

# FCC Test Report

**FCC Rule(s):** FCC Part 15.249

**Applicant:** Shanghai Yanshen Electronic Engineering Co., Ltd

**Product Name:** 2.4G Wireless Microphone

**Model:** AF-306C

**FCC ID:** 2AKPGAF-306C

**Report No.:** ZKS161200137E-1

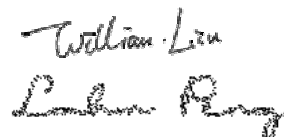
**Tested Date:** 2016-12-20 to 2016-12-31

**Issued Date:** 2017-01-04

**Tested By :** William Liu (Engineer)

**Approved By:** Lahm Peng (Manager)

**Prepared By:**



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Note: This test report is limited to the above client company and the product model only. It may not be duplicated without prior permitted by Shenzhen ZRLK Testing Technology Co., Ltd.

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# 1. General Information

## 1.1 Product Information

Applicant and Manufacturer	
Applicant:	Shanghai Yanshen Electronic Engineering Co., Ltd
Address of Applicant:	Room 2301, No.7, Lane 768, Gongping Road, Hongkou District,
	Shanghai, China
Manufacturer:	Zhuhai Jing Feng Electronics Co., Ltd
Address of Manufacturer:	4F, 38 Building, Lixi First Industrial Zone, Zhuhai, Guangdong,
	China

General Description of EUT	
Product Name:	2.4G Wireless Microphone
Model No.:	AF-306C
Trade Name:	Aware
Class of Equipment:	DXX
Rated Voltage:	DC 3.7V, Battery
Hardware Version:	V1.0
Software Version:	V1.0
Frequency Range:	2409-2475MHz
Modulation:	GFSK
Data Rate:	2Mbps
Type of Antenna:	PCB Antenna
Antenna Gain:	2.0 dBi
Note 1: The test data is gathered from a production sample, provided by the manufacturer.	

Center Frequency of Each of Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 01:	2409MHz	Channel 18:	2426MHz	Channel 35:	2443MHz	Channel 52:	2460MHz
Channel 02:	2410MHz	Channel 19:	2427MHz	Channel 36:	2444MHz	Channel 53:	2461MHz
Channel 03:	2411MHz	Channel 20:	2428MHz	Channel 37:	2445MHz	Channel 54:	2462MHz
Channel 04:	2412MHz	Channel 21:	2429MHz	Channel 38:	2446MHz	Channel 55:	2463MHz
Channel 05:	2413MHz	Channel 22:	2430MHz	Channel 39:	2447MHz	Channel 56:	2464MHz
Channel 06:	2414MHz	Channel 23:	2431MHz	Channel 40:	2448MHz	Channel 57:	2465MHz
Channel 07:	2415MHz	Channel 24:	2432MHz	Channel 41:	2449MHz	Channel 58:	2466MHz
Channel 08:	2416MHz	Channel 25:	2433MHz	Channel 42:	2450MHz	Channel 59:	2467MHz
Channel 09:	2417MHz	Channel 26:	2434MHz	Channel 43:	2451MHz	Channel 60:	2468MHz
Channel 10:	2418MHz	Channel 27:	2435MHz	Channel 44:	2452MHz	Channel 61:	2469MHz
Channel 11:	2419MHz	Channel 28:	2436MHz	Channel 45:	2453MHz	Channel 62:	2470MHz
Channel 12:	2420MHz	Channel 29:	2437MHz	Channel 46:	2454MHz	Channel 63:	2471MHz

Channel 13:	2421MHz	Channel 30:	2438MHz	Channel 47:	2455MHz	Channel 64:	2472MHz
Channel 14:	2422MHz	Channel 31:	2439MHz	Channel 48:	2456MHz	Channel 65:	2473MHz
Channel 15:	2423MHz	Channel 32:	2440MHz	Channel 49:	2457MHz	Channel 66:	2474MHz
Channel 16:	2424MHz	Channel 33:	2441MHz	Channel 50:	2458MHz	Channel 67:	2475MHz
Channel 17:	2425MHz	Channel 34:	2442MHz	Channel 51:	2459MHz		

## 1.2 Compliance Standards

Compliance Standards or Rules	
FCC Part 15 Subpart C	FEDERAL COMMUNICATIONS COMMISSION, RADIO FREQUENCY DEVICES, Intentional Radiators
FCC Part 15.249	Operation within the bands 902 - 928 MHz, 2400 - 2483.5 MHz, and 5725 - 5850 MHz.
The objective of the manufacturer or applicant is to demonstrate compliance with the above standards.	
According to standards for test methodology	
ANSI C63.10-2013	American National Standard for Testing Unlicensed Wireless Devices Accredited Standards Committee C63®—Electromagnetic Compatibility
All measurements contained in this report were conducted with all above standards	
Maintenance of compliance is the responsibility of the manufacturer or applicant. Any modification of the product, which result is lowering the emission, should be checked to ensure compliance has been maintained.	

## 1.3 Test Facilities

<b>Testing Lab: Global United Technology Services Co., Ltd.</b>
The laboratory is a testing organization accredited by China National Accreditation Service for Conformity Assessment (CNAS) according to ISO/IEC 17025. The accreditation certificate number is <b>L5775</b> .
The laboratory has been listed by US Federal Communications Commission to perform electromagnetic emission measurements. The recognition numbers of test site are <b>600491</b> .
The laboratory has been listed by Industry Canada to perform electromagnetic emission measurements. The recognition numbers of test site are <b>9079A-2</b> .
All measurement facilities used to collect the measurement data are located at 2 <sup>nd</sup> Floor, Block No.2, Laodong Industrial Zone, Xixiang Road, Baoan District, Shenzhen, Guangdong, China 518102

## 1.4 Test Setup Information

List of Test Modes			
Test Mode	Description	Remark	
TM1	Low Channel	2409MHz	
TM2	Middle Channel	2441MHz	
TM3	High Channel	2475MHz	
TM4	Charging and Operating	Through USB Charging	
List and Details of Auxiliary Equipment			
Description	Manufacturer	Model	Serial Number
AC Adapter	UGREEN	CD104	--
Note 1: The equipment under test (EUT) was configured to measure its highest possible emission level.			
Note 2: The test modes were adapted according to the operation manual for use.			
Note 3: The equipment under test (EUT) was tested under fully-charged battery.			
Note 4: Based on a test sample, long press the button to enter the fixed frequency continuous transmission mode, press the "+" or "-" to change the channel.			

## 1.5 Measurement Uncertainty

Parameter	Conditions	Uncertainty
Conducted Emissions	9kHz ~30MHz	$\pm 2.79$ dB
Radiated Emissions	9kHz ~ 30MHz	$\pm 4.12$ dB
	30MHz ~ 1GHz	$\pm 4.16$ dB
	1GHz ~ 18GHz	$\pm 5.97$ dB
	18GHz ~ 26.5GHz	$\pm 6.71$ dB

## 1.6 List of Test and Measurement Instruments

Description	Manufacturer	Model	Cal. Date	Due. Date
EMI Test Receiver	R&S	ESCI 7	June. 29 2016	June. 28 2017
Coaxial Switch	ANRITSU CORP	MP59B	June. 29 2016	June. 28 2017
Artificial Mains Network	SCHWARZBECK	NSLK8127	June. 29 2016	June. 28 2017
ESU EMI Test Receiver	R&S	ESU26	June. 29 2016	June. 28 2017
BiConiLog Antenna	SCHWARZBECK	VULB9163	June. 29 2016	June. 28 2017
Double-ridged horn antenna	SCHWARZBECK	9120D	June. 29 2016	June. 28 2017
Horn Antenna	ETS-LINDGREN	3160-09	June. 29 2016	June. 28 2017
Loop Antenna	SCHWARZBECK	FMZB 1519	June. 29 2016	June. 28 2017
RF Amplifier	HP	8347A	June. 29 2016	June. 28 2017
Broadband Preamplifier	SCHWARZBECK	BBV9718	June. 29 2016	June. 28 2017
EMI Test Software	AUDIX	E3	N/A	N/A
Coaxial Cable	GTS	9kHz-1GHz	June. 29 2016	June. 28 2017
Coaxial Cable	GTS	1GHz-18GHz	June. 29 2016	June. 28 2017
Coaxial Cable	GTS	18GHz-40GHz	June. 29 2016	June. 28 2017
Spectrum Analyzer	Agilent	E4407B	July. 20 2016	July. 19 2017
Temporary Antenna Connector	ZRLK	SMA-01	July. 20 2016	July. 19 2017
Note: The temporary antenna connector is soldered on the PCB board in order to perform conducted tests and this temporary antenna connector is listed in the equipment list.				

## 2. Summary of Test Results

FCC Rules	Description of Test Items	Result
15.203	Antenna Requirement	Passed
15.205	Restricted Band of Operation	Passed
15.207(a)	Conducted Emission	Passed
15.209(a)(f)	Radiated Spurious Emissions	Passed
15.249(a)	Field Strength of Emissions	Passed
15.249(d)	Out of Band Emission	Passed
15.215 (c)	Emission Bandwidth	Passed
Passed: The EUT complies with the essential requirements in the standard Failed: The EUT does not comply with the essential requirements in the standard N/A: Not applicable		

### **3. Antenna Requirement**

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#### **3.1 Standard and Limit**

According to FCC Part 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

#### **3.2 Test Result**

This product has a permanent antenna (PCB antenna), fulfill the requirement of this section.



## 4. Emission Bandwidth

### 4.1 Standard and Limit

According to 15.215 (c), intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§15.217 through 15.257 and in Subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated. The requirement to contain the designated bandwidth of the emission within the specified frequency band includes the effects from frequency sweeping, frequency hopping and other modulation techniques that may be employed as well as the frequency stability of the transmitter over expected variations in temperature and supply voltage. If a frequency stability is not specified in the regulations, it is recommended that the fundamental emission be kept within at least the central 80% of the permitted band in order to minimize the possibility of out-of-band operation.

