



# FCC TEST REPORT

On Behalf of

GuangZhou FirstSound Electronics Co., Ltd.

UHF Wireless Microphone

Model No.: FS001-UHF

**FCC ID: 2AIG5-FS001-UHF**

Prepared for : GuangZhou FirstSound Electronics Co., Ltd.  
Address : A5 Building, 19# Jiangshi Road, Jianggao  
Town, Baiyun District, Guangzhou City, Guangdong, China

Prepared By : Shenzhen Alpha Product Testing Co., Ltd.  
Address : Building i, No.2, Lixin Road, Fuyong Street, Bao'an District,  
518103, Shenzhen, Guangdong, China

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## TEST REPORT DECLARATION

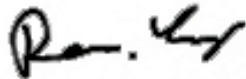

Applicant : GuangZhou FirstSound Electronics Co., Ltd.  
Address : A5 Building, 19# Jiangshi Road, Jianggao Town, Baiyun District, Guangzhou City, Guangdong, China  
Manufacturer : GuangZhou FirstSound Electronics Co., Ltd.  
Address : A5 Building, 19# Jiangshi Road, Jianggao Town, Baiyun District, Guangzhou City, Guangdong, China  
EUT : UHF Wireless Microphone  
Description :  
(A) Model No. : FS001-UHF  
(B) Trademark : N/A

Measurement Standard Used:

### FCC Rules and Regulations Part 74 Subpart H, Part 2, ANSI C63.26:2015

The device described above is tested by Shenzhen Alpha Product Testing Co., Ltd. to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. The test results are contained in this test report and Shenzhen Alpha Product Testing Co., Ltd. is assumed full responsibility for the accuracy and completeness of test. Also, this report shows that the EUT is technically compliant with the FCC Part 74 requirements.

This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of Shenzhen Alpha Product Testing Co., Ltd.

Tested by (name + signature).....:	Reak Yang Project Engineer	 .....
Approved by (name + signature).....:	Simple Guan Project Manager	 .....
Date of issue.....:	June 24, 2020	

**Revision History**

Revision	Issue Date	Revisions	Revised By
V0	June 24, 2020	Initial released Issue	Reak Yang

## 1. SUMMARY OF STANDARDS AND RESULTS

### 1.1. Description of Standards and Results

The EUT have been tested according to the applicable standards as referenced below:

Requirement	CFR 47 Section	Result
Radiated RF Power Output	§74.861(e)	PASS
Frequency Stability	§74.861(e)	PASS
Operating bandwidth	§74.861(e)	PASS
Spurious Emissions(Radiated)	§74.861(e)	PASS
Modulation Deviation	§74.861(e)(3)	PASS
Audio Frequency Response	FCC 2.1047 (a)	PASS
Emission Mask & Necessary bandwidth	§74.861(e)(6)	PASS

Note: 1. P is an abbreviation for Pass.  
2. F is an abbreviation for Fail.  
3. N/A is an abbreviation for Not Applicable.

## 2. GENERAL INFORMATION

### 2.1. Description of Device (EUT)

Description	: UHF Wireless Microphone
Model Number	: FS001-UHF
Diff	: N/A
Test Voltage	: DC 2*1.5V From AA Battery
Operation frequency	: 582.85MHz, 588.85MHz
Channel No.	: 2
Modulation type	: FM
Antenna Type	: PCB Antenna, Max. gain is 0 dBi
Software version	: SV1.0
Hardware version	: HV1.0
Trademark	: N/A
Sample Type	: Prototype production
Maximum Transmitter Power	: 1.180 mW(0.717dBm)
Frequency Tolerance	: 0.000730%

## 2.2. Tested Supporting System Details

No.	Description	Manufacturer	Model	Serial Number	Certification or DOC
1	N/A	N/A	N/A	N/A	N/A

## 2.3. Block Diagram of connection between EUT and simulators



## 2.4. Accessories Details

No.	Description	Manufacturer	Model	Serial Number	Certification or SDOC
1.	N/A	N/A	N/A	N/A	N/A

## 2.5. Test Mode Description

Test mode:

Mode	Channel	Frequency (MHz)
FM	CH1	582.85
FM	CH2	588.85

Note: 1. EUT work in Continuous TX mode, and select test channel, wireless mode  
 2. The EUT has been tested as an independent unit. And Continual Transmitting in maximum power.  
 3. For the relevant Conducted Measurement, the temporary antenna connector is used during the measurement. Antenna Connector Impedance: 50Ω, Cable Loss: 1.0 dB

## 2.6. Test Conditions

Temperature range	20-25°C
Humidity range	40-75%
Pressure range	86-106kPa

## 2.7. Test Facility

Shenzhen Alpha Product Testing Co., Ltd.

Building i, No.2, Lixin Road, Fuyong Street, Bao'an District,  
518103, Shenzhen, Guangdong, China

June 21, 2018 File on Federal Communication Commission

Registration Number: 293961

July 15, 2019 Certificated by IC

Registration Number: CN0085

## 2.8. Measurement Uncertainty

(95% confidence levels, k=2)

Test Item	Uncertainty
Uncertainty for Conduction emission test	2.74dB
Uncertainty for Radiation Emission test (<1G)	3.77 dB (Distance: 3m Polarize: V)
	3.80 dB (Distance: 3m Polarize: H)
Uncertainty for Radiation Emission test (>1G)	4.16 dB (Distance: 3m Polarize: V)
	4.13 dB (Distance: 3m Polarize: H)
Uncertainty for conducted RF Power	0.37dB



