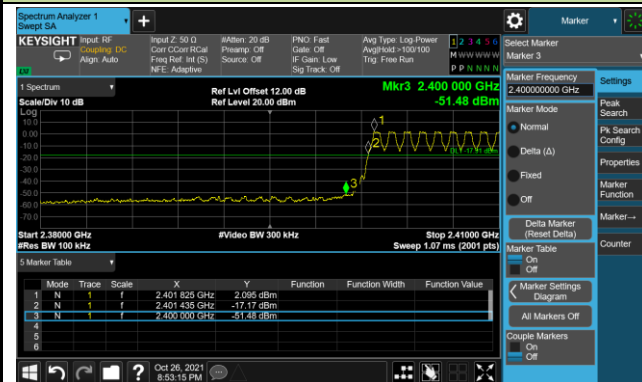
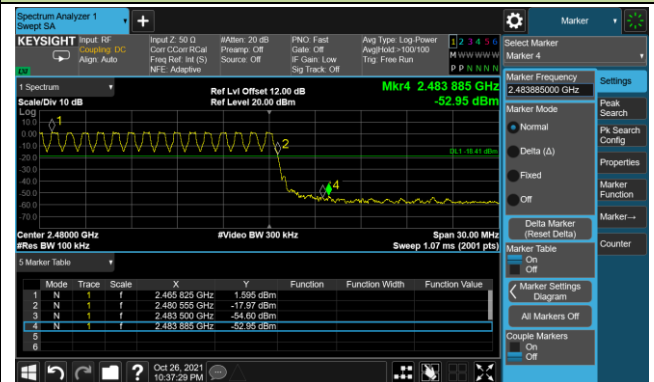


## Operation Frequency Range of 20dB Bandwidth with Hopping Mode

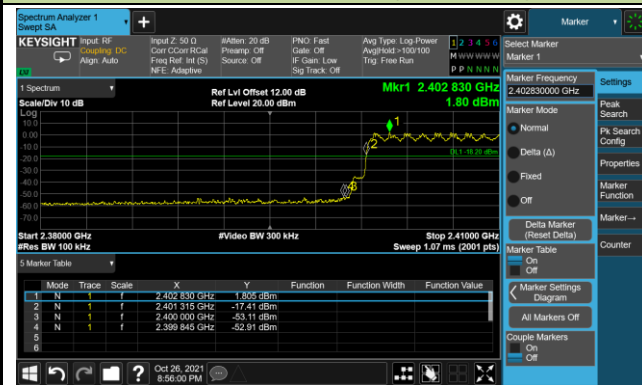
### DH5 - Channel 00 (2402MHz)



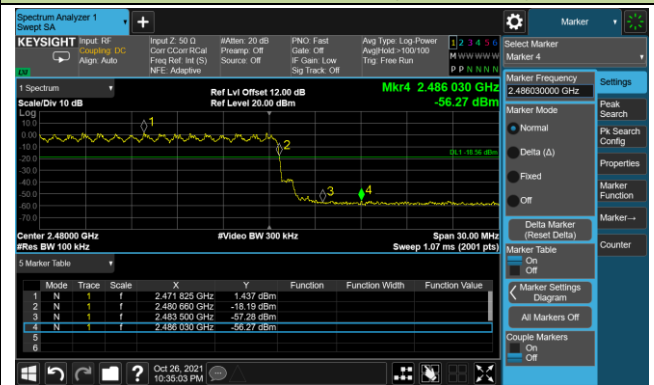
### DH5 - Channel 78 (2480MHz)



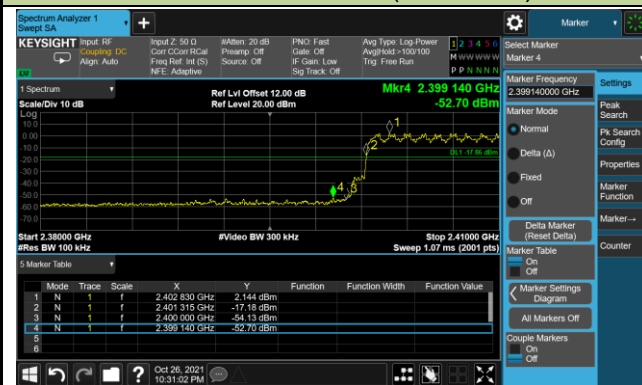
### 2DH5 - Channel 00 (2402MHz)



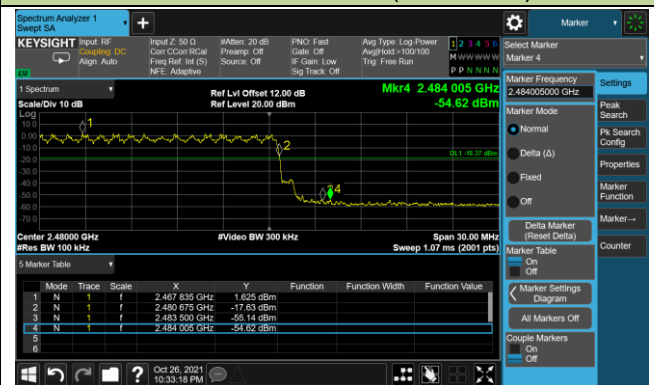
### 2DH5 - Channel 78 (2480MHz)



### 3DH5 - Channel 00 (2402MHz)



### 3DH5 - Channel 78 (2480MHz)



## **4.8. Conducted Spurious Emissions Measurement**

### **4.8.1. 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.

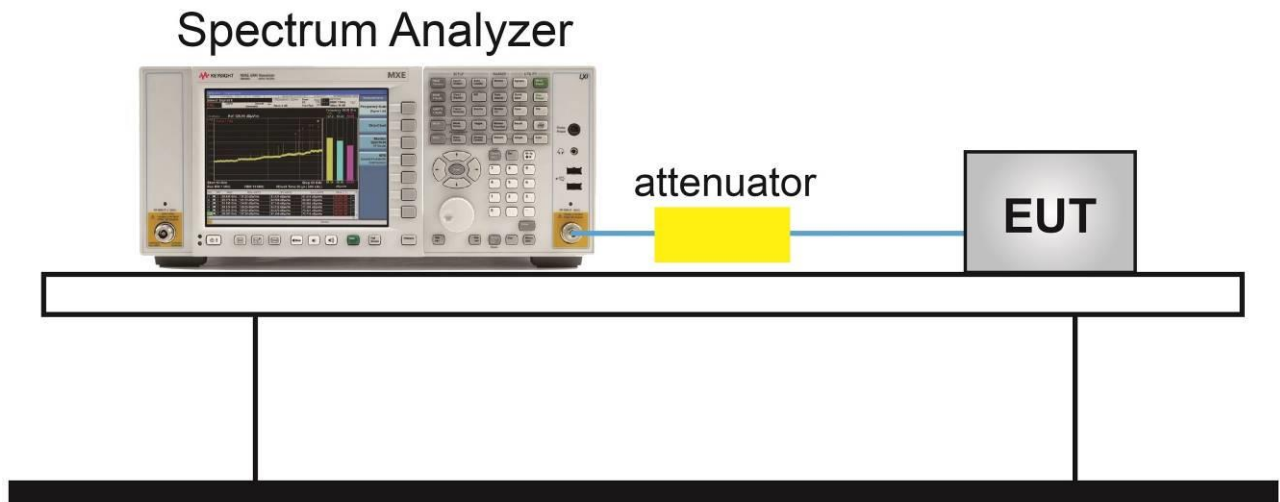
### **4.8.2. Test Procedure Used**

ANSI C63.10-2013 - Section 7.8.8

### **4.8.3. 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 = 100kHz
3. VBW = 300kHz
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.

#### 4.8.4. Test Setup



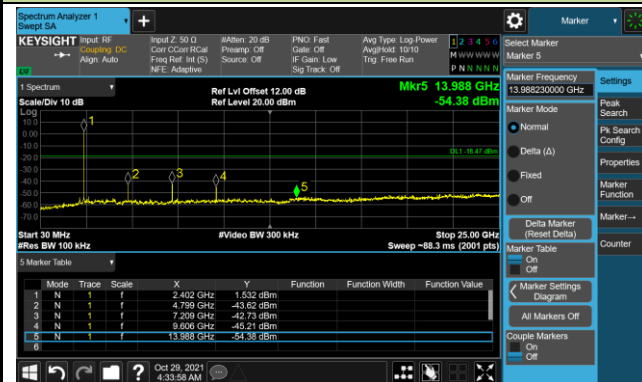
#### 4.8.5. Test Result

Test Site	NS-TR2	Test Engineer	Dillon Diao
Test Date	2021/10/29		

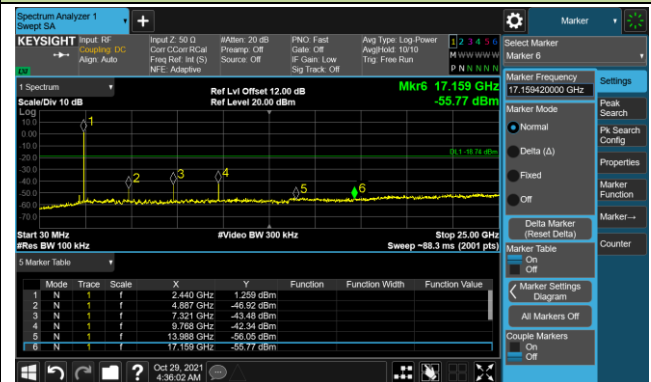
Test Mode	Channel No.	Frequency (MHz)	Limit (MHz)	Result
DH5	00	2402	20dBc	Pass
	39	2441	20dBc	Pass
	78	2480	20dBc	Pass
2DH5	00	2402	20dBc	Pass
	39	2441	20dBc	Pass
	78	2480	20dBc	Pass
3DH5	00	2402	20dBc	Pass
	39	2441	20dBc	Pass
	78	2480	20dBc	Pass

## DH5 Conducted Spurious Emissions

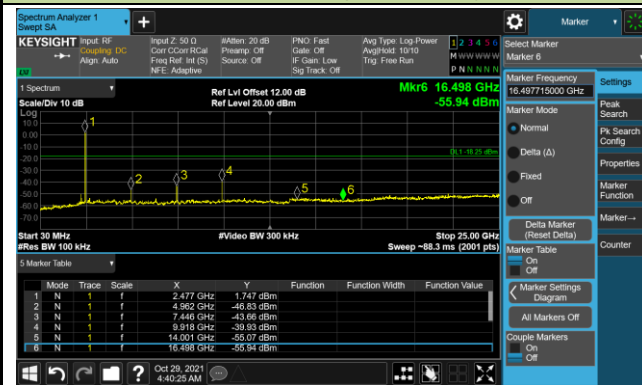
### Channel 00 (2402MHz)



### Channel 39 (2441MHz)

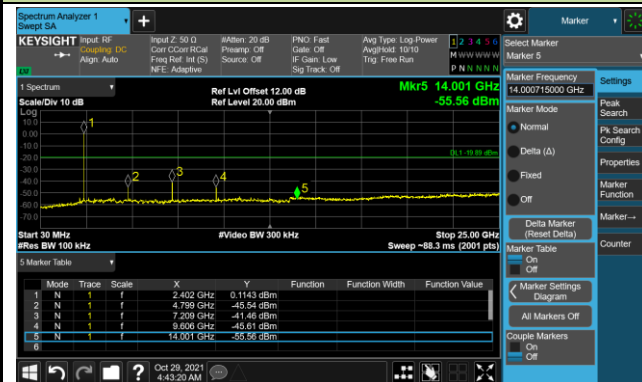


### Channel 78 (2480MHz)

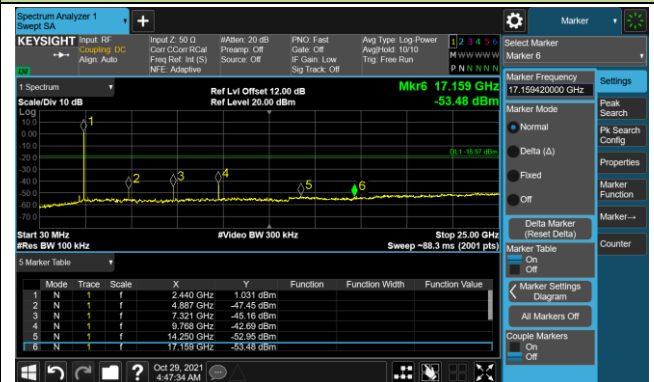


## 2DH5 Conducted Spurious Emissions

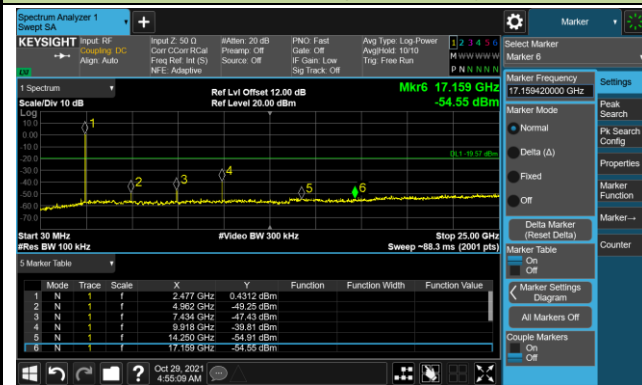
### Channel 00 (2402MHz)



### Channel 39 (2441MHz)



### Channel 78 (2480MHz)





## 4.9. Radiated Spurious Emission Measurement

### 4.9.1. Test Limit

All out of band emissions appearing in a restricted band as specified in Section 8.10 of the RSS-GEN Issue 5 must not exceed the limits shown in Table per Section 8.9.

RSS-Gen Section 8.9		
Frequency [MHz]	Field Strength [μA/m]	Measured Distance [Meters]
0.009 - 0.490	6.37/F (kHz)	300
0.490 - 1.705	63.7/F (kHz)	30
1.705 - 30	0.08	30
Frequency [MHz]	Field Strength [μV/m]	Measured Distance [Meters]
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

Note: The emission limits for the ranges 9-90 kHz and 110-490 kHz are based on measurements employing a linear average detector.