### 4.2 Test Procedure

According to the ANSI C63.10, the 20dB bandwidth test method as follows.

Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.

Span = approximately 2 to 3 times the 20 dB bandwidth, centered on a hopping channel

RBW  $\geq$  1% of the 20 dB bandwidth

VBW  $\geq$  RBW

Sweep = auto; Detector function = peak

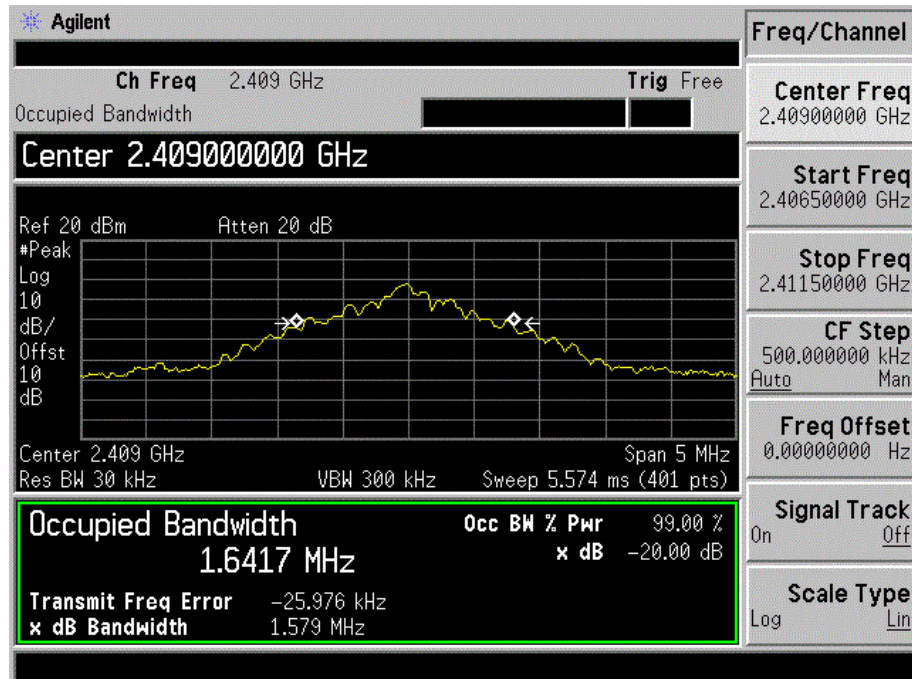
Trace = max hold

All the trace to stabilize, use the marker-to-peak function to set the marker to the peak of the emission, use the marker-delta function to measure and record the 20dB down bandwidth of the emission.

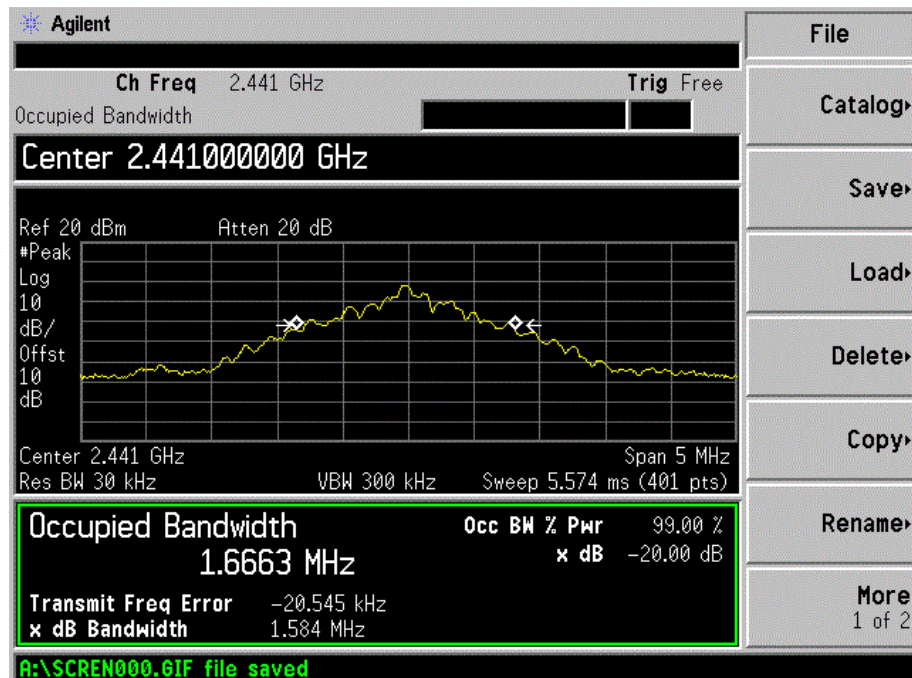
### 4.3 Test Data and Results

Test Mode	Test Channel MHz	20 dB Bandwidth kHz	99% Bandwidth kHz
GFSK	2409	1579	1641.7
	2441	1584	1666.3
	2475	1569	1688.4

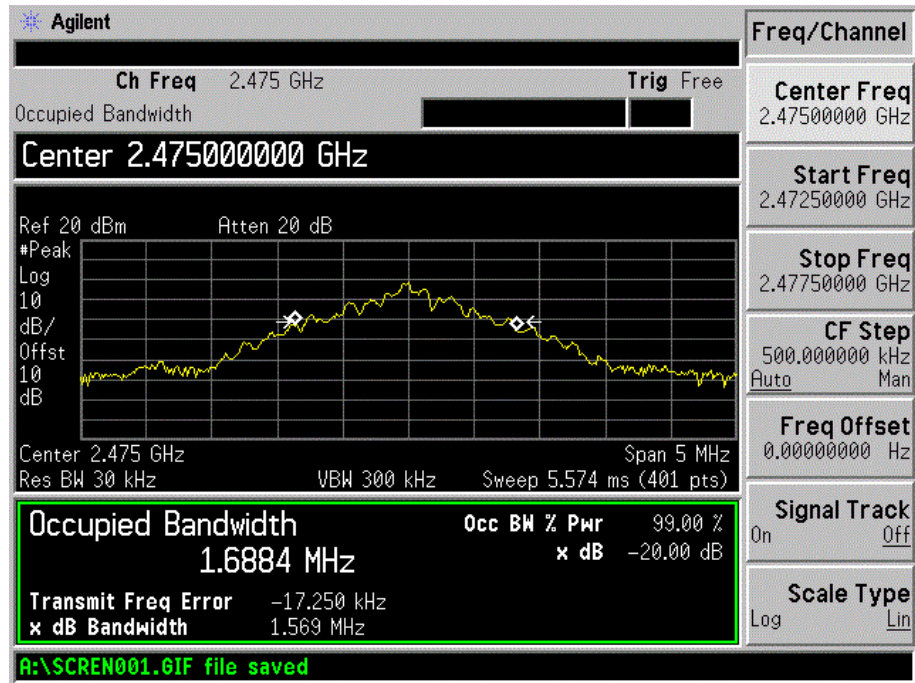
Low Channel:



Middle Channel:



High Channel:



## 5. Field Strength of Spurious Emissions

### 5.1 Standard and Limit

According to §15.249(a), the field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

Fundamental Frequency	Field strength of fundamental (milli-volts/meter)	Field strength of Harmonics (micro-volts/meter)
902-928 MHz	50	500
2400-2483.5 MHz	50	500
5725-5875 MHz	50	500
24.0-24.25 GHz	250	2500

(d) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in §15.209, whichever is the lesser attenuation.

The emission limit in this paragraph is based on measurement instrumentation employing an average detector. The provisions in §15.35 for limiting peak emissions apply. Spurious radiated emissions measurements starting below or at the lowest crystal frequency.

The general limits in FCC Part 15.209

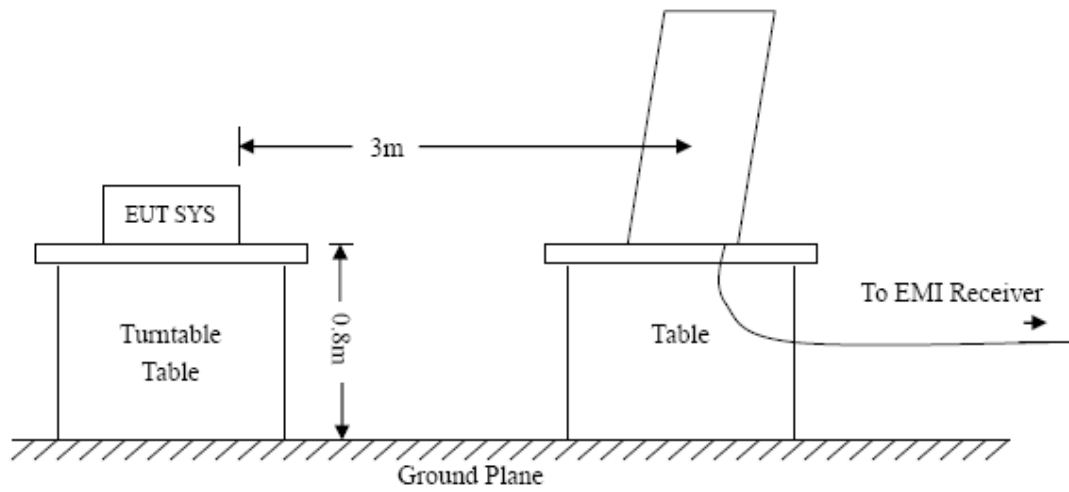
Frequency of Emission (MHz)	Field Strength (uV/m)	Field Strength (dBuV/m)	
	QP	QP	AV
30-88	100	40	--
88-216	150	43.5	--
216-960	200	46	--
Above 960	500	54	74
Limits at a measurement distance of 3 m			

The emission limit in this paragraph is based on measurement instrumentation employing an average detector. The provisions in §15.35 for limiting peak emissions apply. Spurious radiated emissions measurements starting below or at the lowest crystal frequency.