## 2.9. Test Equipment List

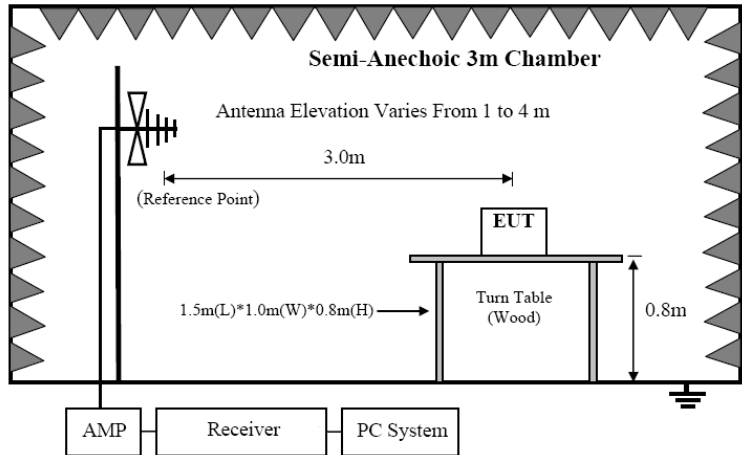
Equipment	Manufacturer	Model No.	Serial No.	Last cal.	Cal. Due day
9*6*6 anechoic chamber	CHENYU	9*6*6	N/A	2019.09.06	3Year
Spectrum analyzer	ROHDE&SCHWARZ	FSV40-N	102137	2019.09.05	1Year
Spectrum analyzer	Agilent	N9020A	MY499100060	2019.09.05	1Year
Receiver	ROHDE&SCHWARZ	ESR	1316.3003K03-102082-Wa	2019.09.06	1Year
Receiver	R&S	ESCI	101165	2019.09.05	1Year
Bilog Antenna	Schwarzbeck	VULB 9168	VULB9168-438	2020.04.12	2Year
Horn Antenna	SCHWARZBEC	BBHA 9120	BBHA 9120	2020.04.12	2Year
Active Loop Antenna	SCHWARZBEC	FMZB 1519B	00059	2019.09.07	2Year
Cable	Resenberger	N/A	No.1	2019.09.05	1Year
Cable	Resenberger	N/A	No.2	2019.09.05	1Year
Cable	Resenberger	N/A	No.3	2019.09.05	1Year
Pre-amplifier	HP	HP8347A	2834A00455	2019.09.05	1Year
Pre-amplifier	Agilent	8449B	3008A02664	2019.09.05	1Year
L.I.S.N.#1	Schwarzbeck	NSLK8126	8126466	2019.09.05	1Year
L.I.S.N.#2	ROHDE&SCHWARZ	ENV216	101043	2019.09.05	1 Year
20db Attenuator	ICPROBING	IATS1	82347	2019.08.26	1 Year
Horn Antenna	SCHWARZBEC	BBHA9170	00946	2019.09.07	2 Year
Preamplifier	SKET	LNPA_1840	SK2018101801	2019.09.06	1 Year
Power Meter	Agilent	E9300A	MY41496625	2019.09.06	
Temp. & Humid.	Weihuang	WHTH-1000	100631	2019.09.06	1 Year
Switching Mode	JUNKE	JK12010S	20140927-6	2019.09.05	1 Year
9*6*6 anechoic chamber	CHENYU	9*6*6	N/A	2019.09.06	3Year
Spectrum analyzer	ROHDE&SCHWARZ	FSV40-N	102137	2019.09.05	1Year
Spectrum analyzer	Agilent	N9020A	MY499100060	2019.09.05	1Year
Receiver	ROHDE&SCH	ESR	1316.3003K03-	2019.09.06	1Year
Receiver	R&S	ESCI	101165	2019.09.05	1Year
Bilog Antenna	Schwarzbeck	VULB 9168	VULB9168-43	2020.04.12	2Year
Horn Antenna	SCHWARZBEC	BBHA 9120	BBHA 9120	2020.04.12	2Year

Active Loop Antenna	SCHWARZBEC K	FMZB 1519B	00059	2019.09.07	2Year
Cable	Resenberger	N/A	No.1	2019.09.05	1Year
audio Generator	Agilent	N5182A	MY46240556	2019.09.05	1Year
Audio analyzer	R&S	UPL	N/A	2019.09.05	1Year
Attenuator	HP	8494B	DC-18G	2019.09.05	1Year

### 3. Test Results And Measurement Data

#### 3.1. Radiated RF Power Output

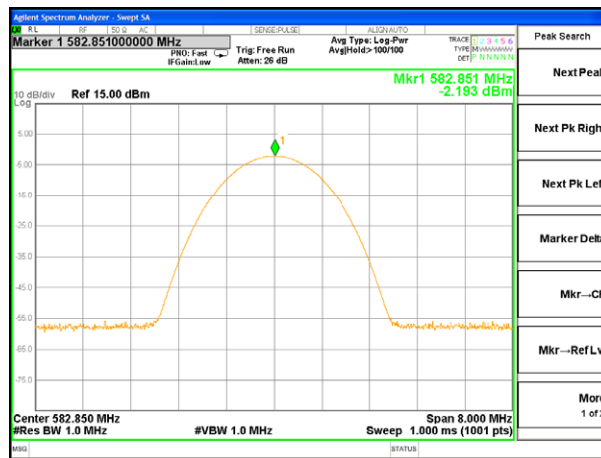
##### 3.1.1. Test Specification

<b>Test Requirement:</b>	Part 74.861(e)
<b>Test Method:</b>	FCC part 2.1046
<b>Limits:</b>	50mW
<b>Test Setup:</b>	 <p>The diagram illustrates the test setup within a Semi-Anechoic 3m Chamber. An antenna is mounted on an adjustable mast on the left side, with its elevation varying from 1 to 4 meters. A reference point is indicated 3.0 meters from the antenna. The EUT (Under Test) is placed on a wooden turn table with dimensions 1.5m (L) x 1.0m (W) x 0.8m (H). The turn table is 0.8m high. The EUT is connected to an AMP, Receiver, and PC System.</p>
<b>Test Procedure(Radiation):</b>	<ul style="list-style-type: none"> <li>a) EUT was placed on a non-metallic table, 80 cm above the ground plane inside a semi-anechoic chamber</li> <li>b) Test antenna was located 3m from the EUT on an adjustable mast. Below pre-scan procedure was first performed in order to find prominent radiated emissions.</li> <li>c) Change work frequency or channel of device if practicable.</li> <li>d) the Spectrum Analyzer RBW is set at 100KHz, VBW is set at 300KHz for Peak measure</li> <li>e) Rotated EUT though three orthogonal axes to determine the attitude of EUT arrangement produces highest emissions</li> <li>f) For final emissions measurements at each frequency of interest, the EUT were rotated and the antenna height was varied between 1m and 4m in order to maximize the emission. Measurements in both horizontal and vertical polarities were made and the data was recorded.</li> </ul>
<b>Test Result:</b>	PASS

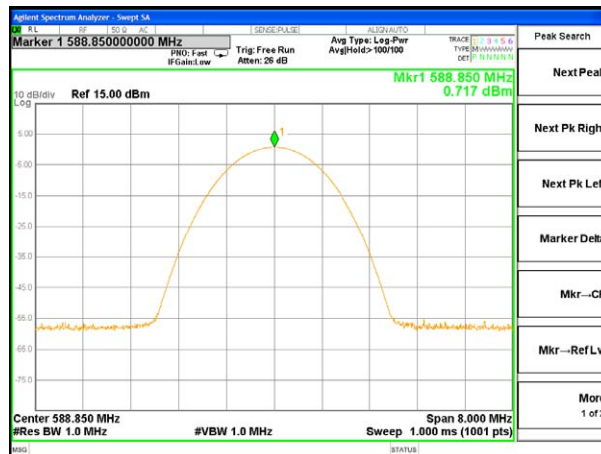
## 3.1.2. Test Results

FM mode				
Test channel	Maximum Output Power (dBm)	Maximum Output Power (mW)	Limit (mW)	Result
1	-2.193	0.604	250	PASS
2	0.717	1.180	250	PASS

