



# MEASUREMENT REPORT

## FCC Part 15 Subpart B / ICES-003

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**FCC ID:** FHO-E1715  
**IC:** 10912A-E1715  
**Applicant:** IKEA of Sweden AB  
**Application Type:** Certification  
**Product:** Wireless Speaker ENEBY Portable  
**Model No.:** E1715  
**Brand Name:** IKEA  
**FCC Rule Part(s):** FCC Part 15 Subpart B: 2016 Class B  
**IC Rule Part(s):** ICES-003 Issue 6  
**Test Procedure(s):** ANSI C63.4: 2014  
**Result:** Complies  
**Test Date:** July 05 ~ July 25, 2018

Reviewed By : Kevin Guo  
( Kevin Guo )

Approved By : Robin Wu  
( Robin Wu )



The test results relate only to the samples tested.

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in ANSI C63.4-2014. Test results reported herein relate only to the item(s) tested.

The test report shall not be reproduced except in full without the written approval of MRT Technology (Suzhou) Co., Ltd.

### Revision History

Report No.	Version	Description	Issue Date	Note
1807WSU003-U3	Rev. 01	Initial report	08-27-2018	Invalid
1807WSU003-U3	Rev. 02	Change Application type	09-30-2018	Invalid
1807WSU003-U3	Rev. 03	Change Application type from Verification to Certification	10-09-2018	Valid

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## §2.1033 General Information

<b>Applicant:</b>	IKEA of Sweden AB
<b>Applicant Address:</b>	SE-343 81, Älmhult, Sweden
<b>Manufacturer:</b>	IKEA of Sweden AB
<b>Manufacturer Address:</b>	SE-343 81, Älmhult, Sweden
<b>Test Site:</b>	MRT Technology (Suzhou) Co., Ltd
<b>Test Site Address:</b>	D8 Building, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China
<b>FCC Registration No.:</b>	893164
<b>IC Registration No.:</b>	11384A-1
<b>Test Device Serial No.:</b>	N/A <input type="checkbox"/> Production <input checked="" type="checkbox"/> Pre-Production <input type="checkbox"/> Engineering

### Test Facility / Accreditations

Measurements were performed at MRT Laboratory located in Tian'edang Rd., Suzhou, China.

- MRT facility is a FCC registered (MRT Reg. No. 893164) test facility with the site description report on file and has met all the requirements specified in ANSI C63.4-2014.
- MRT facility is an IC registered (MRT Reg. No. 11384A-1) test laboratory with the site description on file at Industry Canada.
- MRT facility is a VCCI registered (R-20025, G-20034, C-20020, T-20020) test laboratory with the site description on file at VCCI Council.
- MRT Lab is accredited to ISO 17025 by the American Association for Laboratory Accreditation (A2LA) under the American Association for Laboratory Accreditation Program (A2LA Cert. No. 3628.01) in EMC, Telecommunications, Radio and SAR testing.



## 1. INTRODUCTION

### 1.1. Scope

Measurement and determination of electromagnetic emissions (EMC) of radio frequency devices including intentional and/or unintentional radiators for compliance with the technical rules and regulations of the Federal Communications Commission and the Industry Canada Certification and Engineering Bureau.

### 1.2. MRT Test Location

The map below shows the location of the MRT LABORATORY, its proximity to the Taihu Lake. These measurement tests were conducted at the MRT Technology (Suzhou) Co., Ltd. Facility located at D8 Building, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China. The measurement facility compliant with the test site requirements specified in ANSI C63.4-2014.



## 2. PRODUCT INFORMATION

### 2.1. Equipment Description

Product Name:	Wireless Speaker ENEBY Portable
Model No.:	E1715
Brand Name:	IKEA
Bluetooth Version:	V4.2 (Only support Bluetooth v3.0+HS)

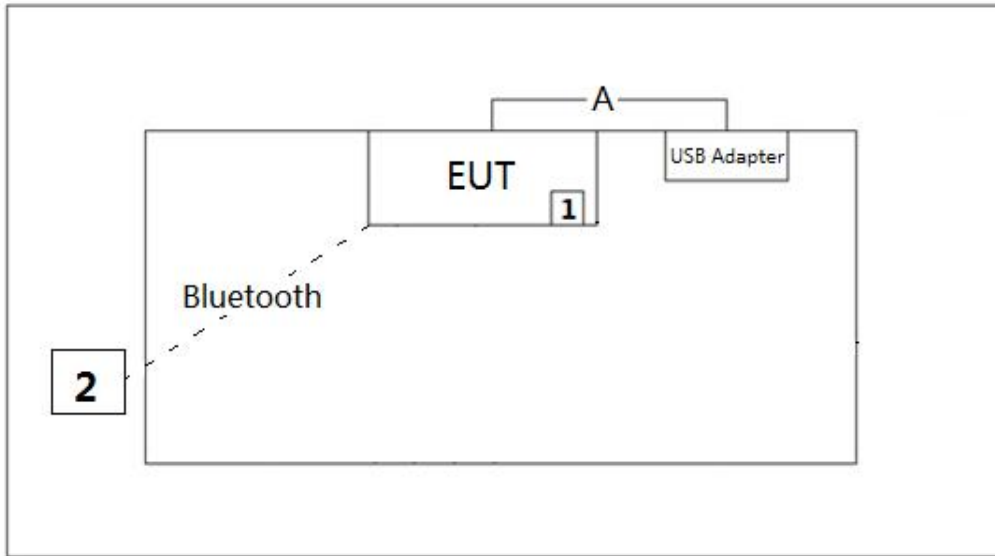
### 2.2. Test Mode

EMI Mode	Mode 1: Charging by USB adapter & Connect to Bluetooth Speaker through Bluetooth and play music
	Mode 2: Charging by USB adapter & Connect to Bluetooth Speaker through Audio Cable and play music

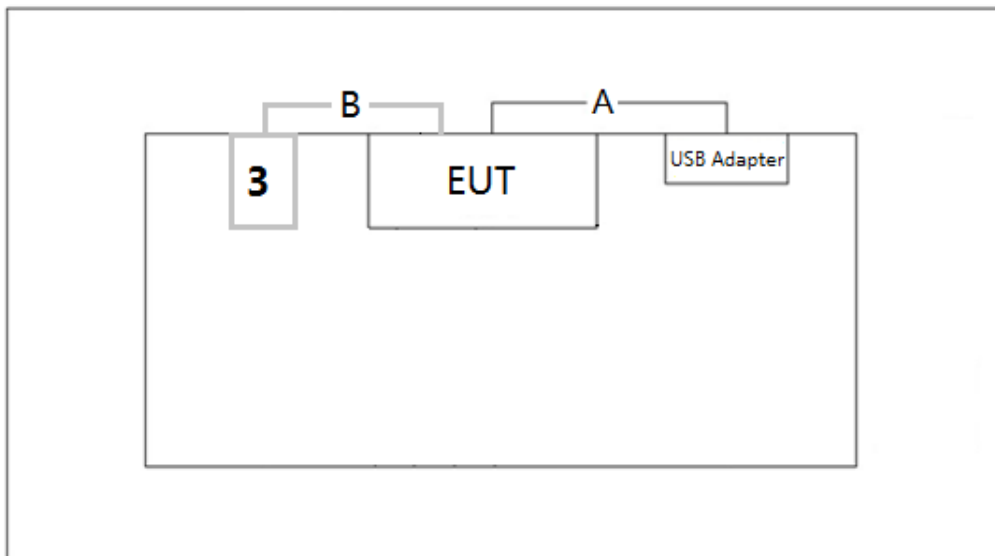
### 2.3. Configuration of Tested System

The **Wireless Speaker ENEBY Portable** was tested per the guidance FCC Part 15 Subpart B: 2016 Class B and ANSI C63.4: 2014 was used to reference the appropriate EUT setup for radiated spurious emissions testing and AC line conducted testing.

Connection Diagram (Mode 1)



Connection Diagram (Mode 2)



Signal Cable Type		Signal Cable Description
A	USB Cable	Non-Shielding, 1m
B	Audio Cable	Non-Shielding, 1m

### 2.4. Test System Details

The types for all equipments, plus descriptions of all cables used in the tested system (including inserted cards) are:

Product	Manufacturer	Model No.	Serial No.	Power Cord
1 Mobile Phone	OPPO	X9009	MZWG99B6NZ7HY9VW	N/A

Note: USB adapter is provided by MRT.

