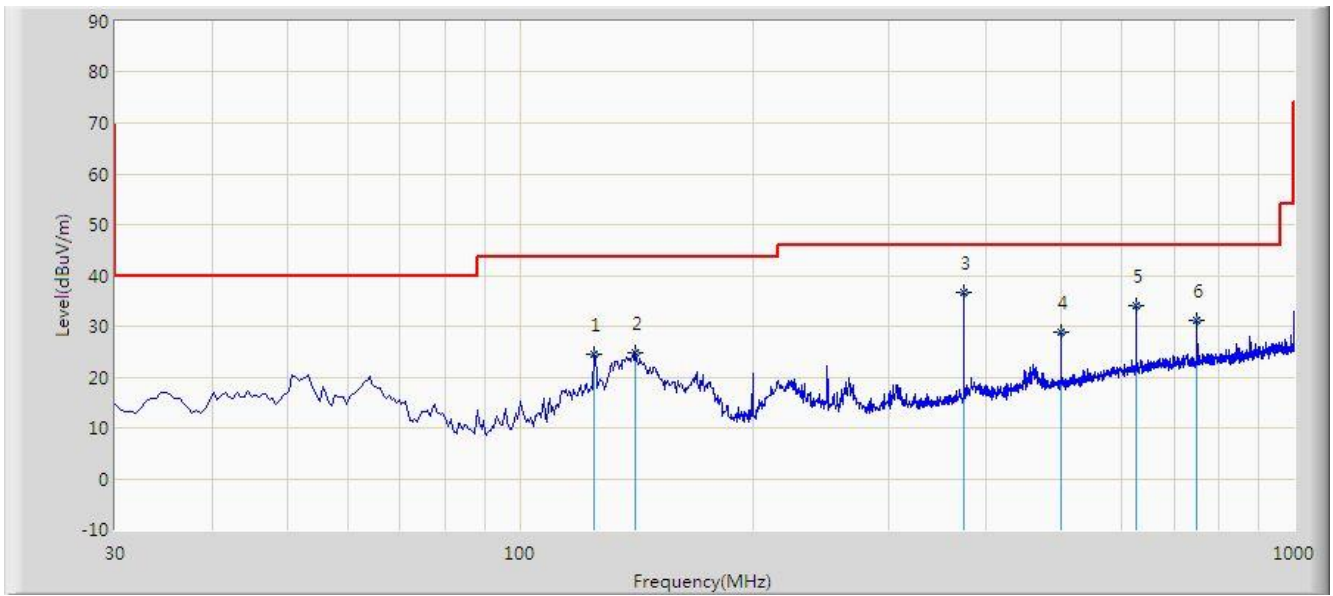
Note 1: “*” is not in restricted band, its limit is 30dBc of the fundamental emission level (108.5dBμV/m) or 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

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

The Worst Case of Radiated Emission below 1GHz:

Site: AC1	Time: 2019/12/04 - 15:48
Limit: FCC_Part15.209_RSE(3m)	Engineer: Dillon Diao
Probe: VULB 9168 _20-2000MHz	Polarity: Horizontal
EUT: FastMile 4G Gateway	Power: AC 120V/60Hz
Worst Case Mode: There is the worst case within frequency range 30MHz~1GHz.	



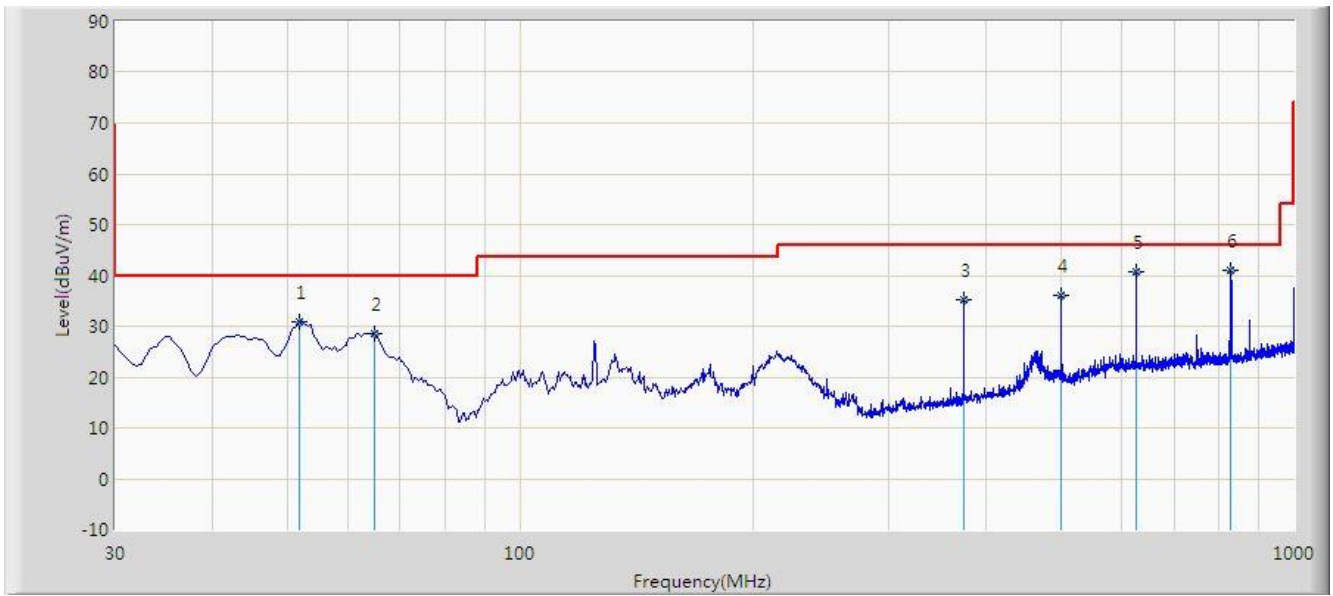
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			124.575	24.423	10.947	-19.077	43.500	13.476	QP
2			141.065	24.643	10.016	-18.857	43.500	14.626	QP
3		*	374.835	36.688	20.650	-9.312	46.000	16.037	QP
4			499.965	28.723	10.232	-17.277	46.000	18.492	QP
5			625.095	34.013	12.922	-11.987	46.000	21.091	QP
6			750.225	31.188	8.413	-14.812	46.000	22.774	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: 2019/12/04 - 15:50
Limit: FCC_Part15.209_RSE(3m)	Engineer: Dillon Diao
Probe: VULB 9168 _20-2000MHz	Polarity: Vertical
EUT: FastMile 4G Gateway	Power: AC 120V/60Hz
Worst Case Mode: There is the worst case within frequency range 30MHz~1GHz.	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			51.825	30.952	16.941	-9.048	40.000	14.011	QP
2			64.920	28.489	15.997	-11.511	40.000	12.492	QP
3			374.835	35.265	19.227	-10.735	46.000	16.037	QP
4			499.965	36.026	17.535	-9.974	46.000	18.492	QP
5			625.095	40.850	19.759	-5.150	46.000	21.091	QP
6		*	827.340	41.046	17.529	-4.954	46.000	23.517	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.

7.7. Radiated Restricted Band Edge Measurement

7.7.1. Test Limit

For 15.205 requirement:

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a) of FCC part 15, must also comply with the radiated emission limits specified in Section 15.209(a).

Frequency (MHz)	Frequency (MHz)	Frequency (MHz)	Frequency (GHz)
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
¹ 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	(²)
13.36 - 13.41	--	--	--

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

FCC Part 15 Subpart C Paragraph 15.209 Limits		
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

7.7.2. Test Procedure Used

ANSI C63.10 Section 6.3 (General Requirements)

ANSI C63.10 Section 6.6 (Standard test method above 1GHz)

7.7.3. Test Setting

Peak Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

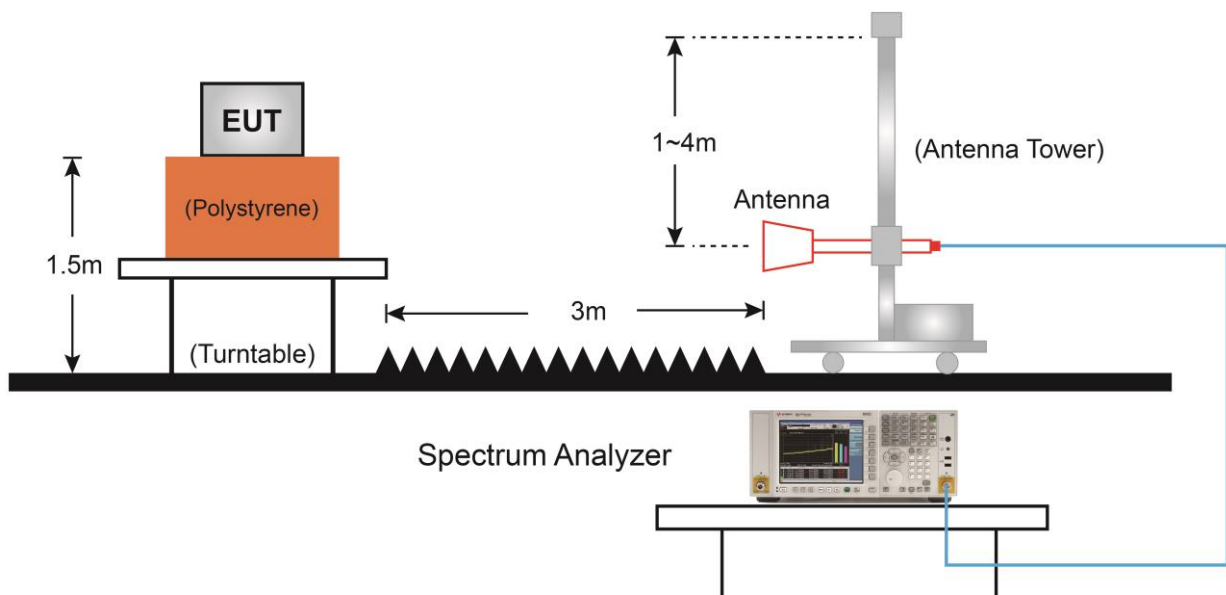
Average Measurements above 1GHz (Method VB)

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW; If the EUT is configured to transmit with duty cycle $\geq 98\%$, set VBW = 10 Hz.

If the EUT duty cycle is $< 98\%$, set $VBW \geq 1/T$. T is the minimum transmission duration.

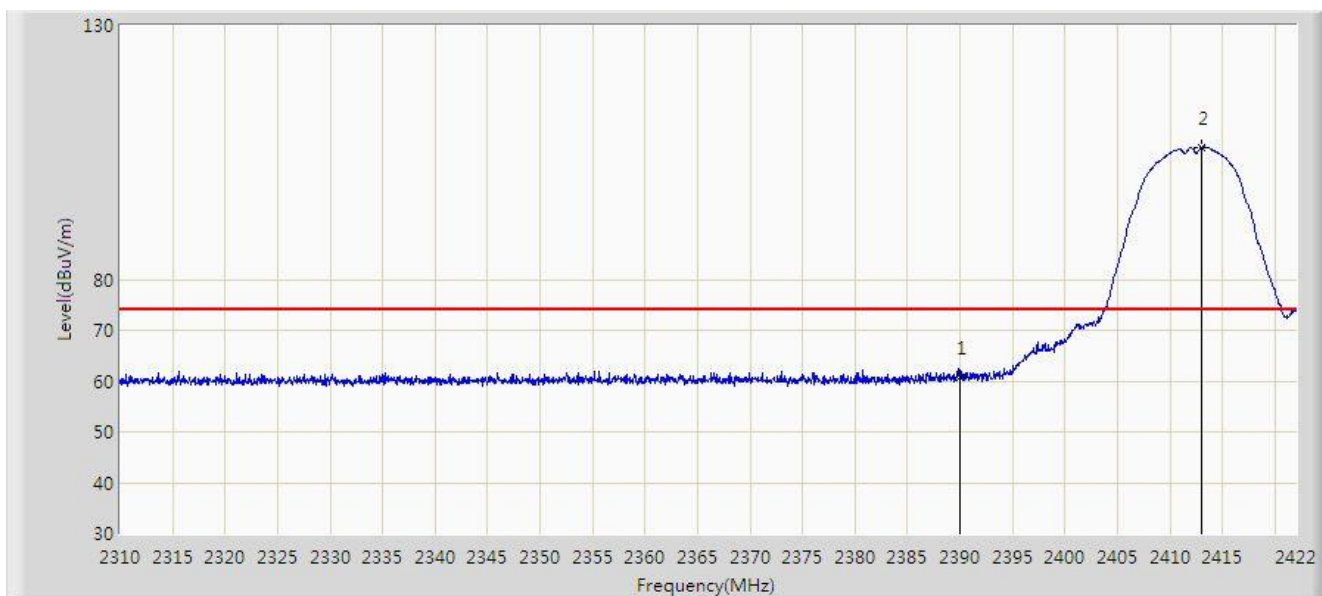
4. Detector = Peak
5. Sweep time = auto
6. Trace mode = max hold
7. Trace was allowed to stabilize

7.7.4. Test Setup



7.7.5. Test Result

Site: AC1	Time: 2019/11/29 - 03:01
Limit: FCC_Part 15.209_RE(3m)	Engineer: David Lv
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: FastMile 4G Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at Channel 2412MHz	

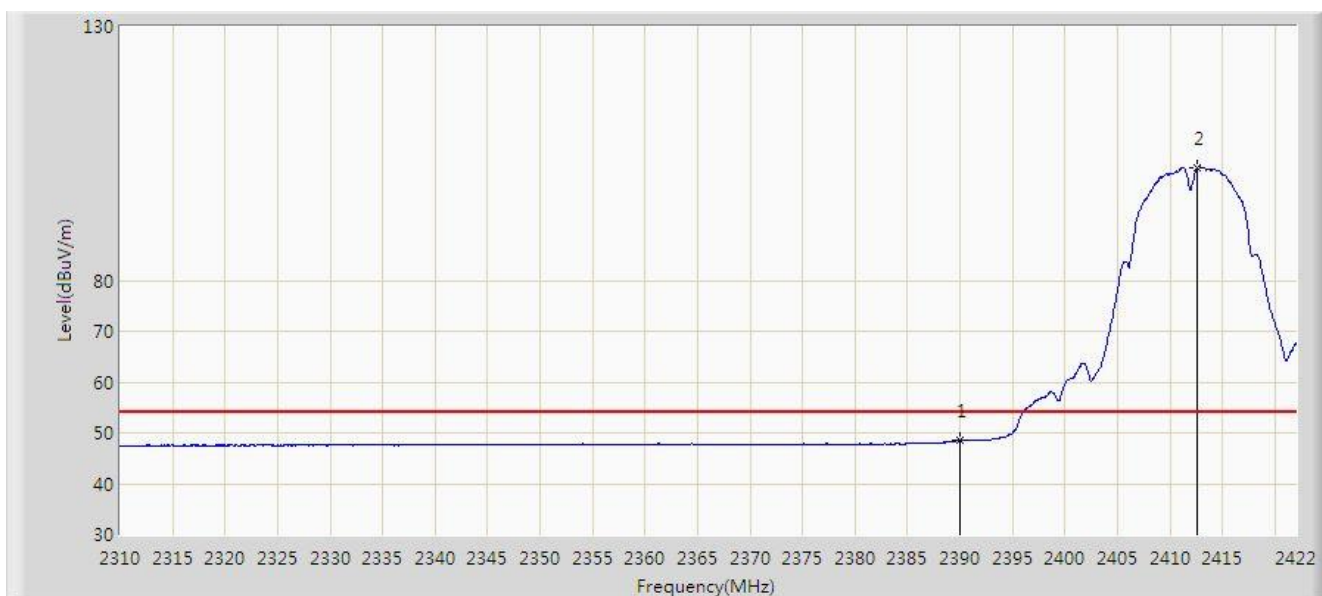


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	60.791	28.719	-13.209	74.000	32.072	PK
2		*	2413.040	106.007	73.921	N/A	N/A	32.086	PK

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

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

Site: AC1	Time: 2019/11/29 - 03:02
Limit: FCC_Part 15.209_RE(3m)	Engineer: David Lv
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: FastMile 4G Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at Channel 2412MHz	

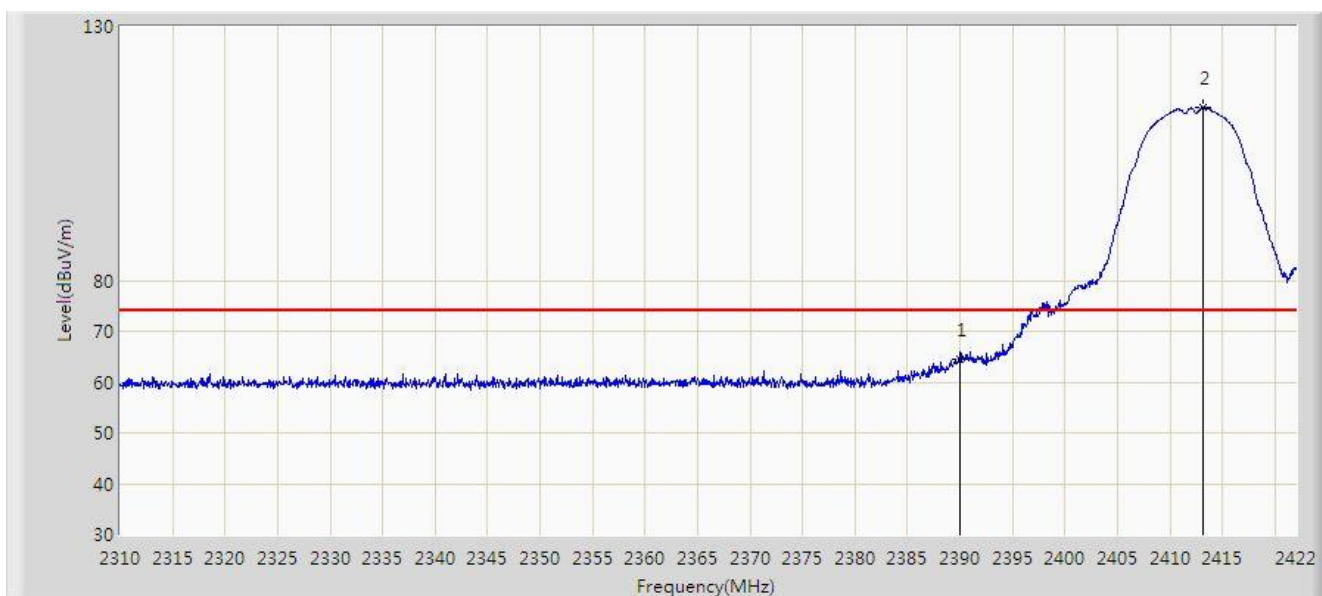


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	48.515	16.443	-5.485	54.000	32.072	AV
2		*	2412.648	102.256	70.171	N/A	N/A	32.085	AV

