TCT 通测检测
TESTING CENTRE TECHNOLOGY

TEST REPORT

FCC ID: 2AI4Q-TV002

Product: Hearing Amplifier & TV Listener

Model No.: TV002

Additional Model No.: N/A

Trade Mark: N/A

Report No.: TCT190726E009

Issued Date: Dec. 09, 2019

Issued for:

Xiamen New Sound Technology Co,. Ltd

No.13 of Xiang yue Road, Torch Hi-Tech Industrial, Development Zone, Xiang An District, Xiamen, China

Issued By:

Shenzhen Tongce Testing Lab.

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1. Test Certification

Product:	Hearing Amplifier & TV Listener
Model No.:	TV002
Additional Model No.:	N/A
Trade Mark:	**N/A**
Applicant:	Xiamen New Sound Technology Co,. Ltd
Address:	No.13 of Xiang yue Road, Torch Hi-Tech Industrial, Development Zone, Xiang An District, Xiamen, China
Manufacturer:	Xiamen New Sound Technology Co,. Ltd
Address:	No.13 of Xiang yue Road, Torch Hi-Tech Industrial, Development Zone, Xiang An District, Xiamen, China
Date of Test:	Jul. 29, 2019 – Dec. 06, 2019
Applicable Standards:	FCC CFR Title 47 Part 15 Subpart C Section 15.249 ANSI C63.10:2013

The above equipment has been tested by Shenzhen Tongce Testing Lab. and found compliance with the requirements set forth in the technical standards mentioned above. The results of testing in this report apply only to the product/system, which was tested. Other similar equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.

Tested By:	Kevin Huang ***Kevin Huang***	***Date:***	***Dec. 06, 2019***
Reviewed By:	Beryl Zhao ***Beryl Zhao***	***Date:***	***Dec. 09, 2019***
Approved By:	Tomsin ***Tomsin***	***Date:***	***Dec. 09, 2019***

2. Test Result Summary

Requirement	CFR 47 Section	Result
Antenna Requirement	§15.203	PASS
AC Power Line Conducted Emission	§15.207	PASS
Field Strength of Fundamental	§15.249 (a)	PASS
Spurious Emissions	§15.249 (a) (d)/ §15.209	PASS
Band Edge	§15.249 (d)/ §15.205	PASS
20dB Occupied Bandwidth	§15.215 (c)	PASS

Note:

1. Pass: Test item meets the requirement.

2. Fail: Test item does not meet the requirement.

3. N/A: Test case does not apply to the test object.

4. The test result judgment is decided by the limit of test standard.

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3. EUT Description

Product:	Hearing Amplifier & TV Listener
Model No.:	TV002
Additional Model No.:	N/A
Trade Mark:	**N/A**
Operation Frequency:	2409MHz - 2475MHz
Number of Channel:	35
Modulation Technology:	FSK
Antenna Type:	PCB Antenna
Antenna Gain:	0.5dBi
Power Supply:	Rechargeable Li-ion Battery DC 3.7V
AC adapter:	Adapter Information: MODEL: GS-0500100 INPUT: AC 100-240V, 50/60Hz, 0.15A Max OUTPUT: DC 5V, 1A

Operation Frequency Each of Channel

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
0	2409MHz	10	2427MHz	19	2445MHz	28	2463MHz
1	2411MHz	11	2429MHz	20	2447MHz	29	2465MHz
2	2413MHz	12	2431MHz	21	2449MHz	30	2467MHz
3	2415MHz	13	2433MHz	22	2451MHz	31	2469MHz
4	2417MHz	14	2435MHz	23	2453MHz	32	2471MHz
5	2419MHz	15	2437MHz	24	2455MHz	33	2473MHz
6	2421MHz	16	2439MHz	25	2457MHz	34	2475MHz
7	2423MHz	17	2441MHz	26	2459MHz		-
9	2425MHz	18	2443MHz	27	2461MHz		-

Note:

In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

Channel	Frequency
The Lowest channel	2409MHz
The Middle channel	2441MHz
The Highest channel	2475MHz

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4. General Information

4.1. Test Environment and Mode

Operating Environment:		
Condition	Conducted Emission	Radiated Emission
Temperature:	25.0 °C	25.0 °C
Humidity:	55 % RH	55 % RH
Atmospheric Pressure:	1010 mbar	1010 mbar
Test Mode:		
Engineering mode:	Keep the EUT in continuous transmitting by select channel and modulations with Fully-charged battery	
The sample was placed 0.8m & 1.5m for the measurement below & above 1GHz above the ground plane of 3m chamber. Measurements in both horizontal and vertical polarities were performed. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, rotating the turntable, varying antenna height from 1m to 4m in both horizontal and vertical polarizations. The emissions worst-case(Z axis) are shown in Test Results of the following pages.		