### 2.5. Test Procedure

1	Setup the EUT and simulators as shown on above.
2	Turn on the power of all equipment.
3	<ul style="list-style-type: none"> <li>a) Make EUT Charging by USB adapter &amp; Connect to Bluetooth Speaker through Bluetooth and play music</li> <li>b) Make EUT Charging by USB adapter &amp; Connect to Bluetooth Speaker through Audio Cable and play music</li> </ul>

### 2.6. EMI Suppression Device(s)/Modifications

No EMI suppression device(s) were added and/or no modifications were made during testing.



### 3. DESCRIPTION OF TEST

#### 3.1. Evaluation Procedure

The measurement procedures described in the American National Standard for Methods of Measurement of Radio-Noise Emission from Low-Voltage Electrical Equipment in the Range of 9kHz to 18GHz (ANSI C63.4-2014) was used in the measurement of the device.

**Deviation from measurement procedure.....None**

#### 3.2. AC Line Conducted Emissions

The line-conducted facility is located inside an 8'x4'x4' shielded enclosure. A 1m x 2m wooden table 80cm high is placed 40cm away from the vertical wall and 80cm away from the sidewall of the shielded room. Two 10kHz-30MHz, 50Ω/50uH Line-Impedance Stabilization Networks (LISNs) are bonded to the shielded room floor. Power to the LISNs is filtered by external high-current high-insertion loss power line filters. These filters attenuate ambient signal noise from entering the measurement lines. These filters are also bonded to the shielded enclosure.

The EUT is powered from one LISN and the support equipment is powered from the second LISN. If the EUT is a DC-powered device, power will be derived from the source power supply it normally will be powered from and this supply line(s) will be connected to the second LISN. All interconnecting cables more than 1 meter were shortened to a 1 meter length by non-inductive bundling (serpentine fashion) and draped over the back edge of the test table. All cables were at least 40cm above the horizontal reference ground-plane. Power cables for support equipment were routed down to the second LISN while ensuring that that cables were not draped over the second LISN.

Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. The RF output of the LISN was connected to the receiver and exploratory measurements were made to determine the frequencies producing the maximum emission from the EUT. The receiver was scanned from 150 kHz to 30 MHz. The detector function was set to peak mode for exploratory measurements while the bandwidth of the analyzer was set to 9 kHz. The EUT, support equipment, and interconnecting cables were arranged and manipulated to maximize each emission. Each emission was also maximized by varying: power lines, the mode of operation or resolution, clock or data exchange speed, scrolling H pattern to the EUT and/or support equipment whichever determined the worst-case emission. Once the worst case emissions have been identified, the one EUT cable configuration/arrangement and mode of operation that produced these emissions are used for final measurements on the same test site.

### 3.3. Radiated Emissions

The radiated test facilities consisted of an indoor 3 meter semi-anechoic chamber used for final measurements and exploratory measurements, when necessary. The measurement area is contained within the semi-anechoic chamber which is shielded from any ambient interference. For measurements above 1GHz absorbers are arranged on the floor between the turn table and the antenna mast in such a way so as to maximize the reduction of reflections. For measurements below 1GHz, the absorbers are removed. An MF Model 210SS turntable is used for radiated measurement. It is a continuously rotatable, remote controlled, metallic turntable and 2 meters (6.56 ft.) in diameter. The turn table is flush with the raised floor of the chamber in order to maintain its function as a ground plane. An 80cm high PVC support structure is placed on top of the turntable.

For all measurements, the spectrum was scanned through all EUT azimuths and from 1 to 4 meter receive antenna height using a broadband antenna from 30 MHz up to the upper frequency shown in 15.33(b)(1) depending on the highest frequency generated or used in the device or on which the device operates or tunes. For frequencies above 1GHz, linearly polarized double ridge horn antennas were used. For frequencies below 30 MHz, a calibrated loop antenna was used. When exploratory measurements were necessary, they were performed at 1 meter test distance inside the semi-anechoic chamber using broadband antennas, broadband amplifiers, and spectrum analyzers to determine the frequencies and modes producing the maximum emissions. Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. The test set-up was placed on top of the 0.8 meter high, 1 x 1.5 meter table. The EUT, support equipment, and interconnecting cables were arranged and manipulated to maximize each emission. Appropriate precaution was taken to ensure that all emissions from the EUT were maximized and investigated. The system configuration, mode of operation, if applicable, turntable azimuth, and receive antenna height was noted for each frequency found.

Final measurements were made in the semi-anechoic chamber using calibrated, linearly polarized broadband and horn antennas. The test setup was configured to the setup that produced the worst case emissions. The spectrum analyzer was set to investigate all frequencies required for testing to compare the highest radiated disturbances with respect to the specified limits. The turntable containing the EUT was rotated through 360 degrees and the height of the receive antenna was varied 1 to 4 meters and stopped at the azimuth and height producing the maximum emission. Each emission was maximized by changing the orientation of the EUT through three orthogonal planes and changing the polarity of the receive antenna, whichever produced the worst-case emissions. According to 3dB beam-width of horn antenna, the horn antenna should be always directed to the EUT when rising height.

#### 4. TEST EQUIPMENT CALIBRATION DATE

##### Conducted Emissions - SR2

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
EMI Test Receiver	R&S	ESR7	MRTSUE06001	1 year	2018/08/18
Two-Line V-Network	R&S	ENV216	MRTSUE06002	1 year	2019/06/15
Two-Line V-Network	R&S	ENV216	MRTSUE06003	1 year	2019/06/15
Thermohygrometer	Testo	608-H1	MRTSUE06404	1 year	2018/08/14
Shielding Anechoic Chamber	Mikebang	Chamber-SR2	MRTSUE06215	N/A	N/A

##### Radiated Disturbance - AC2

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
EMI Test Receiver	R&S	ESR7	MRTSUE06001	1 year	2019/06/20
Broadband Coaxial Preamp	Schwarzbeck	BBV 9718	MRTSUE06176	1 year	2018/11/06
Bilog Period Antenna	Schwarzbeck	VULB 9162	MRTSUE06022	1 year	2018/11/06
Horn Antenna	Schwarzbeck	BBHA9120D	MRTSUE06171	1 year	2018/12/10
Digital Thermometer & Hygrometer	Minggao	ETH529	MRTSUE06170	1 year	2018/11/29
Anechoic Chamber	RIKEN	Chamber-AC2	MRTSUE06213	1 year	2019/05/10

Software	Version	Function
EMI Software	V3	EMI Test Software

## 5. MEASUREMENT UNCERTAINTY

Where relevant, the following test uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of  $k = 2$ .

<b>AC Conducted Emission Measurement - SR2</b>
Measuring Uncertainty for a Level of Confidence of 95% ( $U=2Uc(y)$ ): 150kHz~30MHz: 2.42dB
<b>Radiated Emission Measurement – AC2</b>
Measuring Uncertainty for a Level of Confidence of 95% ( $U=2Uc(y)$ ): Horizontal: 30MHz~1GHz: 4.22dB 1GHz~18GHz: 4.05dB Vertical: 30MHz~1GHz: 3.37dB 1GHz~18GHz: 4.08dB

## 6. TEST RESULT

### 6.1. Summary

**Product Name:** Wireless Speaker ENEBY Portable

**Test Mode:** Mode 1, Mode 2

FCC Part Section(s)	IC Part Section(s)	Test Description	Test Result
15.107	ICES-003 Issue 5	Conducted Emissions	Pass
15.109	ICES-003 Issue 5	Radiated Emissions	Pass