### 4.9.2. Test Procedure Used

ANSI C63.10 - Section 6.3 & 6.4 & 6.5 & 6.6

### 4.9.3. 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**

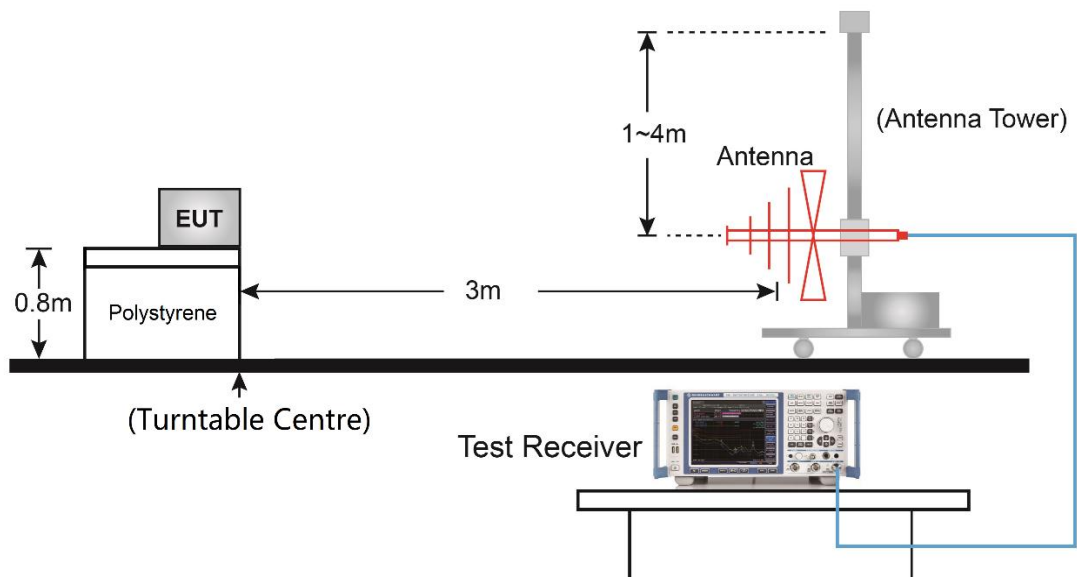
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = Peak
5. Sweep time = Auto couple
6. Trace mode = Max hold
7. Trace was allowed to stabilize

**Average Measurements above 1GHz (Method VB)**

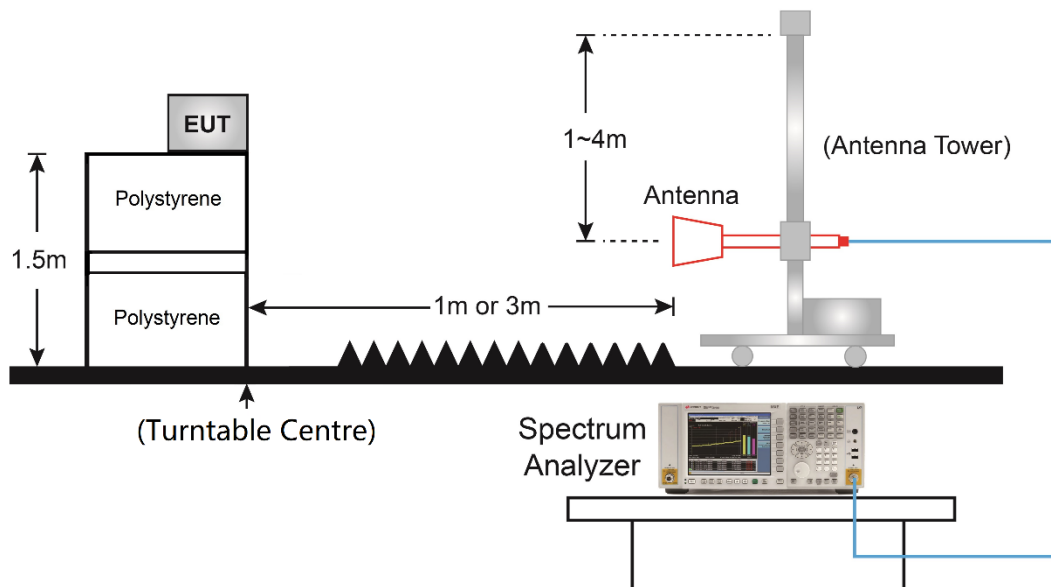
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW; If the EUT is configured to transmit with duty cycle  $\geq 98\%$ , set VBW = 10Hz  
If the EUT duty cycle is  $< 98\%$ , set VBW  $\geq 1/T$ . T is the minimum transmission duration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

#### 4.9.4. Test Setup

##### Below 1GHz Test Setup:



##### Above 1GHz Test Setup:



#### 4.9.5. Test Result

Test Site	NS-AC1	Test Engineer	Dillion Diao
Test Mode	DH5	Test Date	2021/10/22
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 shown in the report.		

Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
Channel 00							
7519.5	34.0	9.3	43.3	74.0	-30.7	Peak	Horizontal
8811.5	33.2	11.8	45.0	74.0	-29.0	Peak	Horizontal
10911.0	34.3	14.5	48.8	74.0	-25.2	Peak	Horizontal
7460.0	33.2	9.3	42.5	74.0	-31.5	Peak	Vertical
8794.5	33.7	11.9	45.6	74.0	-28.4	Peak	Vertical
10256.5	34.3	13.1	47.4	74.0	-26.6	Peak	Vertical
Channel 39							
6406.0	34.6	5.1	39.7	74.0	-34.3	Peak	Horizontal
8106.0	35.4	9.1	44.5	74.0	-29.5	Peak	Horizontal
11081.0	33.1	15.2	48.3	74.0	-25.7	Peak	Horizontal
7205.0	33.4	8.5	41.9	74.0	-32.1	Peak	Vertical
9075.0	34.7	11.9	46.6	74.0	-27.4	Peak	Vertical
10749.5	34.5	14.5	49.0	74.0	-25.0	Peak	Vertical
Channel 78							
7460.0	33.7	9.3	43.0	74.0	-31.0	Peak	Horizontal
10307.5	34.0	13.0	47.0	74.0	-27.0	Peak	Horizontal
12194.5	33.0	14.8	47.8	74.0	-26.2	Peak	Horizontal
7196.5	34.1	8.6	42.7	74.0	-31.3	Peak	Vertical
8463.0	33.8	10.6	44.4	74.0	-29.6	Peak	Vertical
10698.5	34.8	14.0	48.8	74.0	-25.2	Peak	Vertical
Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m)							
Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)							

Test Site	NS-AC1	Test Engineer	Dillion Diao
Test Mode	2DH5	Test Date	2021/10/22
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.		

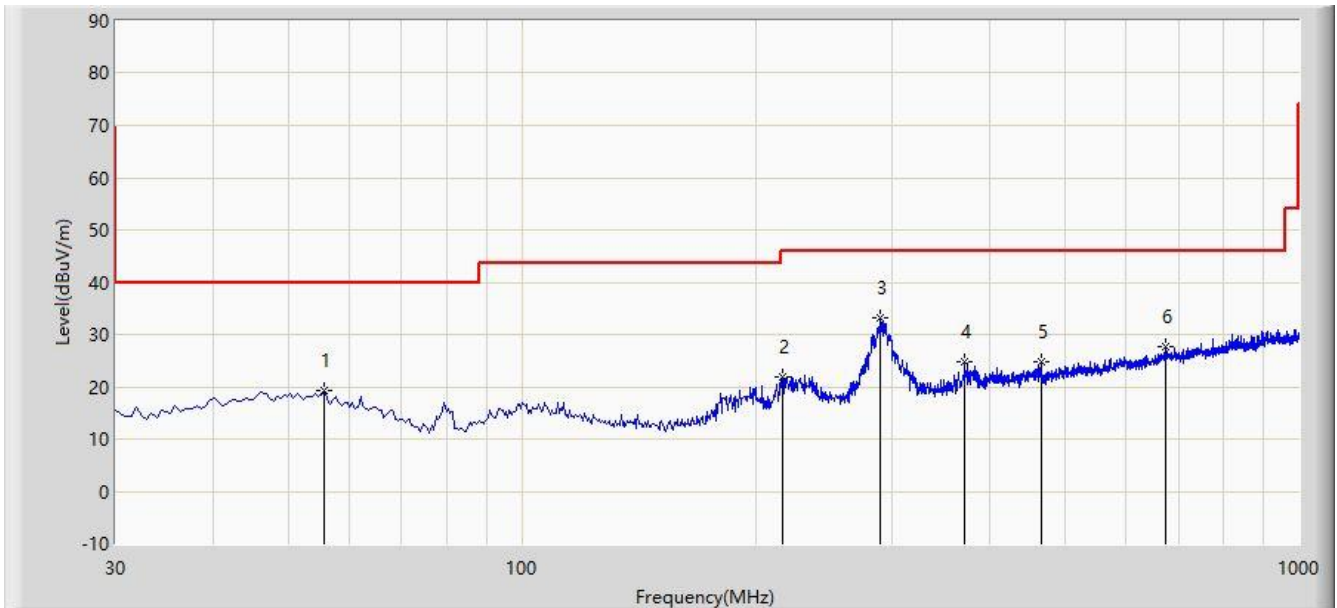
Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
Channel 00							
7400.5	33.3	9.3	42.6	74.0	-31.4	Peak	Horizontal
9160.0	32.8	12.7	45.5	74.0	-28.5	Peak	Horizontal
10817.5	32.8	14.9	47.7	74.0	-26.3	Peak	Horizontal
8029.5	34.9	9.2	44.1	74.0	-29.9	Peak	Vertical
9449.0	34.3	11.7	46.0	74.0	-28.0	Peak	Vertical
11038.5	33.4	14.7	48.1	74.0	-25.9	Peak	Vertical
Channel 39							
8080.5	34.6	9.4	44.0	74.0	-30.0	Peak	Horizontal
9959.0	34.5	12.1	46.6	74.0	-27.4	Peak	Horizontal
10741.0	33.6	14.6	48.2	74.0	-25.8	Peak	Horizontal
7655.5	34.3	8.9	43.2	74.0	-30.8	Peak	Vertical
8658.5	34.0	11.8	45.8	74.0	-28.2	Peak	Vertical
10826.0	32.9	15.2	48.1	74.0	-25.9	Peak	Vertical
Channel 78							
5717.5	36.5	3.0	39.5	74.0	-34.5	Peak	Horizontal
7604.5	31.5	9.0	40.5	74.0	-33.5	Peak	Horizontal
9432.0	34.3	11.5	45.8	74.0	-28.2	Peak	Horizontal
7732.0	34.5	8.7	43.2	74.0	-30.8	Peak	Vertical
9228.0	33.9	12.1	46.0	74.0	-28.0	Peak	Vertical
10273.5	34.7	13.2	47.9	74.0	-26.1	Peak	Vertical
Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m)							
Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)							

Test Site	NS-AC1	Test Engineer	Dillion Diao
Test Mode	3DH5	Test Date	2021/10/22
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 shown in the report.		

Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
Channel 00							
7715.0	36.1	8.6	44.7	74.0	-29.3	Peak	Horizontal
8735.0	32.8	12.3	45.1	74.0	-28.9	Peak	Horizontal
10817.5	33.3	14.9	48.2	74.0	-25.8	Peak	Horizontal
7451.5	33.1	9.3	42.4	74.0	-31.6	Peak	Vertical
8616.0	33.7	11.6	45.3	74.0	-28.7	Peak	Vertical
10826.0	33.1	15.2	48.3	74.0	-25.7	Peak	Vertical
Channel 39							
8089.0	34.5	9.4	43.9	74.0	-30.1	Peak	Horizontal
9151.5	33.5	12.3	45.8	74.0	-28.2	Peak	Horizontal
11149.0	32.5	15.5	48.0	74.0	-26.0	Peak	Horizontal
7468.5	33.5	9.1	42.6	74.0	-31.4	Peak	Vertical
8888.0	33.5	11.8	45.3	74.0	-28.7	Peak	Vertical
11055.5	33.1	15.0	48.1	74.0	-25.9	Peak	Vertical
Channel 78							
8769.0	33.4	12.1	45.5	74.0	-28.5	Peak	Horizontal
9993.0	32.8	12.4	45.2	74.0	-28.8	Peak	Horizontal
14209.0	32.4	17.6	50.0	74.0	-24.0	Peak	Horizontal
7332.5	33.3	9.1	42.4	74.0	-31.6	Peak	Vertical
8641.5	34.3	11.8	46.1	74.0	-27.9	Peak	Vertical
10282.0	34.4	13.4	47.8	74.0	-26.2	Peak	Vertical
Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m)							
Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)							

### The Result of Radiated Emission below 1GHz:

Site: NS-AC1	Time: 2021/08/25
Limit: RSS-GEN_RE(3m)	Engineer: Dillion Diao
Probe: NS-AC1_VULB9162	Polarity: Horizontal
EUT: Portable Bluetooth Speaker	Power: By USB
Test Mode: Transmit by DH5 at channel 2441MHz	



No.	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB/m)	Type
1			55.705	19.183	2.156	-20.817	40.000	17.027	PK
2		*	216.725	22.022	7.084	-23.978	46.000	14.938	PK
3			289.475	33.245	16.341	-12.755	46.000	16.904	PK
4			371.925	24.896	6.503	-21.104	46.000	18.393	PK
5			465.530	24.913	4.590	-21.087	46.000	20.324	PK
6			673.595	27.676	2.831	-18.324	46.000	24.846	PK

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

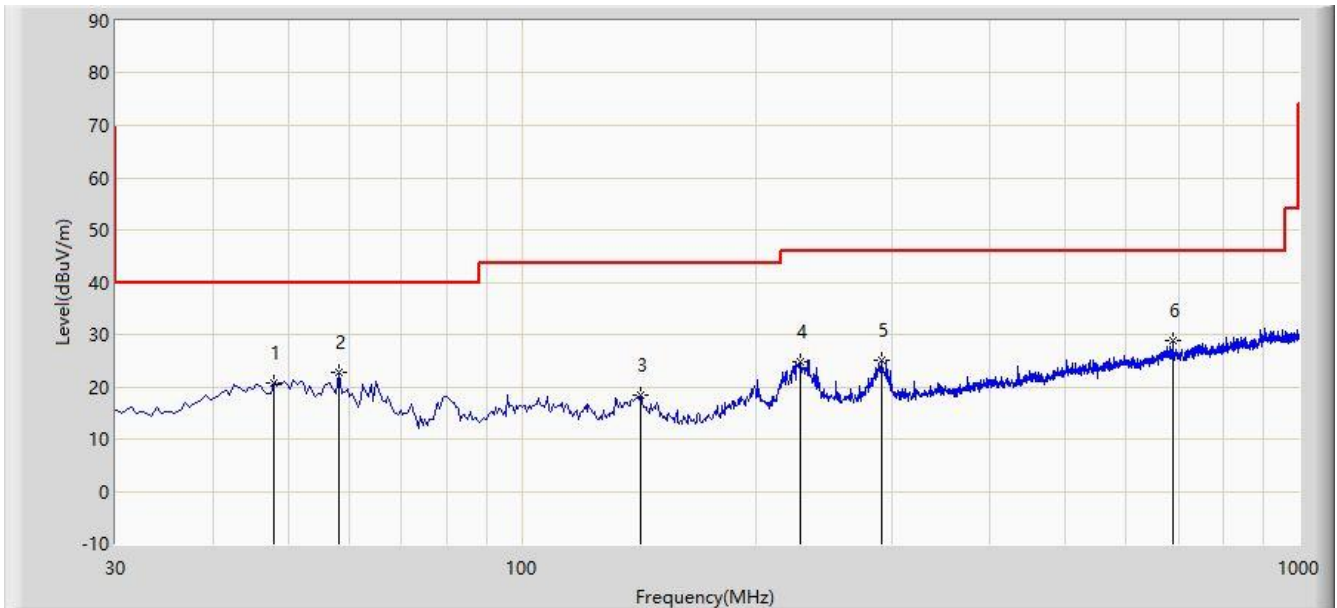
Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m)

Note 2: The amplitude of radiated emissions (frequency range from 9kHz to 30MHz and 18GHz to 25GHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value.

Therefore, the data is not presented in the report.

Note 3: QP measurement was not performed when peak measure level was lower than the QP limit.