4.2. Description of Support Units

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Equipment	Model No.	Serial No.	FCC ID	Trade Name
/	/	/	/	/

Note:

1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.

2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

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5. Facilities and Accreditations

5.1. Facilities

The test facility is recognized, certified, or accredited by the following organizations:

- FCC - Registration No.: 645098
  Shenzhen Tongce Testing Lab
  The 3m Semi-anechoic chamber has been registered and fully described in a report with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files.
- IC - Registration No.: 10668A-1
  The 3m Semi-anechoic chamber of Shenzhen TCT Testing Technology Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing

5.2. Location

Shenzhen Tongce Testing Lab
Address: 1B/F., Building 1, Yibaolai Industrial Park, Qiaotou, Fuyong, Baoan District, Shenzhen, Guangdong, China
TEL: +86-755-27673339

5.3. Measurement Uncertainty

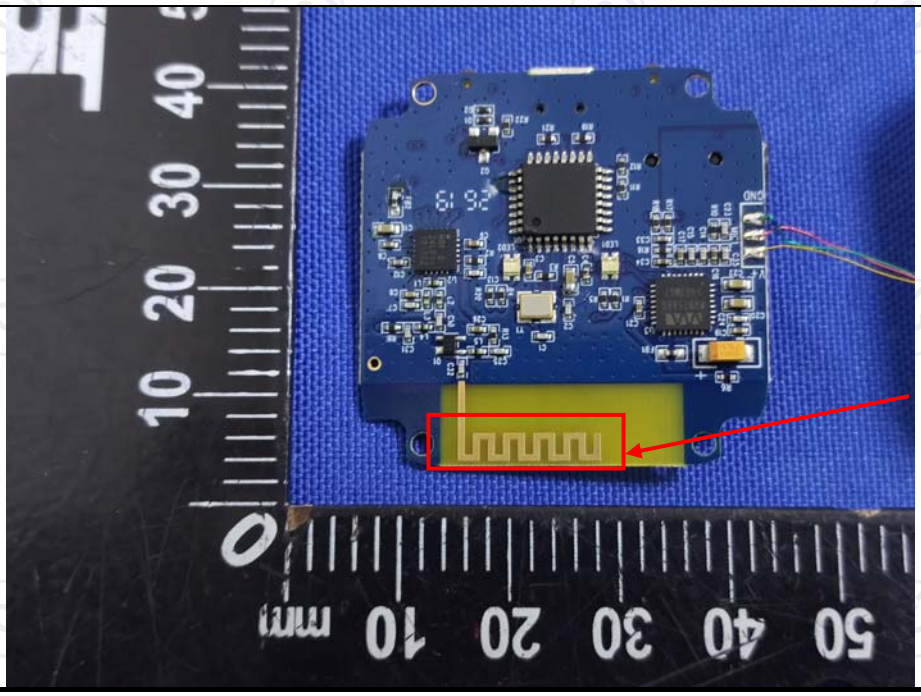
The reported uncertainty of measurement y ± U, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95 %.

No.	Item	MU
1	Conducted Emission	±2.56dB
2	RF power, conducted	±0.12dB
3	Spurious emissions, conducted	±0.11dB
4	All emissions, radiated(<1GHz)	±3.92dB
5	All emissions, radiated(>1GHz)	±4.28dB
6	Temperature	±0.1°C
7	Humidity	±1.0%

6. Test Results and Measurement Data

6.1. Antenna Requirement

Standard requirement:	FCC Part15 C Section 15.203
15.203 requirement: 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, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.	
E.U.T Antenna:	
The EUT antenna is PCB antenna which permanently attached, and the best case gain of the antenna is 0.5dBi.	