## 6.2. Conducted Emission Measurement

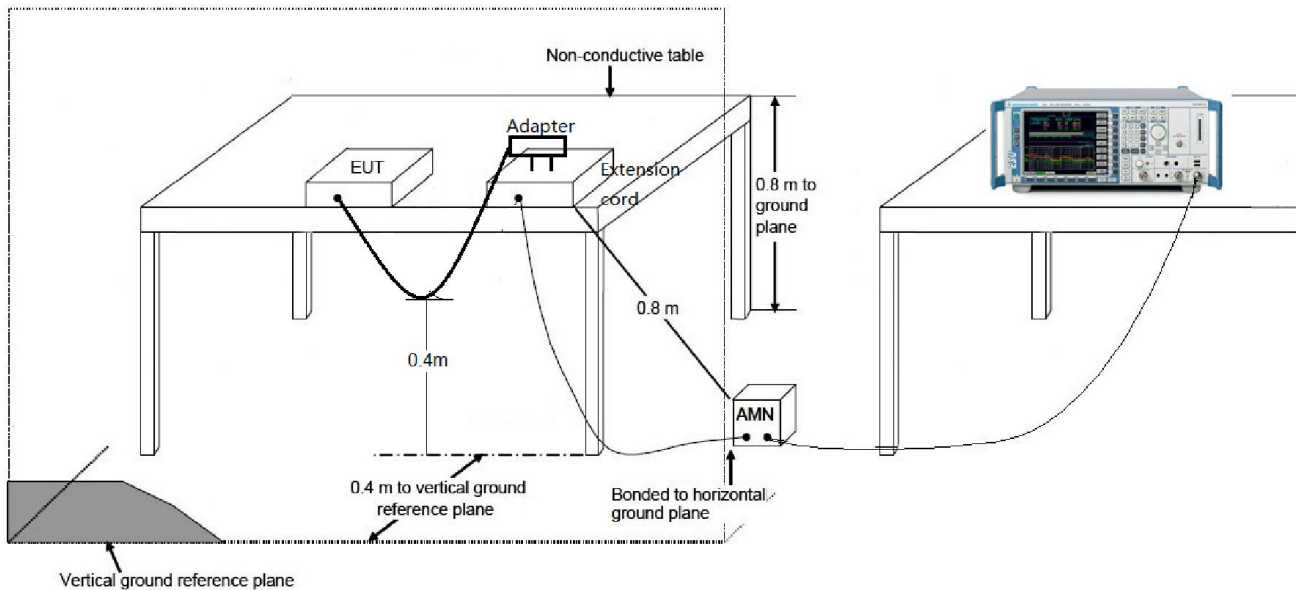
### 6.2.1. Test Limit

FCC Part 15.107 Limits		
Frequency (MHz)	QP (dB $\mu$ V)	AV (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.

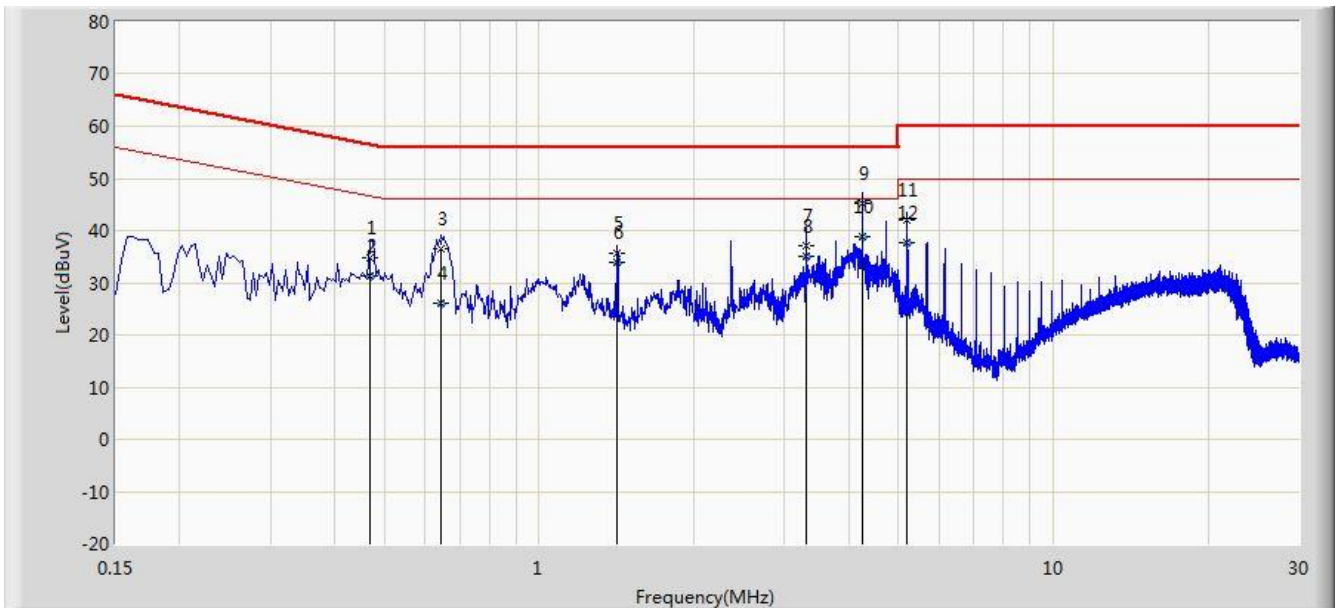
Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.5MHz.

### 6.2.2. Test Setup



### 6.2.3. Test Result of Conducted Emissions

Site: SR2	Time: 2018/07/09 - 17:40
Limit: FCC_Part15.107_CE_AC Power_Class B	Engineer: Bacon Dong
Probe: ENV216_101683_Filter On	Polarity: Line
EUT: Wireless Speaker ENEBY Portable	Power: AC 120V/60Hz
Test Mode 1	

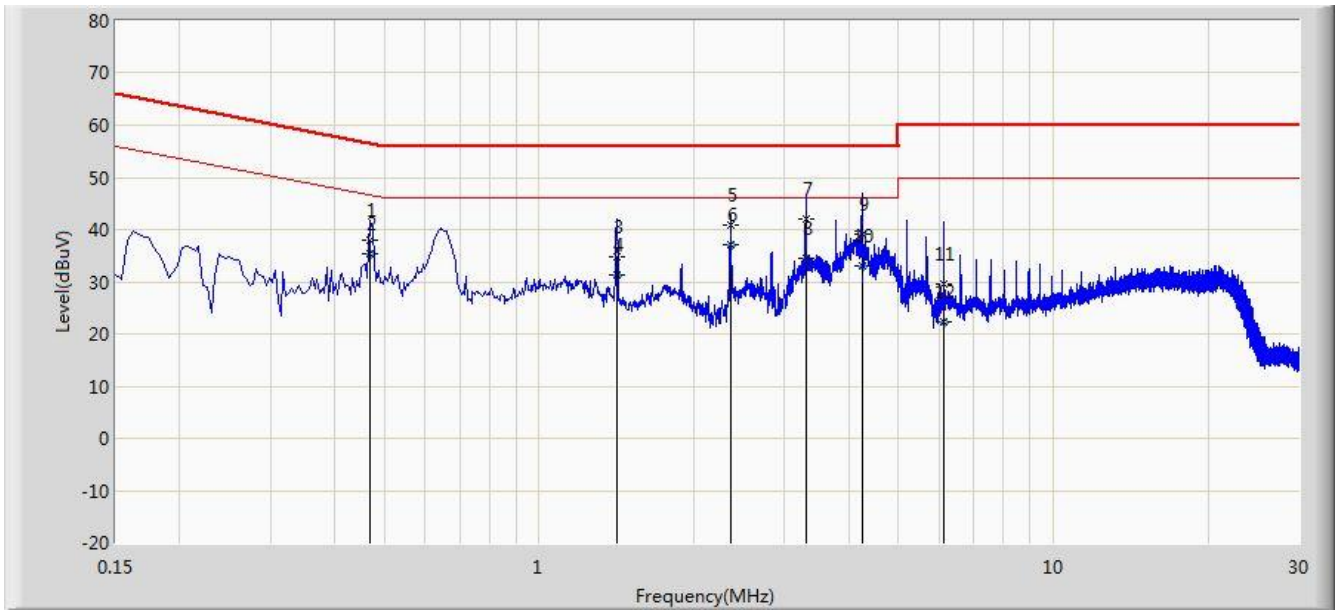


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Factor (dB)	Type
1			0.470	34.639	24.497	-21.875	56.514	10.142	QP
2			0.470	31.374	21.232	-15.140	46.514	10.142	AV
3			0.646	36.436	26.345	-19.564	56.000	10.091	QP
4			0.646	26.133	16.042	-19.867	46.000	10.091	AV
5			1.418	35.579	25.687	-20.421	56.000	9.892	QP
6			1.418	33.975	24.083	-12.025	46.000	9.892	AV
7			3.306	37.139	27.246	-18.861	56.000	9.892	QP
8			3.306	34.945	25.052	-11.055	46.000	9.892	AV
9			4.252	45.283	35.305	-10.717	56.000	9.978	QP
10		*	4.252	38.922	28.945	-7.078	46.000	9.978	AV
11			5.198	41.892	31.847	-18.108	60.000	10.045	QP
12			5.198	37.685	27.640	-12.315	50.000	10.045	AV