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

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

Site: AC1	Time: 2019/11/29 - 03:00
Limit: FCC_Part 15.209_RE(3m)	Engineer: David Lv
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: FastMile 4G Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at Channel 2412MHz	

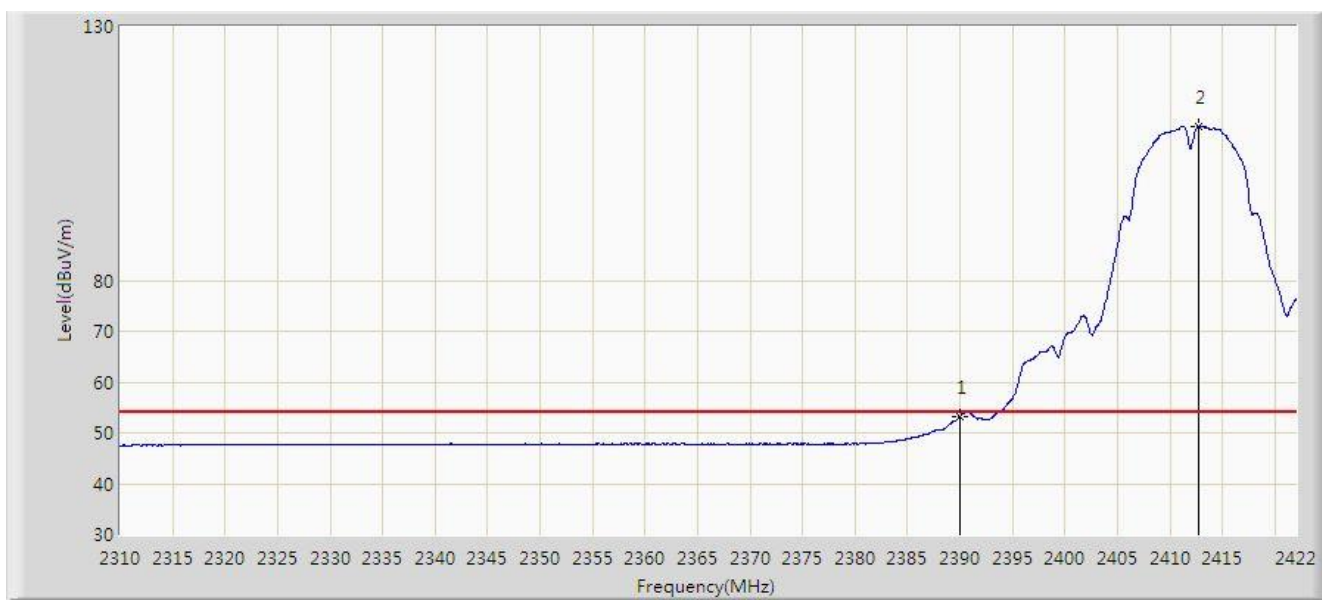


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	64.549	32.477	-9.451	74.000	32.072	PK
2		*	2413.208	113.998	81.911	N/A	N/A	32.086	PK

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

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

Site: AC1	Time: 2019/11/29 - 02:59
Limit: FCC_Part 15.209_RE(3m)	Engineer: David Lv
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: FastMile 4G Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at Channel 2412MHz	

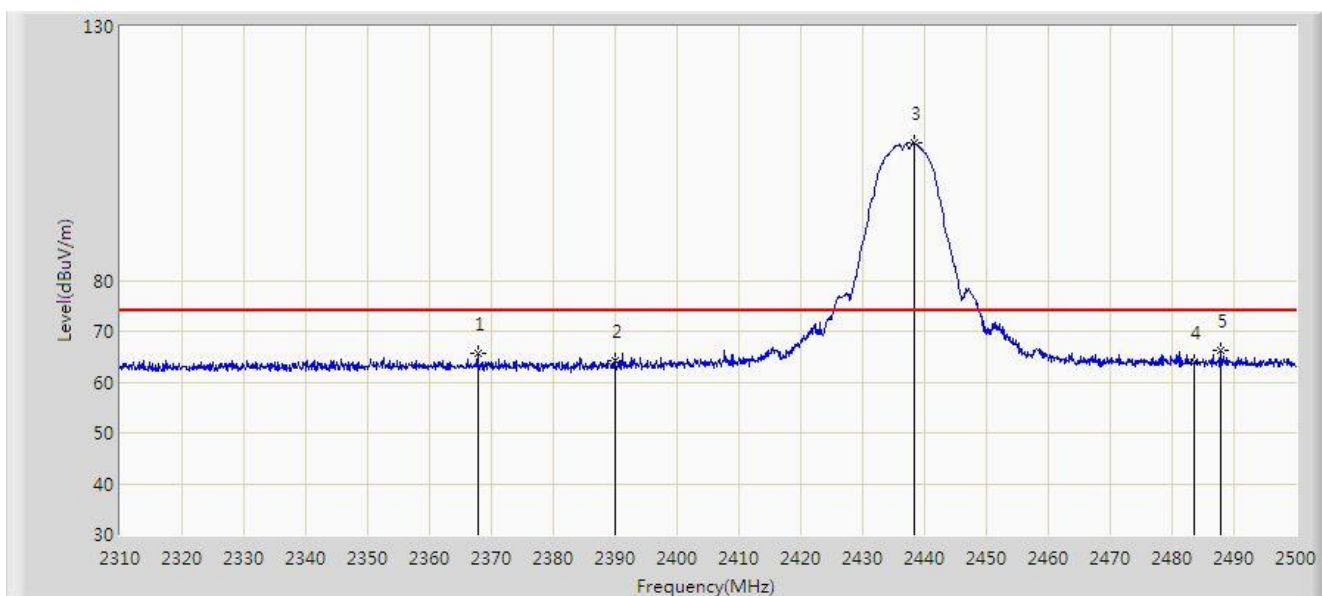


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	53.236	21.164	-0.764	54.000	32.072	AV
2	X	*	2412.704	110.395	78.310	N/A	N/A	32.085	AV

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

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

Site: AC1	Time: 2019/11/29 - 03:26
Limit: FCC_Part 15.209_RE(3m)	Engineer: David Lv
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: FastMile 4G Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at Channel 2437MHz	

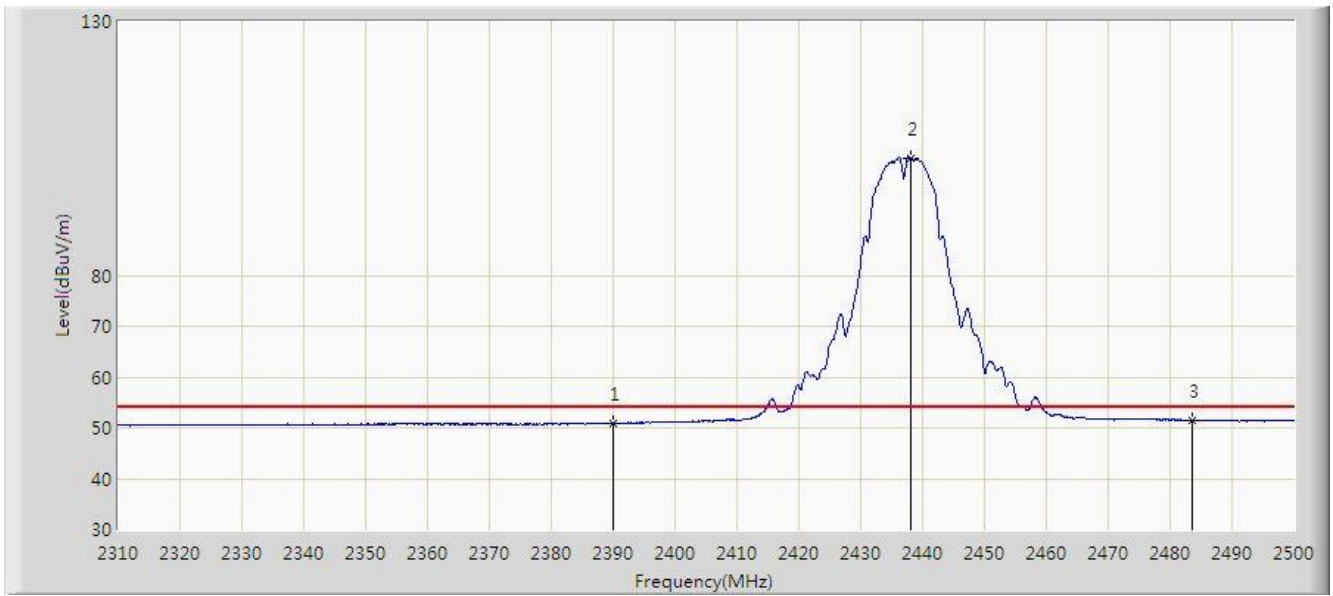


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2367.760	65.618	33.517	-8.382	74.000	32.101	PK
2			2390.000	64.180	32.108	-9.820	74.000	32.072	PK
3		*	2438.440	106.963	74.869	N/A	N/A	32.094	PK
4			2483.500	63.776	31.739	-10.224	74.000	32.037	PK
5			2487.745	66.169	34.140	-7.831	74.000	32.029	PK

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

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

Site: AC1	Time: 2019/11/29 - 03:27
Limit: FCC_Part 15.209_RE(3m)	Engineer: David Lv
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: FastMile 4G Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at Channel 2437MHz	

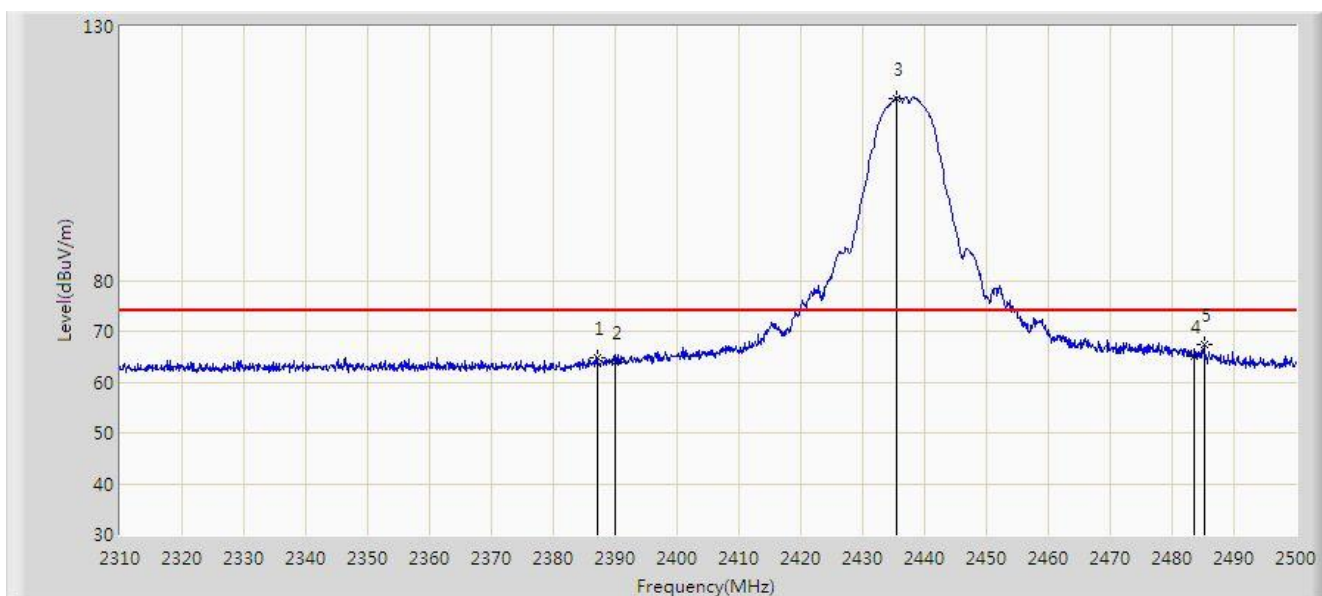


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	50.911	18.839	-3.089	54.000	32.072	AV
2		*	2438.155	103.158	71.063	N/A	N/A	32.094	AV
3			2483.500	51.528	19.491	-2.472	54.000	32.037	AV

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

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

Site: AC1	Time: 2019/11/29 - 03:25
Limit: FCC_Part 15.209_RE(3m)	Engineer: David Lv
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: FastMile 4G Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at Channel 2437MHz	

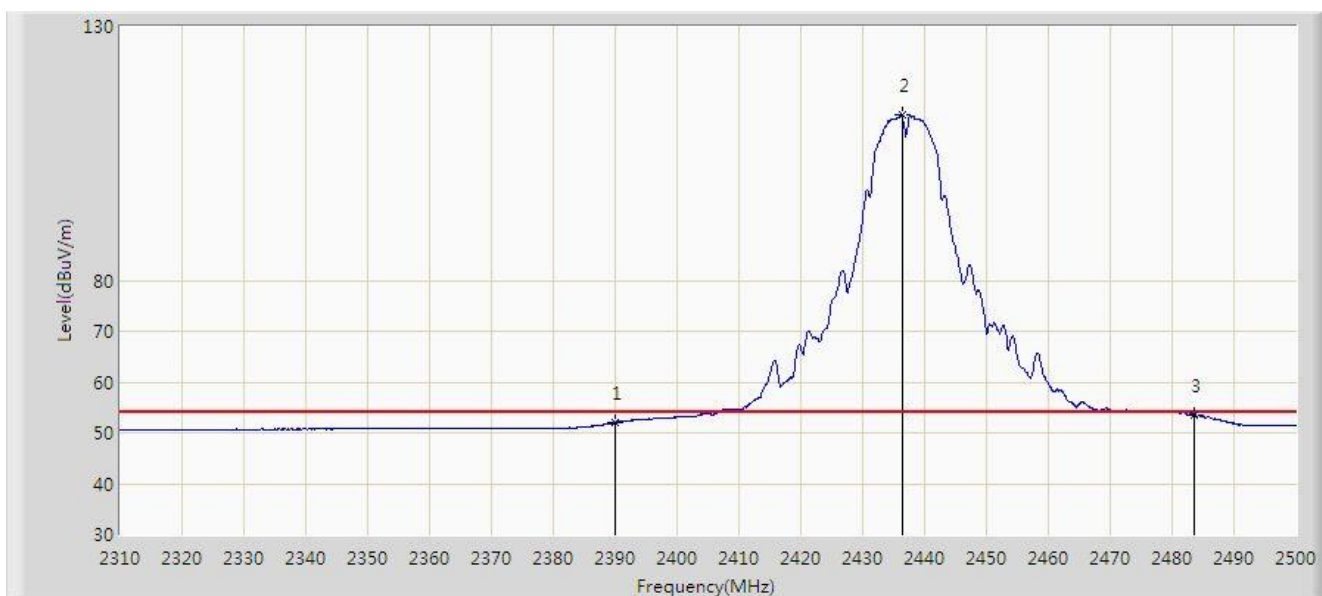


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2387.140	64.815	32.742	-9.185	74.000	32.073	PK
2			2390.000	63.840	31.768	-10.160	74.000	32.072	PK
3		*	2435.400	115.870	83.767	N/A	N/A	32.103	PK
4			2483.500	65.115	33.078	-8.885	74.000	32.037	PK
5			2485.180	67.354	35.320	-6.646	74.000	32.034	PK

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

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

Site: AC1	Time: 2019/11/29 - 03:14
Limit: FCC_Part 15.209_RE(3m)	Engineer: David Lv
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: FastMile 4G Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at Channel 2437MHz	

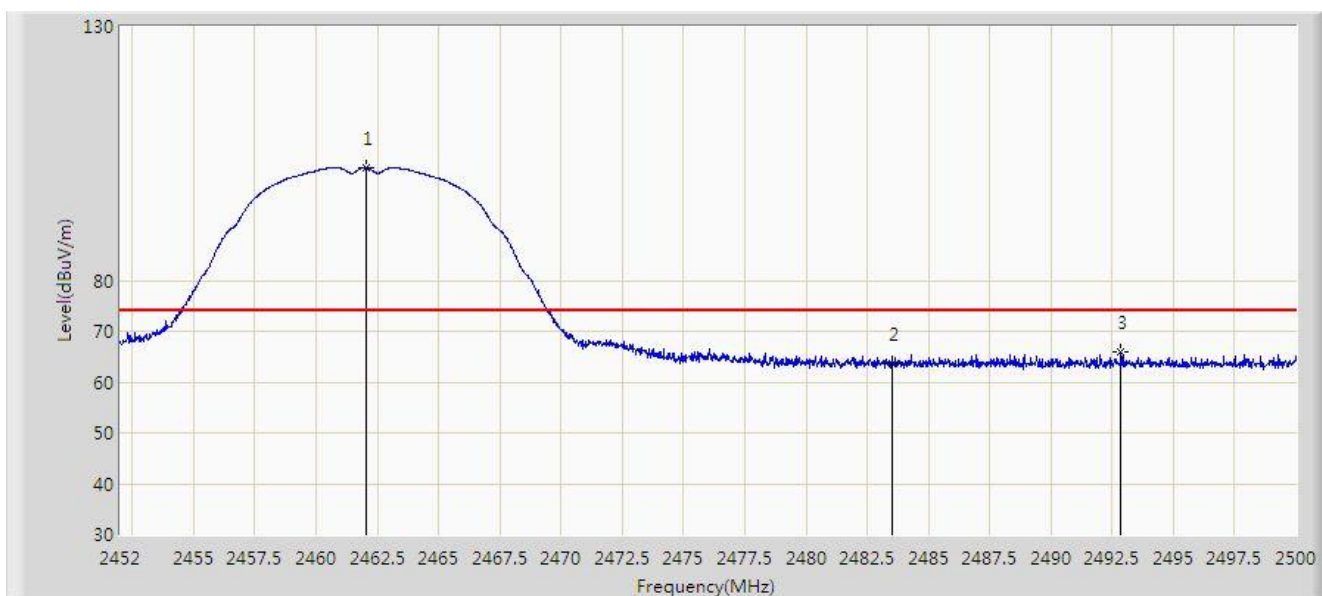


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	52.010	19.938	-1.990	54.000	32.072	AV
2	X	*	2436.350	112.576	80.476	N/A	N/A	32.100	AV
3			2483.500	53.591	21.554	-0.409	54.000	32.037	AV