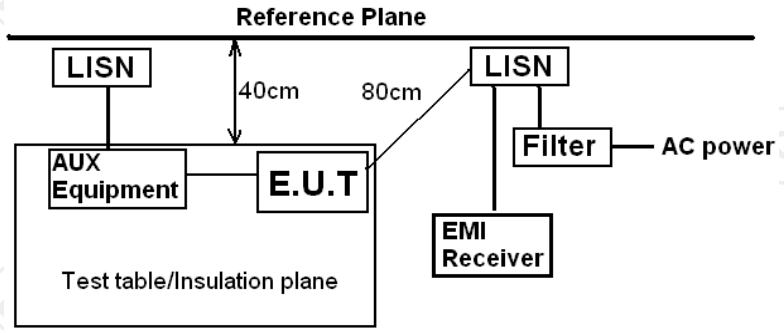
6.2. Conducted Emission

6.2.1. Test Specification

Test Requirement:	FCC Part15 C Section 15.207
Test Method:	ANSI C63.10:2013
Frequency Range:	150 kHz to 30 MHz
Receiver setup:	RBW=9 kHz, VBW=30 kHz, Sweep time=auto
Limits:	

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

Test Setup:



Remark:
E.U.T: Equipment Under Test
LISN: Line Impedence Stabilization Network
Test table height=0.8m

Test Mode:	Transmitting mode with modulation
Test Procedure:	1. The E.U.T and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm/50uH coupling impedance for the measuring equipment. 2. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs). 3. Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10:2013 on conducted measurement.
Test Result:	PASS

6.2.2. Test Instruments

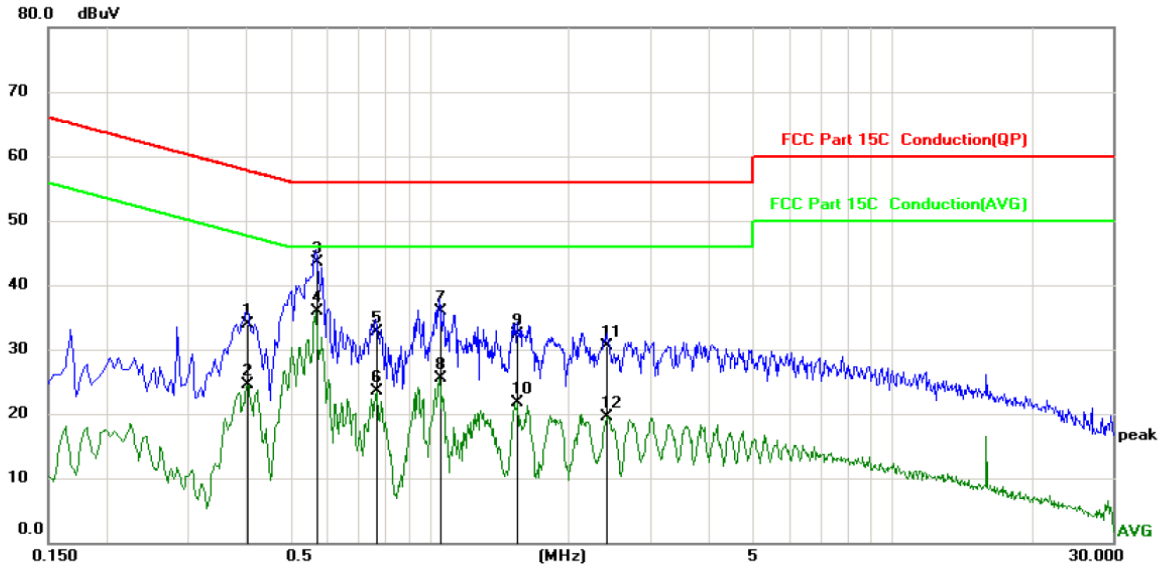
Conducted Emission Shielding Room Test Site (843)				
Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Due**
Test Receiver	R&S	ESPI	101402	Jul. 29, 2020
LISN	Schwarzbeck	NSLK 8126	8126453	Sep. 11, 2020
Coax cable (9KHz-30MHz)	TCT	CE-05	N/A	Sep. 08, 2020
EMI Test Software	Shurple Technology	EZ-EMC	N/A	N/A

Note: *The calibration interval of the above test instruments is 12 months and the calibrations are traceable to international system unit (SI).*

6.2.3. Test data

Please refer to following diagram for individual

Conducted Emission on Line Terminal of the power line (150 kHz to 30MHz)