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

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

Site: SR2	Time: 2018/07/09 - 17:51
Limit: FCC_Part15.107_CE_AC Power_Class B	Engineer: Bacon Dong
Probe: ENV216_101683_Filter On	Polarity: Neutral
EUT: Wireless Speaker ENEBY Portable	Power: AC 120V/60Hz
Test Mode 1	



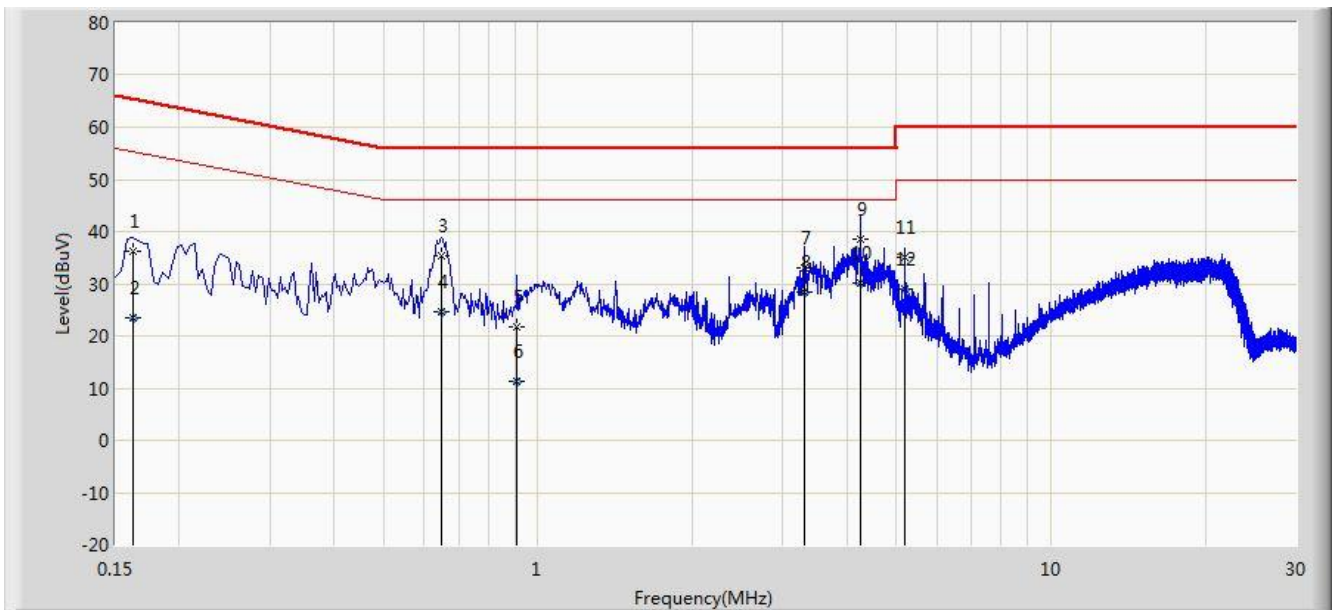
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Factor (dB)	Type
1			0.470	37.970	27.806	-18.544	56.514	10.164	QP
2			0.470	35.387	25.223	-11.127	46.514	10.164	AV
3			1.414	34.655	24.762	-21.345	56.000	9.893	QP
4			1.414	31.271	21.378	-14.729	46.000	9.893	AV
5			2.362	40.930	31.065	-15.070	56.000	9.865	QP
6		*	2.362	37.012	27.147	-8.988	46.000	9.865	AV
7			3.306	41.972	32.073	-14.028	56.000	9.898	QP
8			3.306	34.357	24.458	-11.643	46.000	9.898	AV
9			4.250	39.106	29.120	-16.894	56.000	9.986	QP
10			4.250	33.171	23.186	-12.829	46.000	9.986	AV
11			6.130	29.622	19.495	-30.378	60.000	10.127	QP
12			6.130	22.241	12.114	-27.759	50.000	10.127	AV

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

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



Site: SR2	Time: 2018/07/09 - 17:59
Limit: FCC_Part15.107_CE_AC Power_Class B	Engineer: Bacon Dong
Probe: ENV216_101683_Filter On	Polarity: Line
EUT: Wireless Speaker ENEBY Portable	Power: AC 120V/60Hz
Test Mode 2	

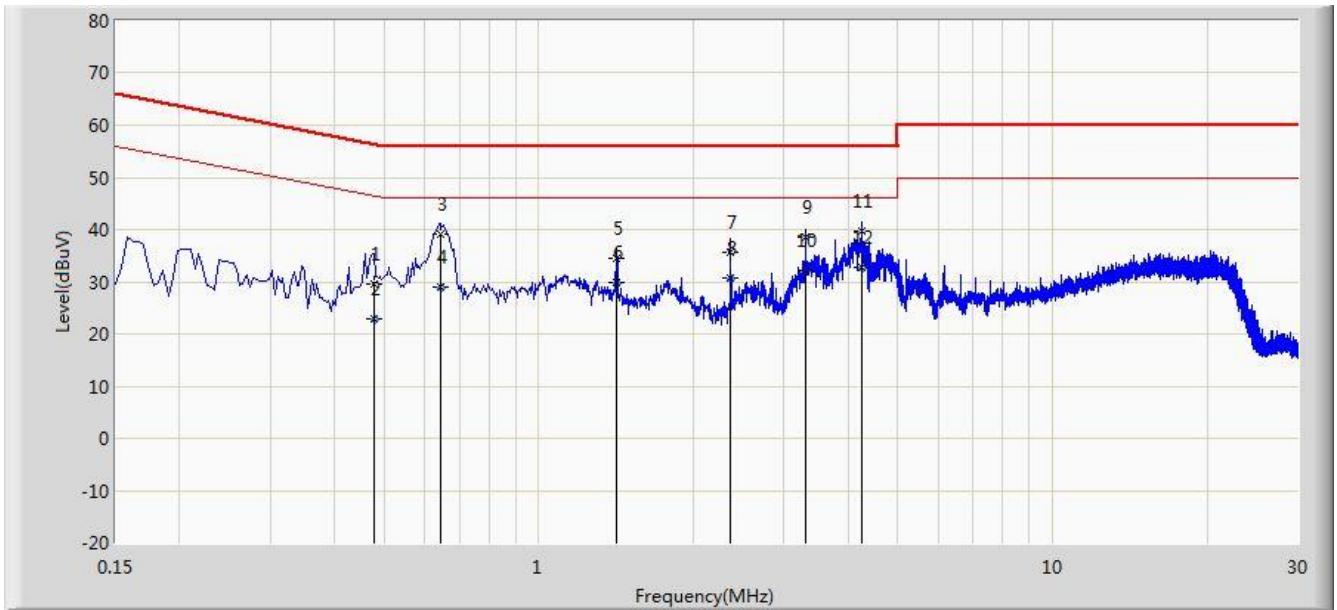


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Factor (dB)	Type
1			0.162	36.206	26.109	-29.155	65.361	10.097	QP
2			0.162	23.581	13.484	-31.780	55.361	10.097	AV
3			0.650	35.242	25.153	-20.758	56.000	10.089	QP
4			0.650	24.692	14.603	-21.308	46.000	10.089	AV
5			0.910	21.765	11.811	-34.235	56.000	9.955	QP
6			0.910	11.290	1.335	-34.710	46.000	9.955	AV
7			3.306	32.937	23.044	-23.063	56.000	9.892	QP
8			3.306	28.340	18.447	-17.660	46.000	9.892	AV
9			4.250	38.583	28.606	-17.417	56.000	9.978	QP
10		*	4.250	30.067	20.089	-15.933	46.000	9.978	AV
11			5.198	34.938	24.893	-25.062	60.000	10.045	QP
12			5.198	28.949	18.904	-21.051	50.000	10.045	AV