Site: NS-AC1	Time: 2021/11/08
Limit: RSS-GEN_RE(3m)	Engineer: Dillion Diao
Probe: NS-AC1_VULB9162	Polarity: Vertical
EUT: Portable Bluetooth Speaker	Power: By USB
Test Mode: Transmit by DH5 at channel 2441MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB/m)	Type
1			47.945	20.664	3.122	-19.336	40.000	17.542	PK
2			58.130	22.658	6.094	-17.342	40.000	16.564	PK
3		*	142.035	18.528	6.915	-24.972	43.500	11.613	PK
4			228.365	24.676	9.063	-21.324	46.000	15.613	PK
5			290.930	24.946	8.046	-21.054	46.000	16.900	PK
6			688.145	28.717	3.870	-17.283	46.000	24.847	PK

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

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

Note 2: The amplitude of radiated emissions (frequency range from 9kHz to 30MHz and 18GHz to 25GHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value.

Therefore, the data is not presented in the report.

Note 3: QP measurement was not performed when peak measure level was lower than the QP limit.

## 4.10. Radiated Restricted Band Edge Measurement

### 4.10.1. Test Limit

#### For RSS-Gen Section 8.10 requirement:

Radiated emissions which fall in the restricted bands, as defined in Section 8.10 of RSS-Gen, must also comply with the radiated emission limits specified in Section 8.9.

Frequency (MHz)	Frequency (MHz)	Frequency (GHz)
0.090 - 0.110	149.9 - 150.05	9.0 - 9.2
0.495 - 0.505	156.52475 - 156.52525	9.3 - 9.5
2.1735 - 2.1905	156.7 - 156.9	10.6 - 12.7
3.020 - 3.026	162.0125 - 167.17	13.25 - 13.4
4.125 - 4.128	167.72 - 173.2	14.47 - 14.5
4.17725 - 4.17775	240 - 285	15.35 - 16.2
4.20725 - 4.20775	322 - 335.4	17.7 - 21.4
5.677 - 5.683	399.9 - 410	22.01 - 23.12
6.215 - 6.218	608 - 614	23.6 - 24.0
6.26775 - 6.26825	960 - 1427	31.2 - 31.8
6.31175 - 6.31225	1435 - 1626.5	36.43 - 36.5
8.291 - 8.294	1645.5 - 1646.5	Above 38.6
8.362 - 8.366	1660 - 1710	* Certain frequency bands listed in table 7 and in bands above 38.6 GHz are designated for license exempt applications. These frequency bands and the requirements that apply to related devices are set out in the 200 and 300 series of RSSs.
8.37625 - 8.38675	1718.8 - 1722.2	
8.41425 - 8.41475	2200 - 2300	
12.29 - 12.293	2310 - 2390	
12.51975 - 12.52025	2483.5 - 2500	
12.57675 - 12.57725	2655 - 2900	
13.36 - 13.41	3260 - 3267	
16.42 - 16.423	3332 - 3339	
16.69475 - 16.69525	3345.8 - 3358	
16.80425 - 16.80475	3500 - 4400	
25.5 - 25.67	4500 - 5150	
37.5 - 38.25	5350 - 5460	
73 - 74.6	7250 - 7750	
74.8 - 75.2	8025 - 8500	
108 - 138	--	



All out of band emissions appearing in a restricted band as specified in Section 8.10 of the RSS-Gen must not exceed the limits shown in Table per Section 8.9.

RSS-Gen Section 8.9			
Frequency (MHz)	Field Strength ( $\mu\text{V/m}$ )	Magnetic Field Strength (H-Field) ( $\mu\text{A/m}$ )	Measured Distance (m)
0.009 - 0.490 1	--	6.37/F (F in kHz)	300
0.490 - 1.705	--	6.37/F (F in kHz)	30
1.705 - 30	--	0.08	30
30 - 88	100	--	3
88 - 216	150	--	3
216 - 960	200	--	3
Above 960	500	--	3

#### 4.10.2.Test Procedure Used

ANSI C63.10 - Section 6.3 & 6.6

#### 4.10.3.Test Setting

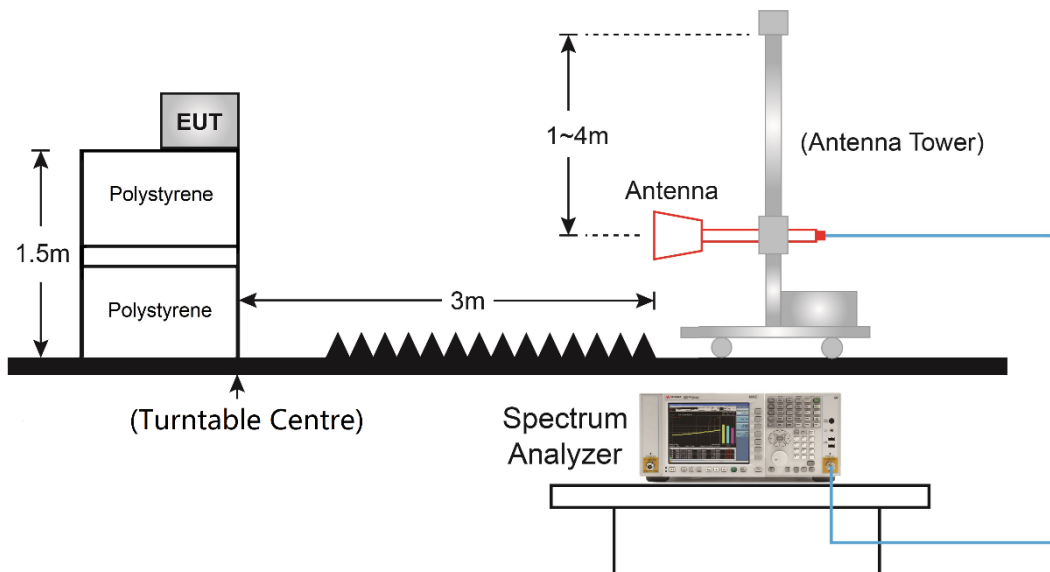
##### Peak Field Strength Measurements

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)

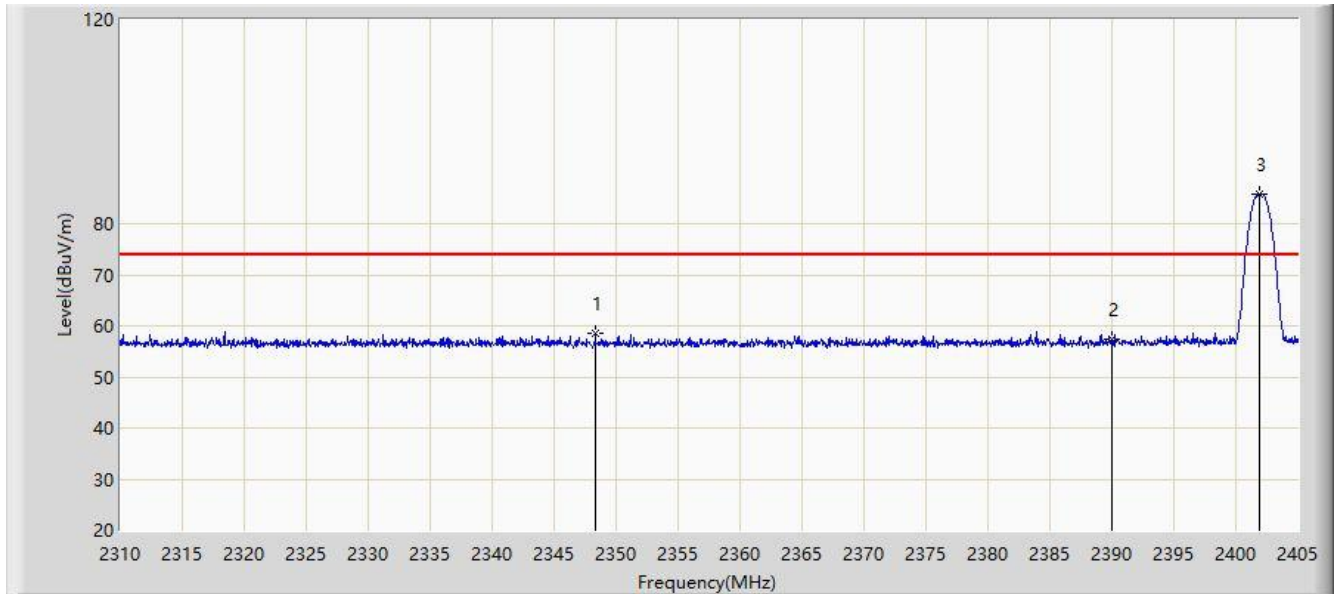
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW; If the EUT is configured to transmit with duty cycle  $\geq 98\%$ , set VBW = 10Hz
4. If the EUT duty cycle is  $< 98\%$ , set VBW  $\geq 1/T$ . T is the minimum transmission duration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

#### 4.10.4.Test Setup



#### 4.10.5. Test Result

Site: NS-AC1	Time: 2021/08/27
Limit: RSS-GEN_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Horizontal
EUT: Portable Bluetooth Speaker	Power: By USB
Test Mode: Transmit by DH5 at channel 2402MHz	



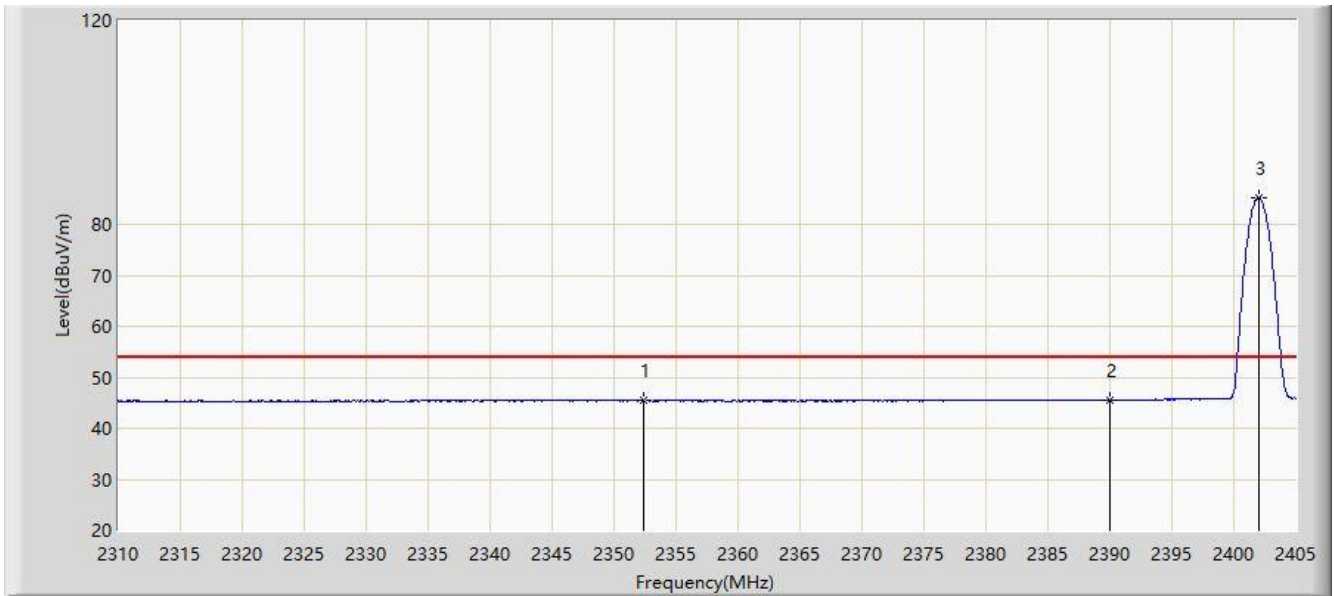
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB/m)	Type
1			2348.333	58.545	27.419	-15.455	74.000	31.126	PK
2			2390.000	57.294	26.391	-16.706	74.000	30.903	PK
3		*	2401.865	85.696	54.761	N/A	N/A	30.935	PK

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

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

Note 2: "\*" During the test, there was fundamental frequency (point 3) shown on the trace.

Site: NS-AC1	Time: 2021/08/27
Limit: RSS-GEN_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Horizontal
EUT: Portable Bluetooth Speaker	Power: By USB
Test Mode: Transmit by DH5 at channel 2402MHz	



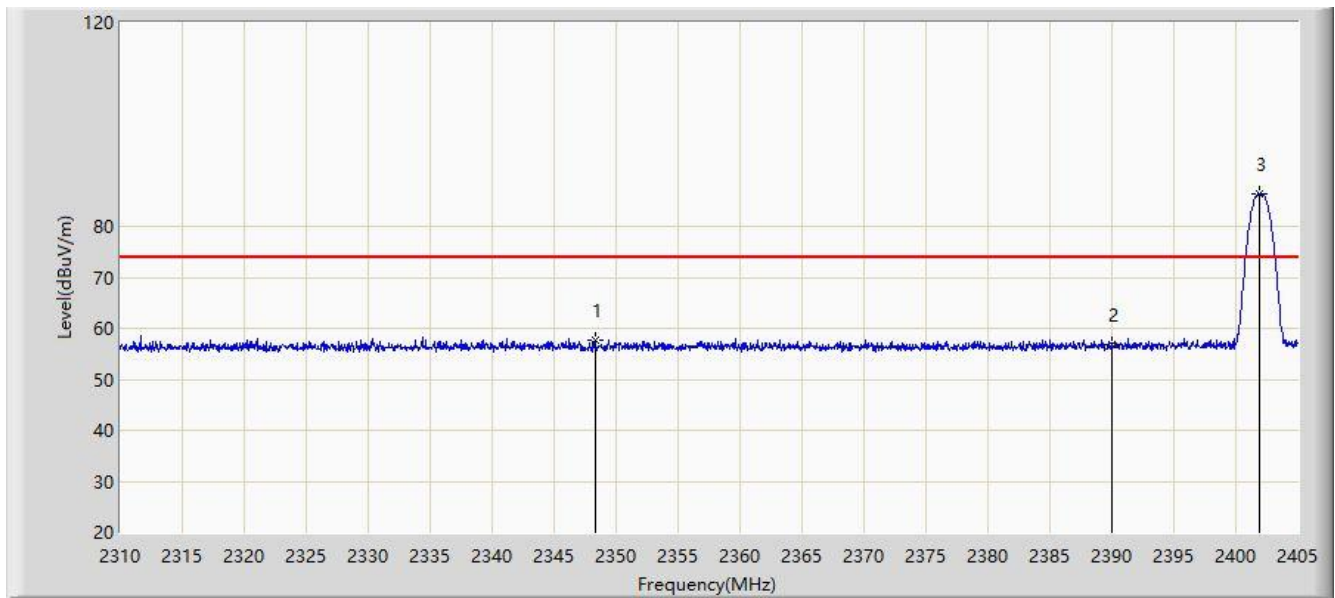
No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1			2352.370	45.390	14.312	-8.610	54.000	31.078	AV
2			2390.000	45.471	14.568	-8.529	54.000	30.903	AV
3		*	2402.008	85.219	54.284	N/A	N/A	30.935	AV

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

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

Note 2: “\*” During the test, there was fundamental frequency (point 3) shown on the trace.