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

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

Site: AC1	Time: 2019/11/29 - 03:11
Limit: FCC_Part 15.209_RE(3m)	Engineer: David Lv
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: FastMile 4G Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at Channel 2462MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2462.056	102.218	70.137	N/A	N/A	32.081	PK
2			2483.500	63.739	31.702	-10.261	74.000	32.037	PK
3			2492.872	65.897	33.878	-8.103	74.000	32.019	PK

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

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

Site: AC1	Time: 2019/11/29 - 03:12
Limit: FCC_Part 15.209_RE(3m)	Engineer: David Lv
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: FastMile 4G Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at Channel 2462MHz	

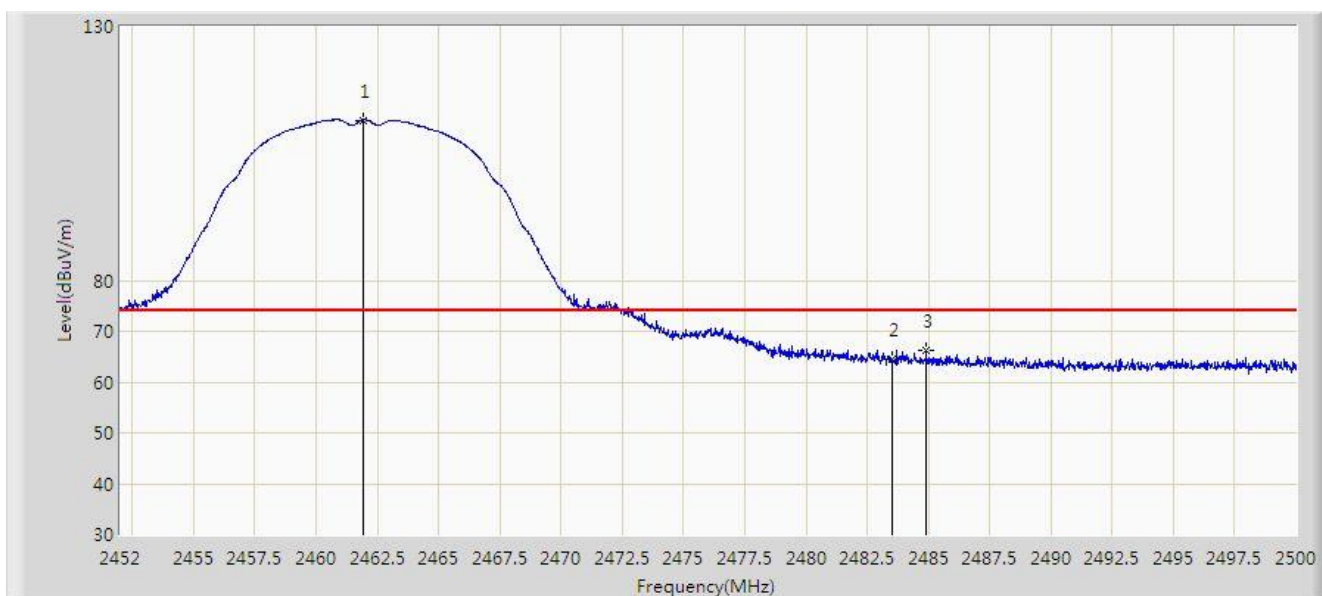


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2461.240	98.893	66.813	N/A	N/A	32.081	AV
2			2483.500	51.384	19.347	-2.616	54.000	32.037	AV

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

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

Site: AC1	Time: 2019/11/29 - 03:10
Limit: FCC_Part 15.209_RE(3m)	Engineer: David Lv
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: FastMile 4G Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at Channel 2462MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2461.912	111.569	79.488	N/A	N/A	32.080	PK
2			2483.500	64.400	32.363	-9.600	74.000	32.037	PK
3			2484.904	66.242	34.208	-7.758	74.000	32.035	PK

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

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

Site: AC1	Time: 2019/11/29 - 03:08
Limit: FCC_Part 15.209_RE(3m)	Engineer: David Lv
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: FastMile 4G Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at Channel 2462MHz	

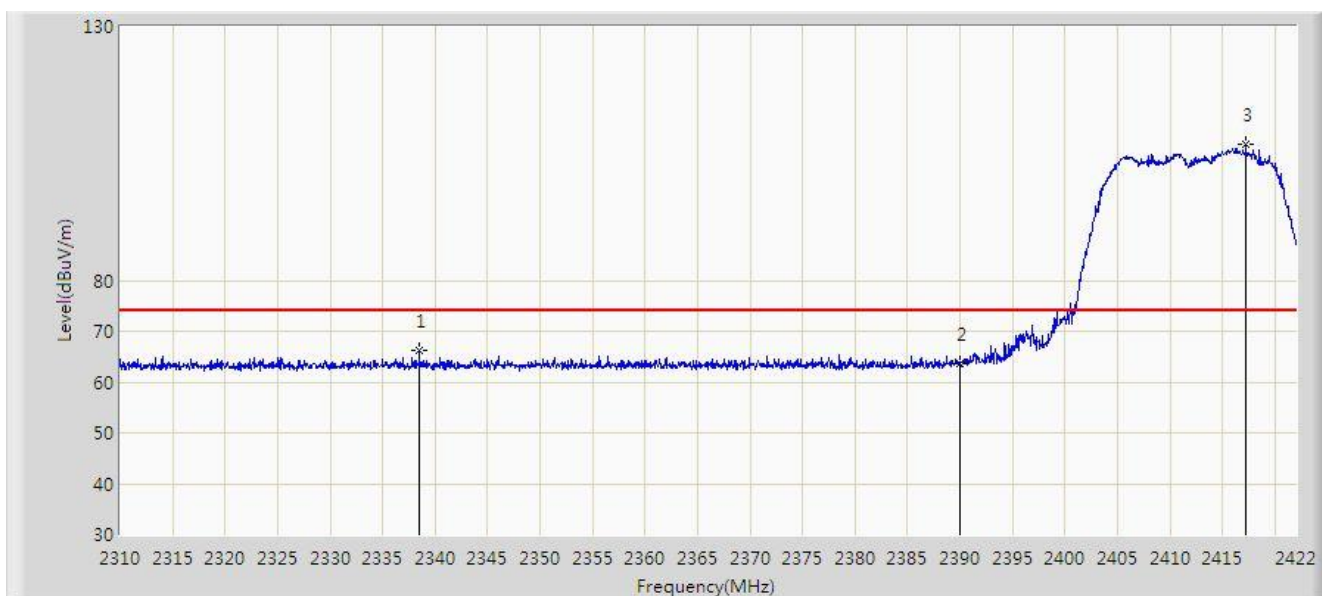


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	X	*	2461.312	108.270	76.190	N/A	N/A	32.080	AV
2			2483.500	52.830	20.793	-1.170	54.000	32.037	AV

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

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

Site: AC1	Time: 2019/11/29 - 04:27
Limit: FCC_Part 15.209_RE(3m)	Engineer: David Lv
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: FastMile 4G Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at Channel 2412MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2338.504	66.118	33.970	-7.882	74.000	32.148	PK
2			2390.000	63.636	31.564	-10.364	74.000	32.072	PK
3		*	2417.240	106.746	74.649	N/A	N/A	32.097	PK

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

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

Site: AC1	Time: 2019/11/29 - 04:28
Limit: FCC_Part 15.209_RE(3m)	Engineer: David Lv
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: FastMile 4G Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at Channel 2412MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	51.602	19.530	-2.398	54.000	32.072	AV
2		*	2415.616	96.032	63.939	N/A	N/A	32.093	AV

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

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

Site: AC1	Time: 2019/11/29 - 04:26
Limit: FCC_Part 15.209_RE(3m)	Engineer: David Lv
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: FastMile 4G Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at Channel 2412MHz	

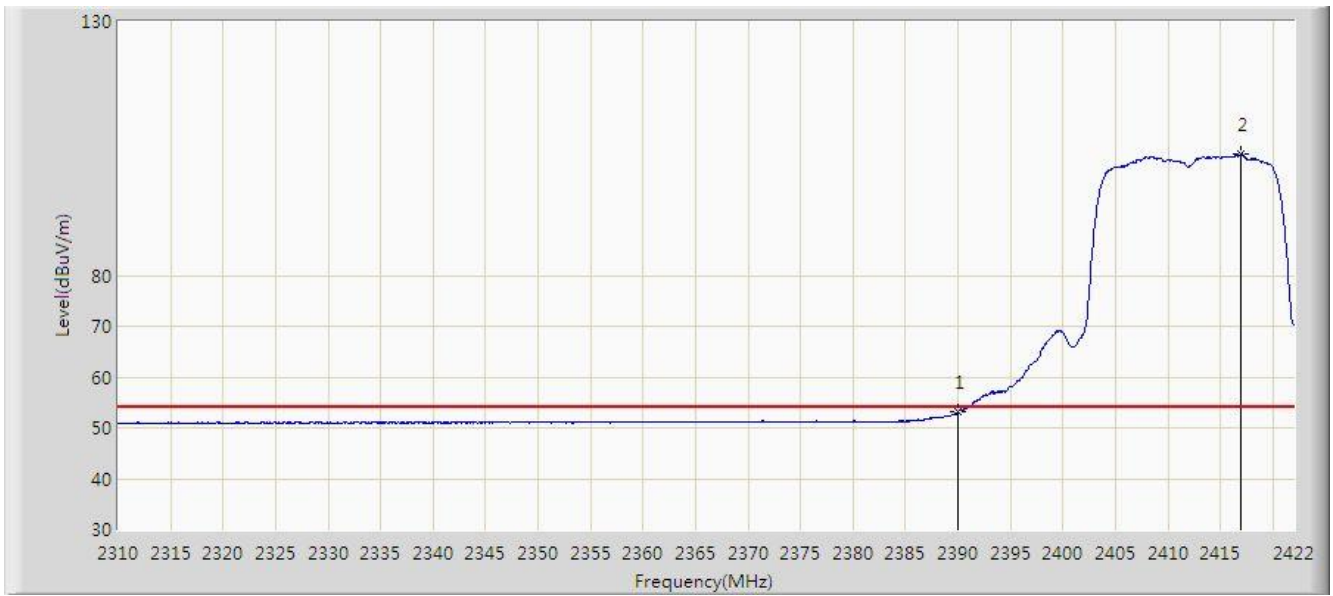


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2389.072	71.049	38.977	-2.951	74.000	32.072	PK
2			2390.000	68.766	36.694	-5.234	74.000	32.072	PK
3		*	2412.816	113.464	81.378	N/A	N/A	32.086	PK

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

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

Site: AC1	Time: 2019/11/29 - 04:25
Limit: FCC_Part 15.209_RE(3m)	Engineer: David Lv
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: FastMile 4G Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at Channel 2412MHz	

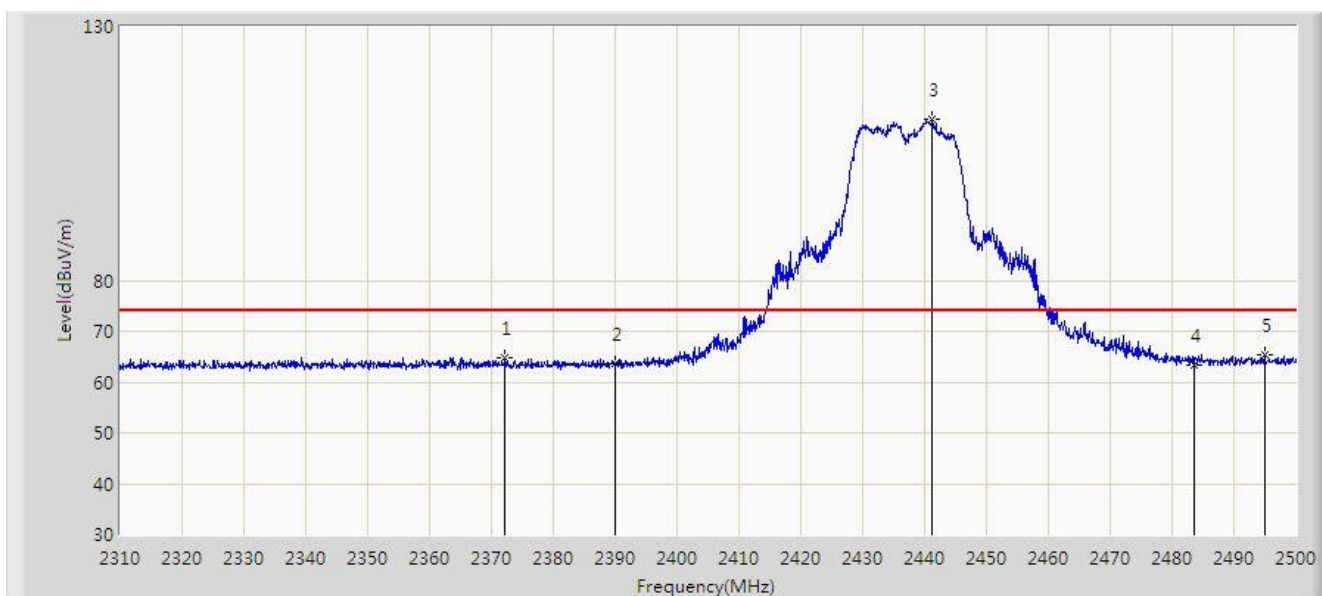


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	53.143	21.071	-0.857	54.000	32.072	AV
2		*	2416.960	103.822	71.725	N/A	N/A	32.097	AV

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

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

Site: AC1	Time: 2019/11/29 - 04:48
Limit: FCC_Part 15.209_RE(3m)	Engineer: David Lv
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: FastMile 4G Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at Channel 2437MHz	

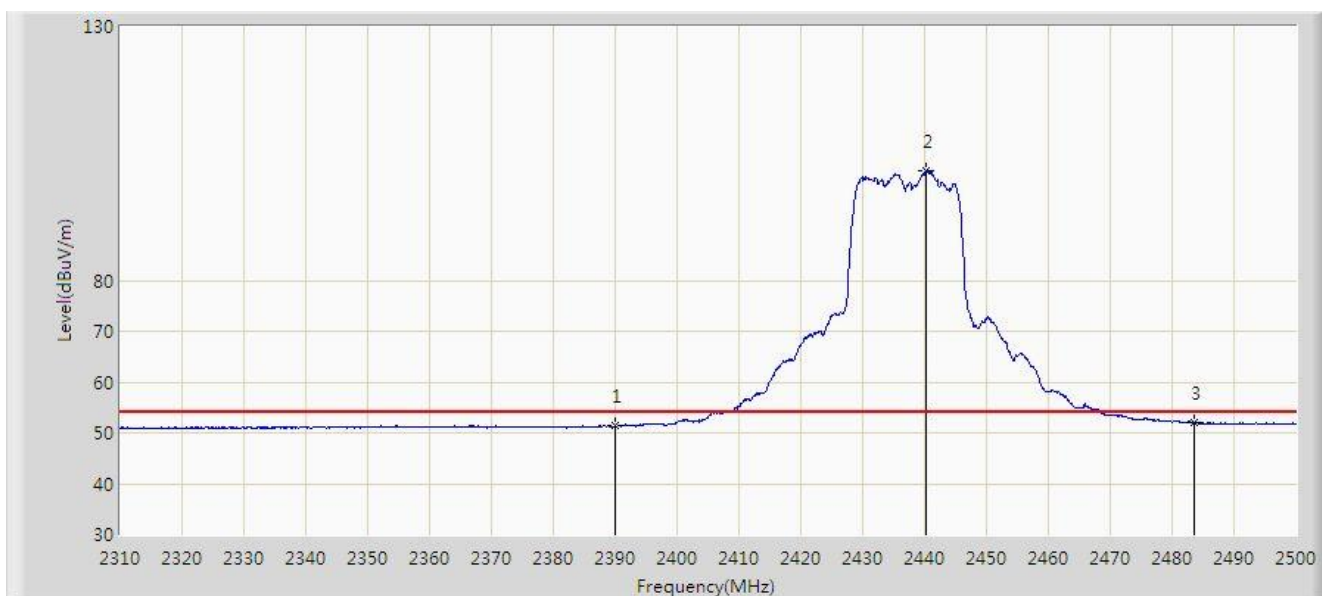


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2372.225	64.678	32.589	-9.322	74.000	32.089	PK
2			2390.000	63.651	31.579	-10.349	74.000	32.072	PK
3		*	2441.290	111.595	79.510	N/A	N/A	32.085	PK
4			2483.500	63.421	31.384	-10.579	74.000	32.037	PK
5			2494.965	65.279	33.264	-8.721	74.000	32.015	PK

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

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

Site: AC1	Time: 2019/11/29 - 04:50
Limit: FCC_Part 15.209_RE(3m)	Engineer: David Lv
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: FastMile 4G Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at Channel 2437MHz	