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

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

Site: SR2	Time: 2018/07/09 - 18:04
Limit: FCC_Part15.107_CE_AC Power_Class B	Engineer: Bacon Dong
Probe: ENV216_101683_Filter On	Polarity: Neutral
EUT: Wireless Speaker ENEBY Portable	Power: AC 120V/60Hz
Test Mode 2	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Factor (dB)	Type
1			0.478	29.625	19.455	-26.748	56.374	10.170	QP
2			0.478	22.896	12.726	-23.477	46.374	10.170	AV
3			0.642	39.000	28.892	-17.000	56.000	10.108	QP
4			0.642	29.039	18.932	-16.961	46.000	10.108	AV
5			1.418	34.447	24.554	-21.553	56.000	9.893	QP
6			1.418	29.894	20.001	-16.106	46.000	9.893	AV
7			2.362	35.678	25.812	-20.322	56.000	9.865	QP
8			2.362	30.732	20.867	-15.268	46.000	9.865	AV
9			3.306	38.651	28.752	-17.349	56.000	9.898	QP
10			3.306	32.096	22.198	-13.904	46.000	9.898	AV
11			4.254	39.654	29.669	-16.346	56.000	9.985	QP
12		*	4.254	32.739	22.753	-13.261	46.000	9.985	AV

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

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

### 6.3. Radiated Emission Measurement

#### 6.3.1. Test Limit

FCC Part 15.109 Limits		
Frequency (MHz)	Distance (m)	Level (dB $\mu$ V/m)
30 - 88	3	40
88 - 216	3	43.5
216 - 960	3	46
Above 960	3	54

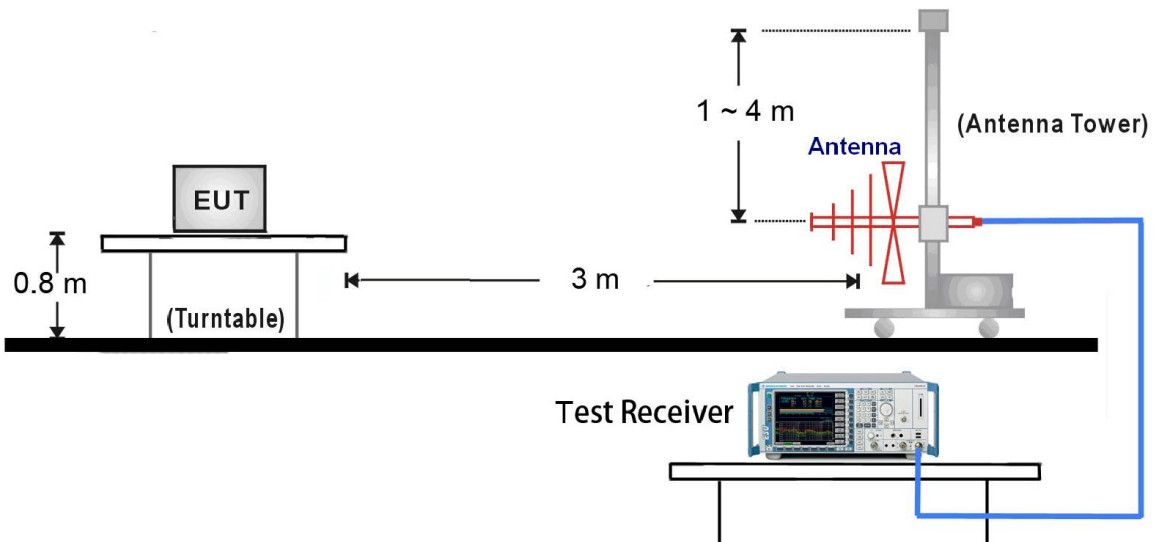
Note 1: The lower limit shall apply at the transition frequency.

Note 2: Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

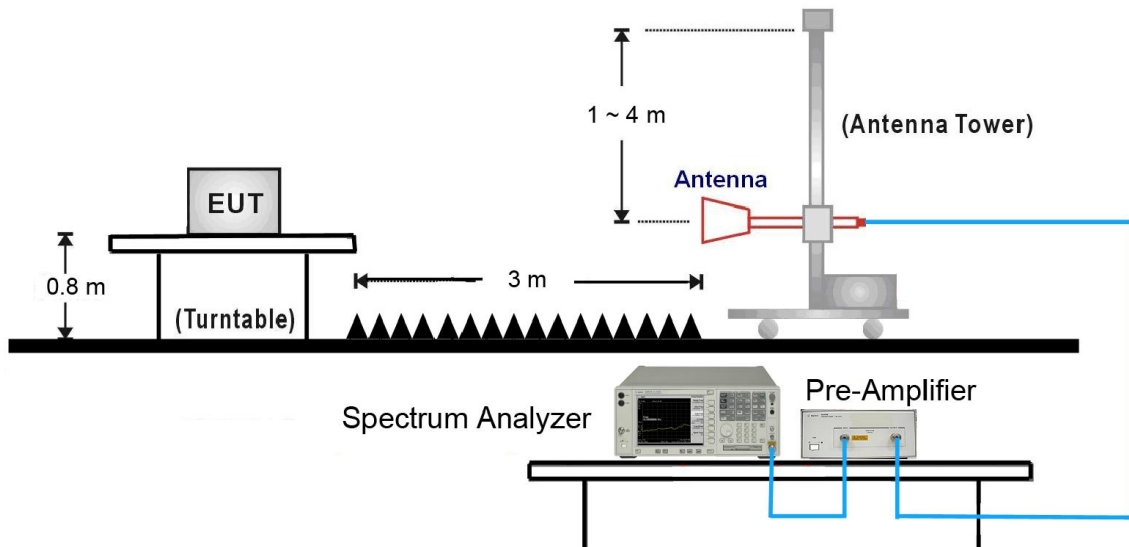
Note 3: E field strength (dB $\mu$ V/m) = 20 log E field strength (uV/m)

#### 6.3.2. Test Setup

30MHz ~ 1GHz Test Setup:

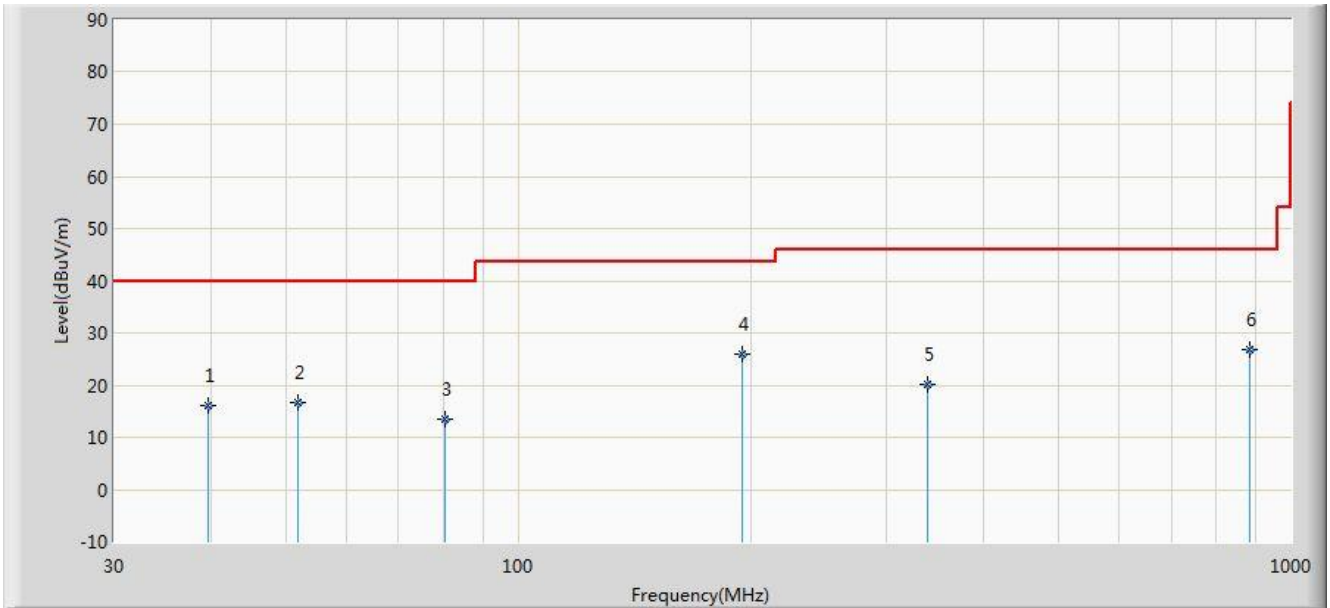


1GHz ~18GHz Test Setup:



### 6.3.3. Test Result of Radiated Emissions

Site: AC2	Time: 2018/07/05 - 17:12
Limit: FCC_Part15.109_RE(3m)_Class B	Engineer: Max Wang
Probe: VULB9162_0.03-8GHz	Polarity: Horizontal
EUT: Wireless Speaker ENEBY Portable	Power: AC 120V/60Hz
Test Mode 1	

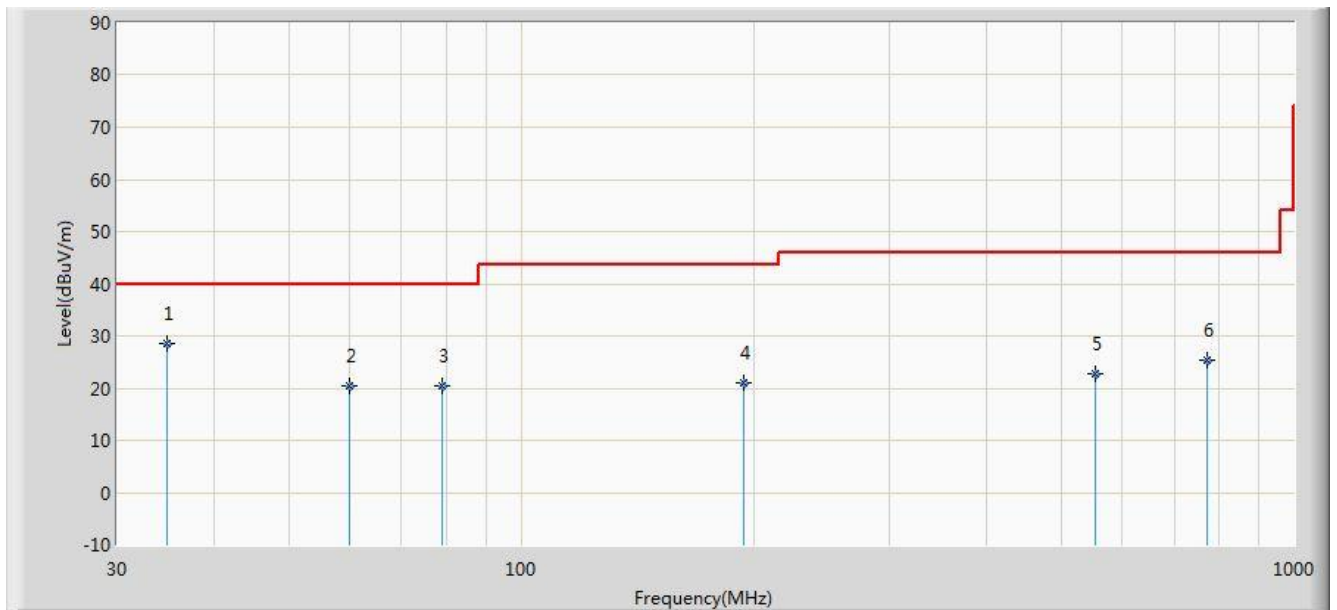


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			39.700	16.019	2.104	-23.981	40.000	13.914	QP
2			51.825	16.761	1.739	-23.239	40.000	15.022	QP
3			80.440	13.560	3.958	-26.440	40.000	9.601	QP
4		*	194.900	25.849	13.528	-17.651	43.500	12.321	QP
5			337.975	20.194	4.271	-25.806	46.000	15.923	QP
6			884.085	26.750	2.316	-19.250	46.000	24.434	QP

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

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

Site: AC2	Time: 2018/07/05 - 17:17
Limit: FCC_Part15.109_RE(3m)_Class B	Engineer: Max Wang
Probe: VULB9162_0.03-8GHz	Polarity: Vertical
EUT: Wireless Speaker ENEBY Portable	Power: AC 120V/60Hz
Test Mode 1	

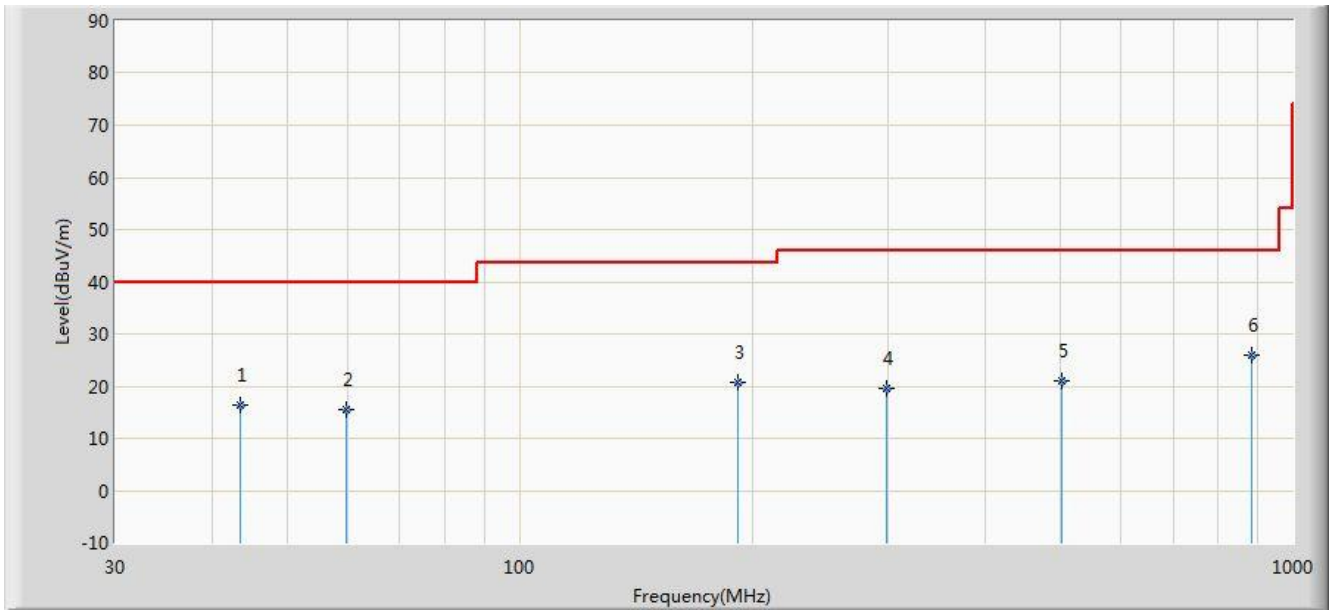


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	34.850	28.645	15.632	-11.355	40.000	13.013	QP
2			60.070	20.378	6.382	-19.622	40.000	13.996	QP
3			78.985	20.324	10.926	-19.676	40.000	9.397	QP
4			193.930	21.013	8.749	-22.487	43.500	12.264	QP
5			553.800	22.836	3.247	-23.164	46.000	19.589	QP
6			772.050	25.336	2.416	-20.664	46.000	22.920	QP

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

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

Site: AC2	Time: 2018/07/05 - 17:51
Limit: FCC_Part15.109_RE(3m)_Class B	Engineer: Max Wang
Probe: VULB9162_0.03-8GHz	Polarity: Horizontal
EUT: Wireless Speaker ENEBY Portable	Power: AC 120V/60Hz
Test Mode 2	