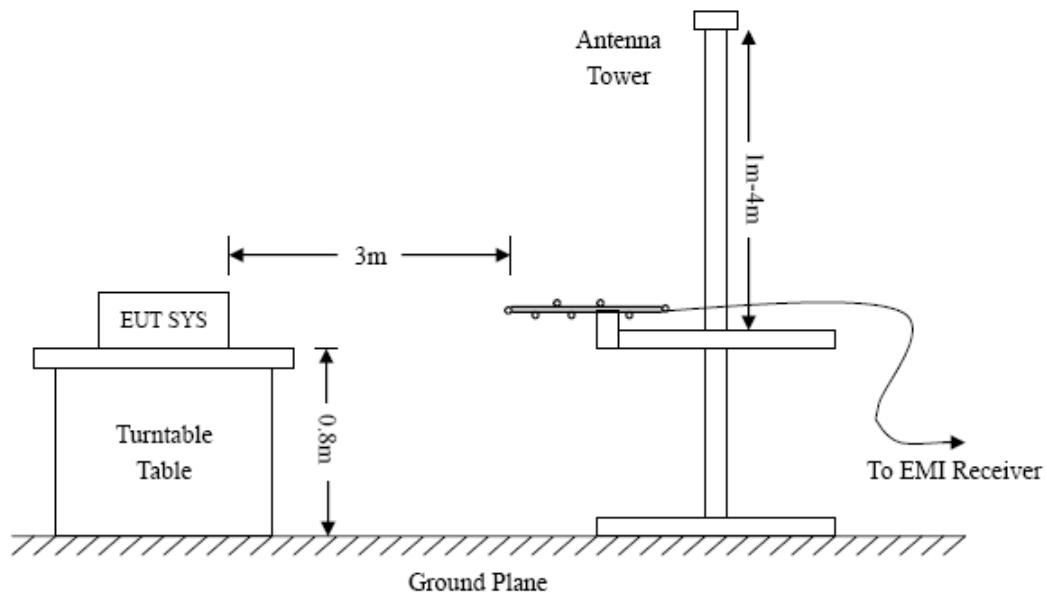
Compliance with the provisions of §15.205 shall be demonstrated using the measurement instrumentation specified in that section.

### 5.2 Test Procedure

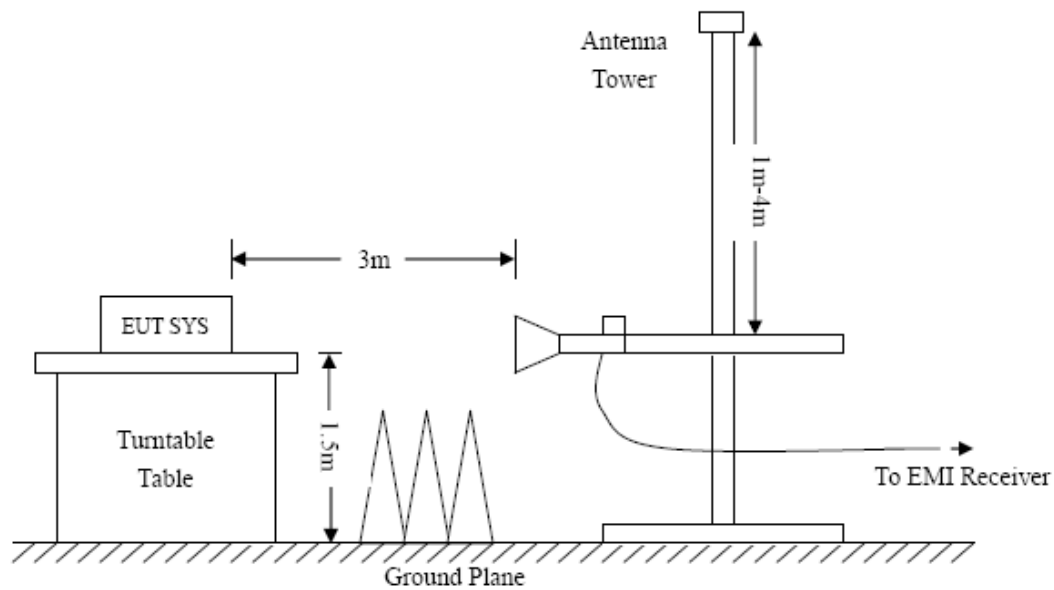
The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC Part 15.205 15.249(a) and FCC Part 15.209 Limit.



Test Setup Block Diagram below 30MHz



Test Setup Block Diagram for 30MHz-1GHz



Test Setup Block Diagram above 1GHz

For the radiated emission test above 1GHz:

Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.

Frequency: 9kHz-30MHz

RBW=10KHz,

VBW =30KHz

Sweep time= Auto

Trace = max hold

Detector function = peak

Frequency: 30MHz-1GHz

RBW=120KHz,

VBW=300KHz

Sweep time= Auto

Trace = max hold

Detector function = peak, QP

Frequency: Above 1GHz

RBW=1 MHz,

VBW=3MHz(Peak), 10Hz(AV)