Site: NS-AC1	Time: 2021/08/27
Limit: RSS-GEN_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Vertical
EUT: Portable Bluetooth Speaker	Power: By USB
Test Mode: Transmit by DH5 at channel 2402MHz	



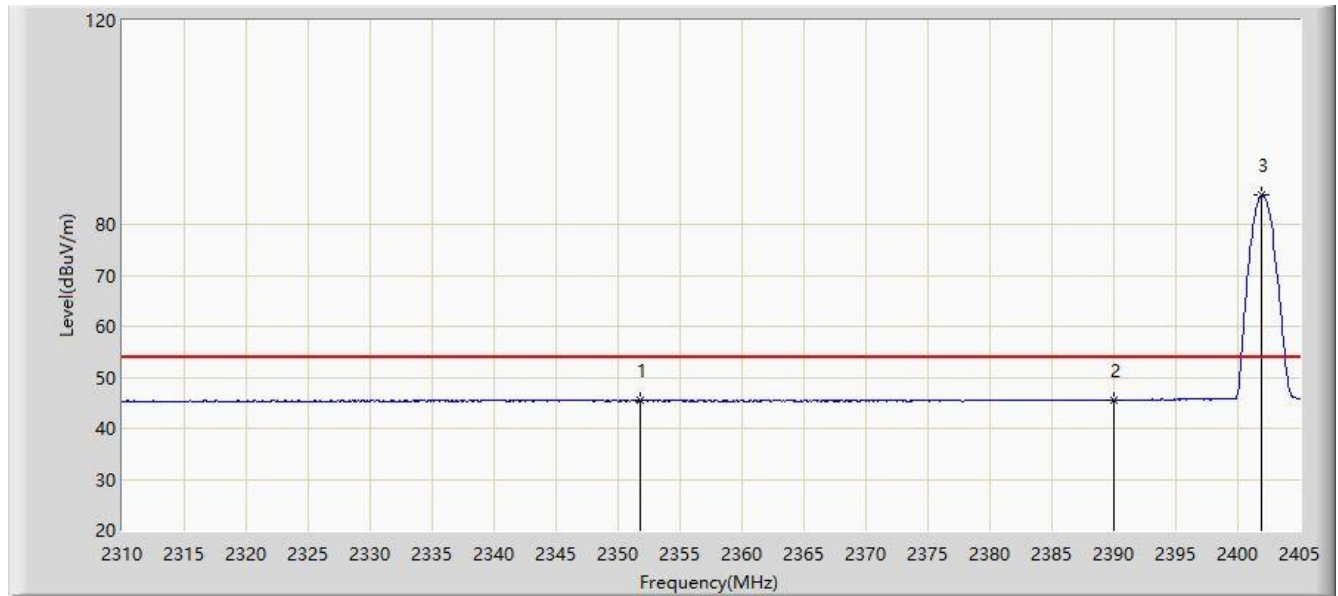
No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1			2348.333	57.798	26.672	-16.202	74.000	31.126	PK
2			2390.000	56.794	25.891	-17.206	74.000	30.903	PK
3		*	2401.913	86.379	55.444	N/A	N/A	30.935	PK

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

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

Note 2: “\*” During the test, there was fundamental frequency (point 3) shown on the trace.

Site: NS-AC1	Time: 2021/08/27
Limit: RSS-GEN_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Vertical
EUT: Portable Bluetooth Speaker	Power: By USB
Test Mode: Transmit by DH5 at channel 2402MHz	



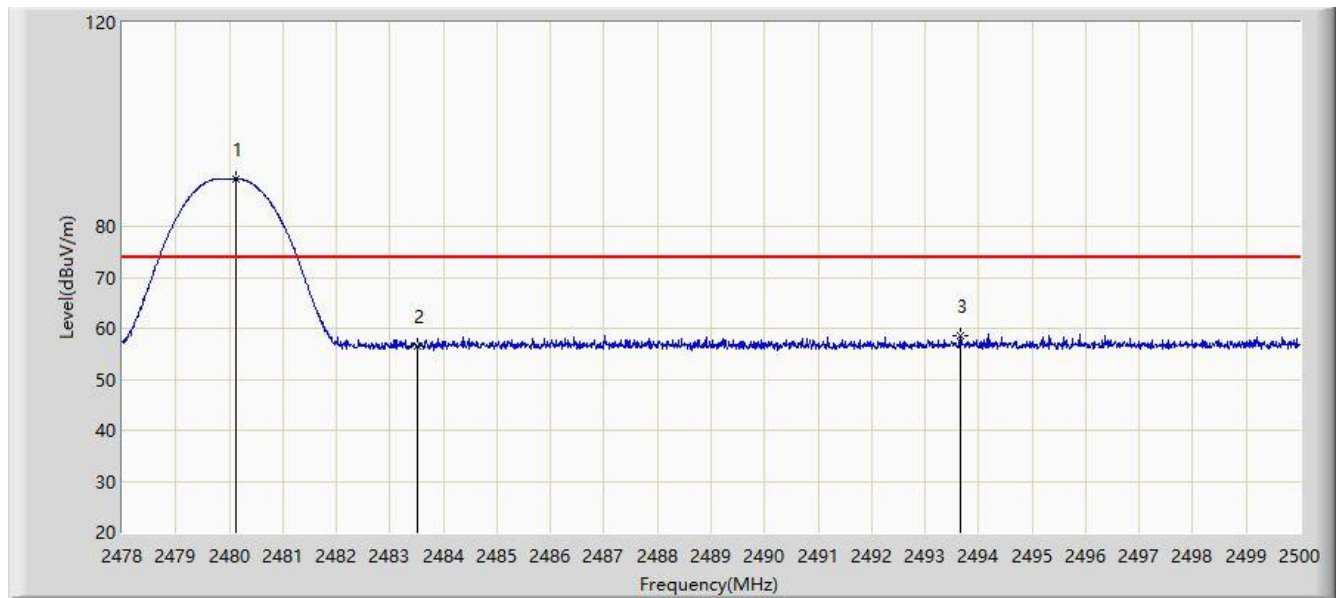
No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1			2351.752	45.390	14.305	-8.610	54.000	31.086	AV
2			2390.000	45.549	14.646	-8.451	54.000	30.903	AV
3		*	2401.913	85.688	54.753	N/A	N/A	30.935	AV

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

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

Note 2: “\*” During the test, there was fundamental frequency (point 3) shown on the trace.

Site: NS-AC1	Time: 2021/08/27
Limit: RSS-GEN_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Horizontal
EUT: Portable Bluetooth Speaker	Power: By USB
Test Mode: Transmit by DH5 at channel 2480MHz	



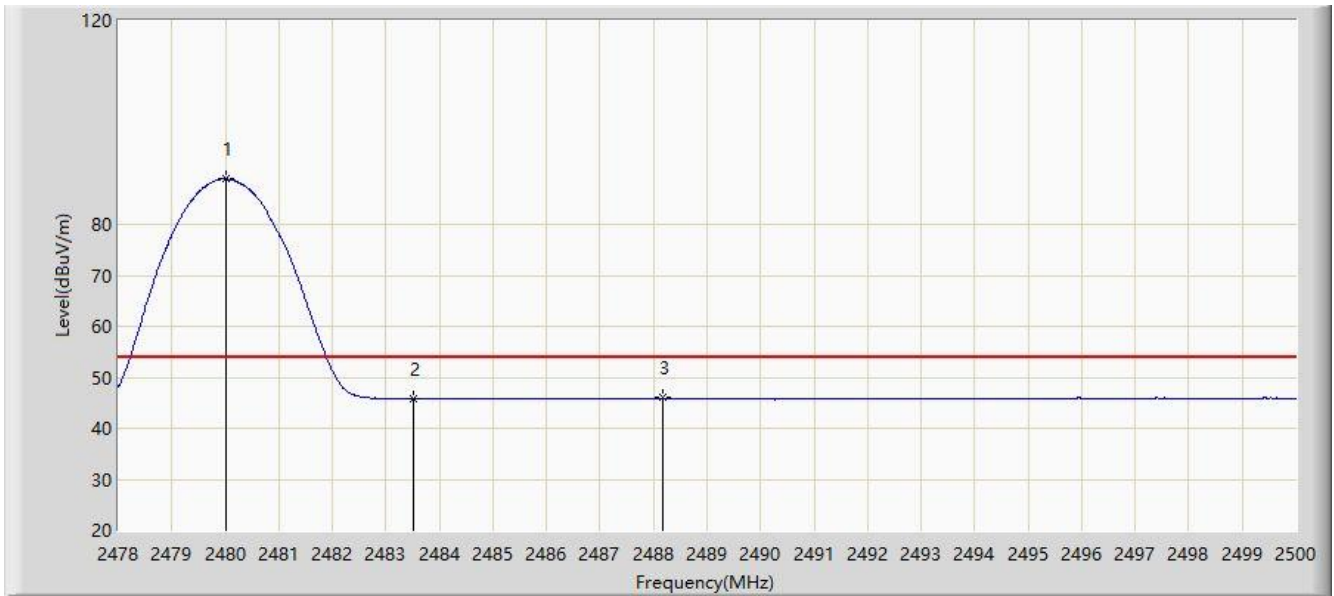
No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		*	2480.123	89.419	58.547	N/A	N/A	30.872	PK
2			2483.500	56.430	25.541	-17.570	74.000	30.889	PK
3			2493.664	58.676	27.736	-15.324	74.000	30.940	PK

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

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

Note 2: “\*” During the test, there was fundamental frequency (point 1) shown on the trace.

Site: NS-AC1	Time: 2021/08/27
Limit: RSS-GEN_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Horizontal
EUT: Portable Bluetooth Speaker	Power: By USB
Test Mode: Transmit by DH5 at channel 2480MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		*	2480.002	88.893	58.022	N/A	N/A	30.871	AV
2			2483.500	45.815	14.926	-8.185	54.000	30.889	AV
3			2488.175	45.959	15.047	-8.041	54.000	30.912	AV

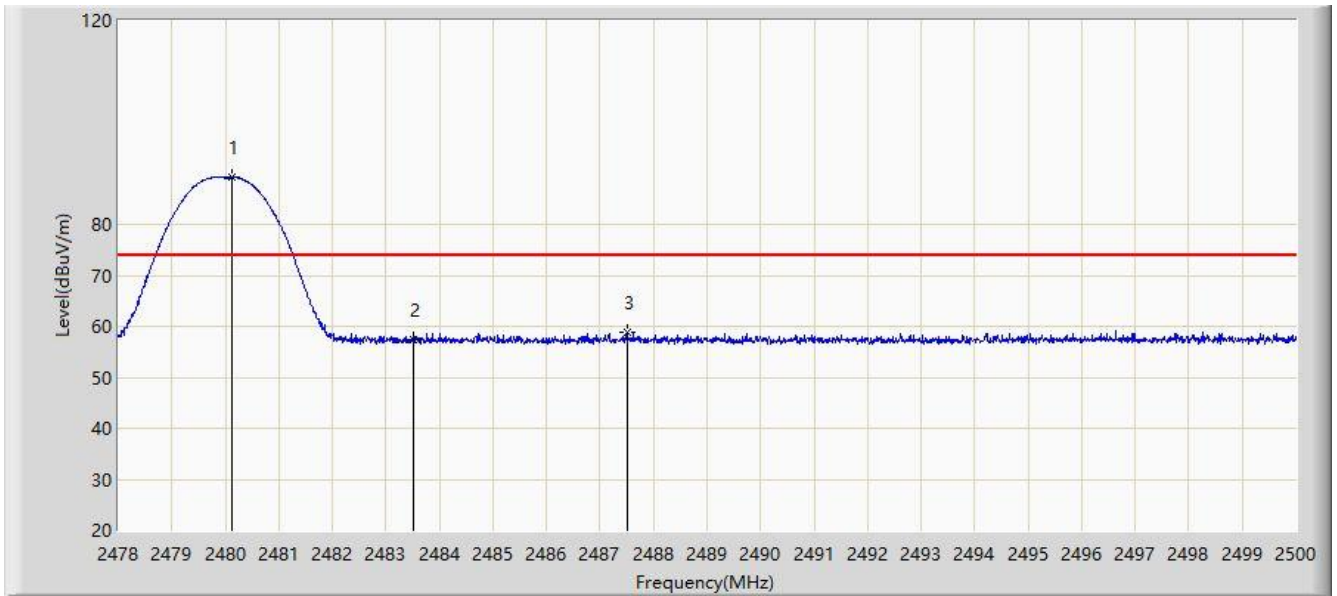
Note 1: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m))

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

Note 2: “\*” During the test, there was fundamental frequency (point 1) shown on the trace.



Site: NS-AC1	Time: 2021/08/27
Limit: RSS-GEN_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Vertical
EUT: Portable Bluetooth Speaker	Power: By USB
Test Mode: Transmit by DH5 at channel 2480MHz	



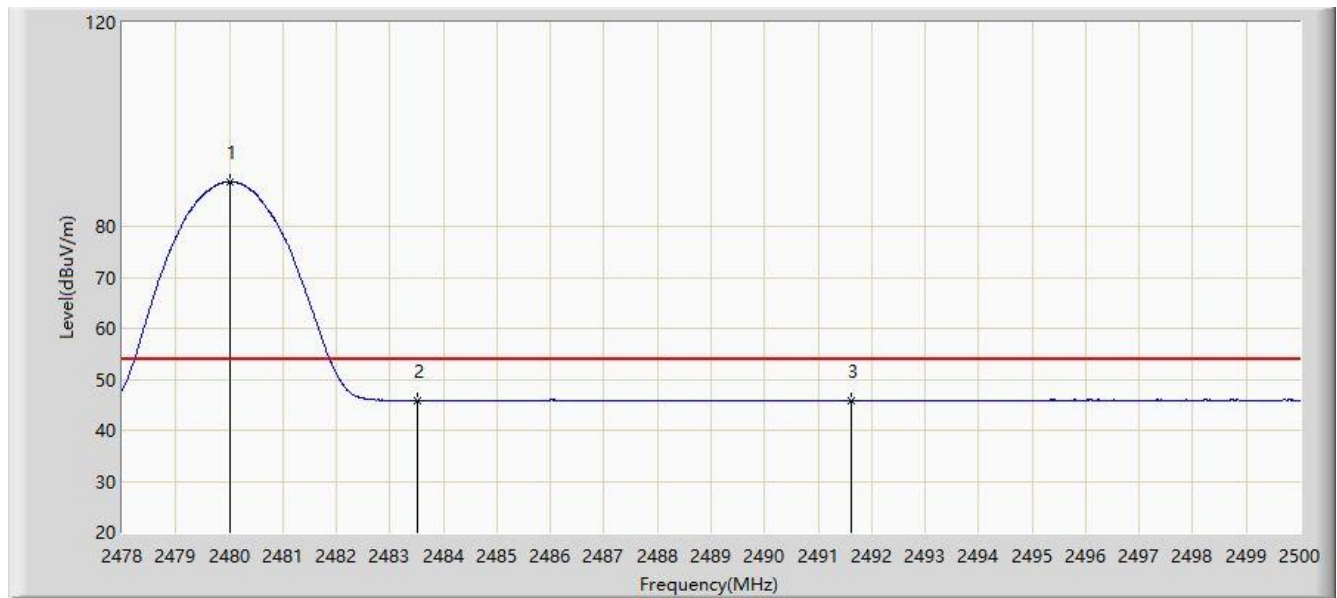
No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		*	2480.112	89.282	58.410	N/A	N/A	30.872	PK
2			2483.500	57.270	26.381	-16.730	74.000	30.889	PK
3			2487.504	58.739	27.830	-15.261	74.000	30.909	PK

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

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

Note 2: “\*” During the test, there was fundamental frequency (point 1) shown on the trace.