CH 1

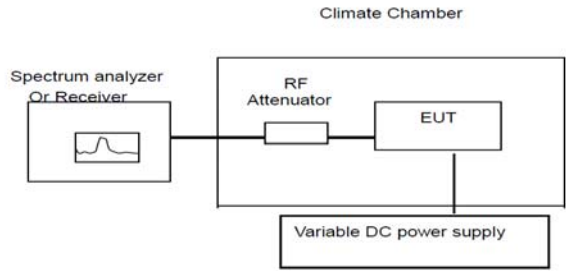


CH 2



### 3.2.Frequency Stability

#### 3.2.1.Test Specification

<b>Test Requirement:</b>	FCC Part 74.861(e)
<b>Test Setup:</b>	 <pre> graph LR     SA[Spectrum analyzer Or Receiver] --- RA[RF Attenuator]     RA --- EUT[EUT]     EUT --- VDC[Variable DC power supply]     subgraph Climate Chamber         RA         EUT     end </pre>
<b>Test Procedure:</b>	<p>The output of the EUT was connected to a power meter in order to get a reference power measurement. And the reference level is -20dBm. Once the reference power measurement was determined, an external signal source was connected to the Modulation Domain Analyzer in order to set the trigger level.</p> <p>The EUT was connected to the Modulation Domain Analyzer. In order to capture a single-shot turn-on of the transmitter signal, the modulation domain analyzer was set to trigger on the rising edge of the waveform. Plots were taken.</p> <p>The modulation domain analyzer was then adjusted to trigger on the falling edge of the transmitter waveform in order to capture a single-shot turn-off transient of the transmitter signal. Plots were taken.</p>
<b>Test Result:</b>	PASS

## 3.2.2. Test data

**CH 1**


		Conclusion: PASS		
Mode	Voltage (V)	Temperature (°C)	Frequency error (Hz)	frequency error (%)
FM	2.7	20	20020	0.003434
	3.0	20	20000	0.003431
	3.3	20	20060	0.003441
	BEP	20	19980	0.003428
Limit	0.00500%			
Mode	Temperature (°C)	Voltage (V)	Frequency error (Hz)	frequency error (%)
FM	-30	3.0	19990	0.003429
	-20	3.0	19910	0.003416
	-10	3.0	19950	0.003422
	0	3.0	20090	0.003446
	10	3.0	20050	0.003440
	20	3.0	20000	0.003431
	30	3.0	20100	0.003448
	40	3.0	20150	0.003457
	50	3.0	20200	0.003465
Limit	0.00500%			

**CH 2**

		Conclusion: PASS		
Mode	Voltage (V)	Temperature (°C)	Frequency error (Hz)	frequency error (%)
FM	2.7V	20	19980	0.003393
	3.0V	20	20000	0.003396
	3.3V	20	10010	0.001699
	BEP	20	20060	0.003406
Limit	0.00500%			
Mode	Temperature (°C)	Voltage (V)	Frequency error (Hz)	frequency error (%)
FM	-30	3.0	19980	0.003393
	-20	3.0	10010	0.001699
	-10	3.0	19910	0.003381
	0	3.0	19950	0.003388
	10	3.0	10130	0.001720
	20	3.0	10000	0.001698
	30	3.0	10150	0.001723
	40	3.0	10100	0.001715
	50	3.0	20010	0.003398
Limit	0.00500%			

### 3.3. Operating bandwidth

#### 3.3.1. Test Specification

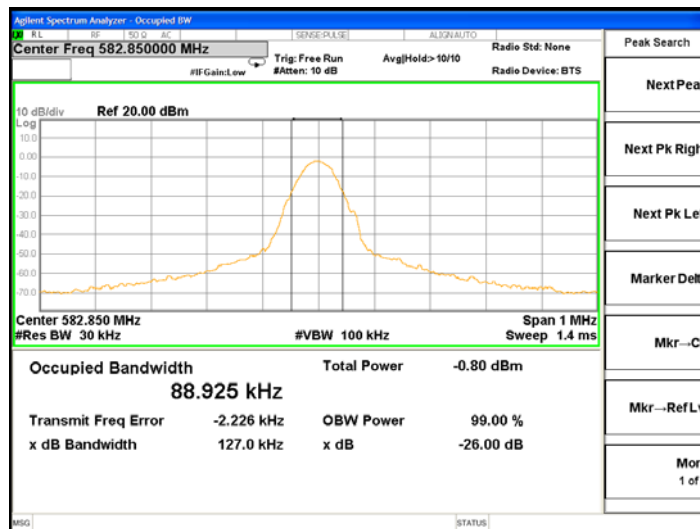
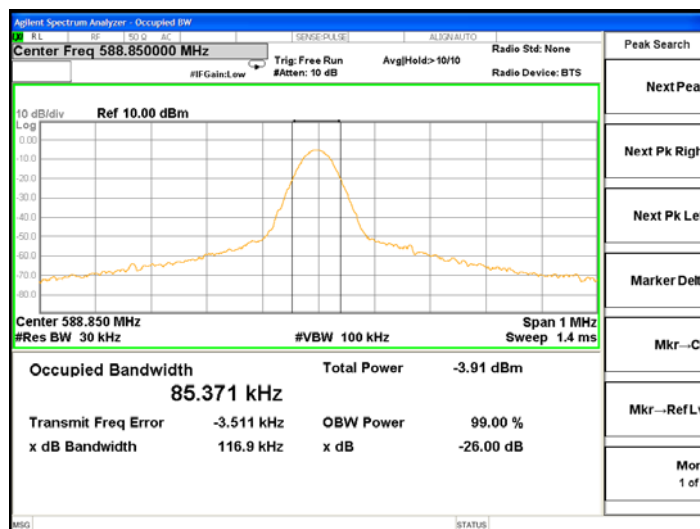
<b>Test Requirement:</b>	FCC Part 74.861(e)
<b>Test Setup:</b>	 <p style="text-align: center;">Spectrum Analyzer                      EUT</p>
<b>Test Procedure:</b>	The resolution bandwidth of the spectrum analyzer was set at 5KHz and the spectrum was recorded in the Frequency band $\pm 50$ KHz from the carrier frequency.
<b>Test Result:</b>	PASS

#### 3.3.2. Test data

##### Occupied Bandwidth:

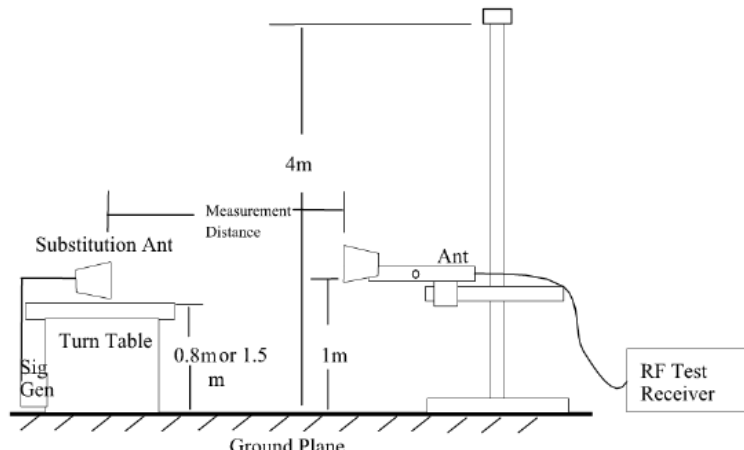
Channel	Frequency (MHz)	26dB Bandwidth (KHz)	99% Occupied Bandwidth (KHz)	Limit (KHz)	Result
1	582.85	/	88.925	200	PASS
2.	588.85	/	85.371	200	PASS