Sweep time= Auto

Trace = max hold

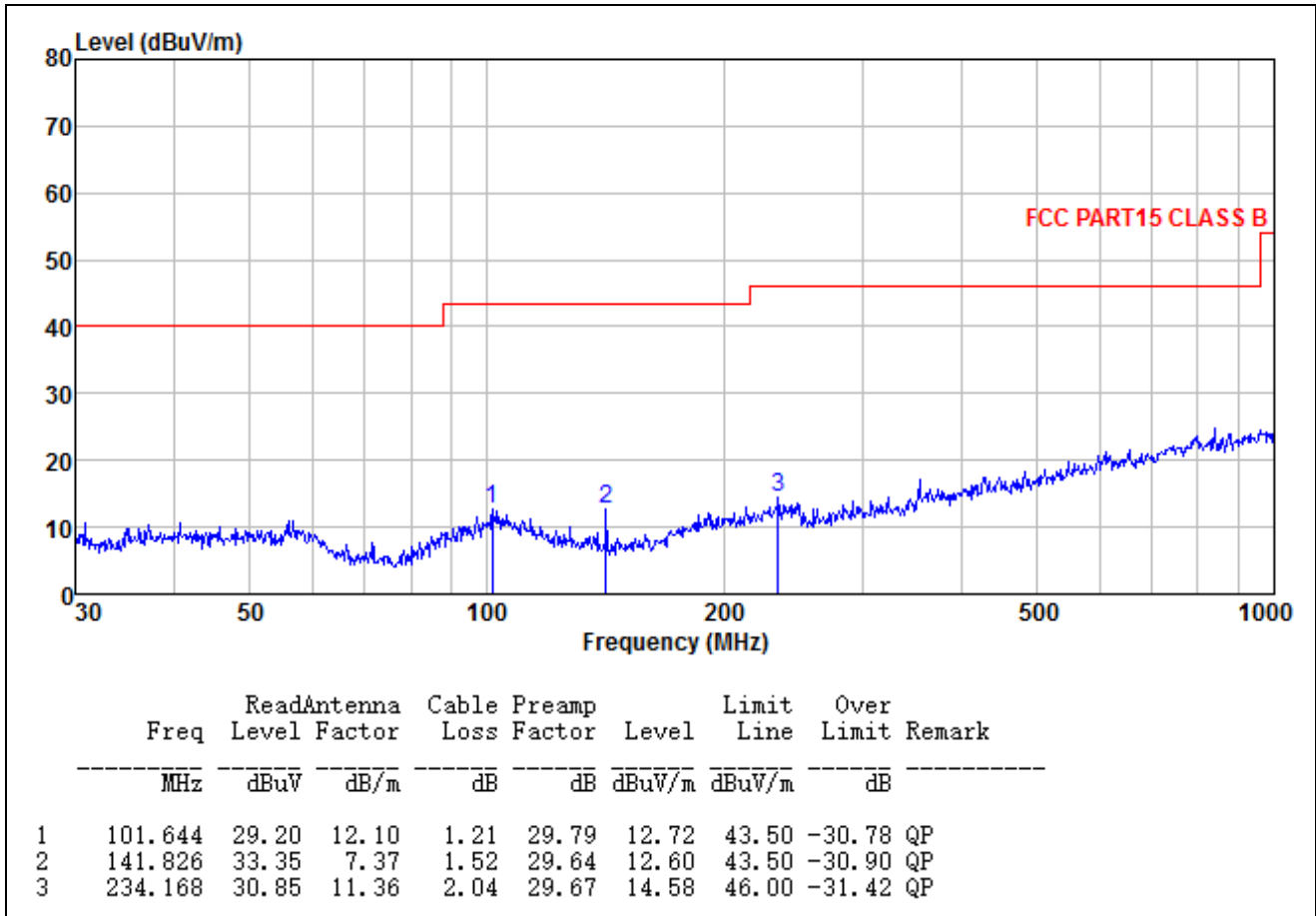
Detector function = peak, AV

### 5.3 Test Data and Results

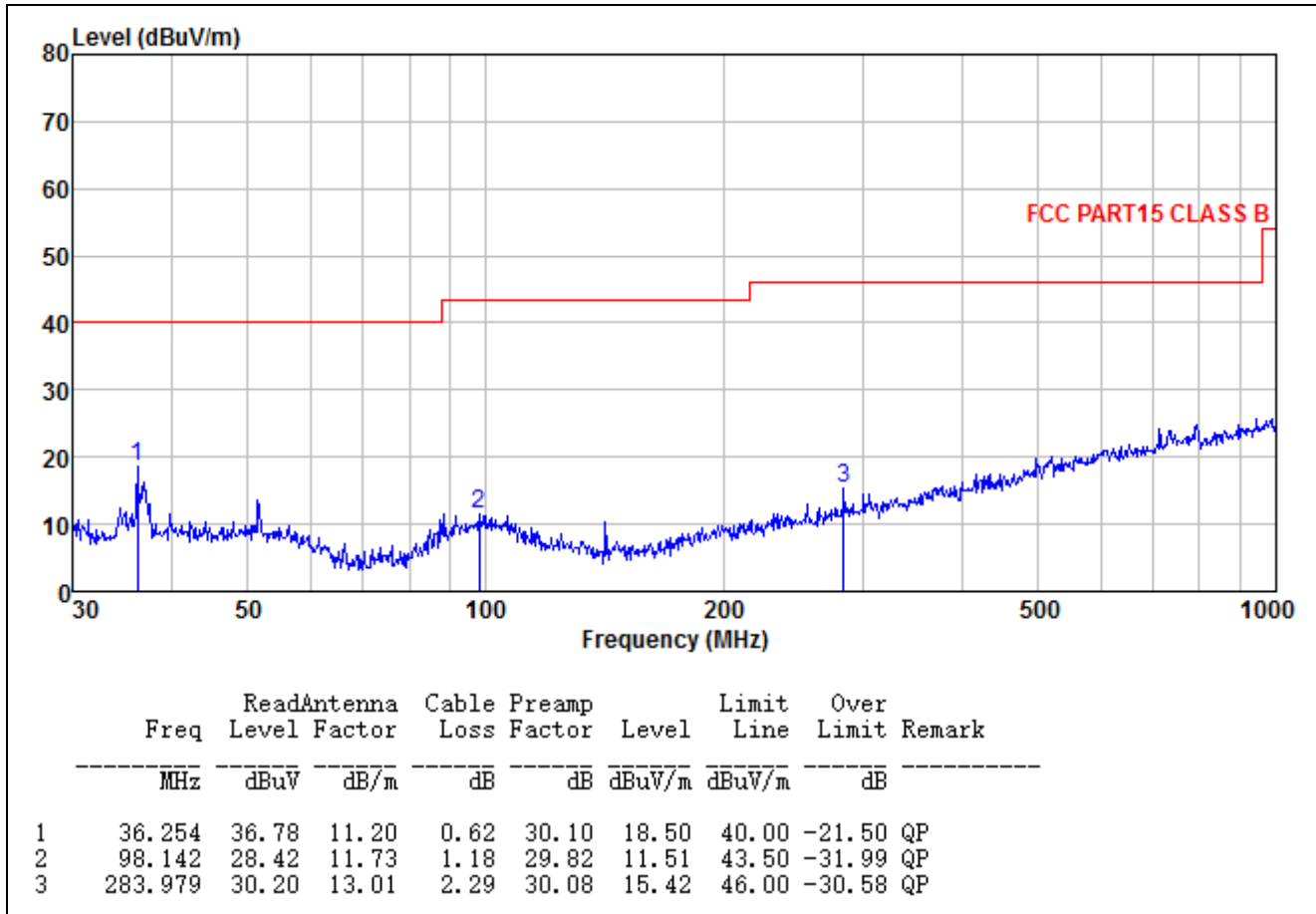
According to the data below, the FCC Part 15.205, 15.209 and 15.249 standards, and had the worst case:

*Note: this EUT was tested in 3 orthogonal positions and the worst case position data was reported.*

Test Plots and Data of Radiated Emissions (30MHz to 1GHz)	
Tested Model:	AF-306C
Tested Mode:	TM1
Test Power Specification:	DC 3.7V
Test Antenna Polarization:	Horizontal

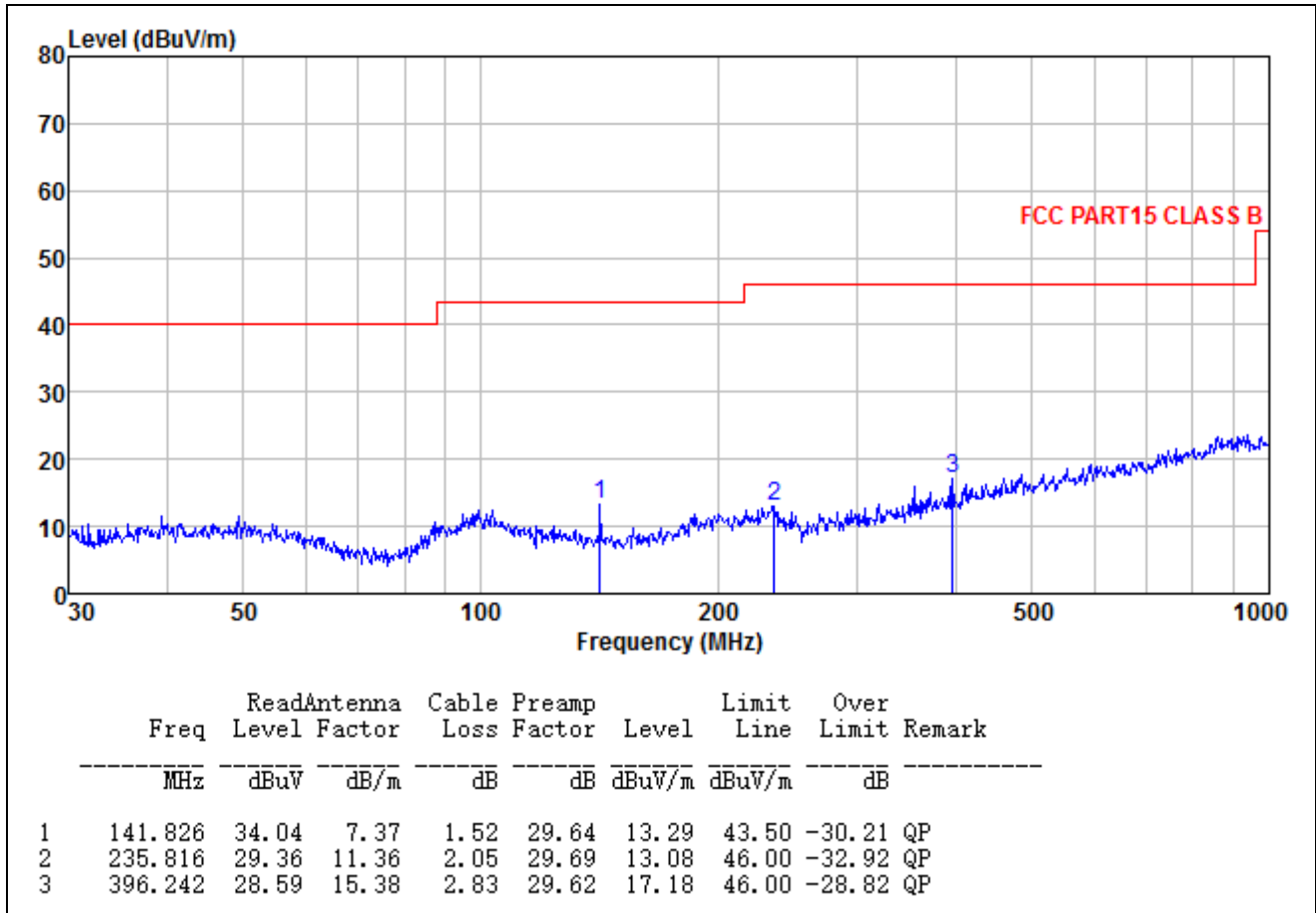


Test Plots and Data of Radiated Emissions (30MHz to 1GHz)	
Tested Model:	AF-306C
Tested Mode:	TM1
Test Power Specification:	DC 3.7V
Test Antenna Polarization:	Vertical