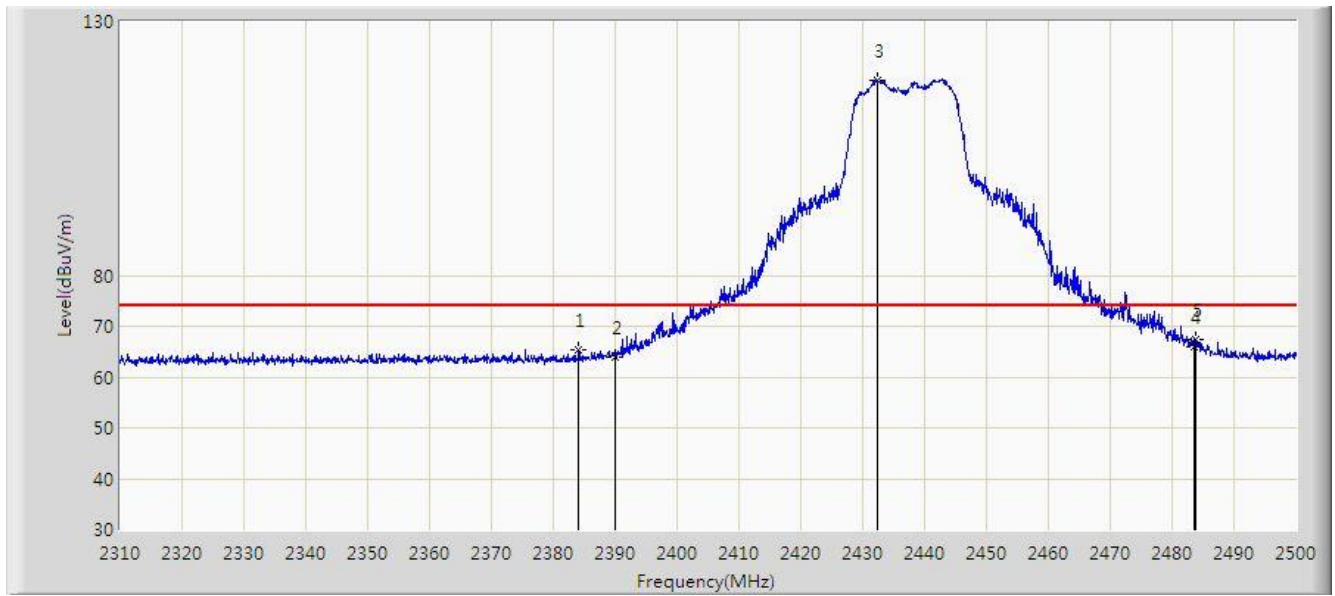


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	51.317	19.245	-2.683	54.000	32.072	AV
2		*	2440.245	101.597	69.509	N/A	N/A	32.088	AV
3			2483.500	51.973	19.936	-2.027	54.000	32.037	AV

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

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

Site: AC1	Time: 2019/11/29 - 04:47
Limit: FCC_Part 15.209_RE(3m)	Engineer: David Lv
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: FastMile 4G Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at Channel 2437MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2384.100	65.254	33.180	-8.746	74.000	32.074	PK
2			2390.000	63.970	31.898	-10.030	74.000	32.072	PK
3		*	2432.265	118.430	86.317	N/A	N/A	32.112	PK
4			2483.500	66.048	34.011	-7.952	74.000	32.037	PK
5			2483.850	67.251	35.215	-6.749	74.000	32.036	PK

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

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

Site: AC1	Time: 2019/11/29 - 04:46
Limit: FCC_Part 15.209_RE(3m)	Engineer: David Lv
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: FastMile 4G Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at Channel 2437MHz	

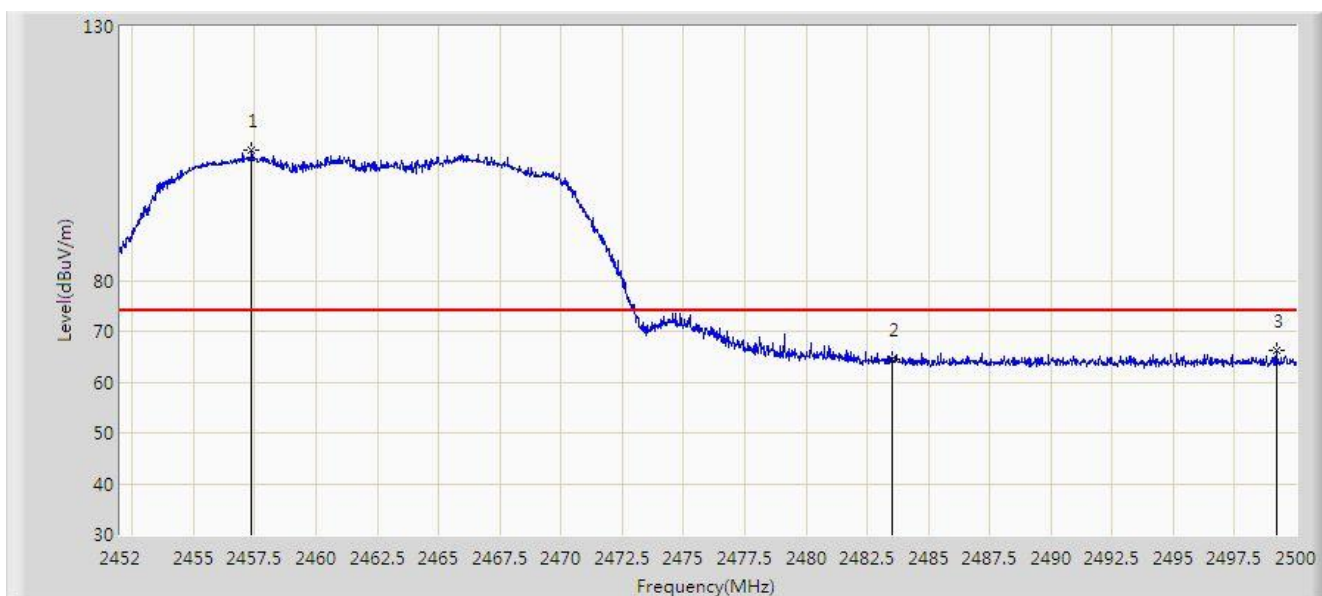


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	52.444	20.372	-1.556	54.000	32.072	AV
2	X	*	2431.885	108.518	76.404	N/A	N/A	32.114	AV
3			2483.500	53.860	21.823	-0.140	54.000	32.037	AV

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

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

Site: AC1	Time: 2019/11/29 - 04:38
Limit: FCC_Part 15.209_RE(3m)	Engineer: David Lv
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: FastMile 4G Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at Channel 2462MHz	

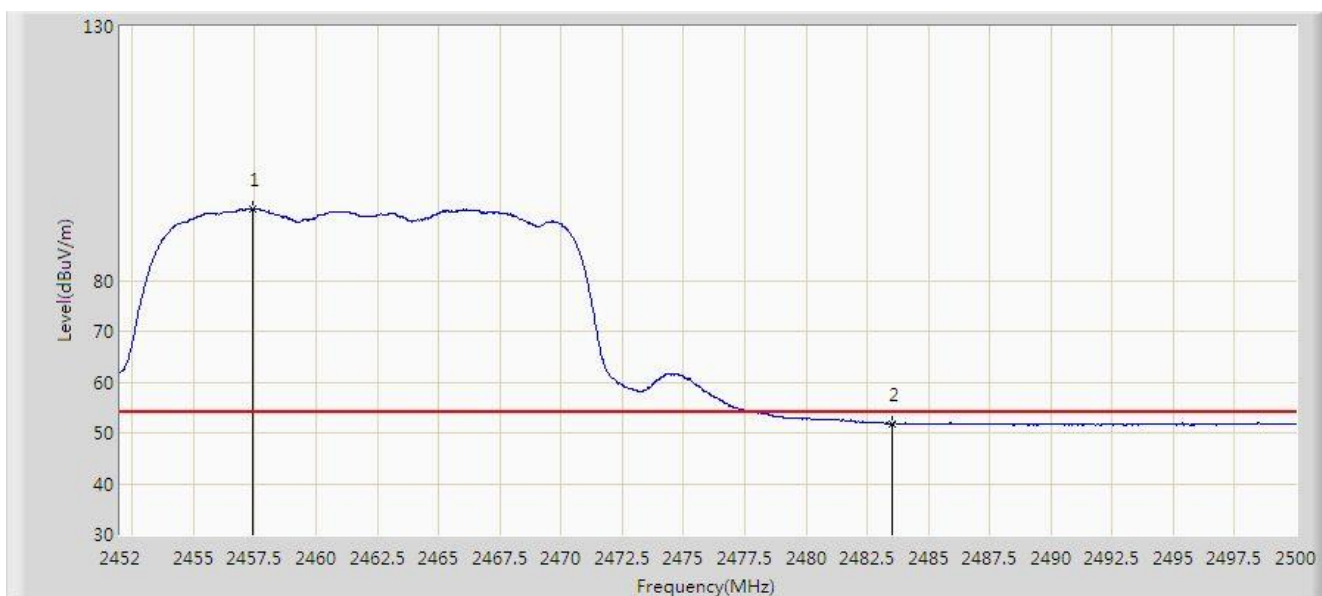


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2457.376	105.631	73.552	N/A	N/A	32.078	PK
2			2483.500	64.357	32.320	-9.643	74.000	32.037	PK
3			2499.208	66.240	34.220	-7.760	74.000	32.020	PK

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

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

Site: AC1	Time: 2019/11/29 - 04:39
Limit: FCC_Part 15.209_RE(3m)	Engineer: David Lv
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: FastMile 4G Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at Channel 2462MHz	

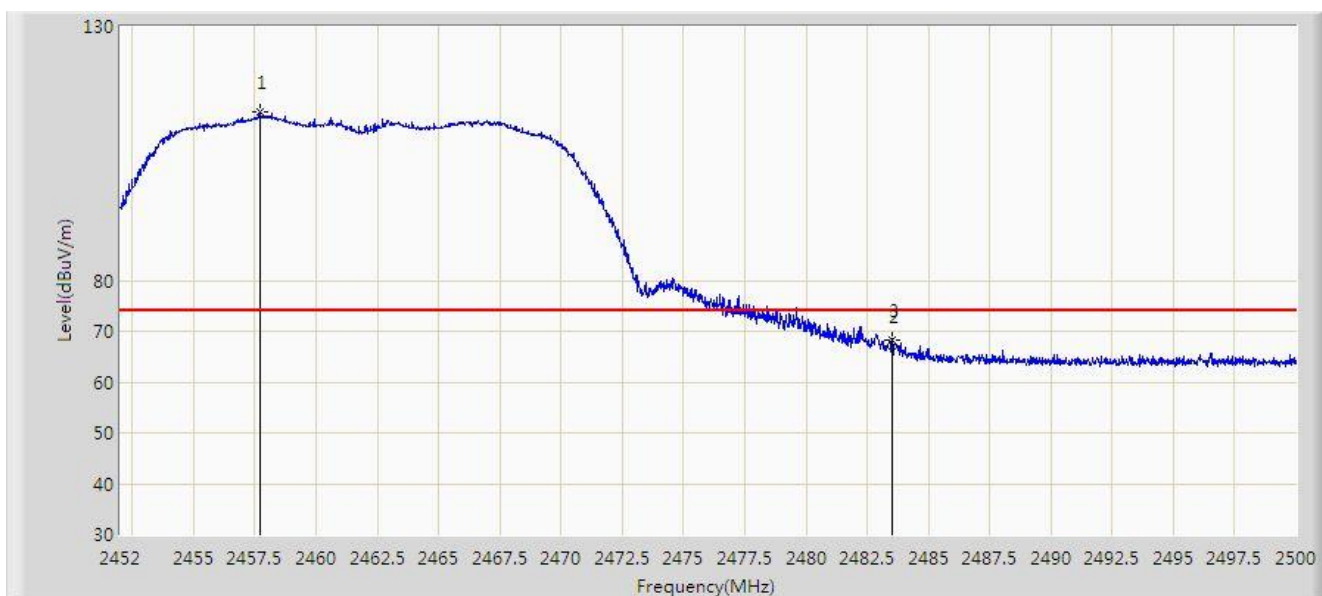


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2457.424	94.178	62.099	N/A	N/A	32.079	AV
2			2483.500	51.780	19.743	-2.220	54.000	32.037	AV

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

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

Site: AC1	Time: 2019/11/29 - 04:37
Limit: FCC_Part 15.209_RE(3m)	Engineer: David Lv
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: FastMile 4G Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at Channel 2462MHz	

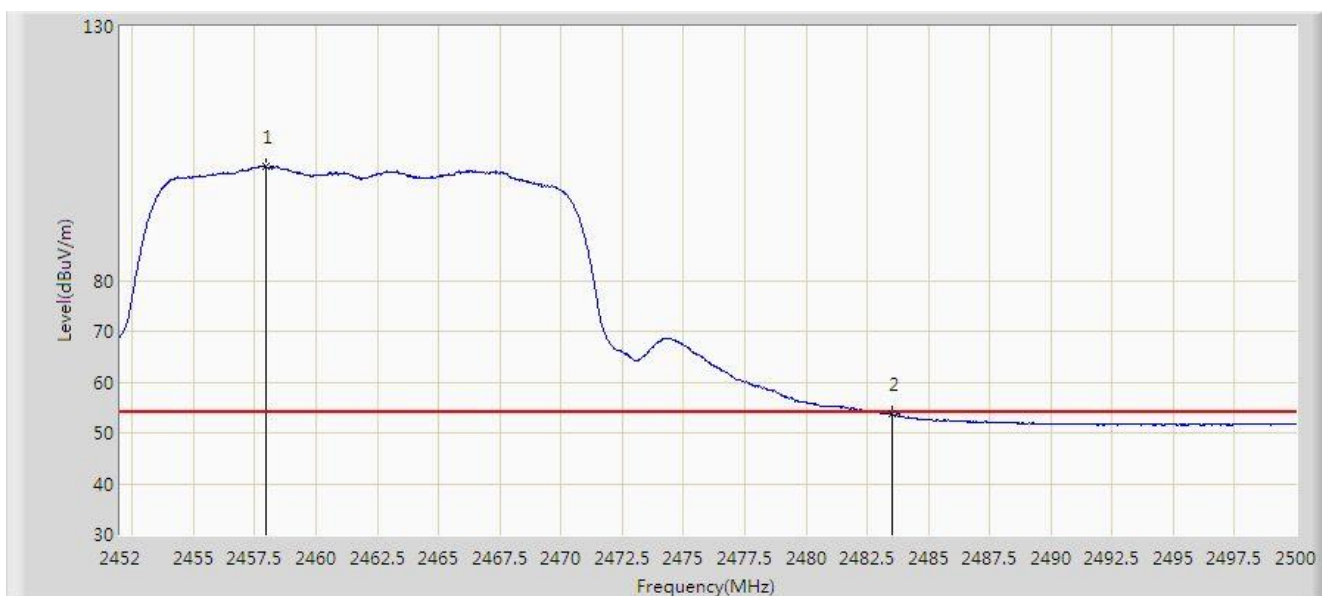


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2457.688	113.135	N/A	N/A	74.000	32.079	PK
2			2483.500	67.179	35.142	-6.821	74.000	32.037	PK
3			2483.512	68.389	36.352	-5.611	74.000	32.037	PK

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

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

Site: AC1	Time: 2019/11/29 - 04:34
Limit: FCC_Part 15.209_RE(3m)	Engineer: David Lv
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: FastMile 4G Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at Channel 2462MHz	

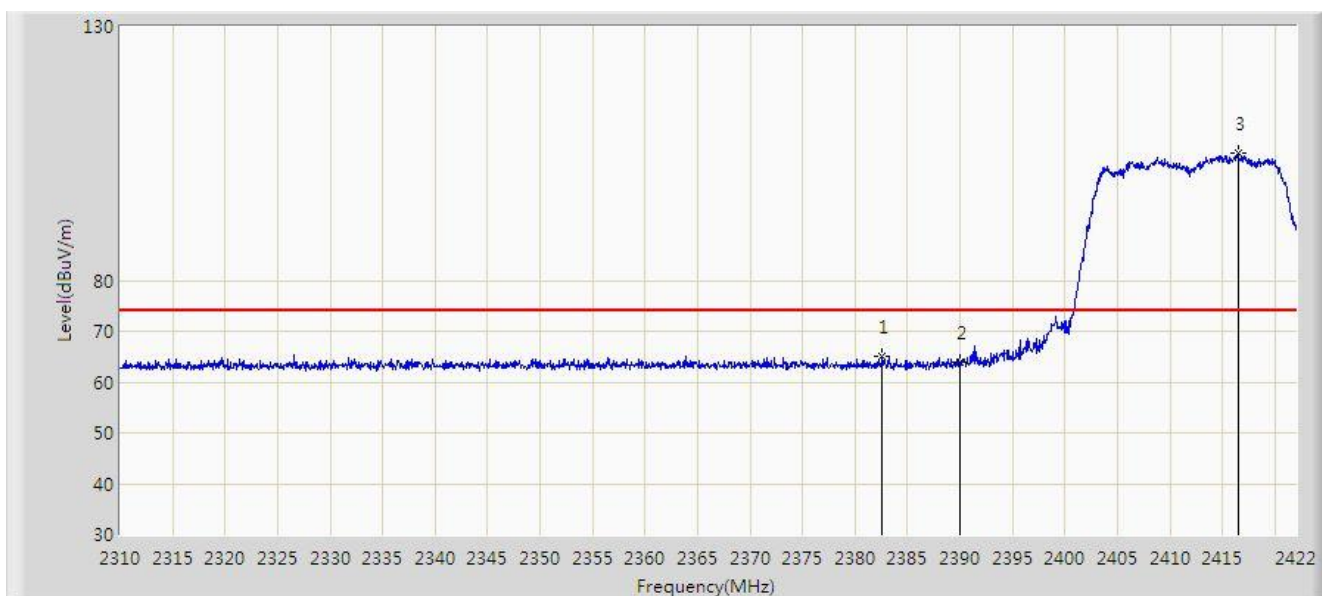


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2457.952	102.530	70.451	N/A	N/A	32.079	AV
2			2483.500	53.661	21.624	-0.339	54.000	32.037	AV

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

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

Site: AC1	Time: 2019/11/29 - 05:25
Limit: FCC_Part 15.209_RE(3m)	Engineer: David Lv
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: FastMile 4G Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at Channel 2412MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2382.576	65.003	32.929	-8.997	74.000	32.075	PK
2			2390.000	63.855	31.783	-10.145	74.000	32.072	PK
3		*	2416.512	105.057	72.962	N/A	N/A	32.095	PK

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

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

Site: AC1	Time: 2019/11/29 - 05:27
Limit: FCC_Part 15.209_RE(3m)	Engineer: David Lv
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: FastMile 4G Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at Channel 2412MHz	