**Test plots as follows:****FM mode: Occupied Bandwidth****CH 1****CH 2**

### 3.4. Radiated Spurious Emission

#### 3.4.1. Test Specification

Test Requirement:	FCC Part 74.861(e)											
Measurement Distance:	3 m											
Antenna Polarization:	Horizontal & Vertical											
Operation mode:	Refer to item 4.1											
Receiver Setup:	<table><tr><td>Frequency</td><td>RBW</td><td>VBW</td></tr><tr><td>30MHz-1GHz</td><td>100KHz</td><td>300KHz</td></tr><tr><td rowspan="2">Above 1GHz</td><td>1MHz</td><td>3MHz</td></tr><tr><td>1MHz</td><td>10Hz</td></tr></table>	Frequency	RBW	VBW	30MHz-1GHz	100KHz	300KHz	Above 1GHz	1MHz	3MHz	1MHz	10Hz
Frequency	RBW	VBW										
30MHz-1GHz	100KHz	300KHz										
Above 1GHz	1MHz	3MHz										
	1MHz	10Hz										
Limit:	<p>The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the following schedule:</p> <p>(iii) On any frequency removed from the operating frequency by more than 50 percent up to and including 100 percent of the authorized bandwidth: at least 25 dB;</p> <p>(ii) On any frequency removed from the operating frequency by more than 100 percent up to and including 250 percent of the authorized bandwidth: at least 35 dB;</p> <p>(iii) On any frequency removed from the operating frequency by more than 250 percent of the authorized bandwidth: at least 43 + 10log10 (mean output power in watts) dB.</p>											
Test setup:												
Test Procedure:	1) Measurements of all significant broadband and narrowband signals from 25MHz to 1GHz were made											

	<p>using a quasi-peak detector and a Bilog antenna. Measurements above 1GHz were made using an average detector and a horn waveguide antenna.</p> <p>2) To ensure that maximum or worst case, emission levels were measured, the following steps were taken:</p> <ol style="list-style-type: none"><li>The EUT was rotated so that all of its sides were exposed to the receiving antenna.</li><li>Since the measuring antenna is linearly polarized, both horizontal and vertical field components were measured.</li><li>The measuring antenna was raised and lowered from 1 to 4 meters for each antenna polarization to maximize the readings.</li></ol> <p>3) Once the significant narrowband emissions were defined and their measurements maximized, the measurements were confirmed by matching the field strength of the maximized signal from the EUT by substituting the EUT with a dipole antenna below 1GHz and a waveguide horn antenna above 1GHz and reproducing the field strength measurement.</p> <ol style="list-style-type: none"><li>The substitution antenna was positioned in the same orientation as the EUT.</li><li>The output of a signal generator set at the same frequency as the significant narrow band emission was fed into the substitution antenna.</li><li>The test antenna was raised or lowered as necessary to ensure that the maximum signal was still received.</li><li>The output power level (in dBm) of the signal generator was increased until the corresponding reading on the test receiver matched the maximized field strength measurement.</li><li>The output power level of the signal generator was recorded as the absolute level of the spurious radiated emission in dBm taking into account any cable loss and antenna gain inherent in the substitution test setup.</li></ol>
<b>Test results:</b>	<b>PASS</b>

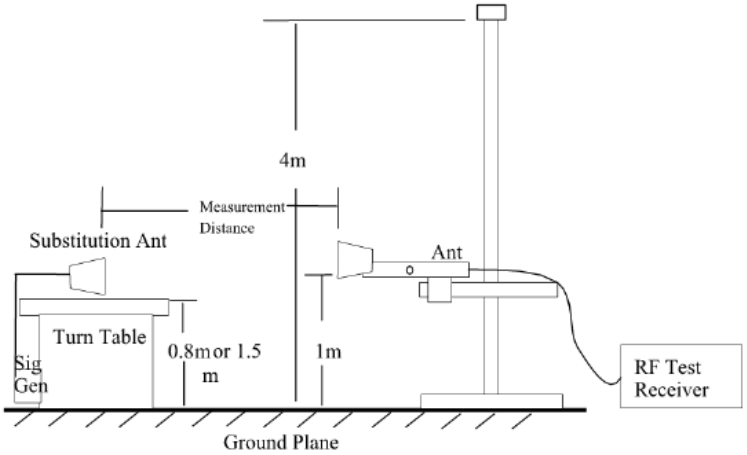
**3.4.2. Test Data**

Test result
Test Mode : CH 1, CH 2
Note: All the emissions detected are belonging to narrowband emissions.
This report only list the worst case mode data.

(30-6000)MHz							
The Worst Test Results Low Channel 582.85 MHz							
Frequency (MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit (dBm)	Margin (dBm)	Polarity
1165.7	-40.10	6.88	4.72	-37.94	-13.00	-24.94	H
1748.55	-38.70	10.13	8.32	-36.89	-13.00	-23.89	H
2331.4	-30.47	9.65	11.72	-32.54	-13.00	-19.54	H
1165.7	-42.96	6.88	4.72	-40.80	-13.00	-27.80	V
1748.55	-43.49	10.13	8.32	-41.68	-13.00	-28.68	V
2331.4	-42.42	9.65	11.72	-44.49	-13.00	-31.49	V
The Worst Test Results Low Channel 588.85 MHz							
Frequency (MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit (dBm)	Margin (dBm)	Polarity
1177.7	-36.19	6.88	4.72	-34.03	-13.00	-21.03	H
1766.55	-42.74	10.13	8.32	-40.93	-13.00	-27.93	H
2355.4	-38.08	9.65	11.72	-40.15	-13.00	-27.15	H
1177.7	-37.19	6.88	4.72	-35.03	-13.00	-22.03	V
1766.55	-31.43	10.13	8.32	-29.62	-13.00	-16.62	V
2355.4	-36.52	9.65	11.72	-38.59	-13.00	-25.59	V