Site: NS-AC1	Time: 2021/08/27
Limit: RSS-GEN_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Vertical
EUT: Portable Bluetooth Speaker	Power: By USB
Test Mode: Transmit by DH5 at channel 2480MHz	



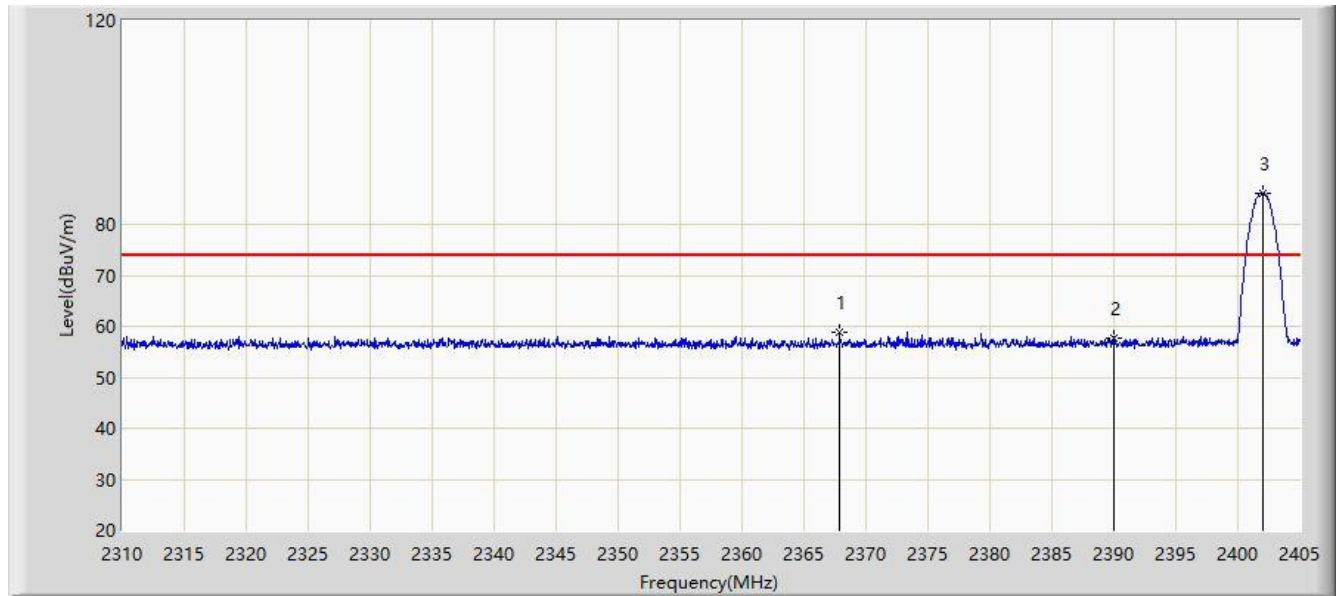
No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		*	2480.002	88.713	57.842	N/A	N/A	30.871	AV
2			2483.500	45.807	14.918	-8.193	54.000	30.889	AV
3			2491.607	45.841	14.912	-8.159	54.000	30.929	AV

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

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

Note 2: “\*” During the test, there was fundamental frequency (point 1) shown on the trace.

Site: NS-AC1	Time: 2021/08/27
Limit: RSS-GEN_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Horizontal
EUT: Portable Bluetooth Speaker	Power: By USB
Test Mode: Transmit by 2DH5 at channel 2402MHz	



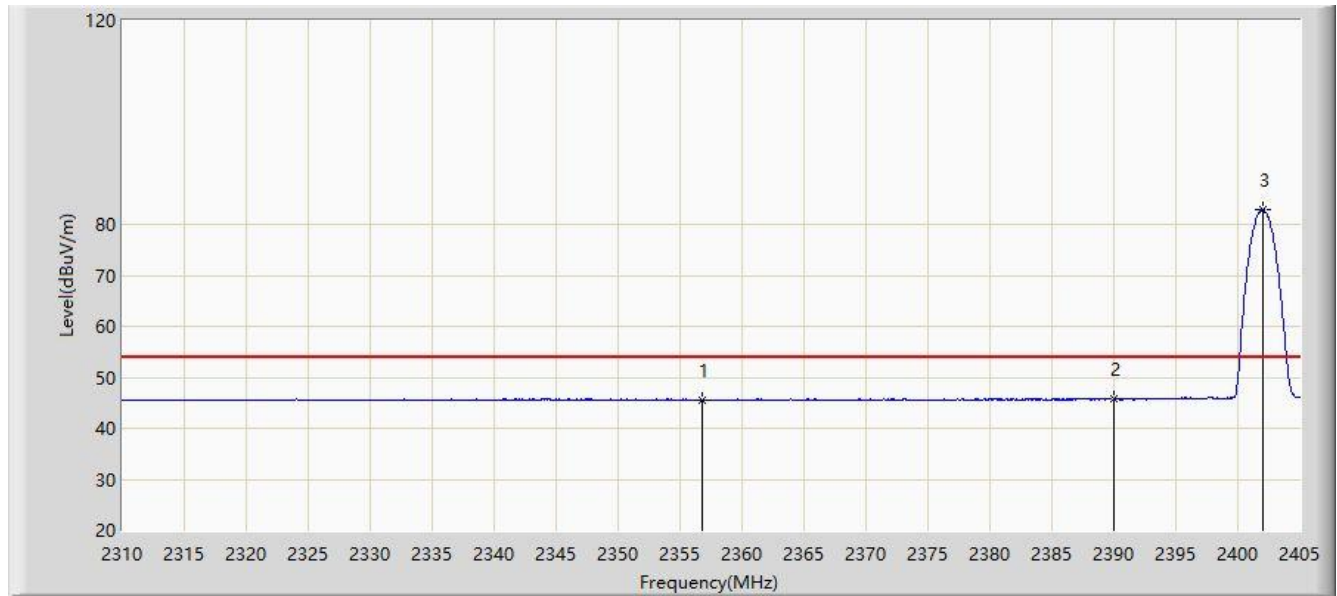
No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1			2367.855	58.747	27.793	-15.253	74.000	30.954	PK
2			2390.000	57.762	26.859	-16.238	74.000	30.903	PK
3		*	2402.008	86.150	55.215	N/A	N/A	30.935	PK

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

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

Note 2: “\*” During the test, there was fundamental frequency (point 3) shown on the trace.

Site: NS-AC1	Time: 2021/08/27
Limit: RSS-GEN_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Horizontal
EUT: Portable Bluetooth Speaker	Power: By USB
Test Mode: Transmit by 2DH5 at channel 2402MHz	



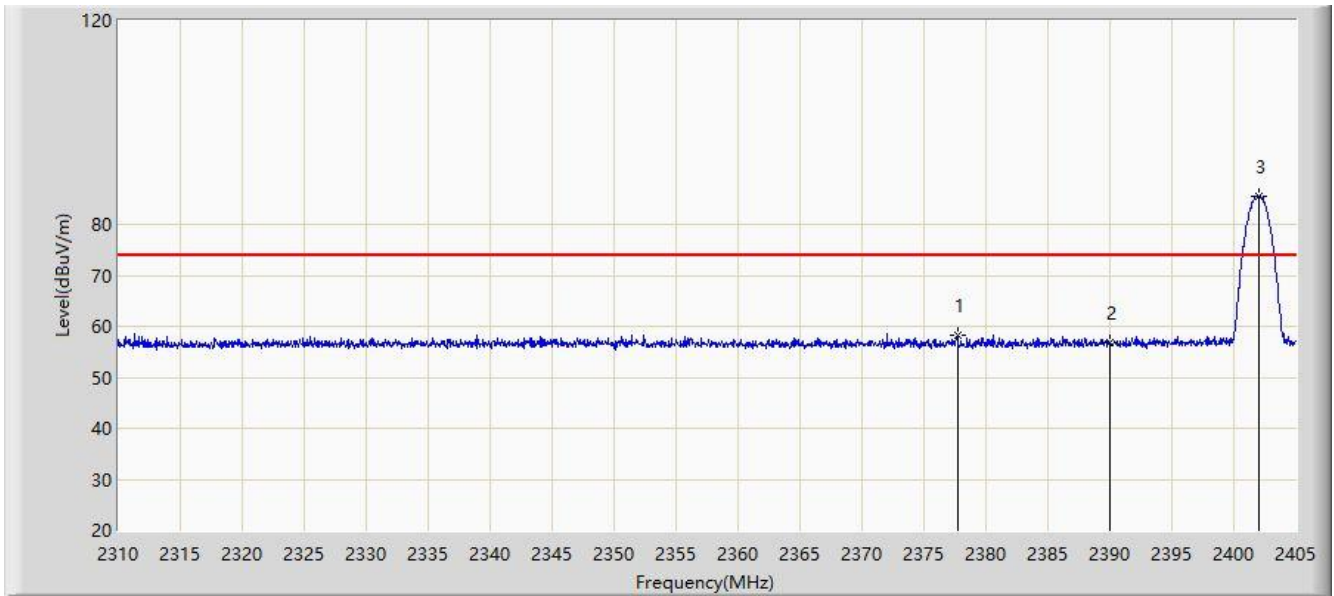
No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1			2356.835	45.631	14.605	-8.369	54.000	31.025	AV
2			2390.000	45.653	14.750	-8.347	54.000	30.903	AV
3		*	2402.008	82.968	52.033	N/A	N/A	30.935	AV

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

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

Note 2: "\*" During the test, there was fundamental frequency (point 3) shown on the trace.

Site: NS-AC1	Time: 2021/08/27
Limit: RSS-GEN_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Vertical
EUT: Portable Bluetooth Speaker	Power: By USB
Test Mode: Transmit by 2DH5 at channel 2402MHz	



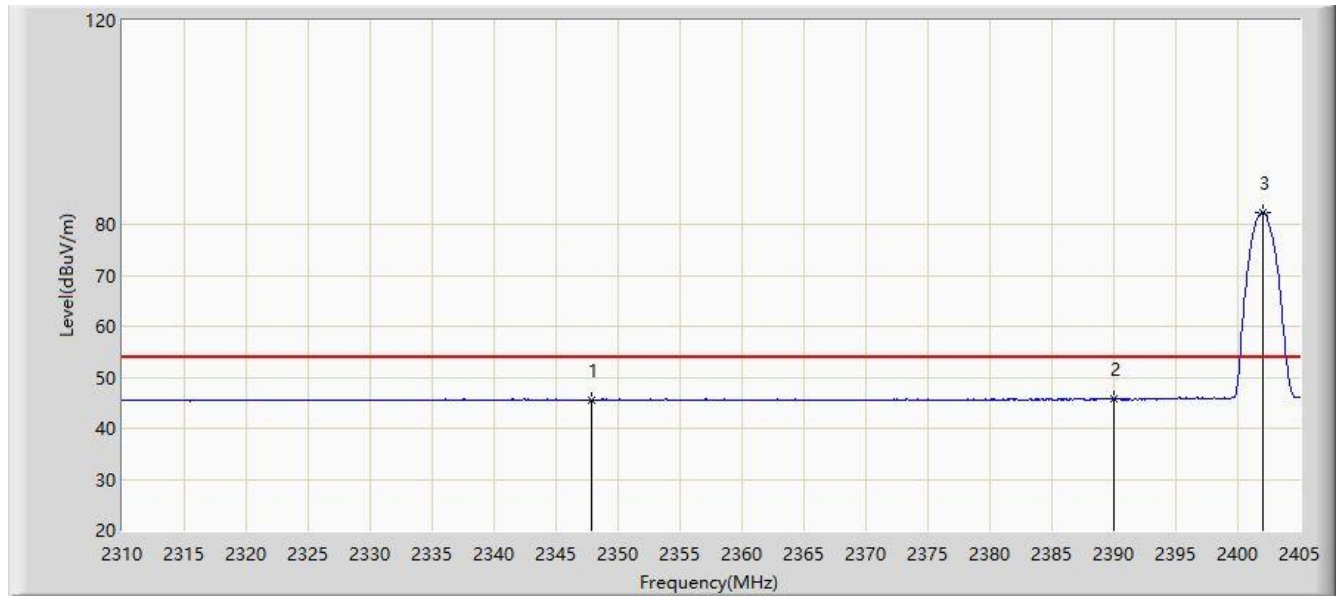
No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1			2377.687	58.136	27.223	-15.864	74.000	30.913	PK
2			2390.000	56.846	25.943	-17.154	74.000	30.903	PK
3		*	2402.008	85.420	54.485	N/A	N/A	30.935	PK

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

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

Note 2: “\*” During the test, there was fundamental frequency (point 3) shown on the trace.

Site: NS-AC1	Time: 2021/08/27
Limit: RSS-GEN_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Vertical
EUT: Portable Bluetooth Speaker	Power: By USB
Test Mode: Transmit by 2DH5 at channel 2402MHz	



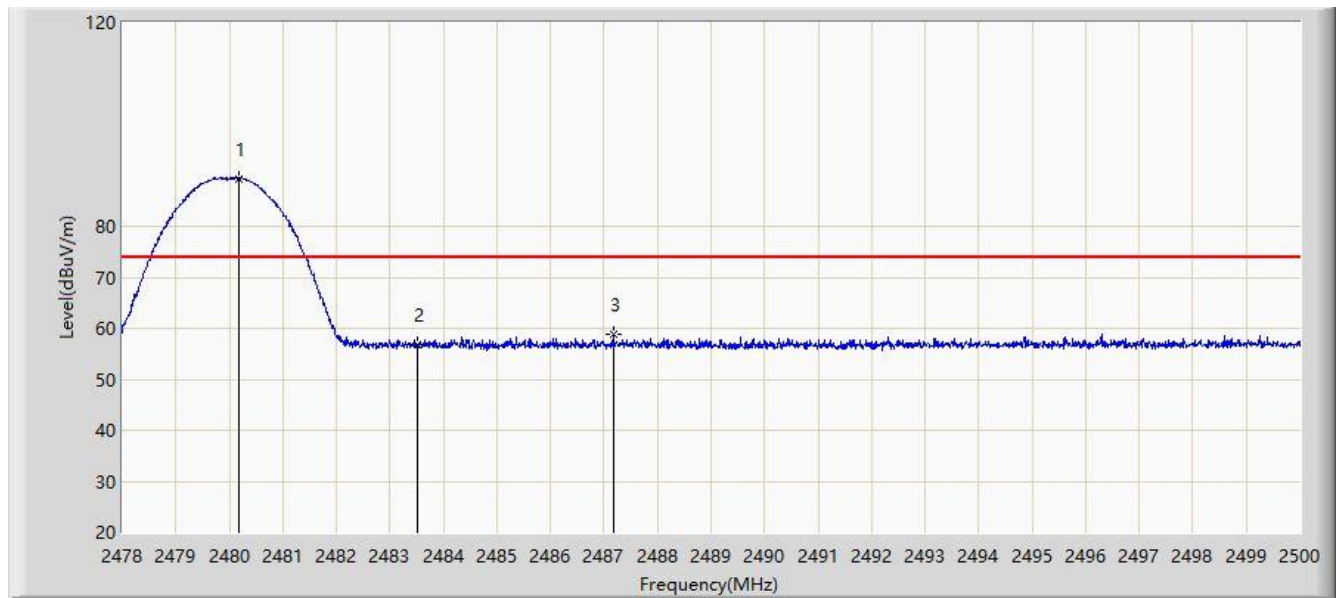
No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1			2347.810	45.631	14.499	-8.369	54.000	31.132	AV
2			2390.000	45.688	14.785	-8.312	54.000	30.903	AV
3		*	2402.008	82.330	51.395	N/A	N/A	30.935	AV

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

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

Note 2: “\*” During the test, there was fundamental frequency (point 3) shown on the trace.