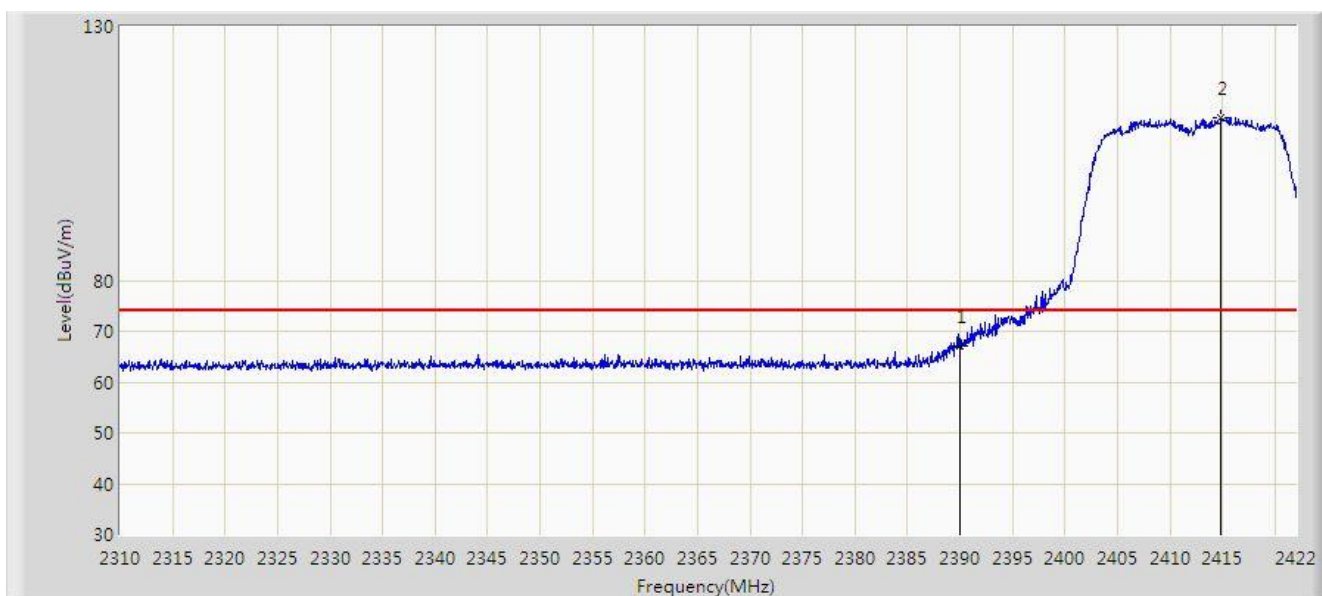


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	51.411	19.339	-2.589	54.000	32.072	AV
2		*	2414.776	94.325	62.234	N/A	N/A	32.090	AV

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

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

Site: AC1	Time: 2019/11/29 - 05:24
Limit: FCC_Part 15.209_RE(3m)	Engineer: David Lv
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: FastMile 4G Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at Channel 2412MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	67.140	35.068	-6.860	74.000	32.072	PK
2		*	2414.888	111.985	79.894	N/A	N/A	32.091	PK

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

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

Site: AC1	Time: 2019/11/29 - 05:23
Limit: FCC_Part 15.209_RE(3m)	Engineer: David Lv
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: FastMile 4G Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at Channel 2412MHz	

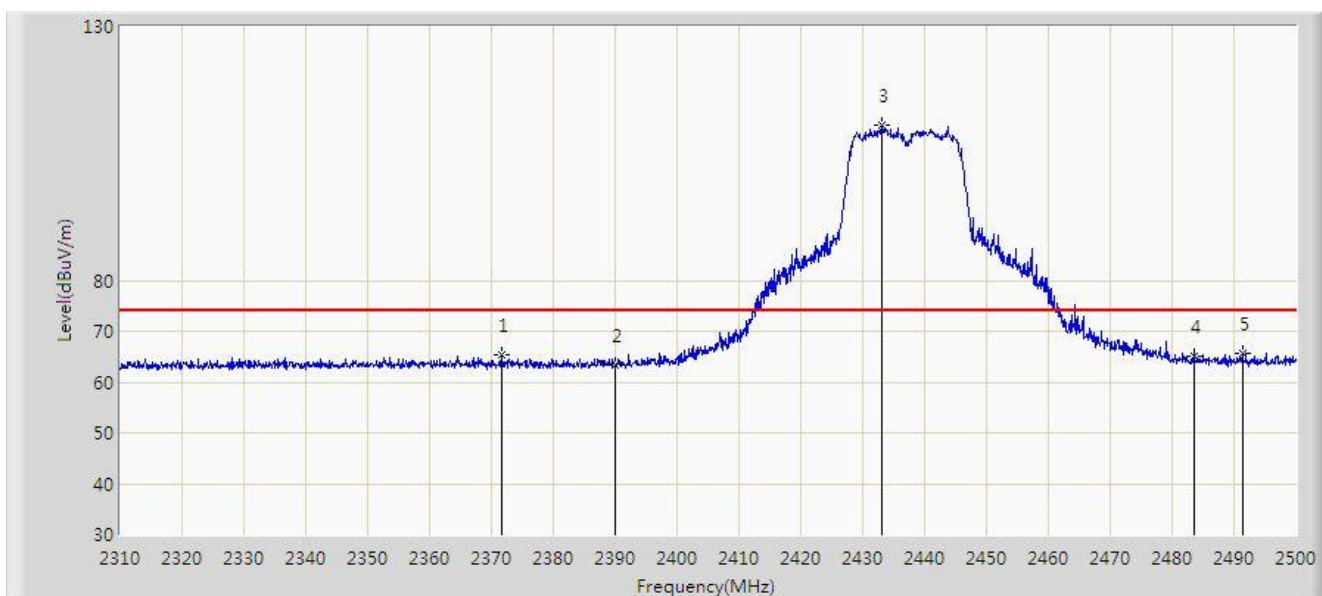


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	53.161	21.089	-0.839	54.000	32.072	AV
2		*	2415.224	101.926	69.834	N/A	N/A	32.092	AV

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

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

Site: AC1	Time: 2019/11/29 - 05:40
Limit: FCC_Part 15.209_RE(3m)	Engineer: David Lv
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: FastMile 4G Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at Channel 2437MHz	

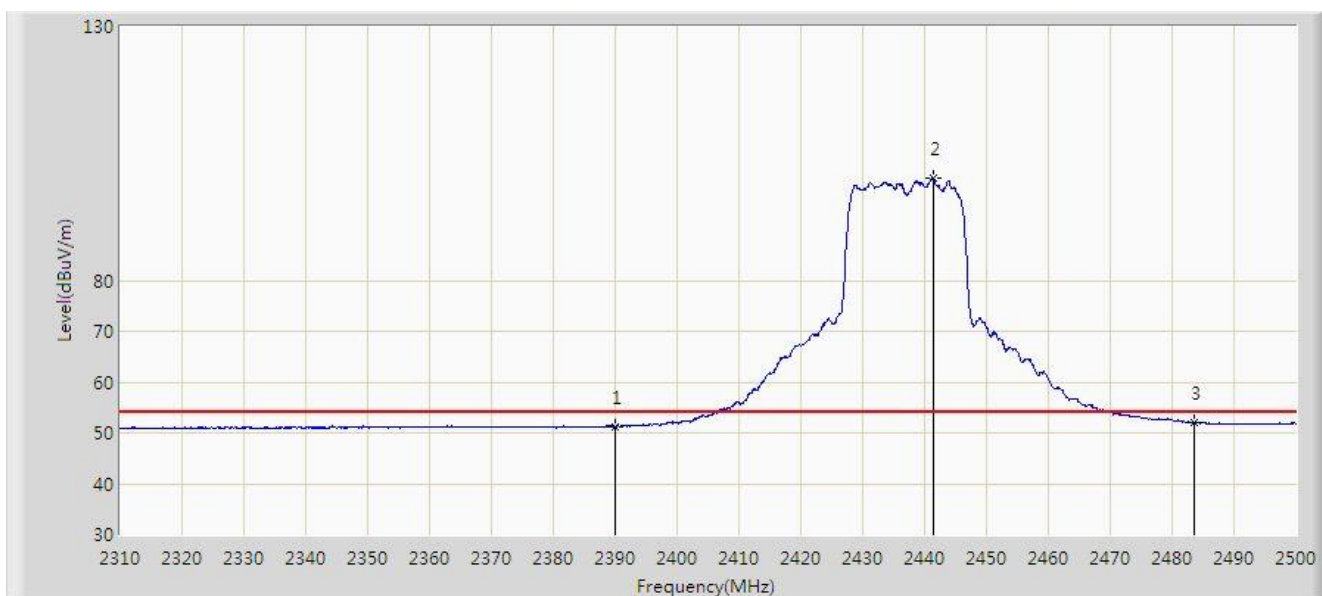


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2371.750	65.272	33.182	-8.728	74.000	32.090	PK
2			2390.000	63.250	31.178	-10.750	74.000	32.072	PK
3		*	2433.025	110.552	78.442	N/A	N/A	32.110	PK
4			2483.500	65.079	33.042	-8.921	74.000	32.037	PK
5			2491.355	65.771	33.749	-8.229	74.000	32.023	PK

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

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

Site: AC1	Time: 2019/11/29 - 05:41
Limit: FCC_Part 15.209_RE(3m)	Engineer: David Lv
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: FastMile 4G Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at Channel 2437MHz	

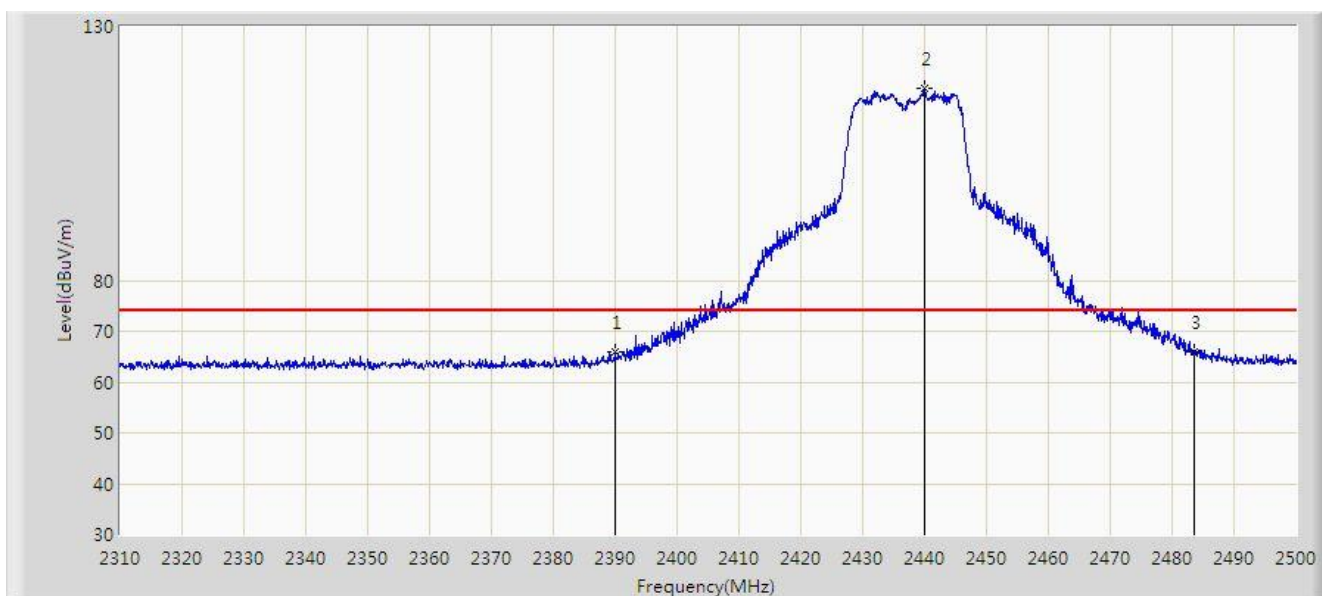


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	51.240	19.168	-2.760	54.000	32.072	AV
2		*	2441.385	100.148	68.063	N/A	N/A	32.085	AV
3			2483.500	51.993	19.956	-2.007	54.000	32.037	AV

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

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

Site: AC1	Time: 2019/11/29 - 05:39
Limit: FCC_Part 15.209_RE(3m)	Engineer: David Lv
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: FastMile 4G Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at Channel 2437MHz	

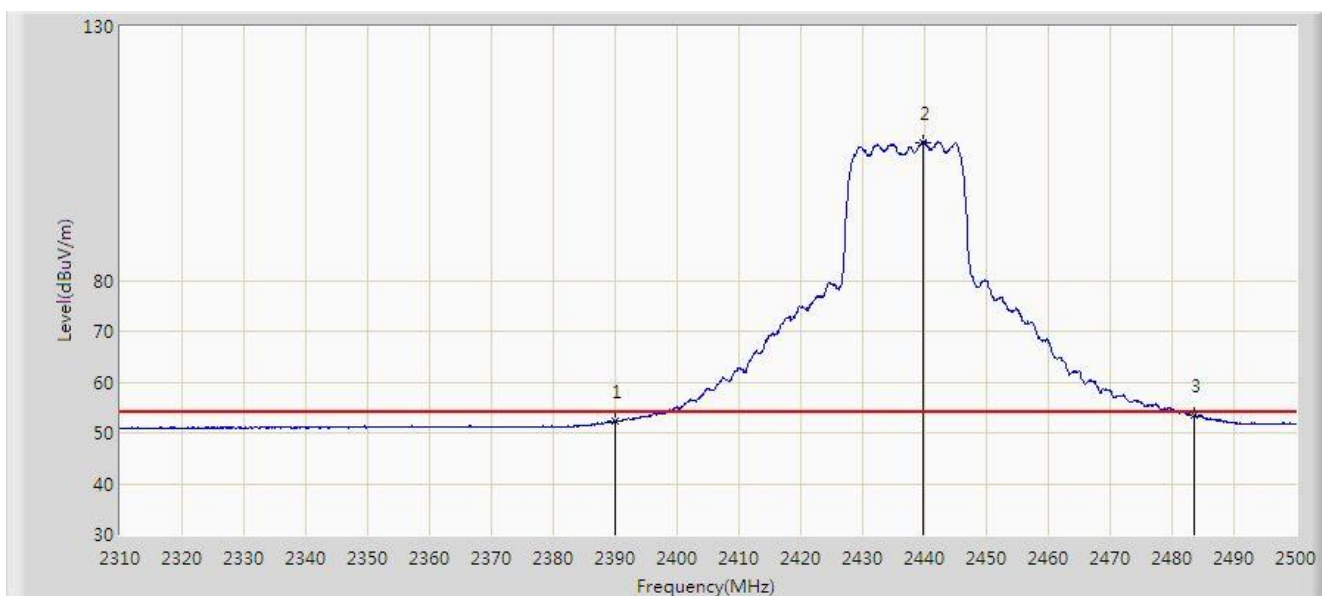


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	65.867	33.795	-8.133	74.000	32.072	PK
2		*	2440.055	117.967	85.878	N/A	N/A	32.089	PK
3			2483.500	65.953	33.916	-8.047	74.000	32.037	PK

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

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

Site: AC1	Time: 2019/11/29 - 05:37
Limit: FCC_Part 15.209_RE(3m)	Engineer: David Lv
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: FastMile 4G Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at Channel 2437MHz	

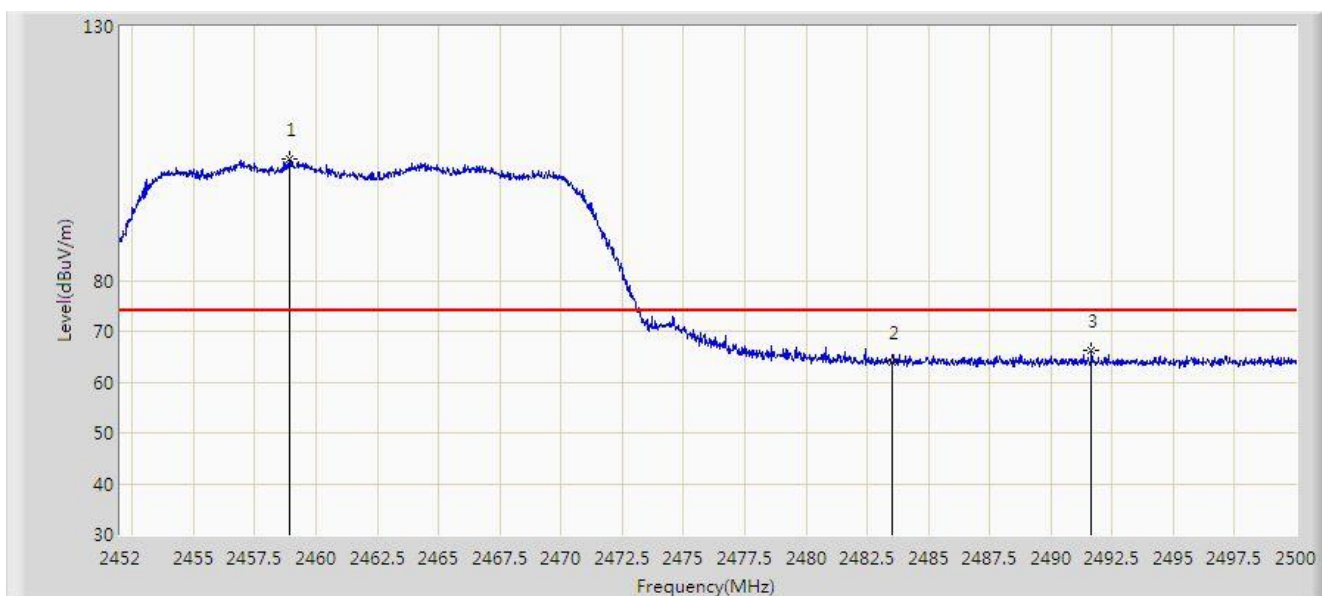


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	52.355	20.283	-1.645	54.000	32.072	AV
2		*	2439.770	107.185	75.095	N/A	N/A	32.089	AV
3			2483.500	53.587	21.550	-0.413	54.000	32.037	AV

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

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

Site: AC1	Time: 2019/11/29 - 05:31
Limit: FCC_Part 15.209_RE(3m)	Engineer: David Lv
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: FastMile 4G Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at Channel 2462MHz	