### 3.5.Emission Mask & Necessary bandwidth

#### 3.5.1.Test Specification

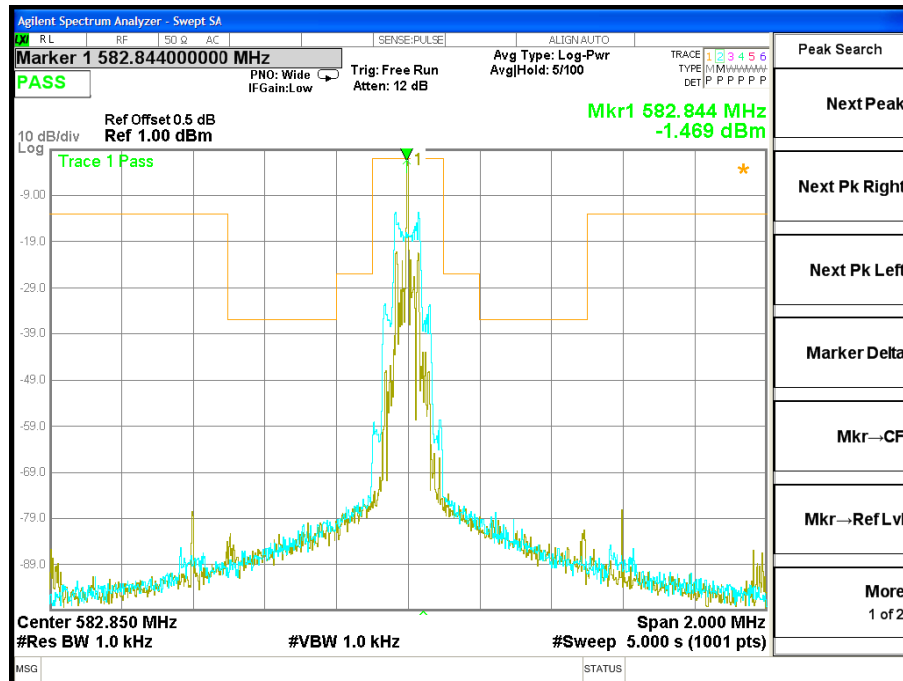
<b>Test Requirement:</b>	FCC Part 74.861(e)(6)
<b>Measurement Distance:</b>	3 m
<b>Operation mode:</b>	Refer to item 4.1
Limit: (EMISSION MASK I)	<p>The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the following schedule:</p> <ol style="list-style-type: none"> <li>(1) On any frequency removed from the operating frequency by more than 50 percent up to and including 100 percent of the authorized bandwidth: at least 25 dB;</li> <li>(2) On any frequency removed from the operating frequency by more than 100 percent up to and including 250 percent of the authorized bandwidth: at least 35 dB;</li> <li>(3) On any frequency removed from the operating frequency by more than 250 percent of the authorized bandwidth: at least <math>43 + 10 \log_{10} \text{ (mean output power in watts) dB}</math>;</li> </ol>
Limit: (EMISSION MASK II)	<p>According to ETSI EN 300 422-1 V1.5.1 Clause 8.3.1.2, The transmitter output spectrum shall be within the mask defined in figure 3 where B is the declared channel bandwidth;</p>
<b>Test setup:</b>	 <p>The diagram illustrates the test setup on a Ground Plane. A Substitution Ant is positioned on a Turn Table, which is connected to a Sig Gen. The Measurement Distance between the Substitution Ant and the Ant is 4m. The distance between the Substitution Ant and the Ant is 0.8m or 1.5m. The distance between the Ant and the RF Test Receiver is 1m.</p>
<b>Test Procedure:</b>	<ol style="list-style-type: none"> <li>1) Measurements of all significant broadband and narrowband signals from 25MHz to 1GHz were made using a quasi-peak detector and a Bilog antenna. Measurements above 1GHz were made using an average detector and a horn waveguide antenna.</li> <li>2) To ensure that maximum or worst case, emission levels were measured, the following steps were taken:</li> </ol>

	<ul style="list-style-type: none"><li>iv. The EUT was rotated so that all of its sides were exposed to the receiving antenna.</li><li>v. Since the measuring antenna is linearly polarized, both horizontal and vertical field components were measured.</li><li>vi. The measuring antenna was raised and lowered from 1 to 4 meters for each antenna polarization to maximize the readings.</li></ul> <p>3) Once the significant narrowband emissions were defined and their measurements maximized, the measurements were confirmed by matching the field strength of the maximized signal from the EUT by substituting the EUT with a dipole antenna below 1GHz and a waveguide horn antenna above 1GHz and reproducing the field strength measurement.</p> <ul style="list-style-type: none"><li>vi. The substitution antenna was positioned in the same orientation as the EUT.</li><li>vii. The output of a signal generator set at the same frequency as the significant narrow band emission was fed into the substitution antenna.</li><li>viii. The test antenna was raised or lowered as necessary to ensure that the maximum signal was still received.</li><li>ix. The output power level (in dBm) of the signal generator was increased until the corresponding reading on the test receiver matched the maximized field strength measurement.</li><li>x. The output power level of the signal generator was recorded as the absolute level of the spurious radiated emission in dBm taking into account any cable loss and antenna gain inherent in the substitution test setup.</li></ul>
<b>Test results:</b>	<b>PASS</b>