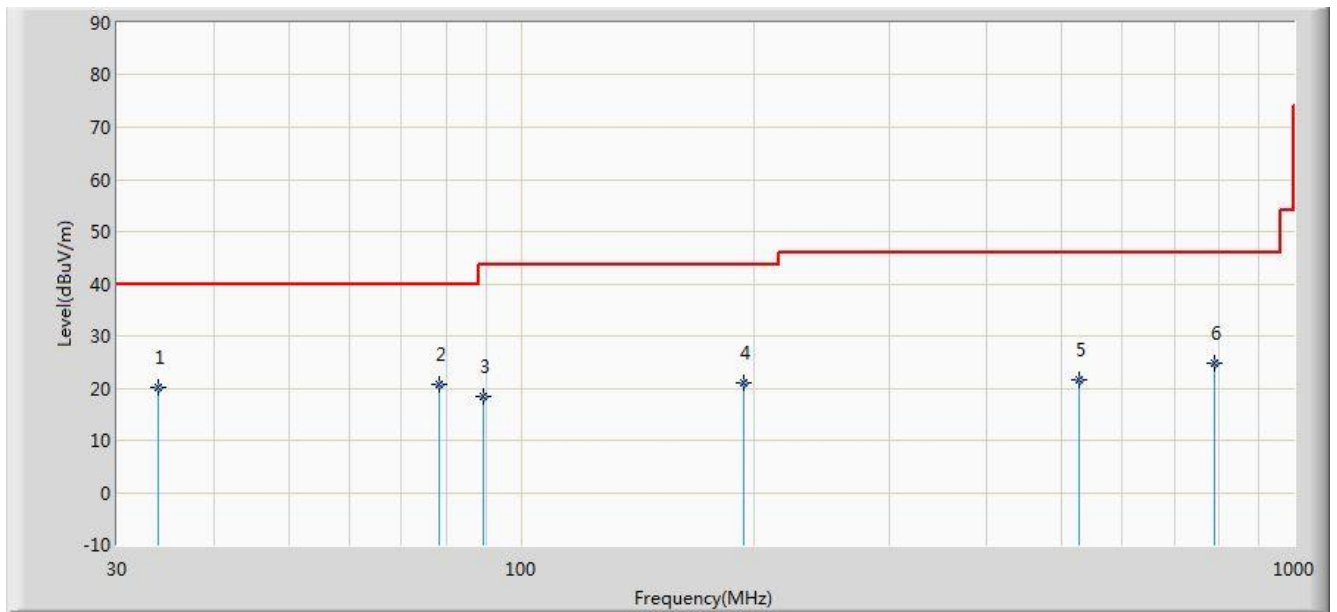


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			43.580	16.383	1.726	-23.617	40.000	14.657	QP
2			59.585	15.503	1.426	-24.497	40.000	14.076	QP
3			191.505	20.790	8.673	-22.710	43.500	12.117	QP
4			297.775	19.437	4.628	-26.563	46.000	14.809	QP
5			502.875	21.139	2.428	-24.861	46.000	18.711	QP
6		*	884.085	26.059	1.625	-19.941	46.000	24.434	QP

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

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

Site: AC2	Time: 2018/07/05 - 17:54
Limit: FCC_Part15.109_RE(3m)_Class B	Engineer: Max Wang
Probe: VULB9162_0.03-8GHz	Polarity: Vertical
EUT: Wireless Speaker ENEBY Portable	Power: AC 120V/60Hz
Test Mode 2	



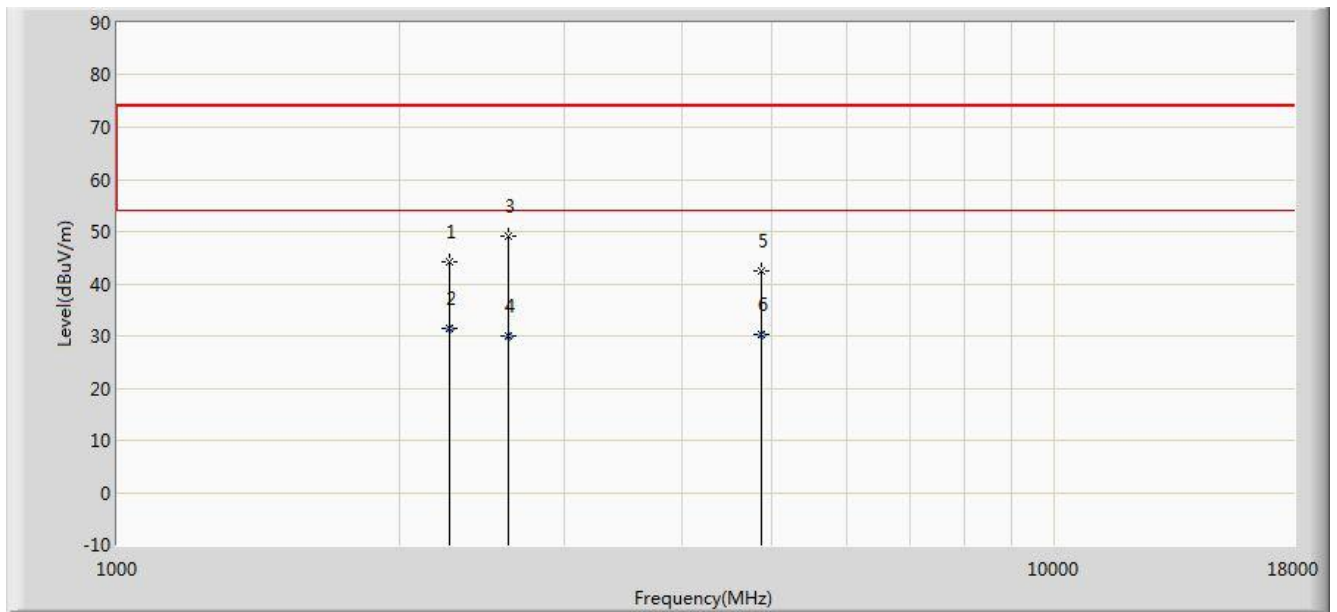
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			33.880	20.040	7.205	-19.960	40.000	12.835	QP
2		*	78.500	20.868	11.538	-19.132	40.000	9.330	QP
3			89.170	18.454	7.261	-25.046	43.500	11.193	QP
4			193.930	20.891	8.627	-22.609	43.500	12.264	QP
5			527.125	21.703	2.629	-24.297	46.000	19.074	QP
6			789.995	24.867	1.737	-21.133	46.000	23.130	QP

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

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



Site: AC2	Time: 2018/07/09 - 10:02
Limit: FCC_Part15.109_RE(3m)_Class B	Engineer: Max Wang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wireless Speaker ENEBY Portable	Power: AC 120V/60Hz
Test Mode 1	

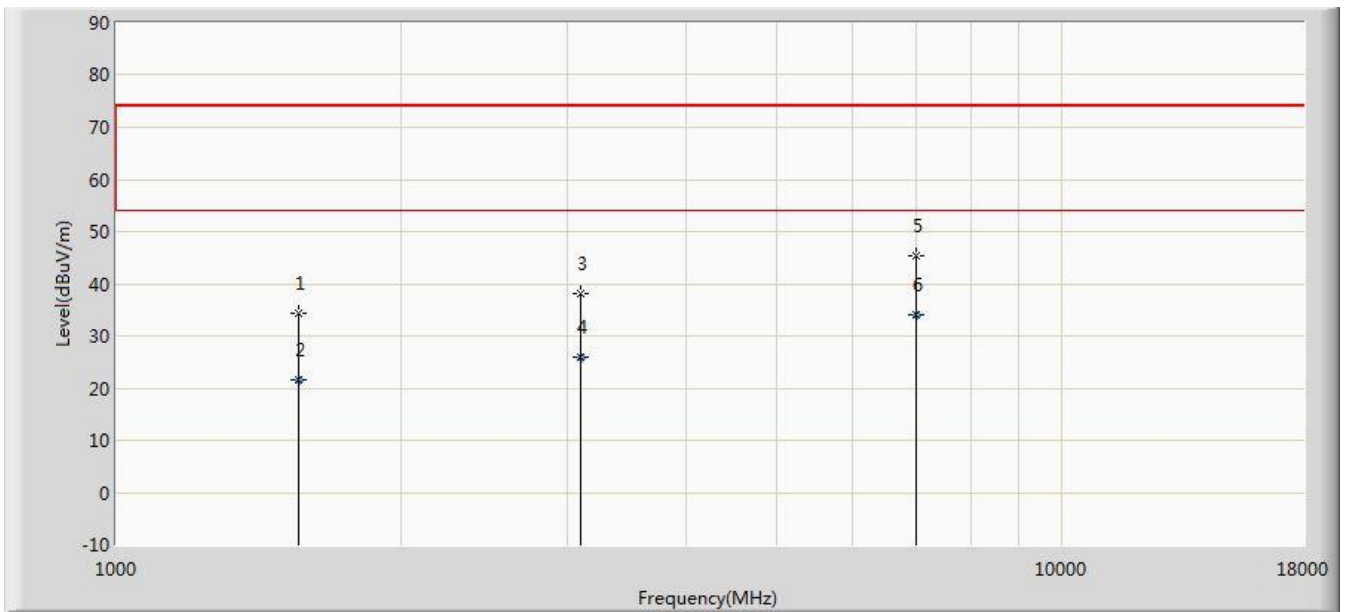


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2266.500	44.225	44.099	-29.775	74.000	0.126	PK
2		*	2266.500	31.364	31.238	-22.636	54.000	0.126	AV
3			2615.000	49.029	49.208	-24.971	74.000	-0.179	PK
4			2615.000	30.139	30.318	-23.861	54.000	-0.179	AV
5			4859.000	42.593	36.960	-31.407	74.000	5.633	PK
6			4859.000	30.150	24.517	-23.850	54.000	5.633	AV

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB).