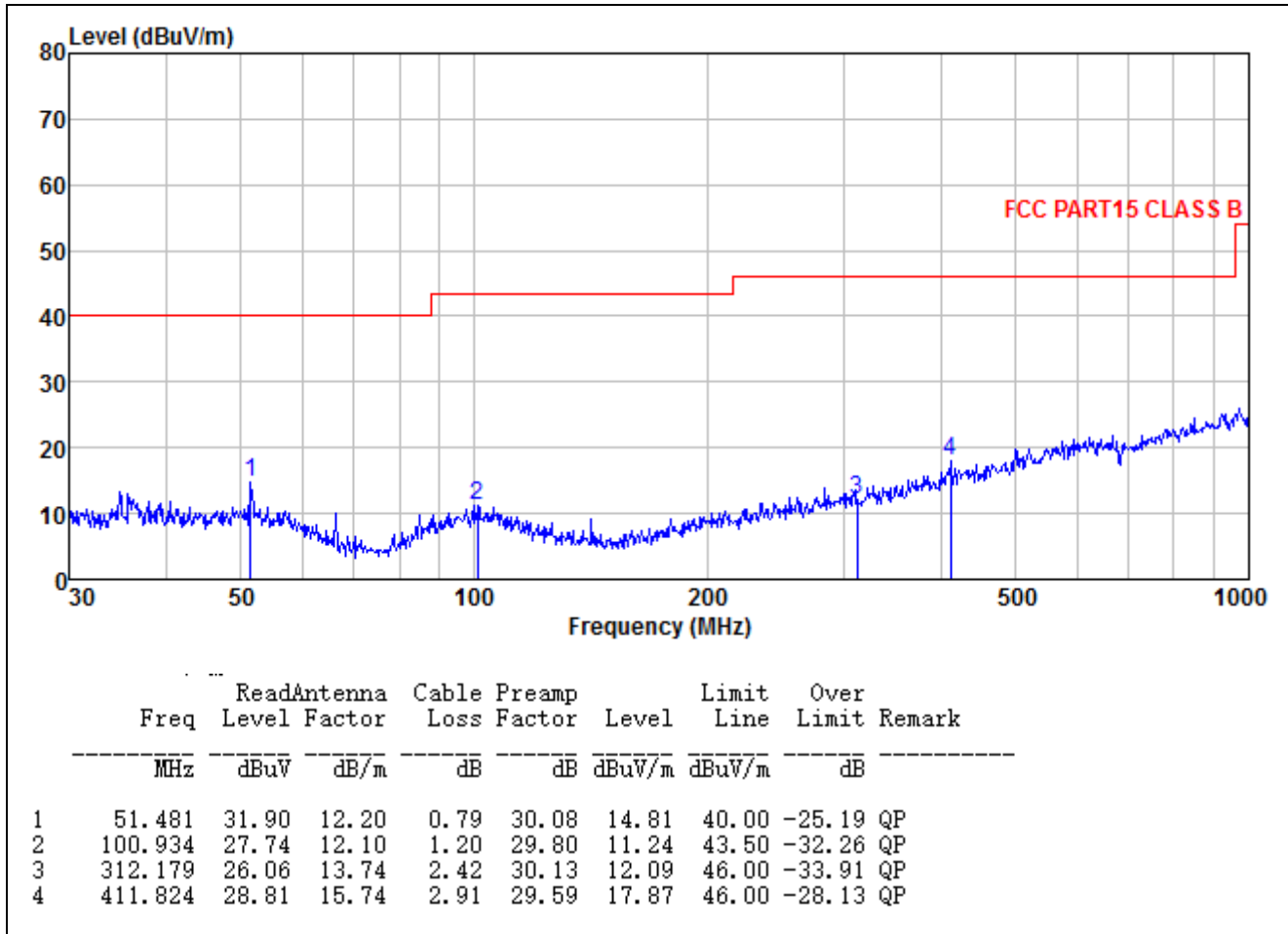




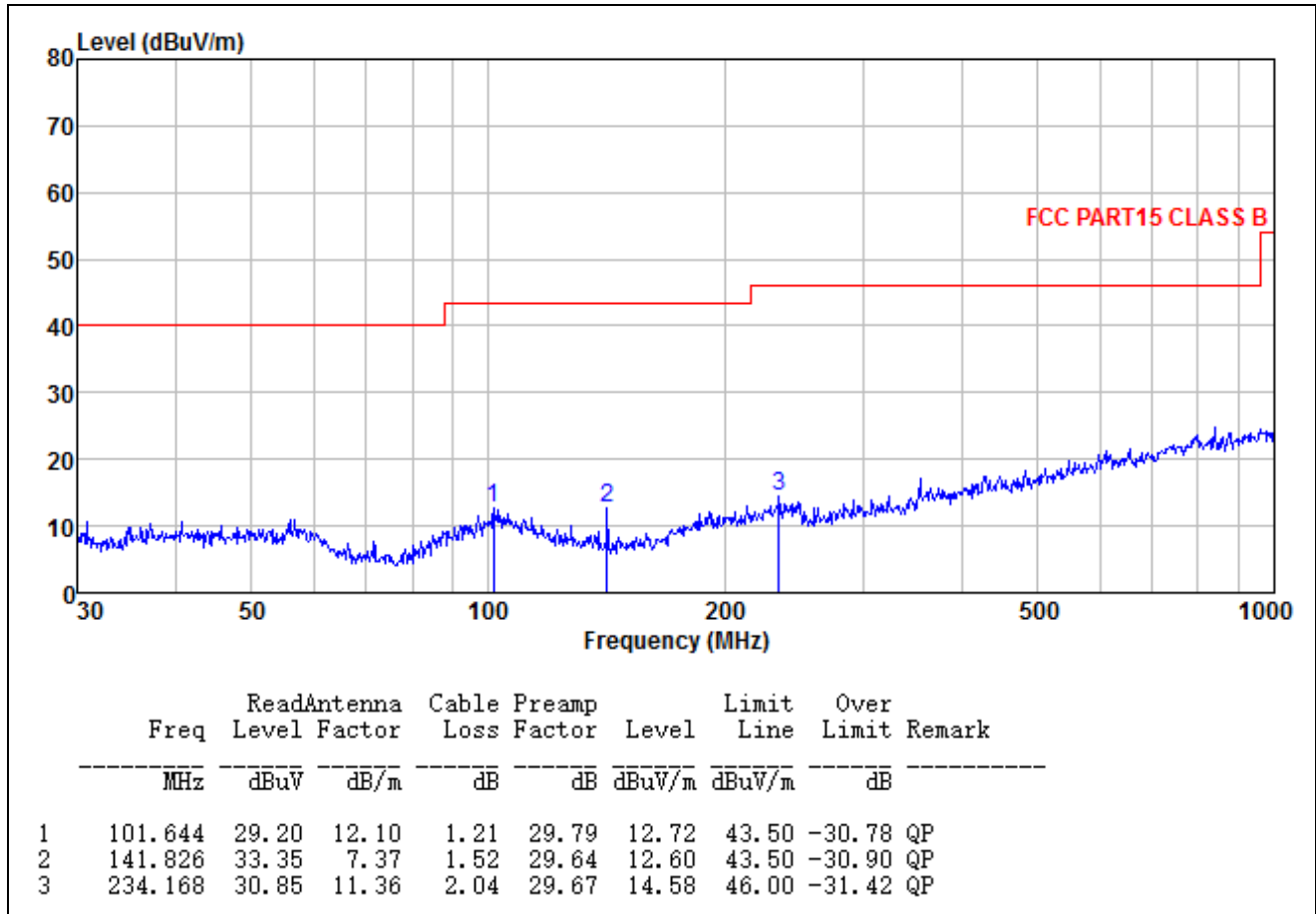
Test Plots and Data of Radiated Emissions (30MHz to 1GHz)	
Tested Model:	AF-306C
Tested Mode:	TM2
Test Power Specification:	DC 3.7V
Test Antenna Polarization:	Horizontal



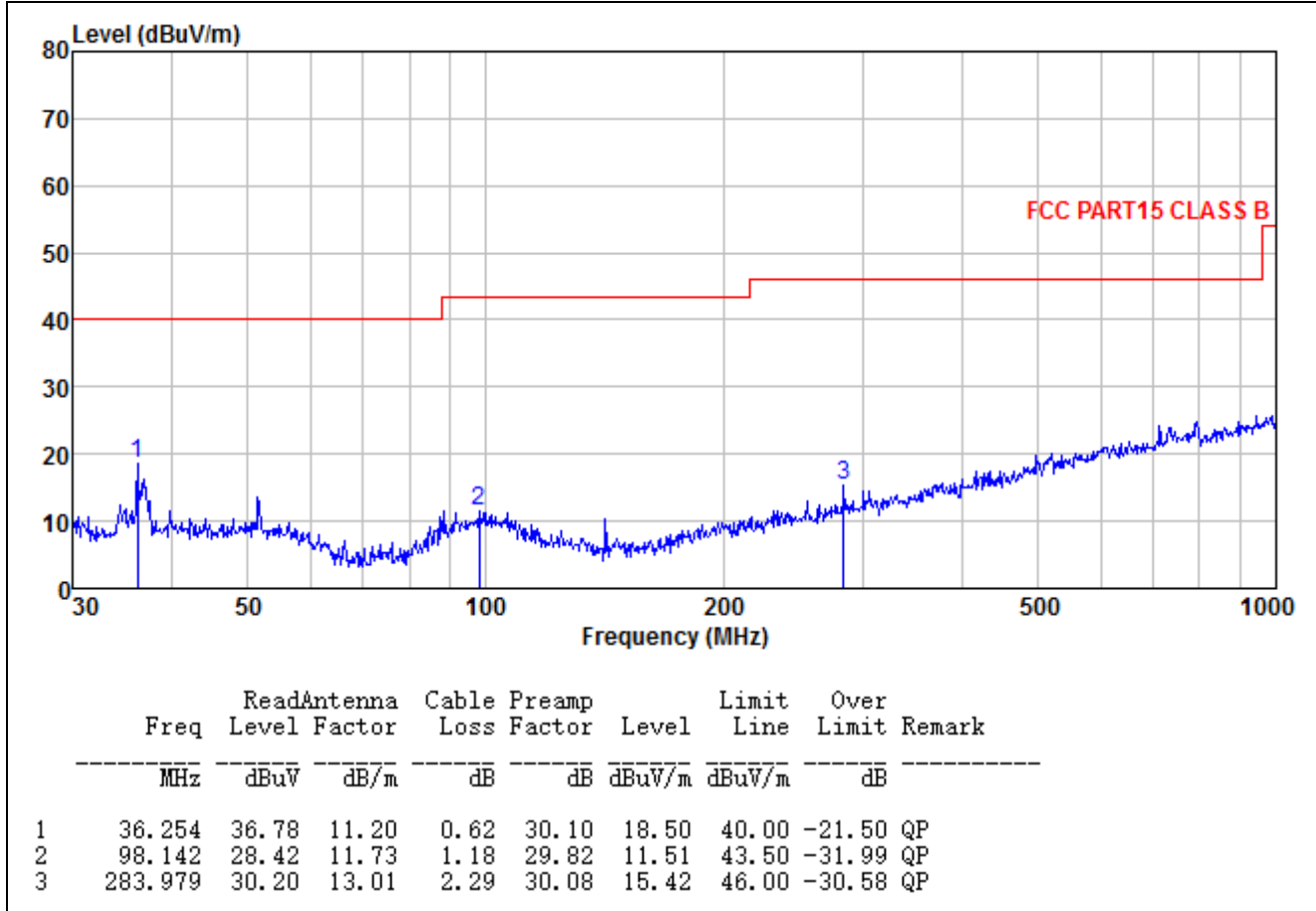
Test Plots and Data of Radiated Emissions (30MHz to 1GHz)	
Tested Model:	AF-306C
Tested Mode:	TM2
Test Power Specification:	DC 3.7V
Test Antenna Polarization:	Vertical