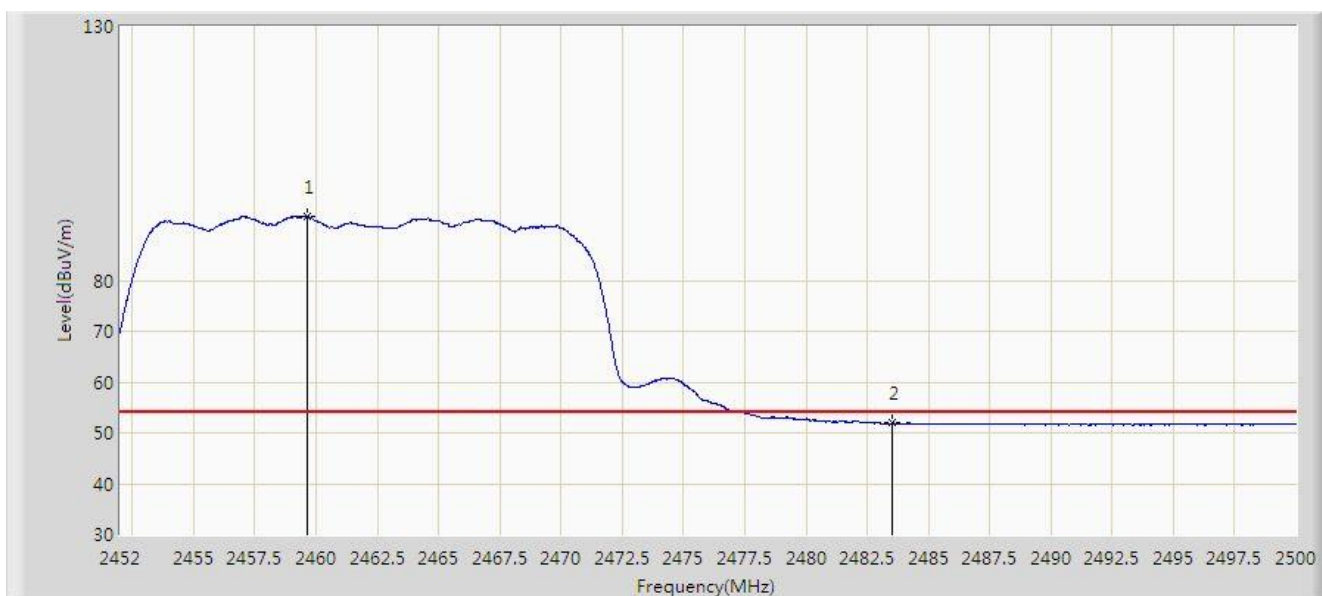


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2458.888	103.877	71.798	N/A	N/A	32.079	PK
2			2483.500	63.789	31.752	-10.211	74.000	32.037	PK
3			2491.648	66.362	34.340	-7.638	74.000	32.021	PK

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

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

Site: AC1	Time: 2019/11/29 - 05:33
Limit: FCC_Part 15.209_RE(3m)	Engineer: David Lv
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: FastMile 4G Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at Channel 2462MHz	

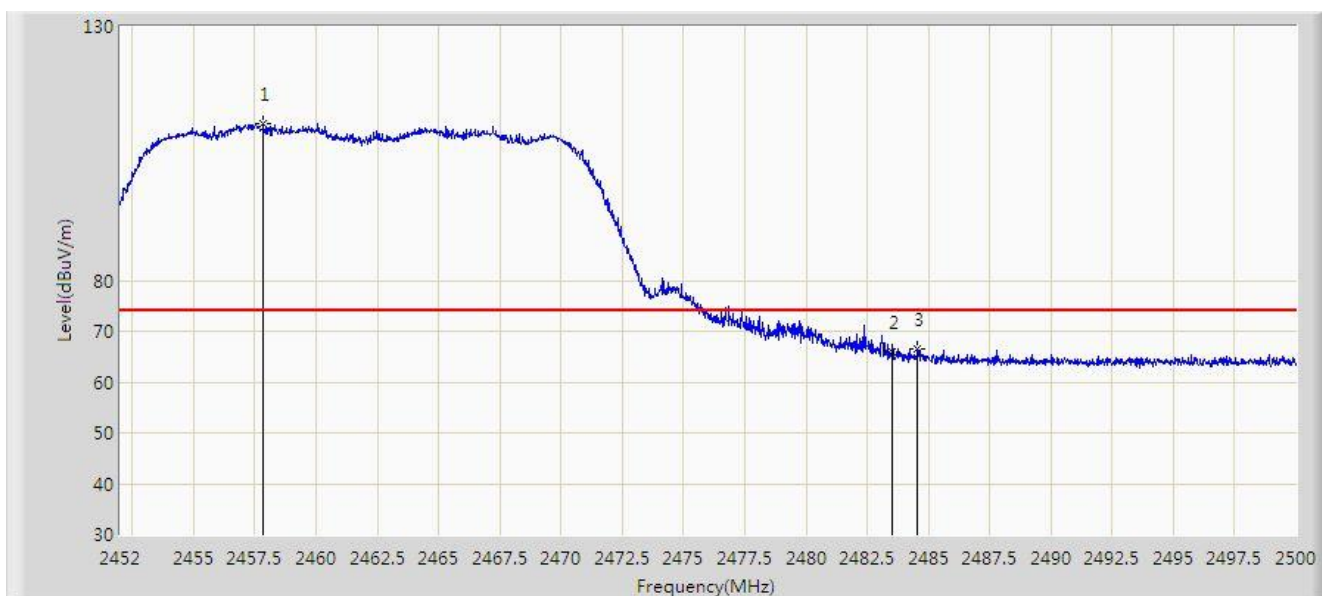


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2459.656	92.637	60.557	N/A	N/A	32.080	AV
2			2483.500	51.919	19.882	-2.081	54.000	32.037	AV

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

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

Site: AC1	Time: 2019/11/29 - 05:30
Limit: FCC_Part 15.209_RE(3m)	Engineer: David Lv
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: FastMile 4G Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at Channel 2462MHz	

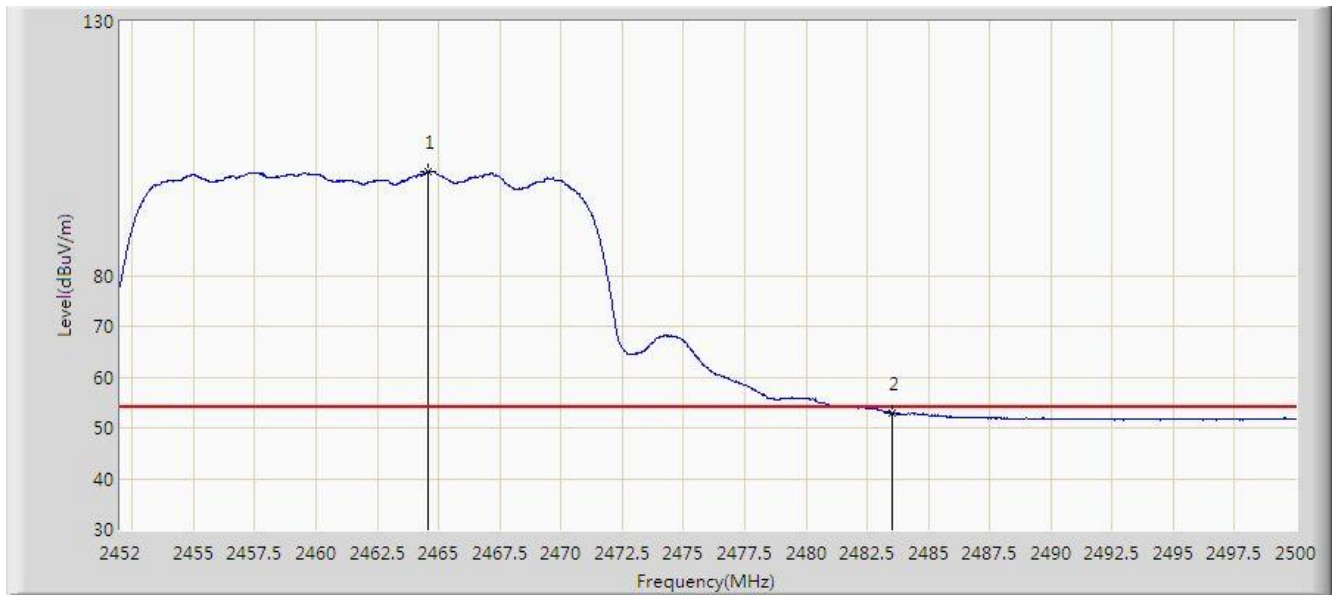


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2457.832	110.919	78.840	N/A	N/A	32.079	PK
2			2483.500	65.855	33.818	-8.145	74.000	32.037	PK
3			2484.544	66.450	34.415	-7.550	74.000	32.035	PK

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

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

Site: AC1	Time: 2019/11/29 - 05:29
Limit: FCC_Part 15.209_RE(3m)	Engineer: David Lv
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: FastMile 4G Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at Channel 2462MHz	

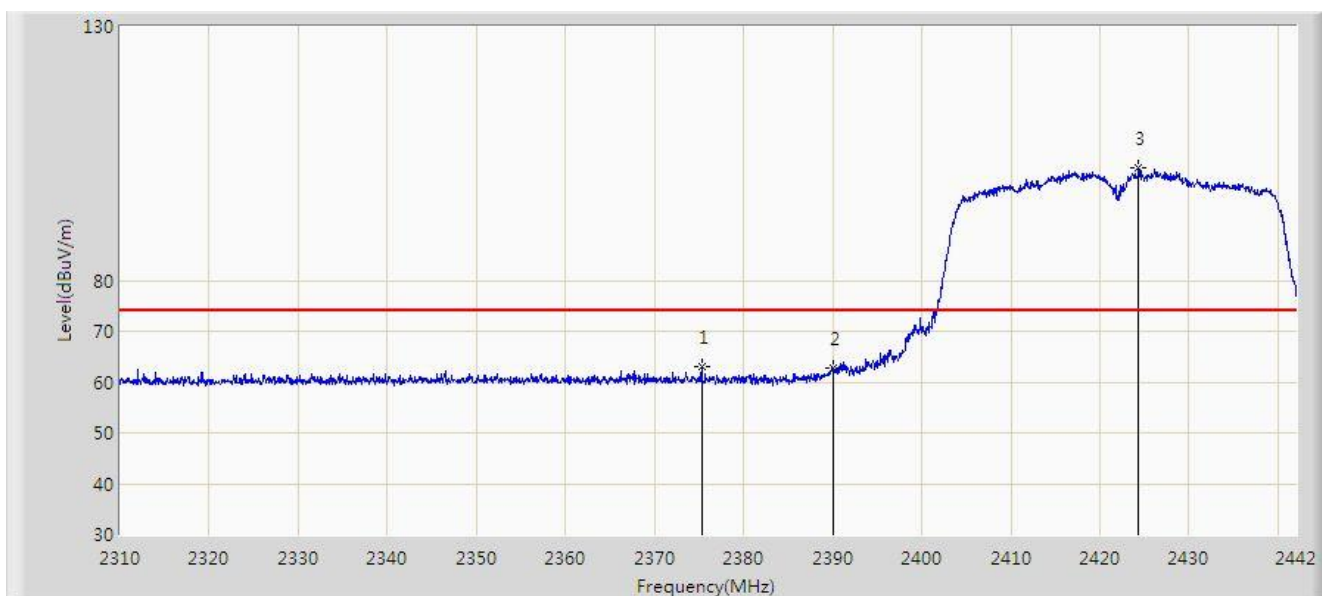


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2464.576	100.366	68.291	N/A	N/A	32.076	AV
2			2483.500	52.946	20.909	-1.054	54.000	32.037	AV

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

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

Site: AC1	Time: 2019/11/29 - 06:11
Limit: FCC_Part 15.209_RE(3m)	Engineer: David Lv
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: FastMile 4G Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT40 at Channel 2422MHz	

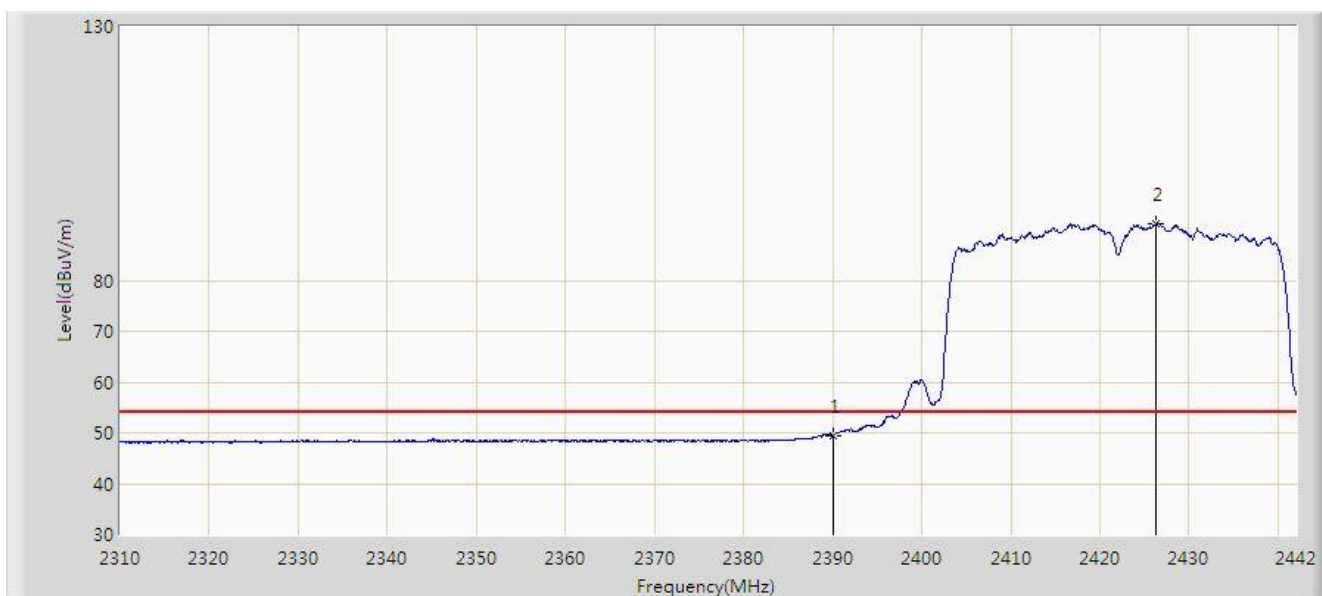


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2375.274	62.989	30.908	-11.011	74.000	32.081	PK
2			2390.000	62.787	30.715	-11.213	74.000	32.072	PK
3		*	2424.312	102.254	70.138	N/A	N/A	32.116	PK

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

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

Site: AC1	Time: 2019/11/29 - 06:12
Limit: FCC_Part 15.209_RE(3m)	Engineer: David Lv
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: FastMile 4G Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT40 at Channel 2422MHz	

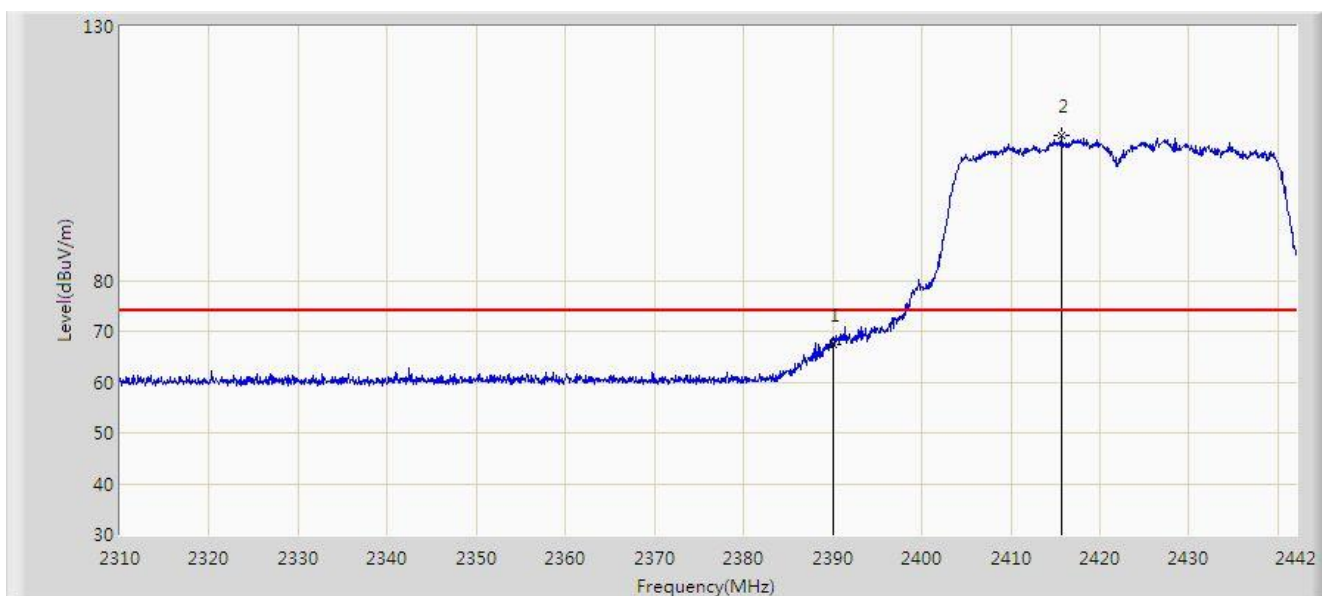


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	49.550	17.478	-4.450	54.000	32.072	AV
2		*	2426.358	91.051	58.930	N/A	N/A	32.121	AV

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

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

Site: AC1	Time: 2019/11/29 - 06:10
Limit: FCC_Part 15.209_RE(3m)	Engineer: David Lv
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: FastMile 4G Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT40 at Channel 2422MHz	