Site: NS-AC1	Time: 2021/08/27
Limit: RSS-GEN_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Horizontal
EUT: Portable Bluetooth Speaker	Power: By USB
Test Mode: Transmit by 2DH5 at channel 2480MHz	



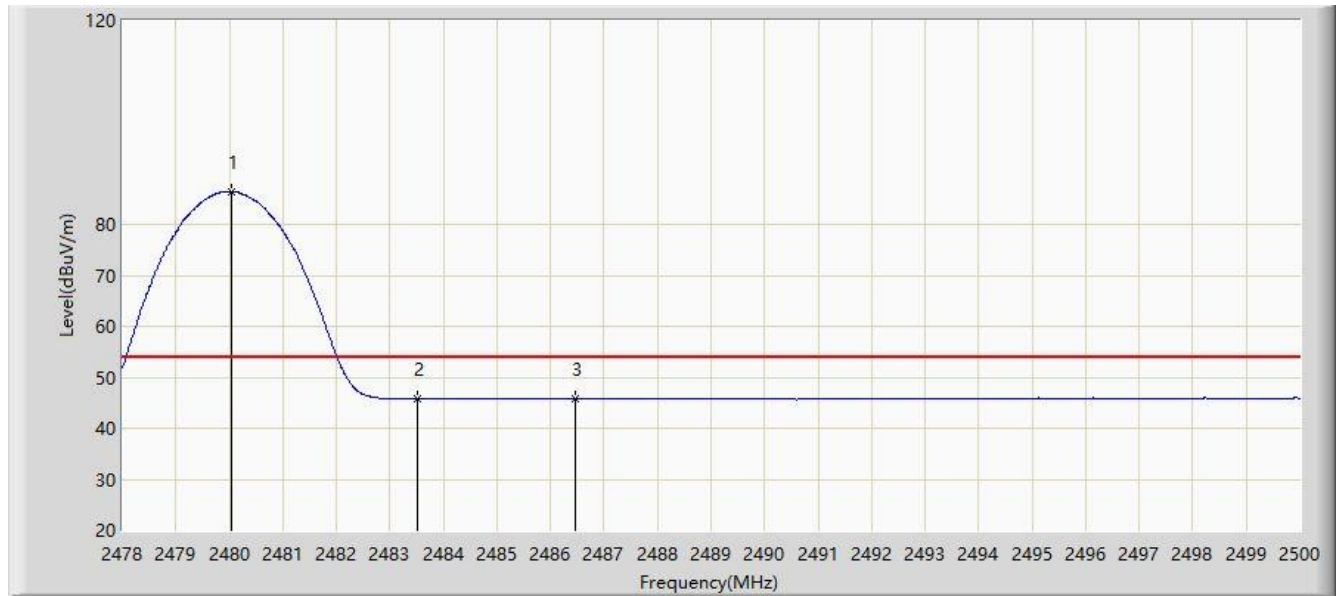
No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		*	2480.178	89.419	58.547	N/A	N/A	30.872	PK
2			2483.500	56.743	25.854	-17.257	74.000	30.889	PK
3			2487.174	58.699	27.792	-15.301	74.000	30.907	PK

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

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

Note 2: “\*” During the test, there was fundamental frequency (point 1) shown on the trace.

Site: NS-AC1	Time: 2021/08/27
Limit: RSS-GEN_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Horizontal
EUT: Portable Bluetooth Speaker	Power: By USB
Test Mode: Transmit by 2DH5 at channel 2480MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		*	2480.046	86.454	55.582	N/A	N/A	30.872	AV
2			2483.500	45.758	14.869	-8.242	54.000	30.889	AV
3			2486.470	45.938	15.034	-8.062	54.000	30.904	AV

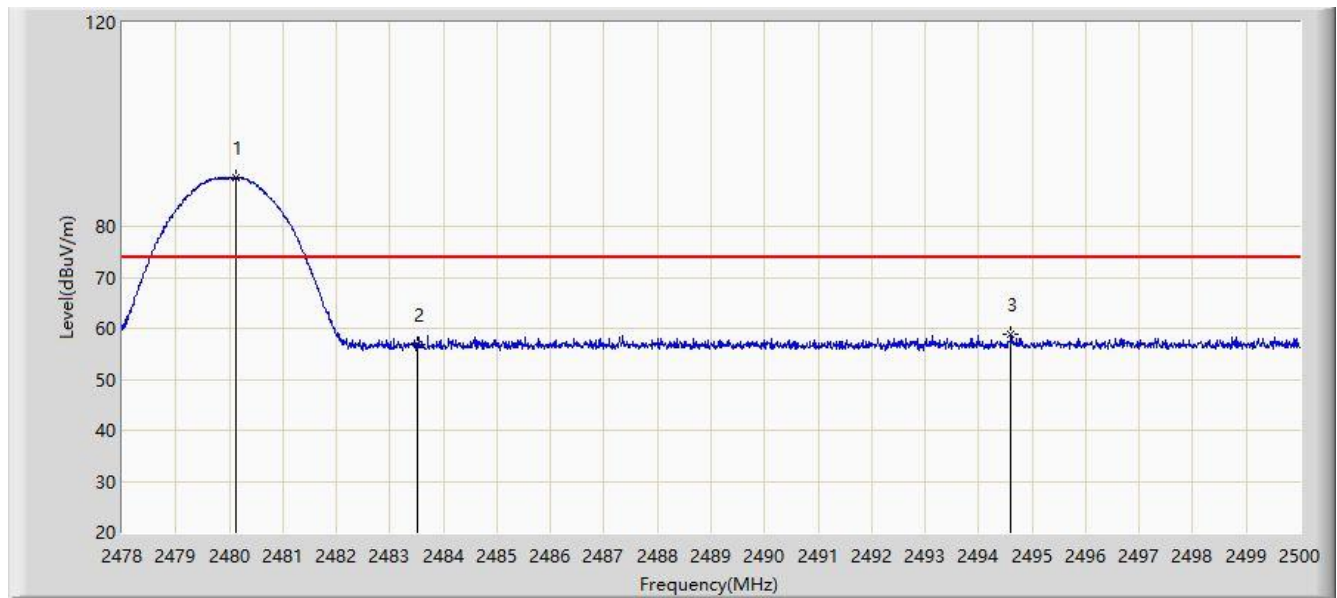
Note 1: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m))

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

Note 2: “\*” During the test, there was fundamental frequency (point 1) shown on the trace.



Site: NS-AC1	Time: 2021/08/27
Limit: RSS-GEN_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Vertical
EUT: Portable Bluetooth Speaker	Power: By USB
Test Mode: Transmit by 2DH5 at channel 2480MHz	



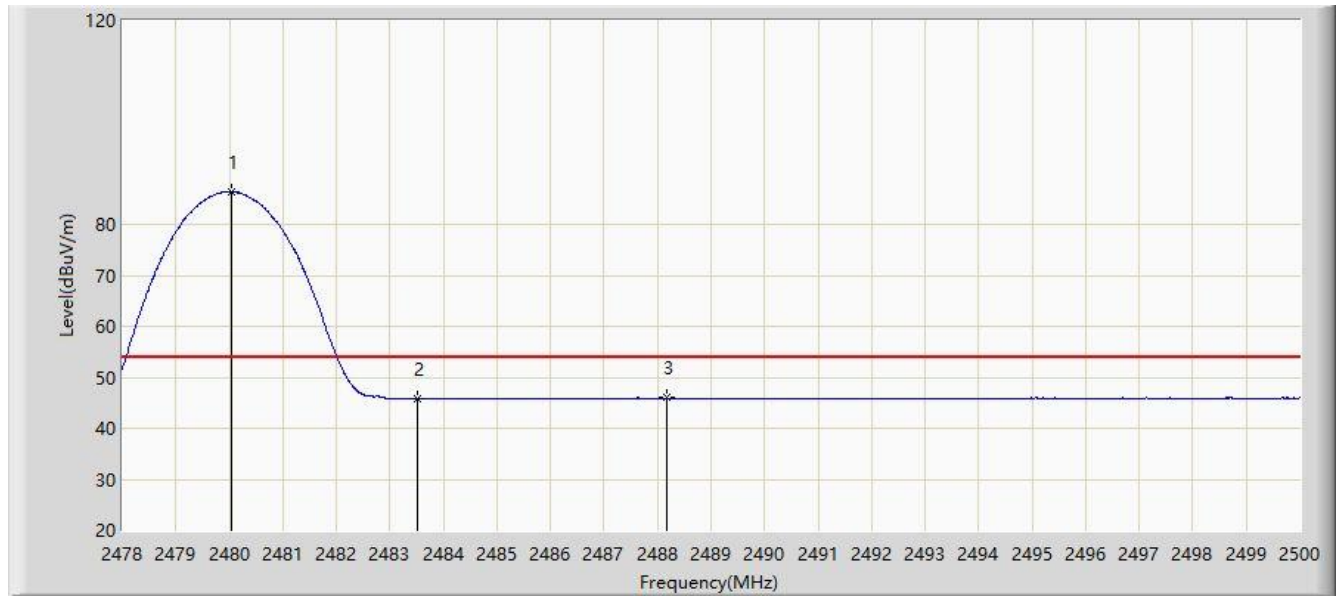
No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		*	2480.112	89.584	58.712	N/A	N/A	30.872	PK
2			2483.500	56.713	25.824	-17.287	74.000	30.889	PK
3			2494.599	58.713	27.769	-15.287	74.000	30.944	PK

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

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

Note 2: “\*” During the test, there was fundamental frequency (point 1) shown on the trace.

Site: NS-AC1	Time: 2021/08/27
Limit: RSS-GEN_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Vertical
EUT: Portable Bluetooth Speaker	Power: By USB
Test Mode: Transmit by 2DH5 at channel 2480MHz	



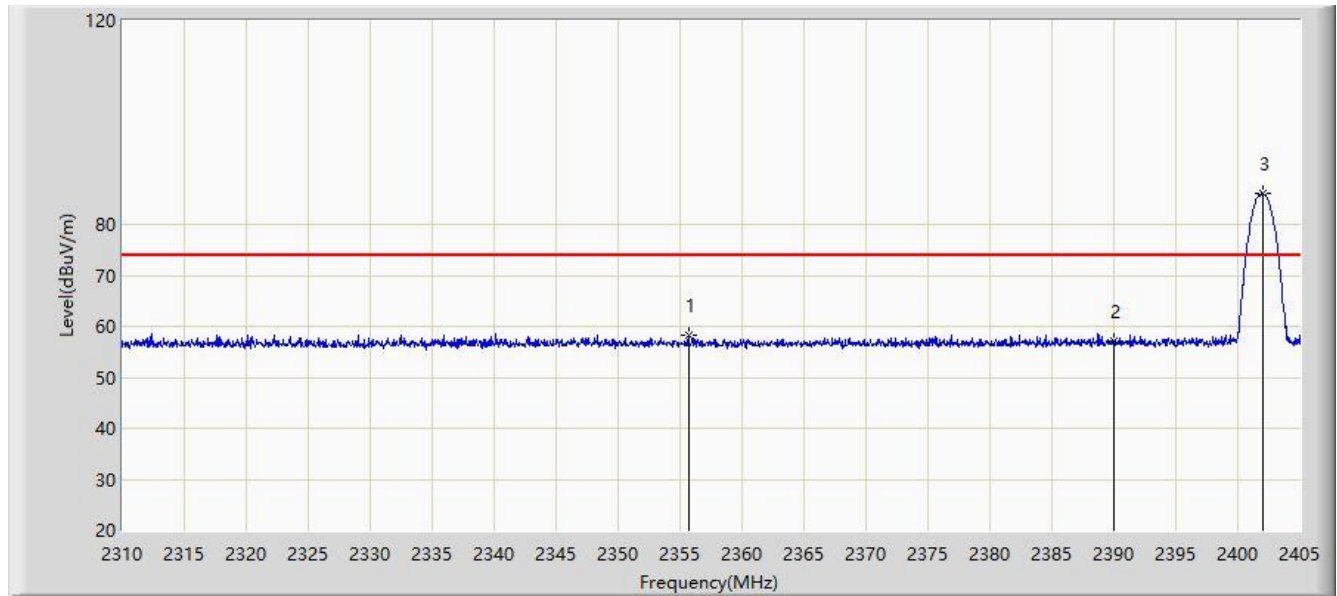
No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		*	2480.046	86.383	55.511	N/A	N/A	30.872	AV
2			2483.500	45.890	15.001	-8.110	54.000	30.889	AV
3			2488.164	45.948	15.036	-8.052	54.000	30.912	AV

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

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

Note 2: “\*” During the test, there was fundamental frequency (point 1) shown on the trace.

Site: NS-AC1	Time: 2021/08/27
Limit: RSS-GEN_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Horizontal
EUT: Portable Bluetooth Speaker	Power: By USB
Test Mode: Transmit by 3DH5 at channel 2402MHz	



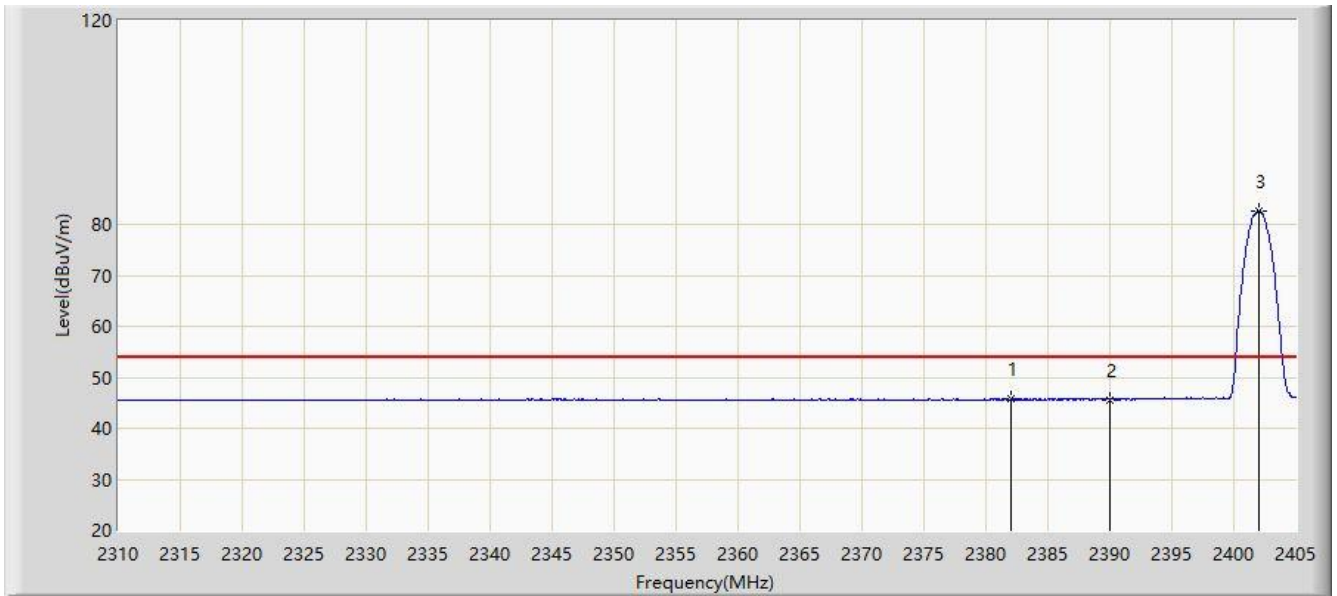
No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1			2355.695	58.345	27.306	-15.655	74.000	31.039	PK
2			2390.000	57.060	26.157	-16.940	74.000	30.903	PK
3		*	2402.008	86.060	55.125	N/A	N/A	30.935	PK

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

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

Note 2: “\*” During the test, there was fundamental frequency (point 3) shown on the trace.