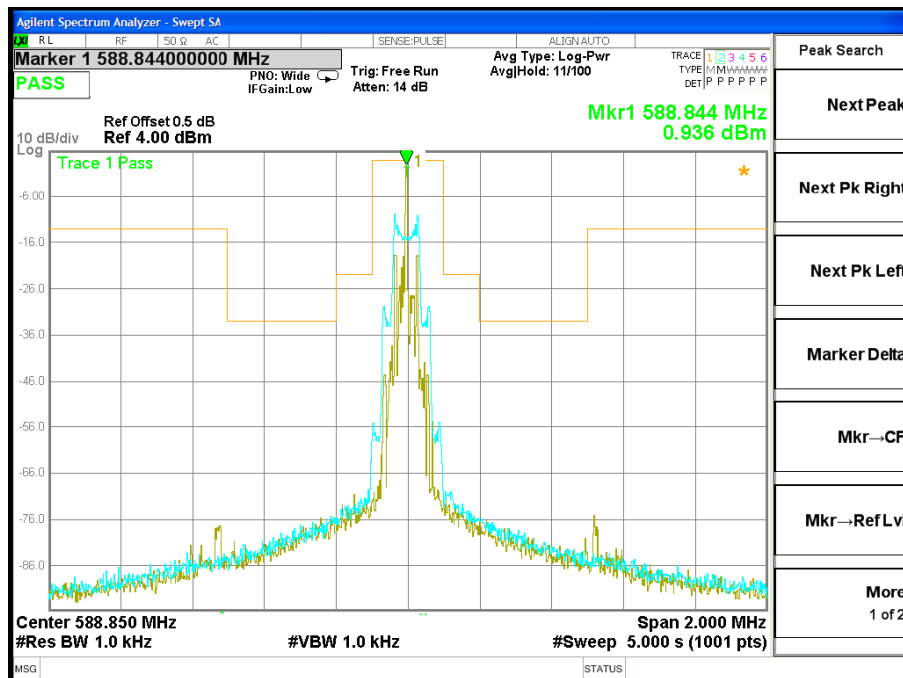
### 3.5.2. Test Data

#### Emission Mask I:

#### CH 1



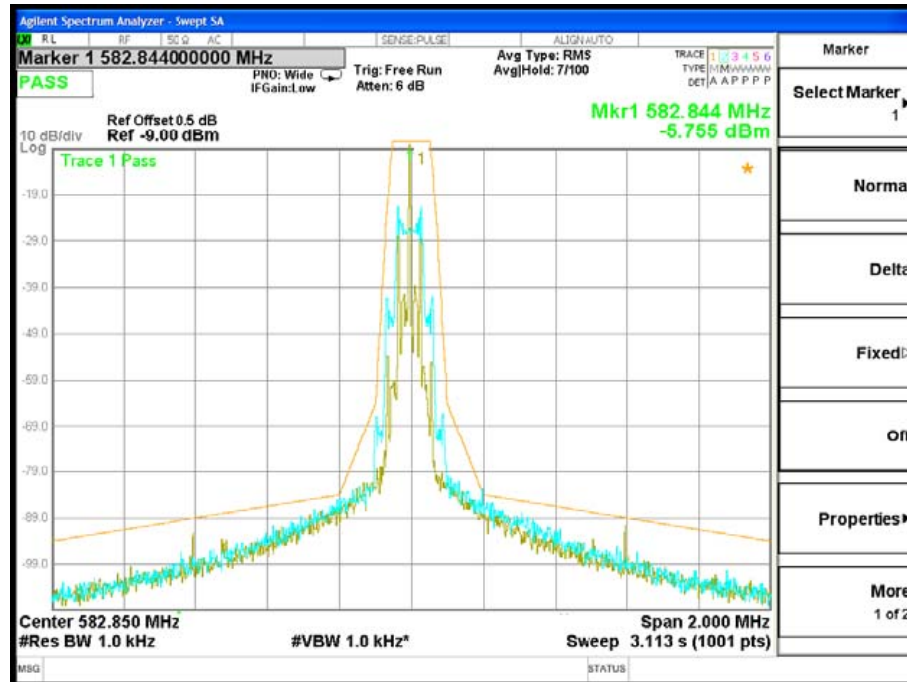
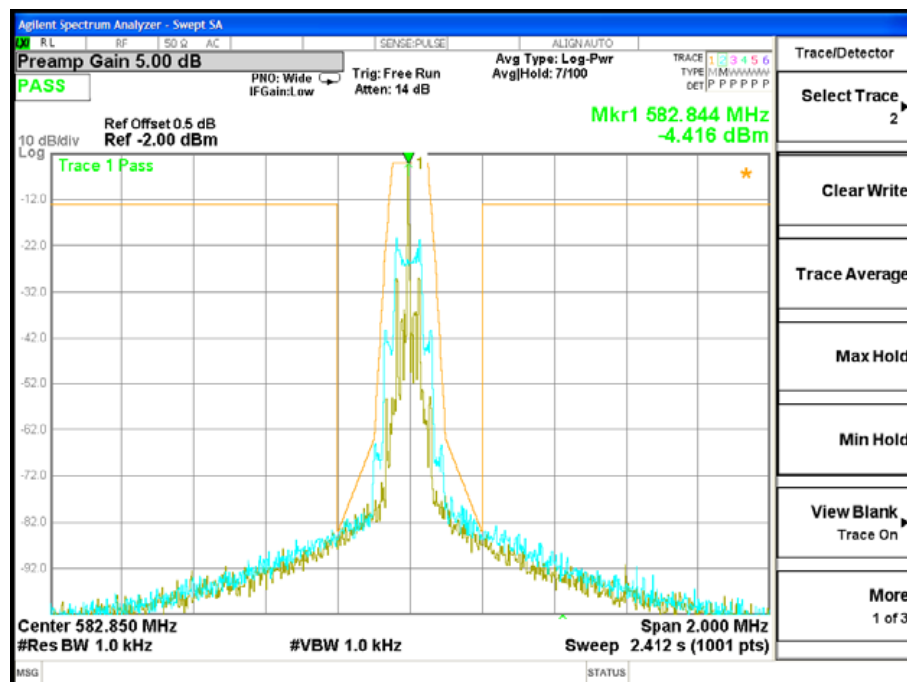
#### CH 2



**Emission Mask II:**

ETSI EN 300 422-1 V1.5.1 Clause 8.3.1.2 The Maximum Measurement of Necessary Bandwidth  
Test Plot:

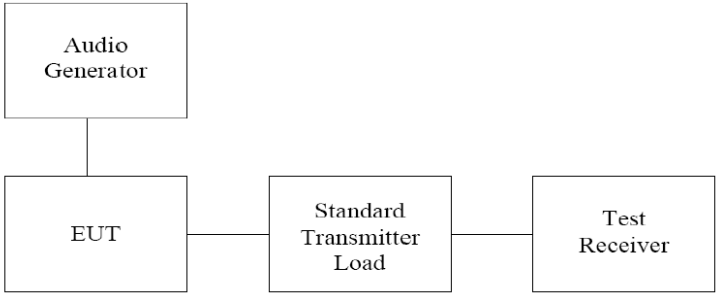
Frequency	Declared Bandwidth	B/2	0.35B
582.85MHz	100K	50K	35K
588.85MHz	100K	50K	35K

**CH 1****CH 2**



### 3.6.Modulation Deviation

#### 3.6.1.Test Specification

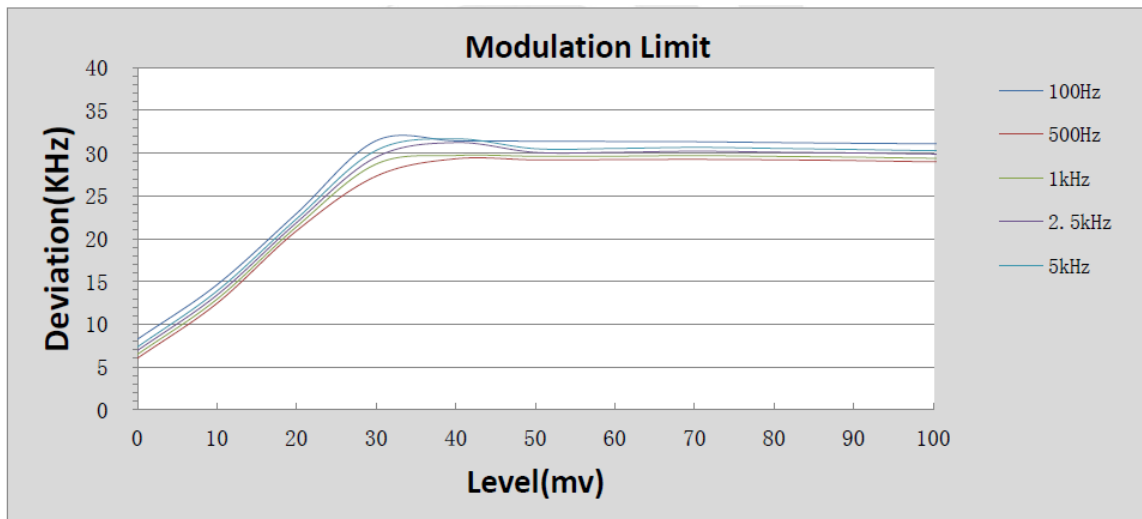
Test Requirement:	CFR 47 section 2.1047 a & CFR 47 section 74.861 e (3)
Limit:	<p>For Voice modulation communication equipment, the frequency response of the audio modulation circuit over a range of 100 to 5000 Hz shall be measured.</p> <p>Any form of modulation may be used. A maximum deviation of <math>\pm 75</math> KHz is permitted when frequency modulation is employed.</p>
Test setup:	 <pre> graph LR     AG[Audio Generator] --&gt; EUT[EUT]     EUT --&gt; STL[Standard Transmitter Load]     STL --&gt; TR[Test Receiver] </pre>
Test Procedure:	<p>Modulation limits is the transmitter circuit's ability to limit the transmitter from producing deviations in excess of rated system deviation.</p> <p>The audio signal generator is connected to the audio input of the EUT with its full rating.</p> <p>The modulation response is measured at certain modulation frequencies, related to 1000 Hz reference signal.</p> <p>Tests are performed for positive and negative modulation.</p>
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