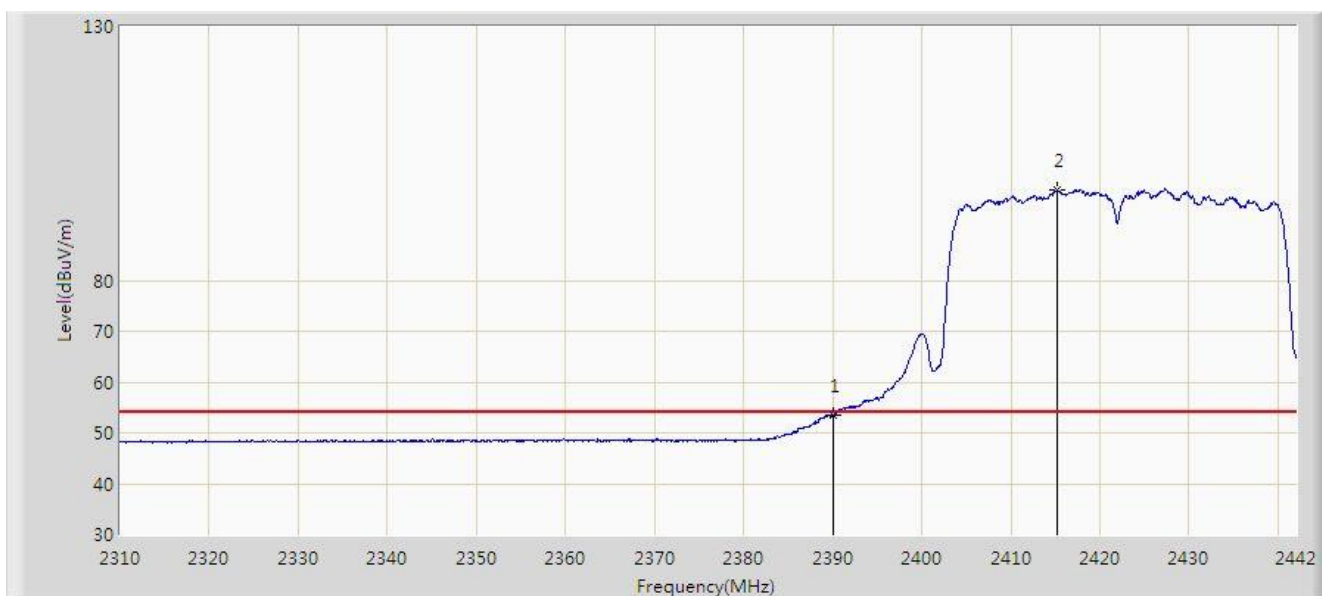


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	67.427	35.355	-6.573	74.000	32.072	PK
2		*	2415.732	108.450	76.357	N/A	N/A	32.093	PK

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

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

Site: AC1	Time: 2019/11/29 - 06:06
Limit: FCC_Part 15.209_RE(3m)	Engineer: David Lv
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: FastMile 4G Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT40 at Channel 2422MHz	

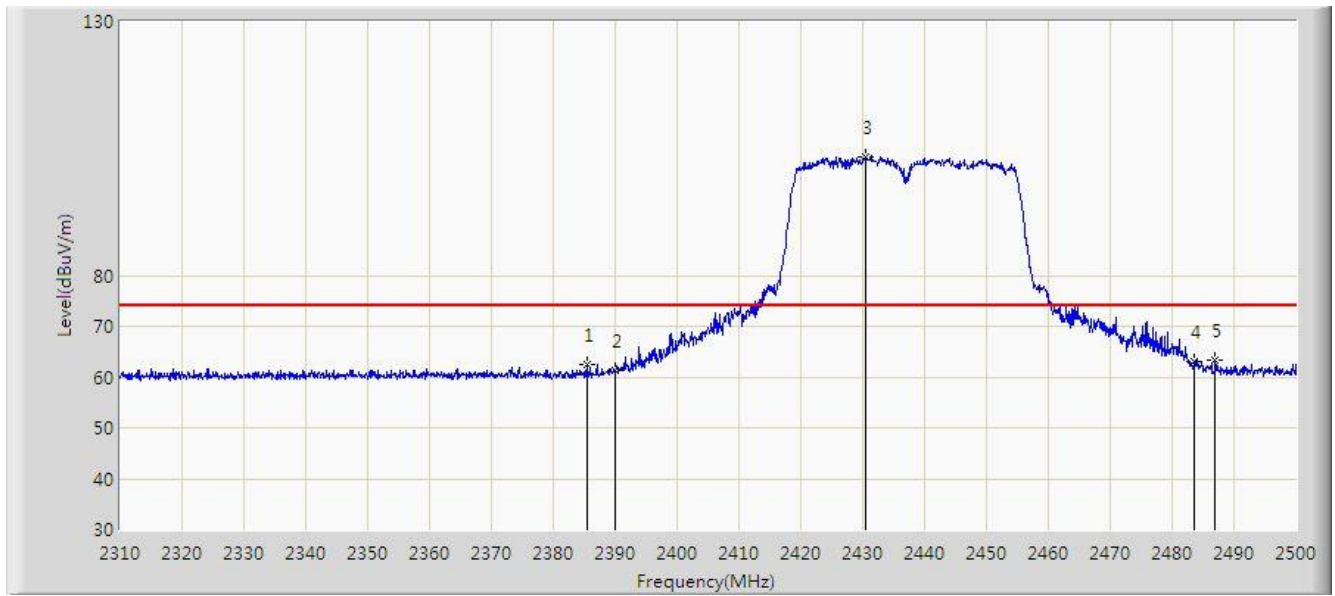


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	53.457	21.385	-0.543	54.000	32.072	AV
2		*	2415.270	97.742	65.650	N/A	N/A	32.092	AV

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

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

Site: AC1	Time: 2019/11/29 - 06:23
Limit: FCC_Part 15.209_RE(3m)	Engineer: David Lv
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: FastMile 4G Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT40 at Channel 2437MHz	

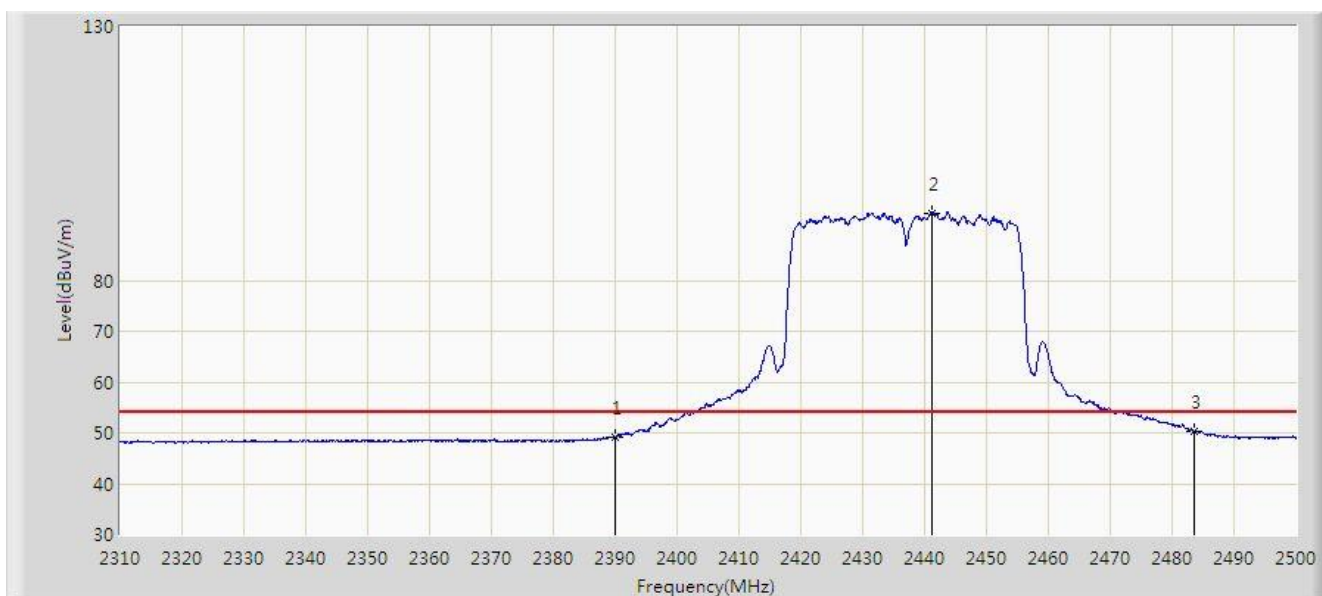


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2385.430	62.539	30.466	-11.461	74.000	32.073	PK
2			2390.000	61.370	29.298	-12.630	74.000	32.072	PK
3		*	2430.460	103.447	71.329	N/A	N/A	32.118	PK
4			2483.500	63.032	30.995	-10.968	74.000	32.037	PK
5			2486.985	63.454	31.424	-10.546	74.000	32.031	PK

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

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

Site: AC1	Time: 2019/11/29 - 06:25
Limit: FCC_Part 15.209_RE(3m)	Engineer: David Lv
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: FastMile 4G Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT40 at Channel 2437MHz	

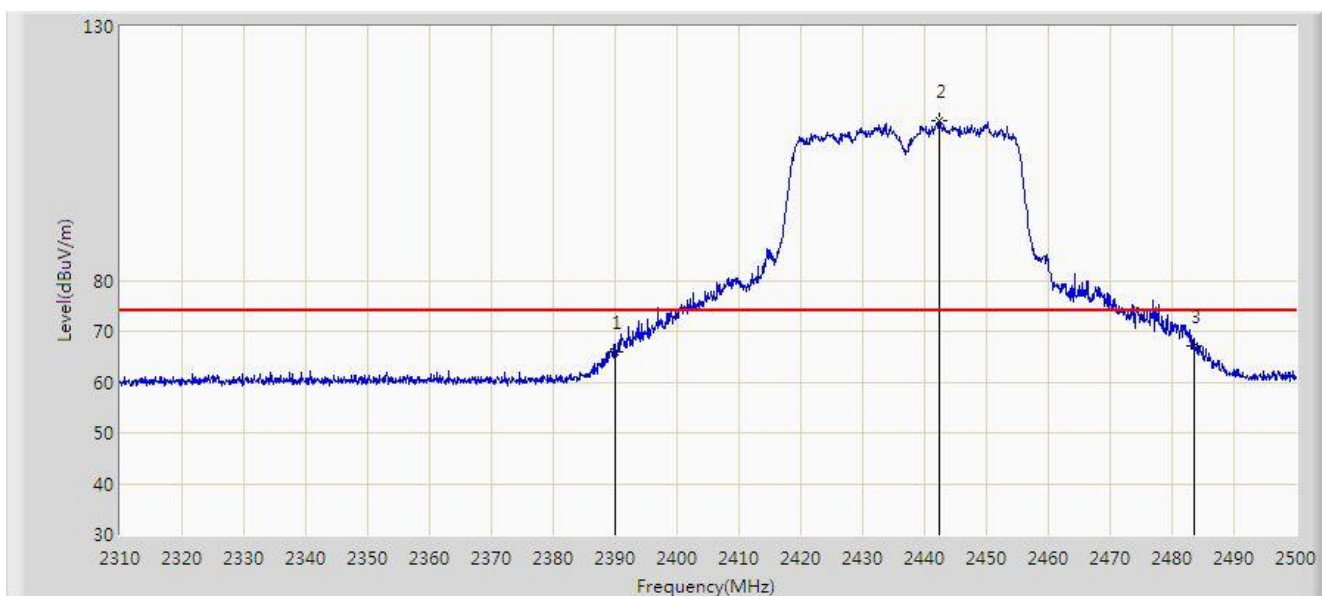


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	49.126	17.054	-4.874	54.000	32.072	AV
2		*	2441.195	93.279	61.194	N/A	N/A	32.085	AV
3			2483.500	50.372	18.335	-3.628	54.000	32.037	AV

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

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

Site: AC1	Time: 2019/11/29 - 06:22
Limit: FCC_Part 15.209_RE(3m)	Engineer: David Lv
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: FastMile 4G Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT40 at Channel 2437MHz	

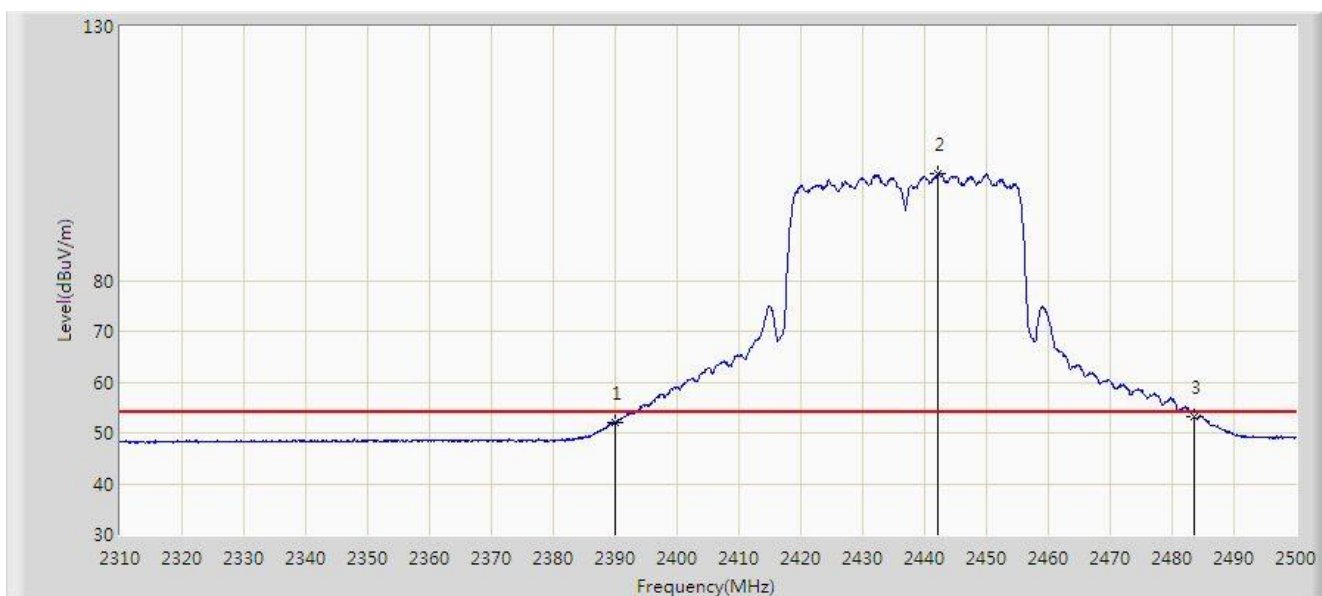


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	65.800	33.728	-8.200	74.000	32.072	PK
2		*	2442.335	111.572	79.490	N/A	N/A	32.082	PK
3			2483.500	67.067	35.030	-6.933	74.000	32.037	PK

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

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

Site: AC1	Time: 2019/11/29 - 06:21
Limit: FCC_Part 15.209_RE(3m)	Engineer: David Lv
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: FastMile 4G Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT40 at Channel 2437MHz	

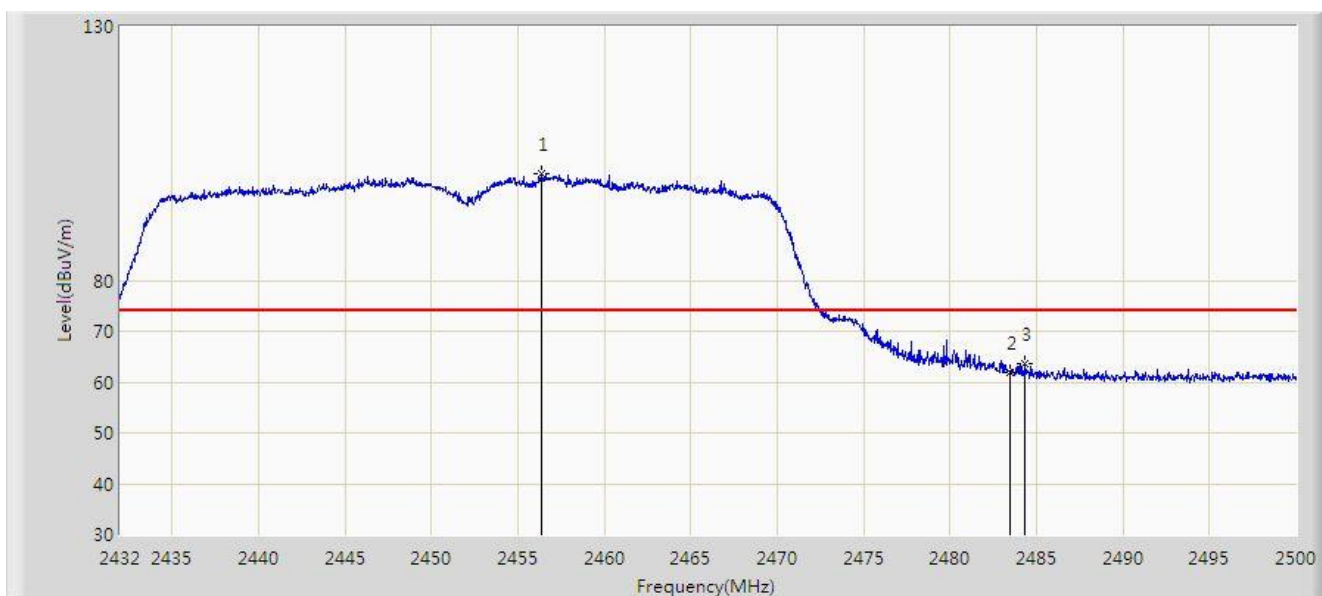


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	52.075	20.003	-1.925	54.000	32.072	AV
2		*	2442.145	100.990	68.908	N/A	N/A	32.082	AV
3			2483.500	53.157	21.120	-0.843	54.000	32.037	AV

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

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

Site: AC1	Time: 2019/11/29 - 06:18
Limit: FCC_Part 15.209_RE(3m)	Engineer: David Lv
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: FastMile 4G Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT40 at Channel 2452MHz	

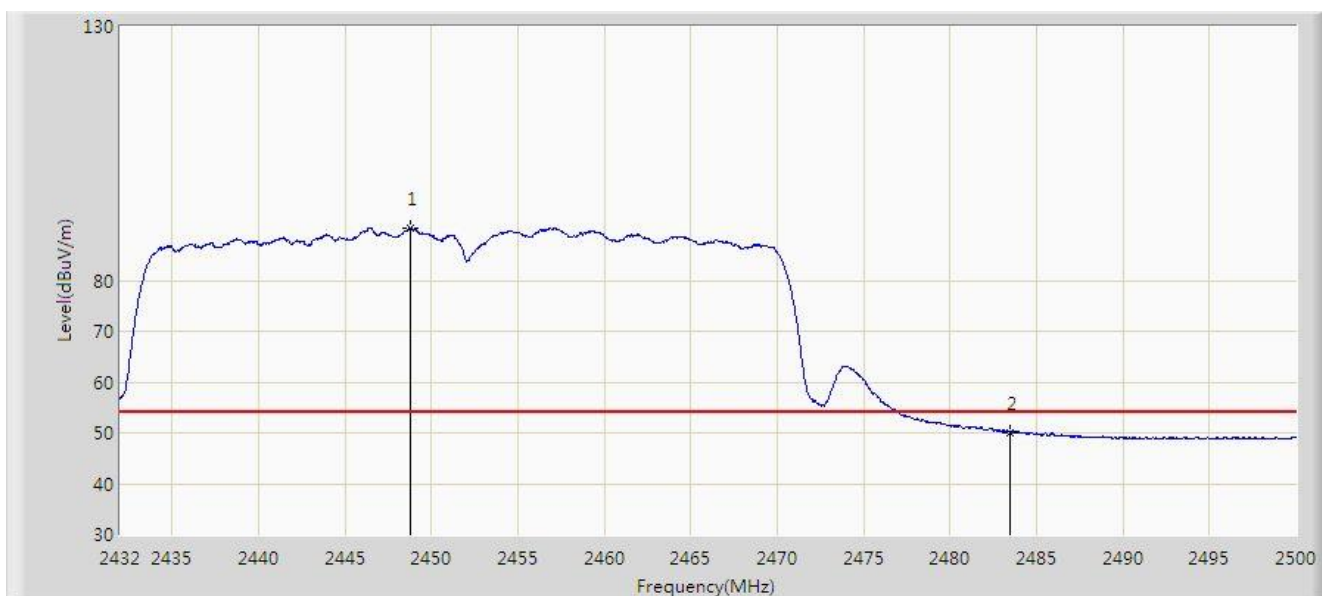


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2456.378	100.984	68.906	N/A	N/A	32.078	PK
2			2483.500	61.818	29.781	-12.182	74.000	32.037	PK
3			2484.326	63.551	31.516	-10.449	74.000	32.035	PK