Site: AC2	Time: 2018/07/10 - 14:09
Limit: FCC_Part15.109_RE(3m)_Class B	Engineer: Max Wang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wireless Speaker ENEBY Portable	Power: AC 120V/60Hz
Test Mode 1	

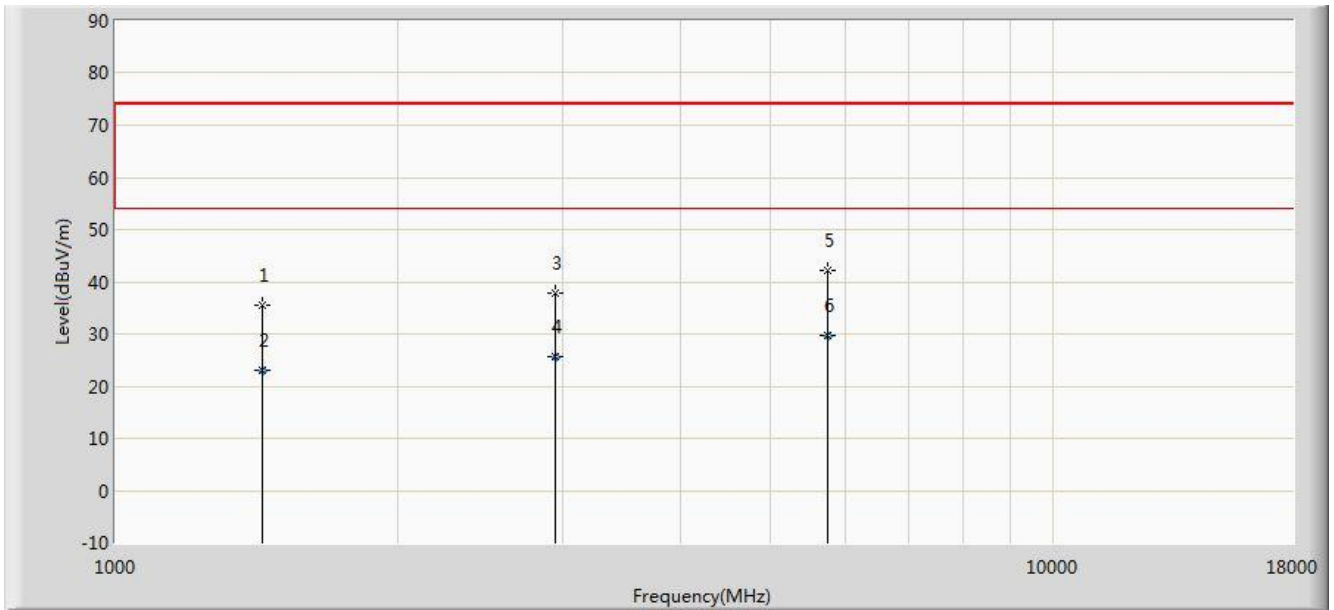


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			1561.000	34.296	37.754	-39.704	74.000	-3.458	PK
2			1561.000	21.500	24.958	-32.500	54.000	-3.458	AV
3			3099.500	38.149	37.836	-35.851	74.000	0.313	PK
4			3099.500	26.047	25.734	-27.953	54.000	0.313	AV
5			7009.500	45.437	32.827	-28.563	74.000	12.610	PK
6		*	7009.500	33.936	21.326	-20.064	54.000	12.610	AV

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB).

Site: AC2	Time: 2018/07/09 - 10:19
Limit: FCC_Part15.109_RE(3m)_Class B	Engineer: Max Wang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wireless Speaker ENEBY Portable	Power: AC 120V/60Hz
Test Mode 2	

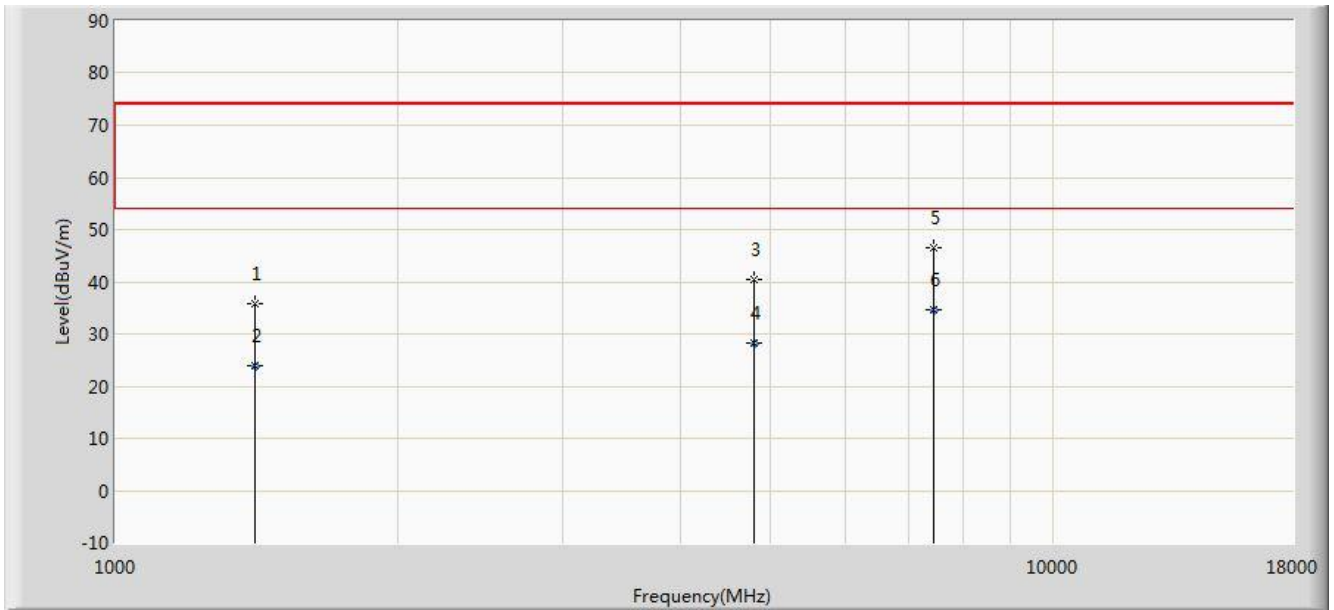


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			1433.500	35.629	38.857	-38.371	74.000	-3.228	PK
2			1433.500	23.187	26.415	-30.813	54.000	-3.228	AV
3			2946.500	37.842	37.782	-36.158	74.000	0.060	PK
4			2946.500	25.533	25.473	-28.467	54.000	0.060	AV
5			5743.000	42.089	34.750	-31.911	74.000	7.339	PK
6		*	5743.000	29.812	22.473	-24.188	54.000	7.339	AV

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB).

Site: AC2	Time: 2018/07/10 - 14:09
Limit: FCC_Part15.109_RE(3m)_Class B	Engineer: Max Wang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wireless Speaker ENEBY Portable	Power: AC 120V/60Hz
Test Mode 2	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			1408.000	35.797	39.008	-38.203	74.000	-3.211	PK
2			1408.000	23.924	27.135	-30.076	54.000	-3.211	AV
3			4791.000	40.367	34.868	-33.633	74.000	5.499	PK
4			4791.000	28.123	22.624	-25.877	54.000	5.499	AV
5			7443.000	46.543	32.209	-27.457	74.000	14.334	PK
6		*	7443.000	34.747	20.413	-19.253	54.000	14.334	AV

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB).

## 7. CONCLUSION

The data collected relate only the item(s) tested and show that the **Wireless Speaker ENEBY Portable** has been tested to comply with the requirements specified in Part 15B of the FCC Rules and ICES-003 Issue 6 of IC Rules.

\_\_\_\_\_ The End \_\_\_\_\_

## Appendix A – Test Setup Photograph

Refer to “1807WSU003-UT” file.

## **Appendix B – EUT Photograph**

Refer to “1807WSU003-UE” file.