### 3.6.2. Test Data

#### Modulation Deviation

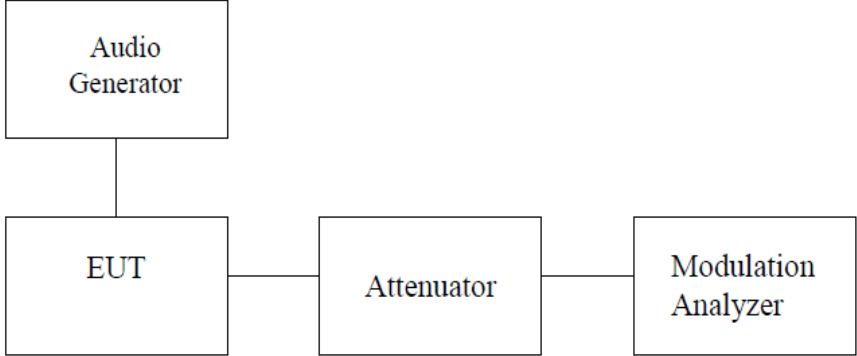
Level(mv)	100Hz	500Hz	1kHz	2.5kHz	5kHz
0	8.23	6.03	6.47	6.92	7.33
10	14.61	12.45	12.93	13.41	13.88
20	22.95	20.92	21.41	21.88	22.33
30	31.45	27.30	28.73	29.53	30.32
40	31.43	29.33	29.73	31.23	31.67
50	31.39	29.20	29.64	30.08	30.52
60	31.36	29.23	29.65	30.09	30.55
70	31.33	29.26	29.72	30.22	30.68
80	31.23	29.21	29.63	30.11	30.56
90	31.15	29.12	29.54	30.02	30.43
100	31.10	28.98	29.41	29.89	30.29
110	31.10	28.95	29.43	29.89	30.29

#### Modulation Deviation of Mid Channel



### 3.7.Audio Frequency Response

#### 3.7.1.Test Specification

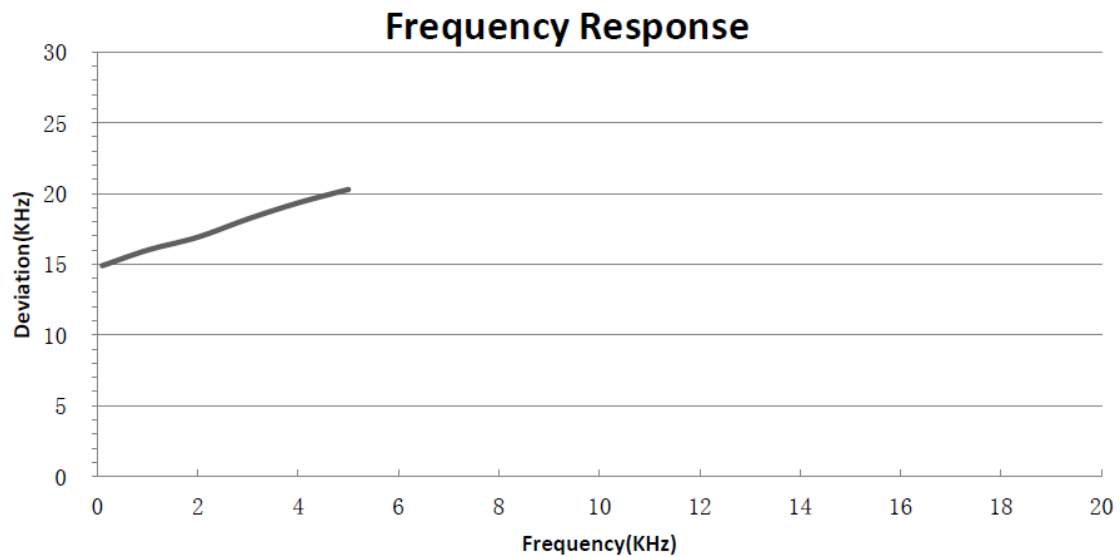
Test Requirement:	CFR 47 section 74.861 e (1)
Limit:	<p>The audio frequency response is the degree of closeness to which the frequency deviation of the transmitter follows a prescribed characteristic.</p> <p>The frequency response of the audio modulation part is measured over a frequency range of 100 Hz to 5000 Hz.</p> <p>Any form of modulation may be used. A maximum deviation of <math>\pm 75</math> KHz is permitted when frequency modulation is employed.</p>
Test setup:	 <pre> graph LR     AG[Audio Generator] --&gt; EUT[EUT]     EUT --&gt; ATT[Attenuator]     ATT --&gt; MA[Modulation Analyzer] </pre>
Test Procedure:	<p>The audio frequency response is the degree of the closeness to which the frequency deviation of the transmitter follows prescribed characteristics.</p> <p>The frequency response of the audio modulation part is measured over a frequency range of 100Hz to 5000 Hz.</p> <p>For 1000 Hz tone reference signal the audio generator level is adjusted to get 20% of the rated system deviation.</p> <p>The deviations obtained over the frequency range from 100 HZ to 5000 Hz are recorded and compared with the reference deviation as follows:</p> <p>Audio Frequency Response= <math>20 \log (\text{DEV freq/ Dev ref})</math></p>
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

### 3.7.2. Test Data

Audio Frequency Response:

Frequency(KHz)	Deviation(KHz)
0.01	14.89
1	15.99
2	16.91
3	18.20
4	19.34
5	20.29

Frequency Response of Mid Channel



## 4. PHOTOGRAPH

### 4.1.Photos of Radiated Emission Test (In Semi Anechoic Chamber)



## 5. PHOTOS OF THE EUT



**EUT View**

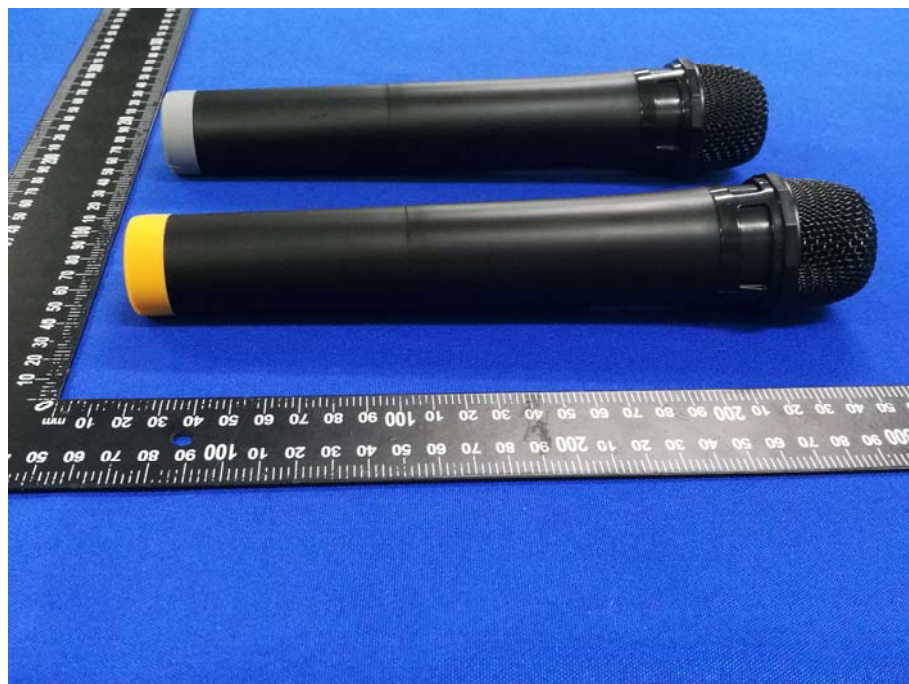


**EUT View**





**EUT View**



**EUT View**

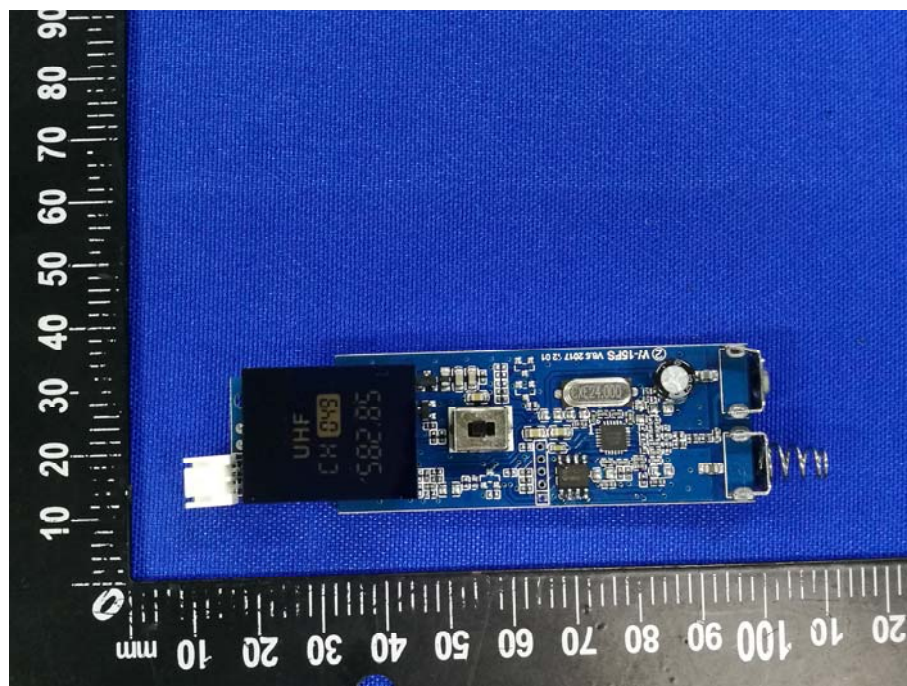


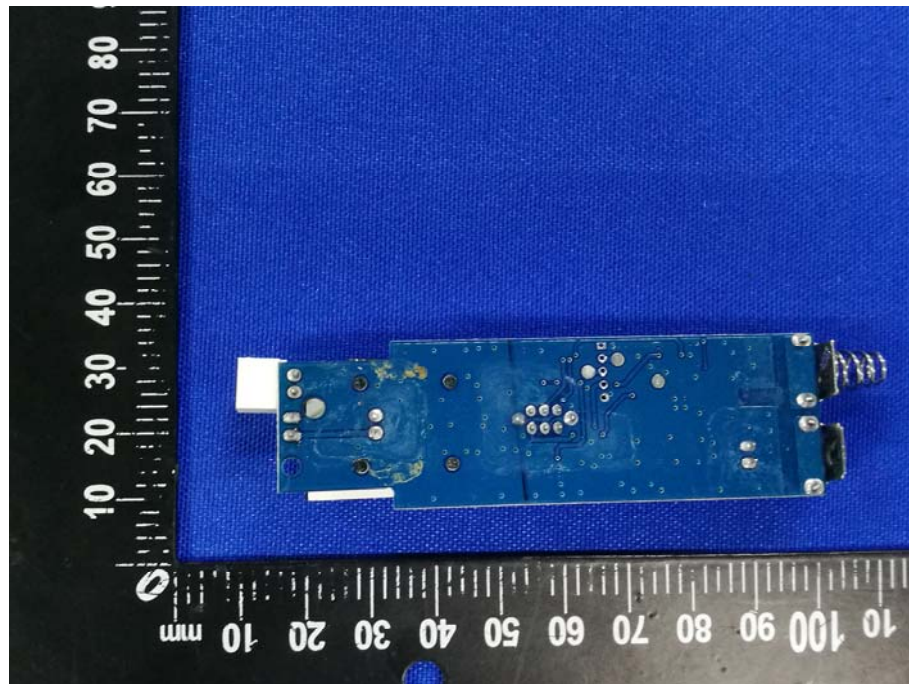
**EUT View**



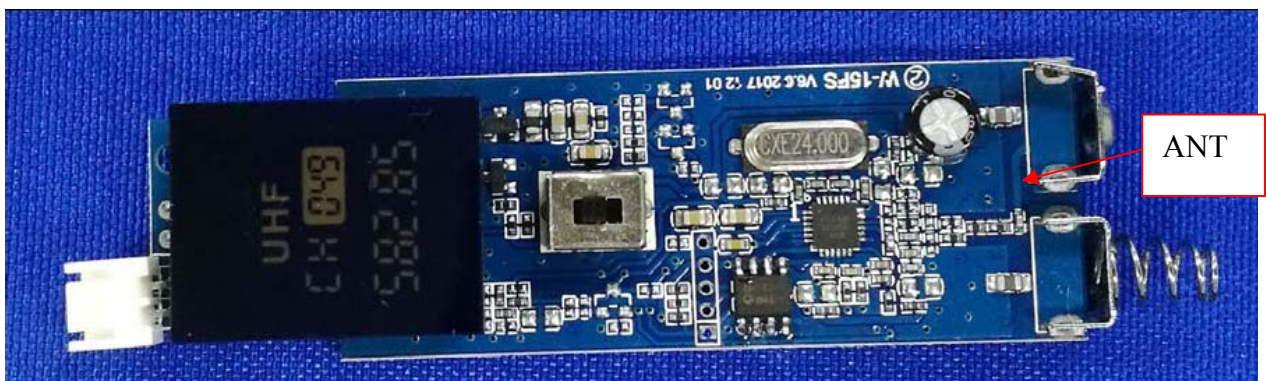
**EUT View**



**EUT View****EUT View**



**EUT View**



**ANT Location**

**----END OF REPORT----**