Site: NS-AC1	Time: 2021/08/27
Limit: RSS-GEN_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Horizontal
EUT: Portable Bluetooth Speaker	Power: By USB
Test Mode: Transmit by 3DH5 at channel 2402MHz	



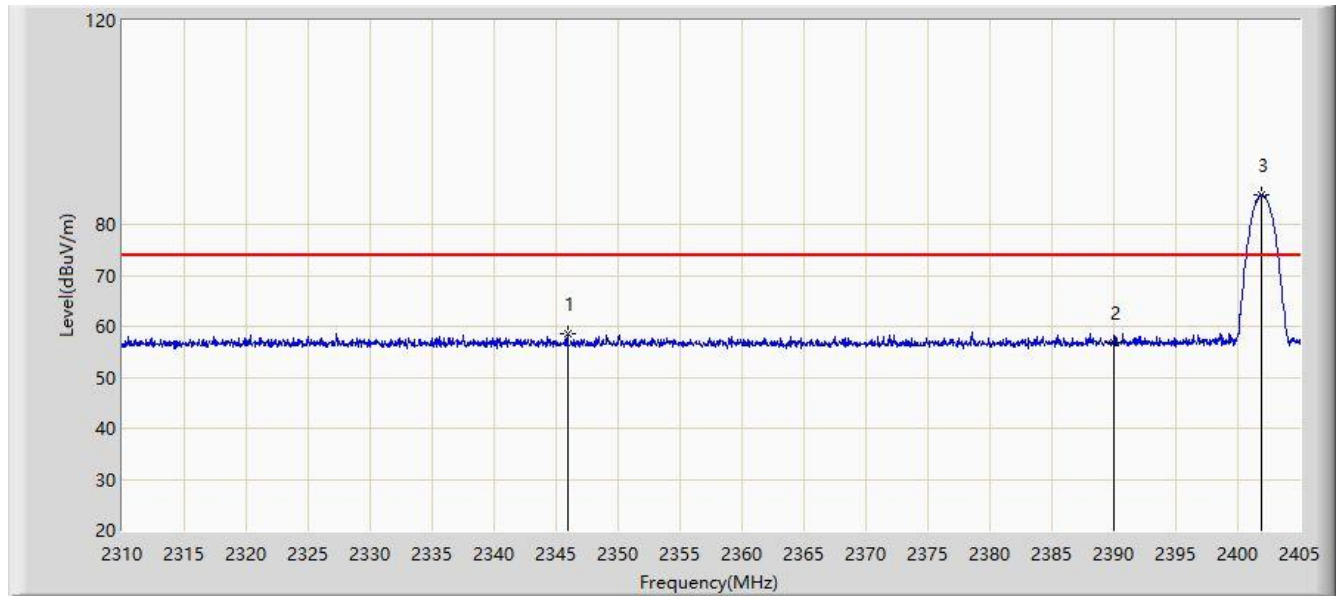
No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1			2382.058	45.695	14.785	-8.305	54.000	30.910	AV
2			2390.000	45.646	14.743	-8.354	54.000	30.903	AV
3		*	2402.008	82.730	51.795	N/A	N/A	30.935	AV

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

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

Note 2: “\*” During the test, there was fundamental frequency (point 3) shown on the trace.

Site: NS-AC1	Time: 2021/08/27
Limit: RSS-GEN_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Vertical
EUT: Portable Bluetooth Speaker	Power: By USB
Test Mode: Transmit by 3DH5 at channel 2402MHz	



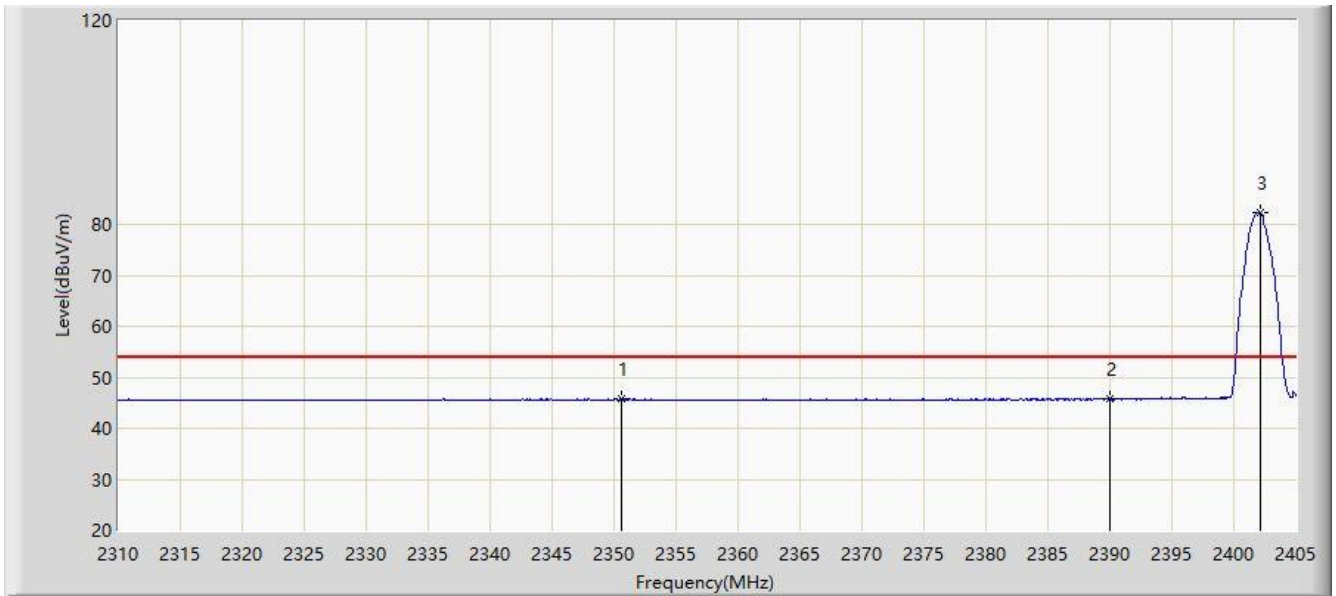
No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1			2345.910	58.425	27.271	-15.575	74.000	31.154	PK
2			2390.000	56.943	26.040	-17.057	74.000	30.903	PK
3		*	2401.865	85.716	54.781	N/A	N/A	30.935	PK

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

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

Note 2: “\*” During the test, there was fundamental frequency (point 3) shown on the trace.

Site: NS-AC1	Time: 2021/08/27
Limit: RSS-GEN_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Vertical
EUT: Portable Bluetooth Speaker	Power: By USB
Test Mode: Transmit by 3DH5 at channel 2402MHz	



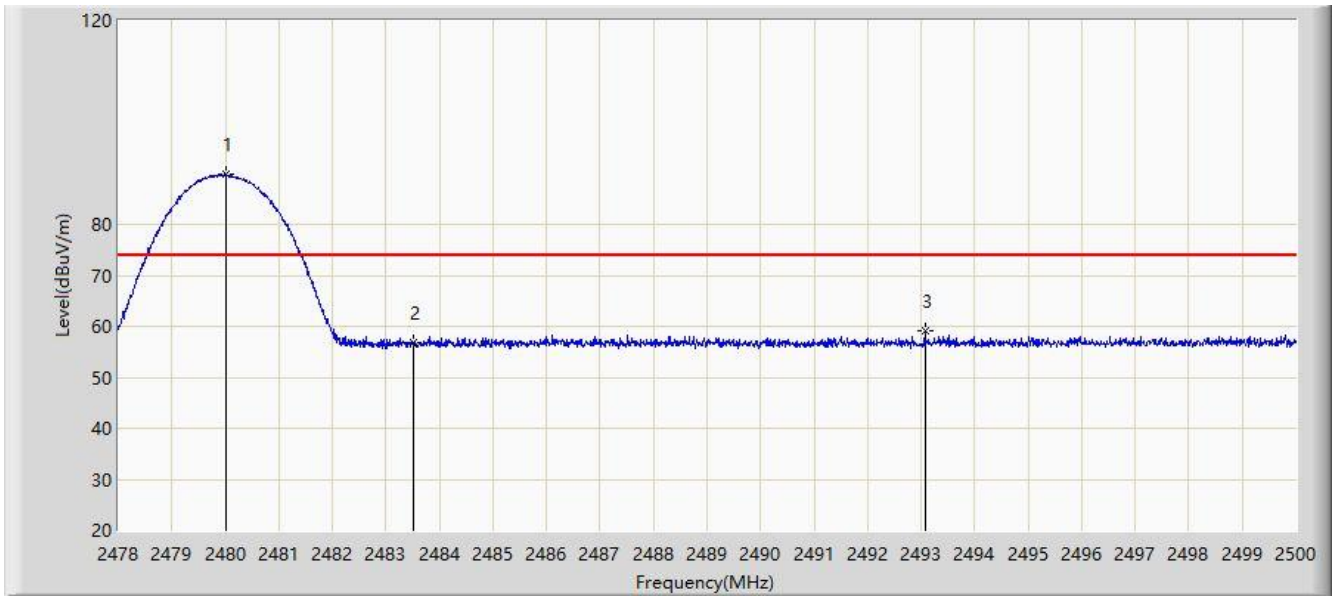
No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1			2350.565	45.691	14.592	-8.309	54.000	31.099	AV
2			2390.000	45.711	14.808	-8.289	54.000	30.903	AV
3		*	2402.150	82.281	51.345	N/A	N/A	30.936	AV

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

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

Note 2: “\*” During the test, there was fundamental frequency (point 3) shown on the trace.

Site: NS-AC1	Time: 2021/08/27
Limit: RSS-GEN_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Horizontal
EUT: Portable Bluetooth Speaker	Power: By USB
Test Mode: Transmit by 3DH5 at channel 2480MHz	



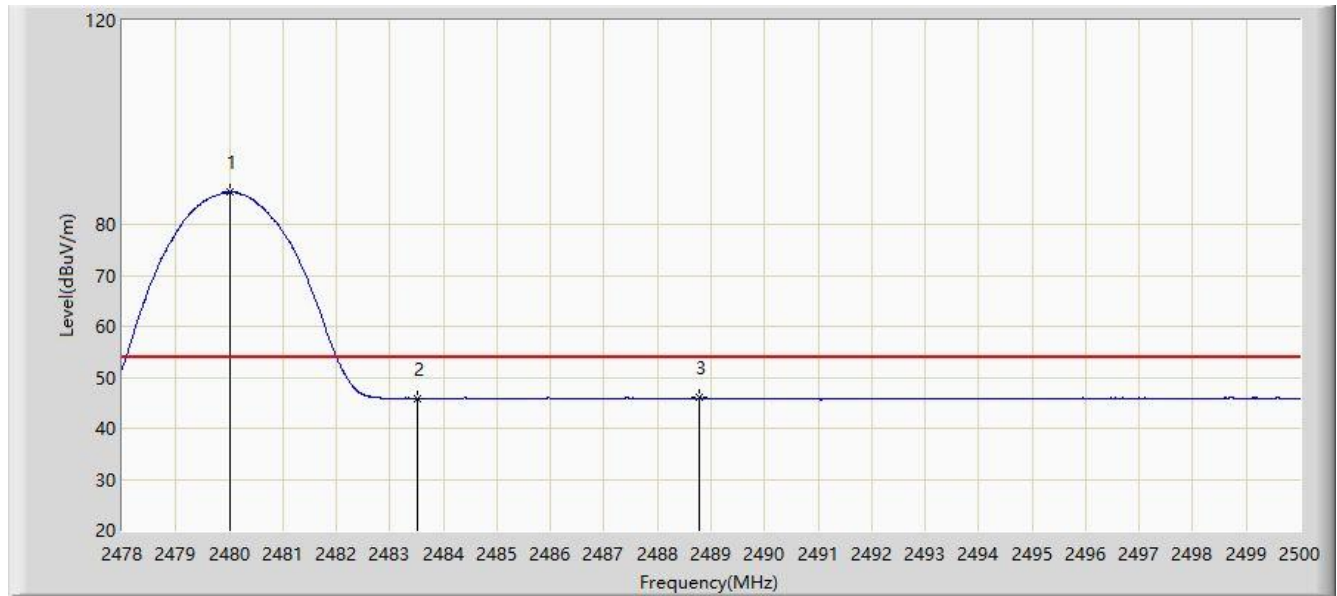
No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		*	2480.002	89.802	58.931	N/A	N/A	30.871	PK
2			2483.500	56.804	25.915	-17.196	74.000	30.889	PK
3			2493.070	58.988	28.051	-15.012	74.000	30.937	PK

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

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

Note 2: “\*” During the test, there was fundamental frequency (point 1) shown on the trace.

Site: NS-AC1	Time: 2021/08/27
Limit: RSS-GEN_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Horizontal
EUT: Portable Bluetooth Speaker	Power: By USB
Test Mode: Transmit by 3DH5 at channel 2480MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		*	2480.024	86.306	55.435	N/A	N/A	30.871	AV
2			2483.500	45.708	14.819	-8.292	54.000	30.889	AV
3			2488.780	45.974	15.059	-8.026	54.000	30.915	AV

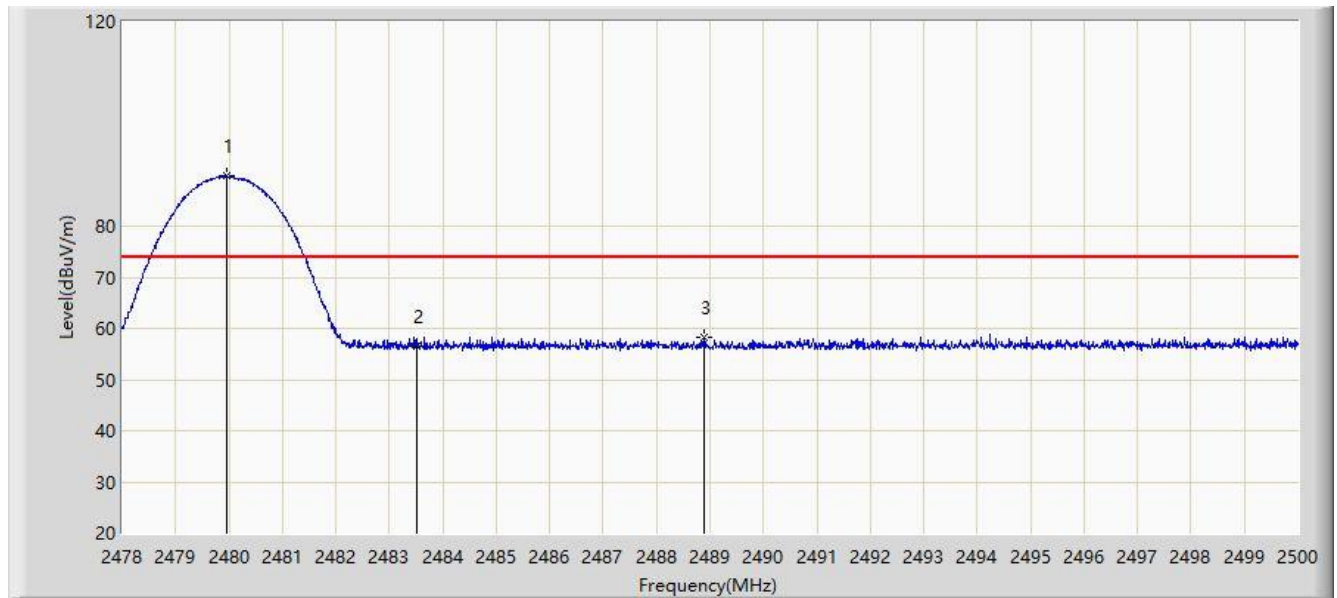
Note 1: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m))

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

Note 2: “\*” During the test, there was fundamental frequency (point 1) shown on the trace.