Test Plots and Data of Radiated Emissions (30MHz to 1GHz)	
Tested Model:	AF-306C
Tested Mode:	TM3
Test Power Specification:	DC 3.7V
Test Antenna Polarization:	Horizontal



Test Plots and Data of Radiated Emissions (30MHz to 1GHz)	
Tested Model:	AF-306C
Tested Mode:	TM3
Test Power Specification:	DC 3.7V
Test Antenna Polarization:	Vertical



Test Plots and Data of Radiated Emissions (1GHz to 25GHz)	
Tested Model:	AF-306C
Tested Mode:	TM1/TM2/TM3
Test Power Specification:	DC 3.7V
Remark:	

Frequency	Reading	Correct	Result	Limit	Margin	Detector	Polar
(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	PK/AV	H/V
Low Channel (2409MHz)							
2409	90.21	-3.80	94.01	114	-19.99	PK	H
2409	82.42	-3.80	86.22	94	-7.78	AV	H
2409	89.08	-3.80	92.88	114	-21.12	PK	V
2409	80.99	-3.80	84.79	94	-9.21	AV	V
4818	45.17	2.83	42.34	74	-31.66	PK	H
4818	39.35	2.83	36.52	54	-17.48	AV	H
4818	44.98	2.83	42.15	74	-31.85	PK	V
4818	39.32	2.83	36.49	54	-17.51	AV	V
Middle Channel (2441MHz)							
2441	90.41	-3.75	94.16	114	-19.84	PK	H
2441	82.58	-3.75	86.33	94	-7.67	AV	H
2441	89.37	-3.75	93.12	114	-20.88	PK	V
2441	81.94	-3.75	85.69	94	-8.31	AV	V
4882	50.88	2.99	47.89	74	-26.11	PK	H
4882	44.67	2.99	41.68	54	-12.32	AV	H
4882	49.92	2.99	46.93	74	-27.07	PK	V
4882	43.41	2.99	40.42	54	-13.58	AV	V
High Channel (2475MHz)							
2475	91.44	-3.68	95.12	114	-18.88	PK	H
2475	85.15	-3.68	88.83	94	-5.17	AV	H
2475	90.18	-3.68	93.86	114	-20.14	PK	V
2475	83.29	-3.68	86.97	94	-7.03	AV	V
4950	44.82	3.25	41.57	74	-32.43	PK	H
4950	39.03	3.25	35.78	54	-18.22	AV	H
4950	44.47	3.25	41.22	74	-32.78	PK	V
4950	38.55	3.25	35.30	54	-18.70	AV	V

Note: Testing is carried out with frequency rang 9kHz to the tenth harmonics, which above 3<sup>th</sup> Harmonics are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.  
The measurements greater than 20dB below the limit from 9kHz to 30MHz..

## **6. Out of Band Emissions**

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### **6.1 Standard and Limit**

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in §15.209, whichever is the lesser attenuation.

### **6.2 Test Procedure**

According to the ANSI C63.10, the band-edge radiated test method as follows.

Set span = wide enough to capture the peak level of the emission operating on the channel closest to the bandedge, as well as any modulation products which fall outside of the authorized band of operation (2310MHz to 2410MHz for low bandedge, 2470MHz to 2500MHz for the high bandedge)

RBW = 1MHz, VBW = 3MHz for peak value measured

RBW = 1MHz, VBW = 10Hz for average value measured

Sweep = auto; Detector function = peak; Trace = max hold

All the trace to stabilize, set the marker on the emission at the bandedge, or on the highest modulation product outside of the band, if this level is greater than that at the bandedge. Enable the marker-delta function, then use the marker-to-peak function to move the marker to the peak of the in-band emission. Those emission must comply with the 15.209 limit for fall in the restricted bands listed in section 15.205.

### **6.3 Test Data and Results**

## Lowest Bandedge (Horizontal)

No.	Frequency	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	
1	2310.00	45.46	74.00	-28.54	Peak Detector
2	2310.00	33.05	54.00	-20.95	Average Detector
3	2318.46	61.77	74.00	-12.23	Peak Detector
4	2318.46	43.89	54.00	-10.11	Average Detector
5	2361.03	58.01	74.00	-15.99	Peak Detector
6	2361.03	50.37	54.00	-3.63	Average Detector
7	2377.05	60.17	74.00	-13.83	Peak Detector
8	2377.05	51.05	54.00	-2.95	Average Detector
9	2390.00	57.72	74.00	-16.28	Peak Detector
10	2390.00	33.57	54.00	-20.43	Average Detector
11	2400.00	65.42	74.00	-8.58	Peak Detector
12	2400.00	36.10	54.00	-17.90	Average Detector

## Highest Bandedge (Horizontal)

No.	Frequency	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.50	59.66	74.00	-14.34	Peak Detector
2	2483.50	33.86	54.00	-20.14	Average Detector
3	2492.79	56.43	74.00	-17.57	Peak Detector
4	2492.79	49.20	54.00	-4.80	Average Detector
5	2500.00	49.17	74.00	-24.83	Peak Detector
6	2500.00	33.35	54.00	-20.65	Average Detector

## 7. Conducted Emissions

### 7.1 Standard and Limit

According to the rule FCC Part 15.207, Conducted limit, the limit for a class B device as below:

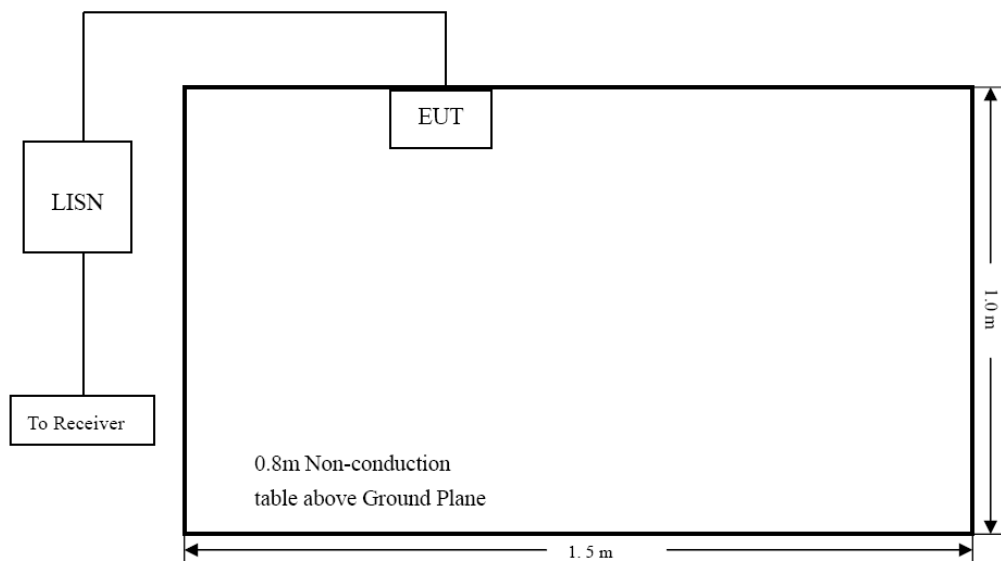
Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56	56 to 46
0.5-5	56	46
5-30	60	50

Note 1: Decreases with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz  
Note 2: The lower limit applies at the band edges

AC Power Line

### 7.2 Test Procedure

Test is conducting under the description of ANSI C63.10-2013 measurement procedure.



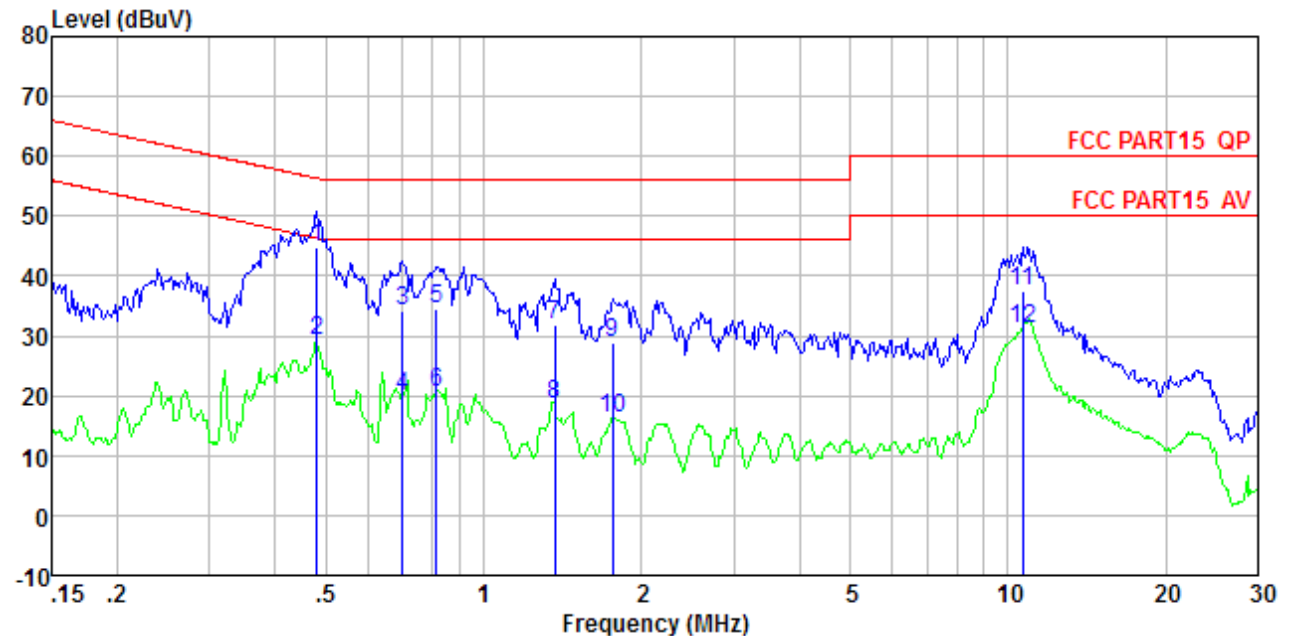
Test Setup Block Diagram

### 7.3 Test Data and Results

Based on all tested data, the EUT complied with the FCC Part 15.207 standard limit for a Class B device, and with the worst case as below:

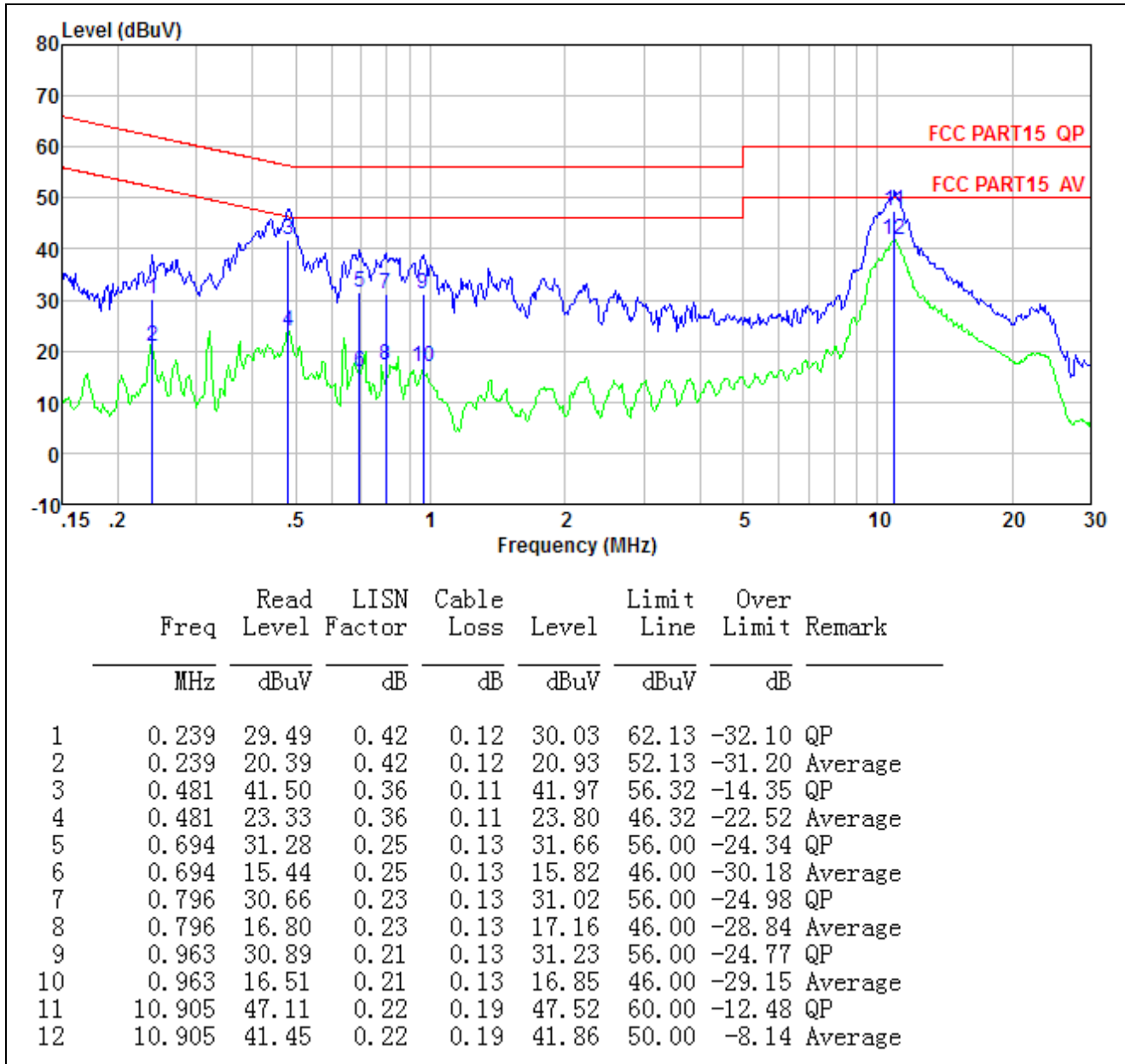


Test Plots and Data of Conducted Emissions	
Tested Model:	AF-306C
Tested Mode:	TM4
Test Power Specification:	AC 120V/60Hz
Test Power Line:	Neutral



	Freq	Read Level	LISN Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dBuV	dBuV	dB	
1	0.481	44.13	0.39	0.11	44.63	56.32	-11.69	QP
2	0.481	28.58	0.39	0.11	29.08	46.32	-17.24	Average
3	0.701	33.84	0.28	0.13	34.25	56.00	-21.75	QP
4	0.701	19.33	0.28	0.13	19.74	46.00	-26.26	Average
5	0.813	34.15	0.27	0.13	34.55	56.00	-21.45	QP
6	0.813	20.23	0.27	0.13	20.63	46.00	-25.37	Average
7	1.367	31.44	0.23	0.13	31.80	56.00	-24.20	QP
8	1.367	18.31	0.23	0.13	18.67	46.00	-27.33	Average
9	1.762	28.41	0.21	0.14	28.76	56.00	-27.24	QP
10	1.762	15.79	0.21	0.14	16.14	46.00	-29.86	Average
11	10.676	37.12	0.22	0.19	37.53	60.00	-22.47	QP
12	10.676	30.93	0.22	0.19	31.34	50.00	-18.66	Average

Test Plots and Data of Conducted Emissions	
Tested Model:	AF-306C
Tested Mode:	TM4
Test Power Specification:	AC 120V/60Hz
Test Power Line:	Line