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

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

Site: AC1	Time: 2019/11/29 - 06:19
Limit: FCC_Part 15.209_RE(3m)	Engineer: David Lv
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: FastMile 4G Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT40 at Channel 2452MHz	

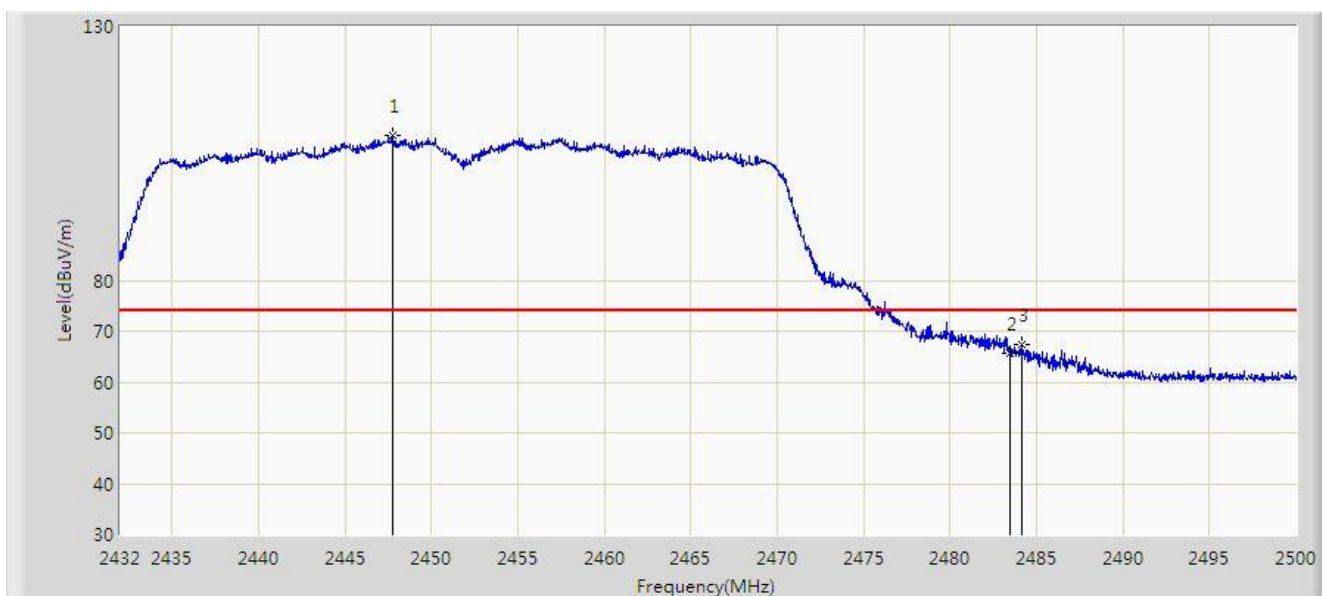


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2448.796	90.411	58.336	N/A	N/A	32.075	AV
2			2483.500	50.067	18.030	-3.933	54.000	32.037	AV

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

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

Site: AC1	Time: 2019/11/29 - 06:16
Limit: FCC_Part 15.209_RE(3m)	Engineer: David Lv
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: FastMile 4G Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT40 at Channel 2452MHz	

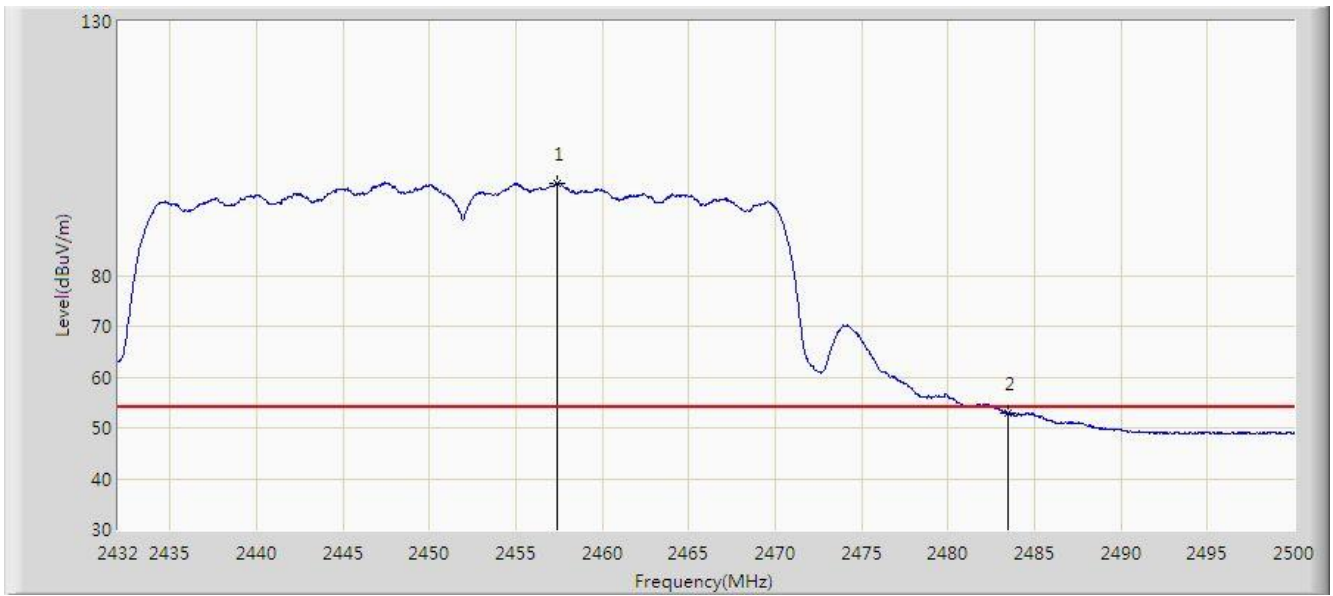


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2447.742	108.513	76.438	N/A	N/A	32.075	PK
2			2483.500	65.543	33.506	-8.457	74.000	32.037	PK
3			2484.190	67.263	35.227	-6.737	74.000	32.036	PK

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

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

Site: AC1	Time: 2019/11/29 - 06:15
Limit: FCC_Part 15.209_RE(3m)	Engineer: David Lv
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: FastMile 4G Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT40 at Channel 2452MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2457.398	98.184	66.105	N/A	N/A	32.078	AV
2			2483.500	52.830	20.793	-1.170	54.000	32.037	AV

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

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

7.8. AC Conducted Emissions Measurement

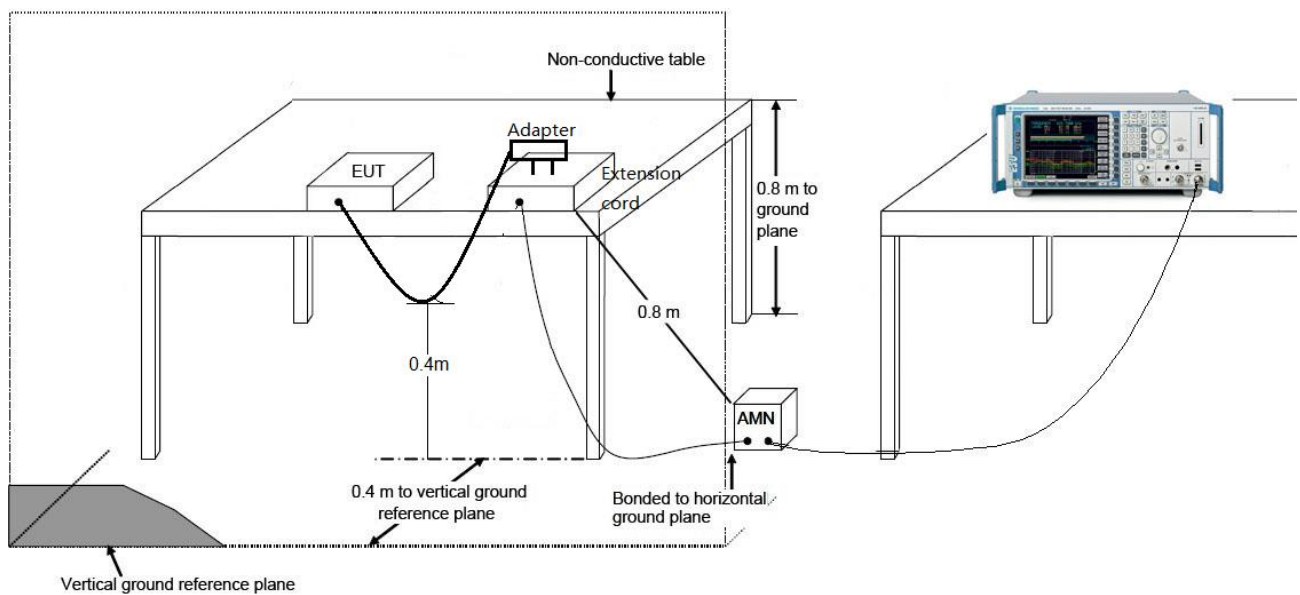
7.8.1. Test Limit

FCC Part 15 Subpart C Paragraph 15.207 Limits		
Frequency (MHz)	QP (dBuV)	AV (dBuV)
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.

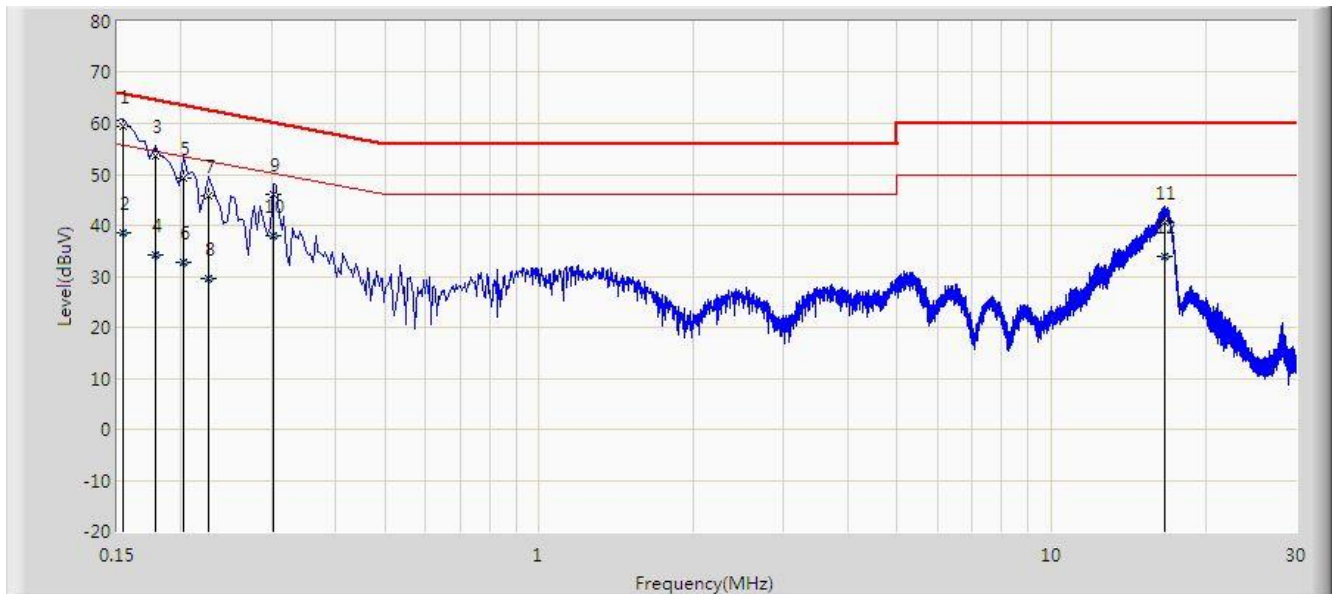
Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.5MHz.

7.8.2. Test Setup



7.8.3. Test Result

Site: SR2	Time: 2020/02/05 - 11:56
Limit: FCC_Part15.207_CE_AC Power	Engineer: Milo Li
Probe: ENV216_101683_Filter On	Polarity: Line
EUT: FastMile 4G Gateway	Power: AC 120V/60Hz
Test Mode 1	

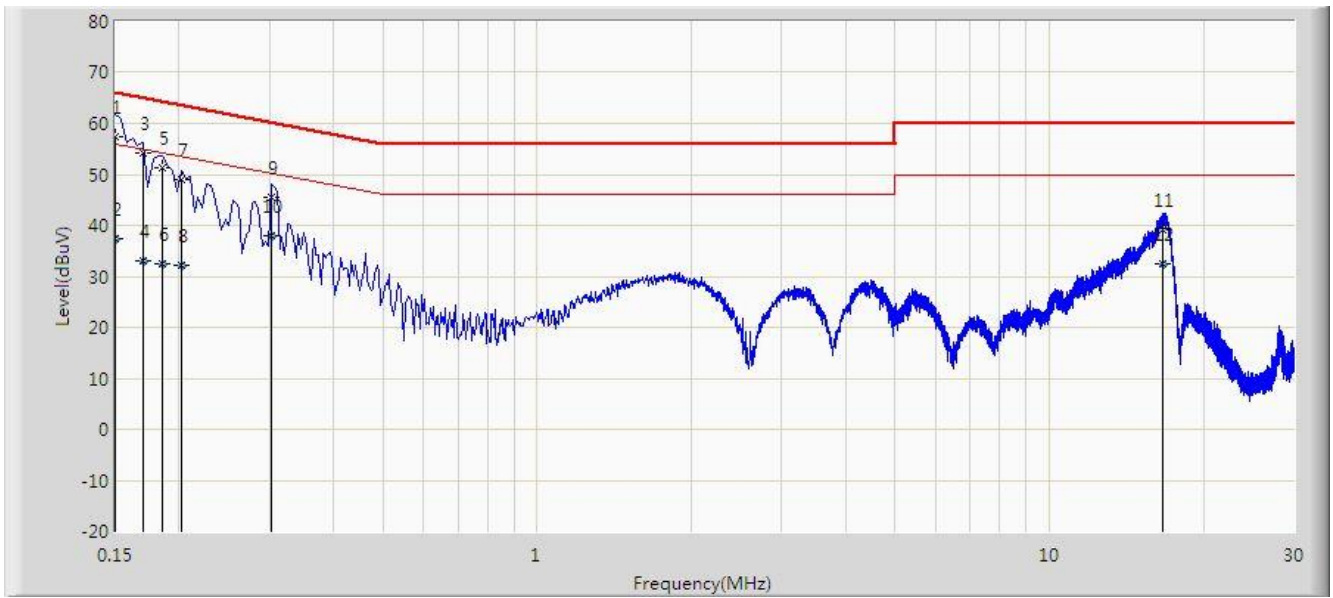


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV)	Factor (dB)	Type
1		*	0.154	59.434	48.694	-6.348	65.781	10.740	QP
2			0.154	38.416	27.677	-17.365	55.781	10.740	AV
3			0.178	53.495	43.437	-11.083	64.578	10.058	QP
4			0.178	34.215	24.157	-20.363	54.578	10.058	AV
5			0.202	49.276	39.284	-14.251	63.528	9.993	QP
6			0.202	32.729	22.737	-20.798	53.528	9.993	AV
7			0.226	45.821	35.877	-16.775	62.595	9.944	QP
8			0.226	29.696	19.752	-22.900	52.595	9.944	AV
9			0.302	46.006	36.001	-14.181	60.188	10.006	QP
10			0.302	38.112	28.106	-12.076	50.188	10.006	AV
11			16.686	40.683	30.612	-19.317	60.000	10.071	QP
12			16.686	33.923	23.852	-16.077	50.000	10.071	AV

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

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

Site: SR2	Time: 2020/02/05 - 12:00
Limit: FCC_Part15.207_CE_AC Power	Engineer: Milo Li
Probe: ENV216_101683_Filter On	Polarity: Neutral
EUT: FastMile 4G Gateway	Power: AC 120V/60Hz
Test Mode 1	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV)	Factor (dB)	Type
1		*	0.150	57.468	46.325	-8.532	66.000	11.142	QP
2			0.150	37.376	26.234	-18.624	56.000	11.142	AV
3			0.170	54.098	44.034	-10.862	64.960	10.064	QP
4			0.170	33.015	22.951	-21.946	54.960	10.064	AV
5			0.186	51.449	41.413	-12.765	64.213	10.035	QP
6			0.186	32.484	22.449	-21.729	54.213	10.035	AV
7			0.202	48.945	38.937	-14.583	63.528	10.008	QP
8			0.202	32.037	22.029	-21.491	53.528	10.008	AV
9			0.302	45.529	35.490	-14.659	60.188	10.039	QP
10			0.302	37.969	27.930	-12.218	50.188	10.039	AV
11			16.598	39.095	28.977	-20.905	60.000	10.118	QP
12			16.598	32.387	22.269	-17.613	50.000	10.118	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 device is compliance with Part 15C of the FCC Rules.

The End

Appendix A - Test Setup Photograph

Refer to “1911RSU040-UT” file.

Appendix B - EUT Photograph

Refer to “ 1911RSU040-UE” file.