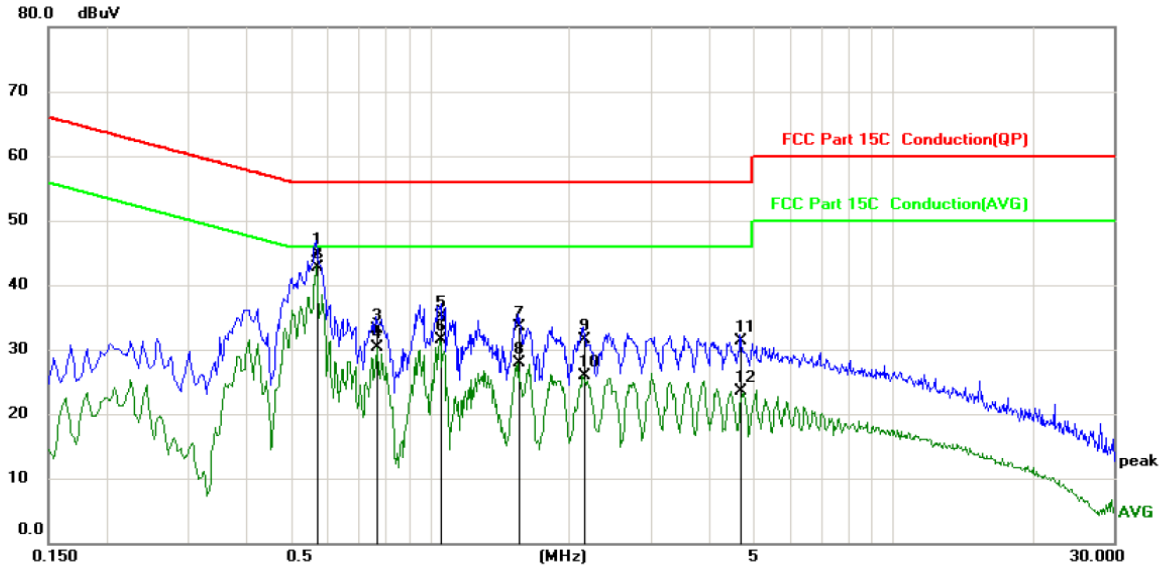
Site		Phase:	*L1*	Temperature:	25
Limit: FCC Part 15C Conduction(QP)		Power:	AC 120V/60Hz	Humidity:	55 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.4020	23.78	10.22	34.00	57.81	-23.81	QP	
2		0.4020	14.21	10.22	24.43	47.81	-23.38	AVG	
3		0.5685	33.29	10.23	43.52	56.00	-12.48	QP	
4	*	0.5685	25.61	10.23	35.84	46.00	-10.16	AVG	
5		0.7665	22.40	10.26	32.66	56.00	-23.34	QP	
6		0.7665	13.24	10.26	23.50	46.00	-22.50	AVG	
7		1.0500	25.54	10.36	35.90	56.00	-20.10	QP	
8		1.0500	15.17	10.36	25.53	46.00	-20.47	AVG	
9		1.5494	21.99	10.41	32.40	56.00	-23.60	QP	
10		1.5494	11.33	10.41	21.74	46.00	-24.26	AVG	
11		2.4180	20.05	10.45	30.50	56.00	-25.50	QP	
12		2.4180	9.05	10.45	19.50	46.00	-26.50	AVG	

Note:

Freq. = Emission frequency in MHz
Reading level (dBµV) = Receiver reading
Corr. Factor (dB) = LISN factor + Cable loss
Measurement (dBµV) = Reading level (dBµV) + Corr. Factor (dB)
Limit (dBµV) = Limit stated in standard
Margin (dB) = Measurement (dBµV) – Limits (dBµV)
Q.P. =Quasi-Peak
AVG =average
** is meaning the worst frequency has been tested in the frequency range 150 kHz to 30MHz.*

Conducted Emission on Neutral Terminal of the power line (150 kHz to 30MHz)