Site: NS-AC1	Time: 2021/08/27
Limit: RSS-GEN_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Vertical
EUT: Portable Bluetooth Speaker	Power: By USB
Test Mode: Transmit by 3DH5 at channel 2480MHz	



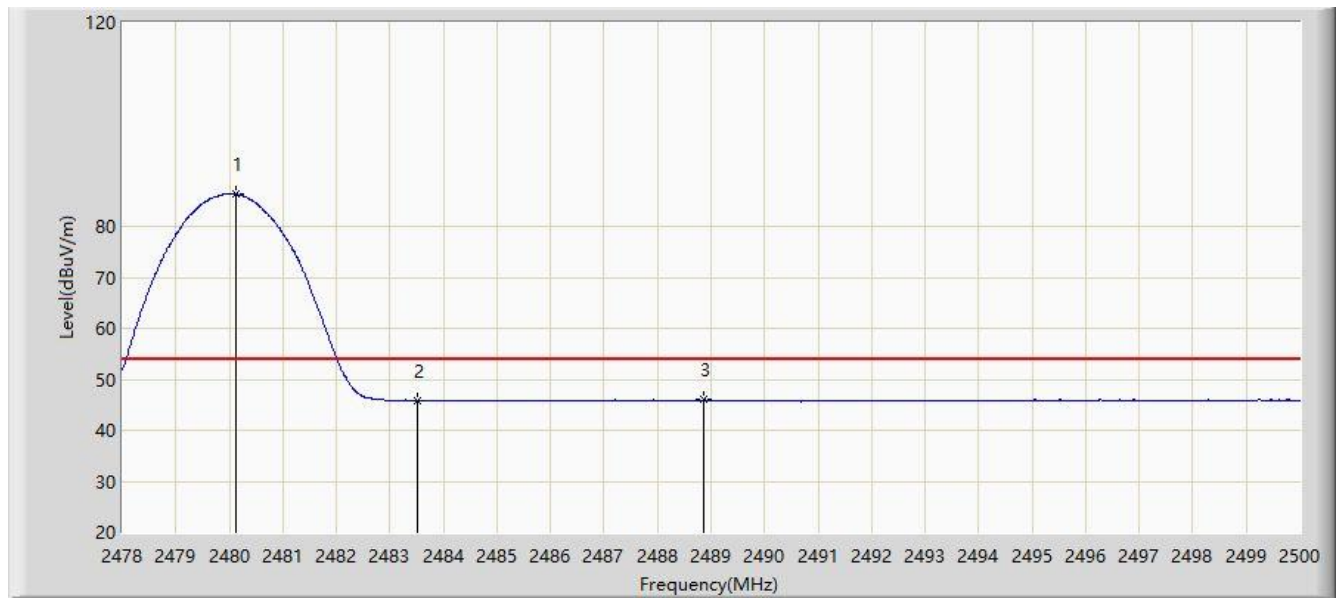
No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		*	2479.969	89.782	58.911	N/A	N/A	30.871	PK
2			2483.500	56.619	25.730	-17.381	74.000	30.889	PK
3			2488.879	58.286	27.370	-15.714	74.000	30.916	PK

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

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

Note 2: “\*” During the test, there was fundamental frequency (point 1) shown on the trace.

Site: NS-AC1	Time: 2021/08/27
Limit: RSS-GEN_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Vertical
EUT: Portable Bluetooth Speaker	Power: By USB
Test Mode: Transmit by 3DH5 at channel 2480MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB/m)	Type
1		*	2480.112	86.357	55.485	N/A	N/A	30.872	AV
2			2483.500	45.725	14.836	-8.275	54.000	30.889	AV
3			2488.868	45.966	15.050	-8.034	54.000	30.916	AV

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

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

Note 2: “\*” During the test, there was fundamental frequency (point 1) shown on the trace.

## 4.11. AC Conducted Emissions Measurement

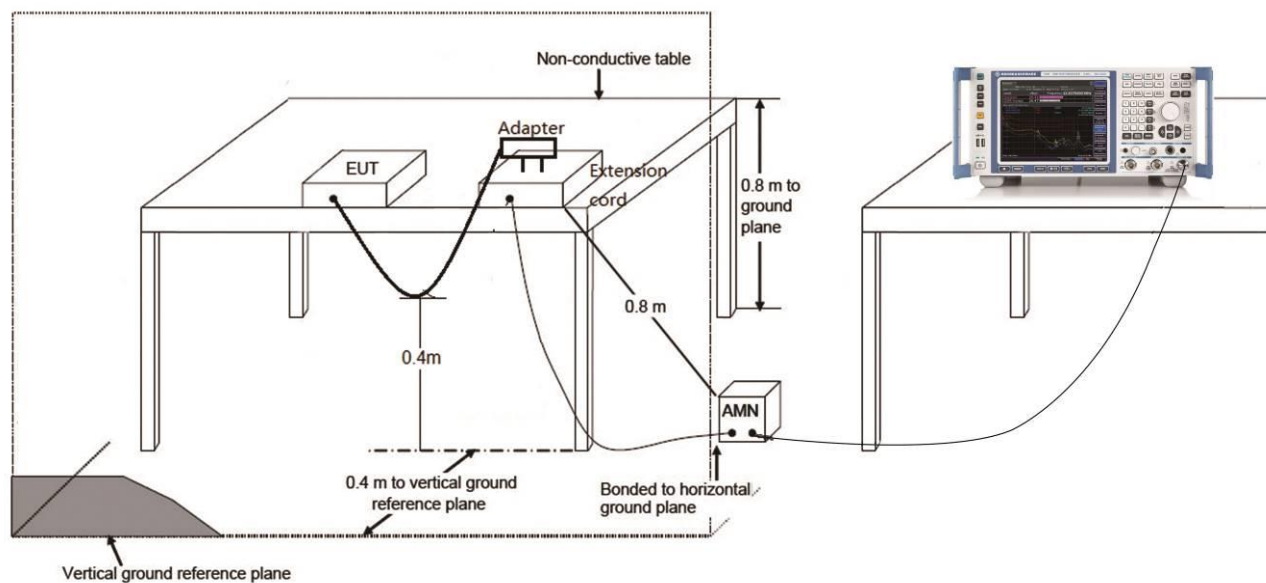
### 4.11.1. Test Limit

RSS-Gen Paragraph 8.8 Limits		
Frequency (MHz)	QP (dB $\mu$ V)	Average (dB $\mu$ 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.

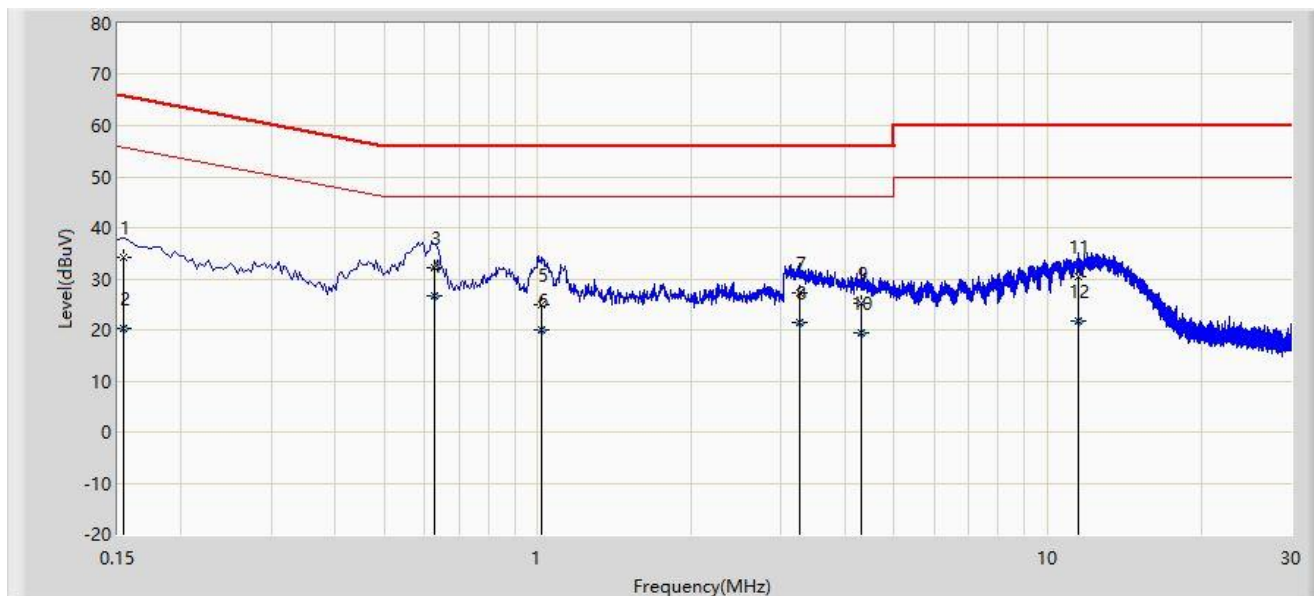
Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.5MHz.

### 4.11.2. Test Setup



### 4.11.3. Test Result

Site: NS-SR2	Time: 2021/11/03
Limit: RSS_GEN_CE_AC Power	Engineer: Summer Tang
Probe: ENV216_102493_150KHz~30MHz	Polarity: Line
EUT: Portable Bluetooth Speaker	Power: AC 120V/60Hz
Test Mode: Transmit by DH5 at channel 2402MHz	

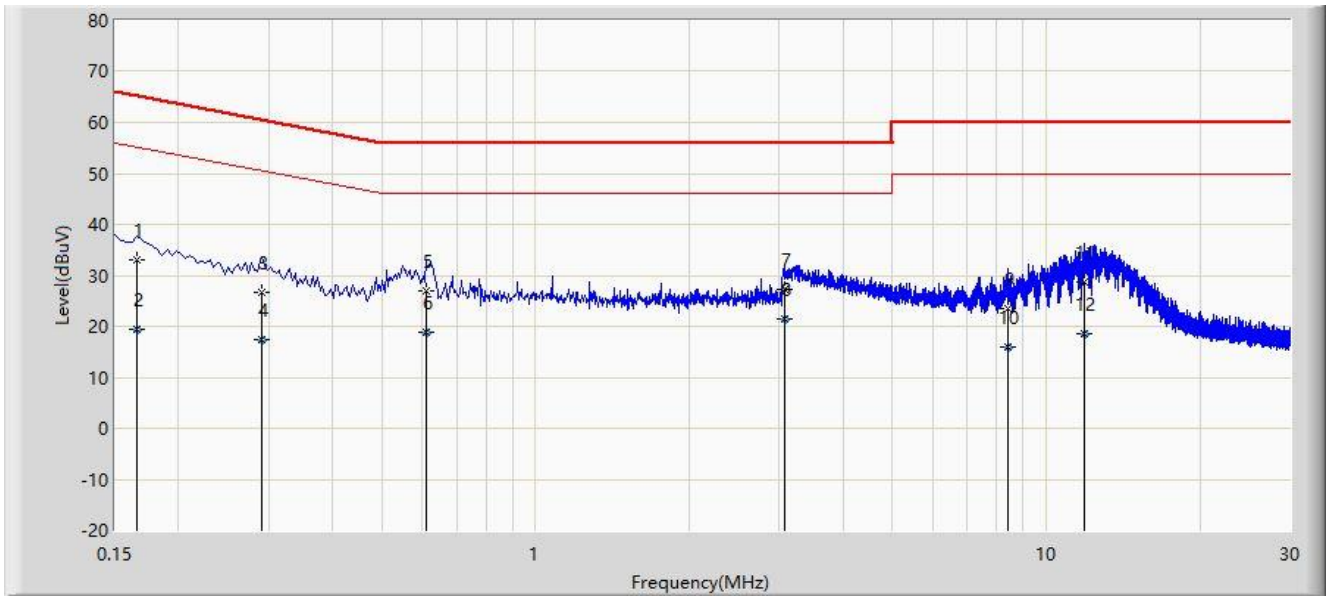


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV)	Factor (dB)	Type
1			0.154	34.071	24.348	-31.710	65.781	9.723	QP
2			0.154	20.272	10.549	-35.509	55.781	9.723	AV
3			0.626	32.047	22.343	-23.953	56.000	9.704	QP
4			0.626	26.794	17.090	-19.206	46.000	9.704	AV
5			1.018	25.000	15.270	-31.000	56.000	9.730	QP
6		*	1.018	19.936	10.206	-26.064	46.000	9.730	AV
7			3.270	27.240	17.429	-28.760	56.000	9.811	QP
8			3.270	21.307	11.496	-24.693	46.000	9.811	AV
9			4.318	25.335	15.484	-30.665	56.000	9.851	QP
10			4.318	19.508	9.657	-26.492	46.000	9.851	AV
11			11.502	30.324	20.305	-29.676	60.000	10.019	QP
12			11.502	21.607	11.588	-28.393	50.000	10.019	AV

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

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

Site: NS-SR2	Time: 2021/11/03
Limit: RSS_GEN_CE_AC Power	Engineer: Summer Tang
Probe: ENV216_102493_150KHz~30MHz	Polarity: Neutral
EUT: Portable Bluetooth Speaker	Power: AC 120V/60Hz
Test Mode: Transmit by DH5 at channel 2402MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV)	Factor (dB)	Type
1			0.166	32.989	23.317	-32.169	65.158	9.672	QP
2			0.166	19.473	9.801	-35.685	55.158	9.672	AV
3			0.290	26.724	16.752	-33.800	60.524	9.972	QP
4			0.290	17.474	7.502	-33.050	50.524	9.972	AV
5			0.610	27.003	17.367	-28.997	56.000	9.636	QP
6			0.610	18.781	9.145	-27.219	46.000	9.636	AV
7			3.066	27.231	17.489	-28.769	56.000	9.742	QP
8			3.066	21.358	11.616	-24.642	46.000	9.742	AV
9		*	8.430	23.426	13.459	-36.574	60.000	9.967	QP
10			8.430	15.900	5.933	-34.100	50.000	9.967	AV
11			11.858	28.817	18.748	-31.183	60.000	10.069	QP
12			11.858	18.526	8.457	-31.474	50.000	10.069	AV

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

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

## 5. CONCLUSION

The data collected relate only the item(s) tested and show that the device is compliance with ISED rules.

## **Appendix A - Test Setup Photograph**

Refer to “2108RSU067-UT” file.

## **Appendix B - EUT Photograph**

Refer to “2108RSU067-UE” file.