## Annex A. EUT External Photos

EUT View 1



EUT View 2



EUT View 3



EUT View 4



EUT View 5



EUT View 6





## EUT View 7



## Power Adapter

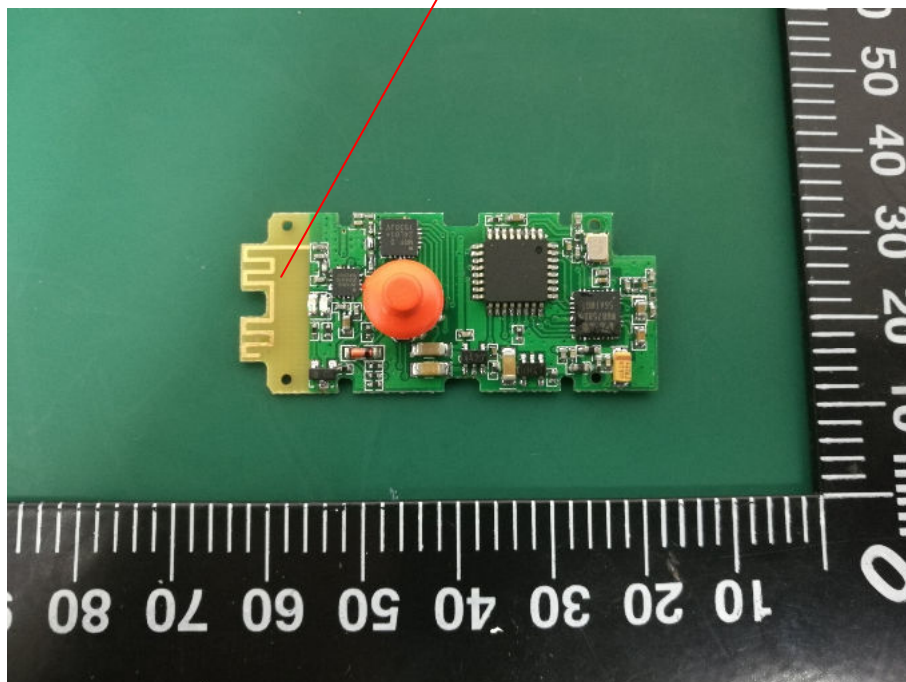


## Annex B. EUT Internal Photos

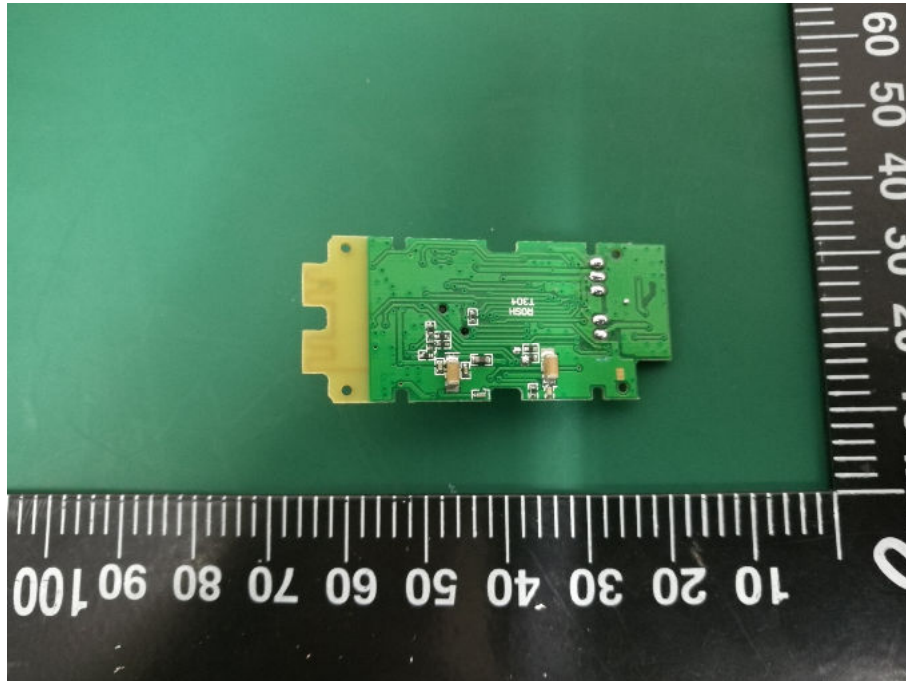
EUT Internal View 1



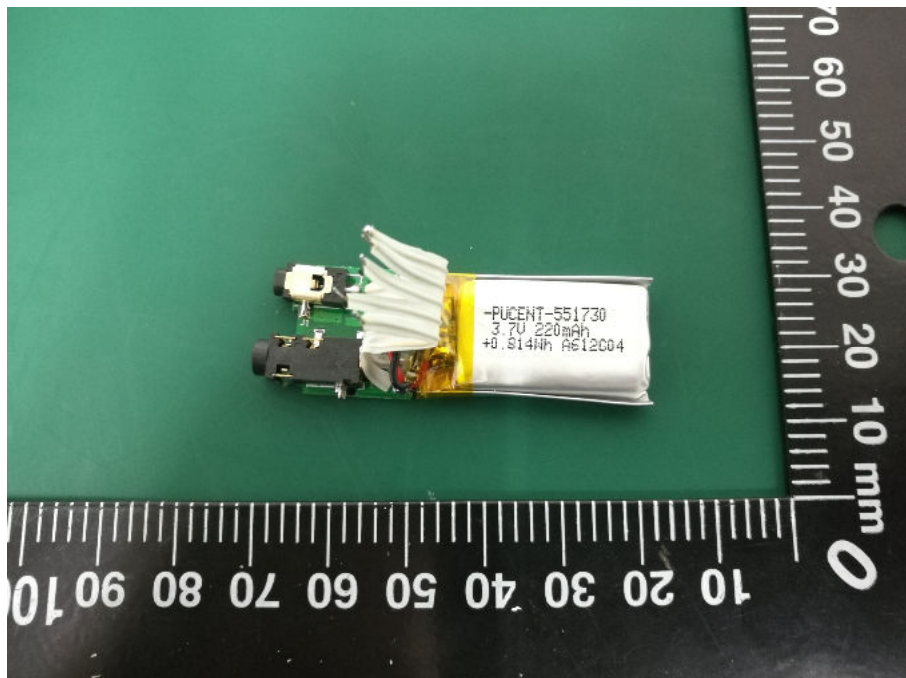
EUT Internal View 2



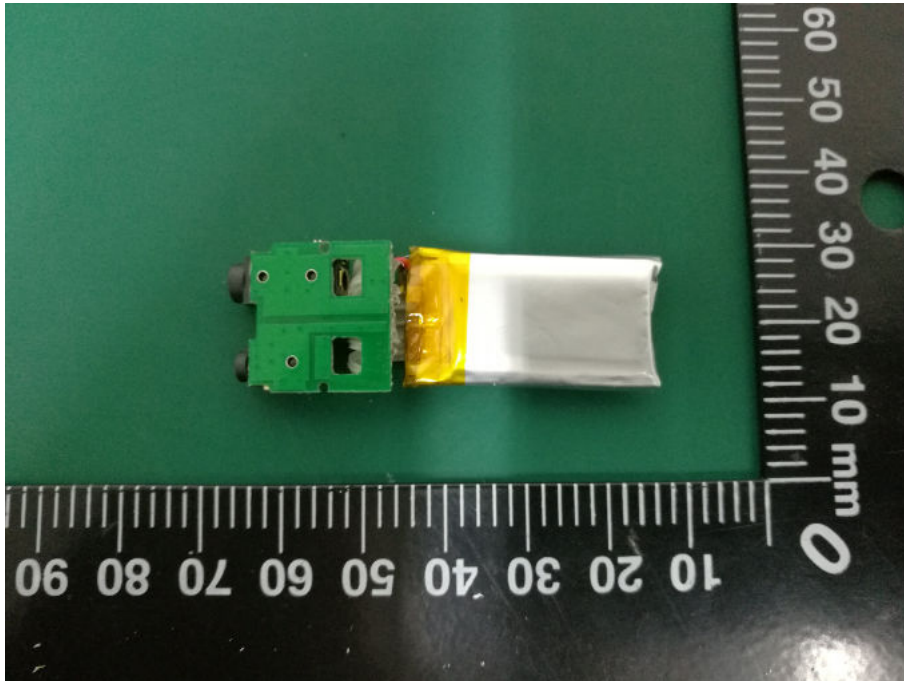
**EUT Internal View 3**



**EUT Internal View 4**





**EUT Internal View 5**

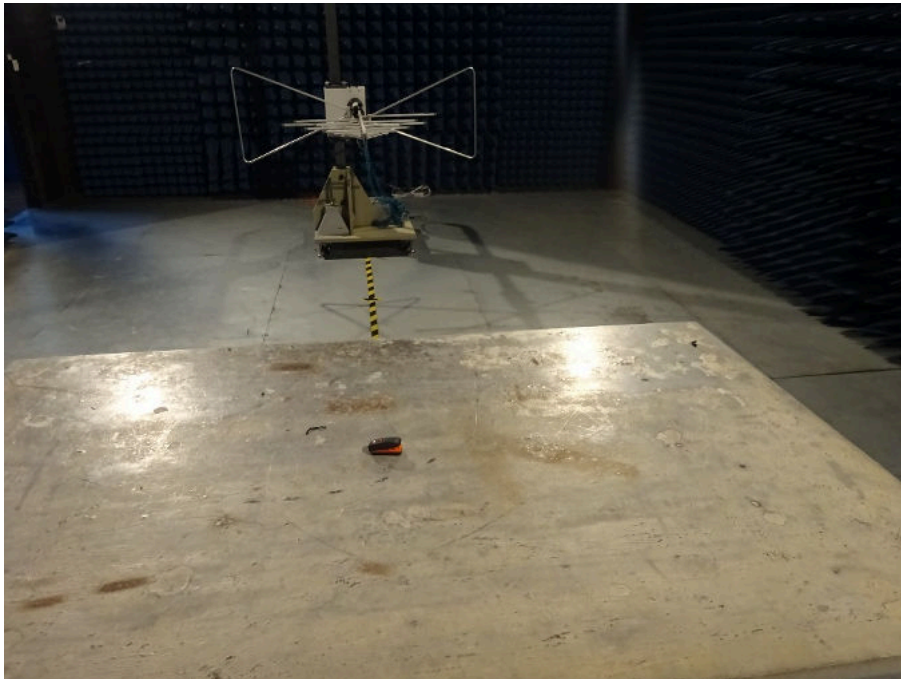
## Annex C. Test Photos

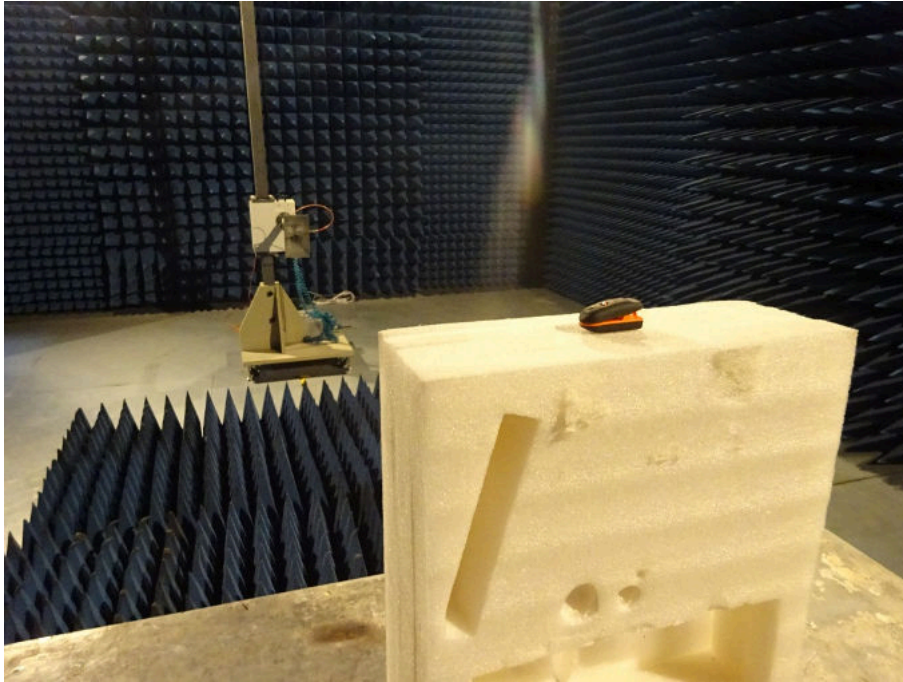
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### Conducted Emissions



### Radiated Emissions (30MHz to 1GHz)



**Radiated Emissions (Above 1GHz)**

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## Annex D. Label and Information

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### FCC Label Sample

Model No.: AF-306C  
FCC ID: 2AKPGAF-306C  
Aware

### FCC Label Specifications

Text is Black in color and is justified. Labels are printed in indelible ink on permanent adhesive backing or silk-screened onto the EUT or shall be affixed at a conspicuous location on the EUT. Where the EUT is constructed in two or more sections connected by wires and marketed together, the above statement is required to be affixed only to the main control unit. When the EUT is so small or for such use that it is not practicable to place the statement on it, the above information shall be placed in a prominent location in the instruction manual or pamphlet supplied to the user or, alternatively, shall be placed on the container in which the device is marketed.

### FCC Label Location



\*\*\*\*\* END OF REPORT \*\*\*\*\*