Site	Phase: N	Temperature:	25
Limit: FCC Part 15C Conduction(QP)	Power: AC 120V/60Hz	Humidity:	55 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.5685	34.61	10.23	44.84	56.00	-11.16	QP	
2	*	0.5685	32.57	10.23	42.80	46.00	-3.20	AVG	
3		0.7665	22.88	10.26	33.14	56.00	-22.86	QP	
4		0.7665	19.96	10.26	30.22	46.00	-15.78	AVG	
5		1.0545	24.66	10.36	35.02	56.00	-20.98	QP	
6		1.0545	21.19	10.36	31.55	46.00	-14.45	AVG	
7		1.5585	23.00	10.41	33.41	56.00	-22.59	QP	
8		1.5585	17.57	10.41	27.98	46.00	-18.02	AVG	
9		2.1525	21.06	10.45	31.51	56.00	-24.49	QP	
10		2.1525	15.49	10.45	25.94	46.00	-20.06	AVG	
11		4.6815	20.86	10.48	31.34	56.00	-24.66	QP	
12		4.6815	13.05	10.48	23.53	46.00	-22.47	AVG	

Note:

Freq. = Emission frequency in MHz
Reading level (dBµV) = Receiver reading
Corr. Factor (dB) = LISN factor + Cable loss
Measurement (dBµV) = Reading level (dBµV) + Corr. Factor (dB)
Limit (dBµV) = Limit stated in standard
Margin (dB) = Measurement (dBµV) – Limits (dBµV)
Q.P. =Quasi-Peak
AVG =average
** is meaning the worst frequency has been tested in the frequency range 150 kHz to 30MHz.*

6.3. Radiated Emission Measurement

6.3.1. Test Specification

Test Requirement:	FCC Part15 C Section 15.209 FCC Part15 C Section 15.249
Test Method:	ANSI C63.10:2013
Frequency Range:	9 kHz to 25 GHz
Measurement Distance:	3 m
Antenna Polarization:	Horizontal & Vertical
Receiver Setup:	

Frequency	Detector	RBW	VBW	Remark
9kHz- 150kHz	Quasi-peak	200Hz	1kHz	Quasi-peak Value
150kHz-30MHz	Quasi-peak	9kHz	30kHz	Quasi-peak Value
30MHz-1GHz	Quasi-peak	120kHz	300kHz	Quasi-peak Value
Above 1GHz	Peak	1MHz	3MHz	Peak Value
	Peak	1MHz	10Hz	Average Value

Limit(Field strength of the fundamental signal):

Frequency	Limit (dBuV/m @3m)	Remark
2400MHz-2483.5MHz	94.00	Average Value
	114.00	Peak Value

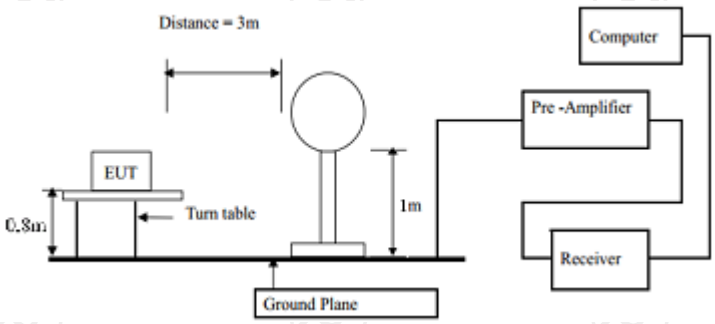
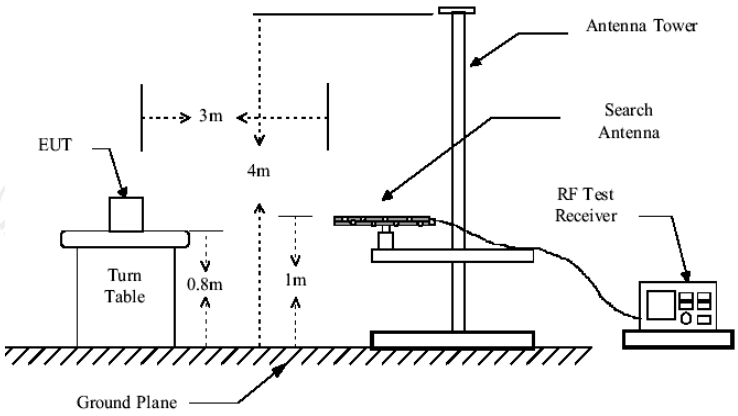
Limit(Spurious Emissions):

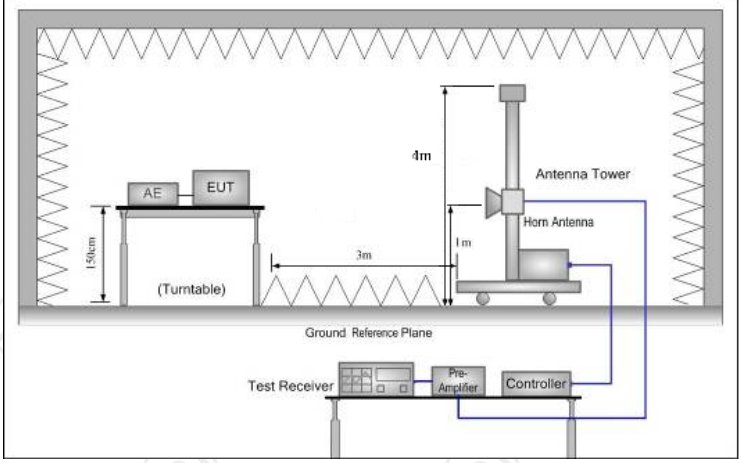
Frequency	Limit (dBuV/m @3m)	Remark
0.009-0.490	2400/F(KHz)	Quasi-peak Value
0.490-1.705	24000/F(KHz)	Quasi-peak Value
1.705-30	30	Quasi-peak Value
30MHz-88MHz	40.0	Quasi-peak Value
88MHz-216MHz	43.5	Quasi-peak Value
216MHz-960MHz	46.0	Quasi-peak Value
960MHz-1GHz	54.0	Quasi-peak Value
Above 1GHz	54.0	Average Value
	74.0	Peak Value

Limit (band edge) : 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 Section 15.209, whichever is the lesser attenuation.

Test Procedure:

1. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber in below 1GHz, 1.5m above the ground in above 1GHz. The table was rotated 360 degrees to determine the position of the highest radiation.
2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

	4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading. 5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. 6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
Test setup:	For radiated emissions below 30MHz  30MHz to 1GHz  Above 1GHz (The diagram below shows the test setup that is utilized to make the measurements for emission from 1GHz to the tenth harmonic of the highest fundamental frequency or to 40GHz emissions, whichever is lower.)

	
Test results:	PASS

6.3.2. Test Instruments

Radiated Emission Test Site (966)				
Name of Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Due**
Test Receiver	ROHDE&SCHWARZ	ESIB7	100197	Jul. 29, 2020
Spectrum Analyzer	ROHDE&SCHWARZ	FSQ40	200061	Sep. 11, 2020
Pre-amplifier	EM Electronics Corporation CO.,LTD	EM30265	07032613	Sep. 08, 2020
Pre-amplifier	HP	8447D	2727A05017	Sep. 08, 2020
Loop antenna	ZHINAN	ZN30900A	12024	Sep. 11, 2020
Broadband Antenna	Schwarzbeck	VULB9163	340	Sep. 06, 2020
Horn Antenna	Schwarzbeck	BBHA 9120D	631	Sep. 11, 2020
Horn Antenna	A-INFO	LB-180400-KF	J211020657	Sep. 06, 2020
Antenna Mast	Keleto	RE-AM	N/A	N/A
Coax cable (9KHz-1GHz)	TCT	RE-low-01	N/A	Sep. 08, 2020
Coax cable (9KHz-40GHz)	TCT	RE-high-02	N/A	Sep. 08, 2020
Coax cable (9KHz-1GHz)	TCT	RE-low-03	N/A	Sep. 08, 2020
Coax cable (9KHz-40GHz)	TCT	RE-high-04	N/A	Sep. 08, 2020
EMI Test Software	Shurple Technology	EZ-EMC	N/A	N/A

Note: *The calibration interval of the above test instruments is 12 months and the calibrations are traceable to international system unit (SI).*

6.3.3. Test Data

Field Strength of Fundamental

Frequency (MHz)	Emission PK (dBuV/m)	Horizontal /Vertical	Limits PK (dBuV/m)	Margin (dB)
2409	86.88	H	114	-27.12
2409	86.46	V	114	-27.54
2441	85.29	H	114	-28.71
2441	84.75	V	114	-29.25
2475	83.96	H	114	-30.04
2475	85.37	V	114	-28.63

Frequency (MHz)	Emission AV (dBuV/m)	Horizontal /Vertical	Limits AV (dBuV/m)	Margin (dB)
2409	73.59	H	94	-20.41
2409	74.66	V	94	-19.34
2441	72.73	H	94	-21.27
2441	74.55	V	94	-19.45
2475	72.39	H	94	-21.61
2475	73.42	V	94	-20.58

Spurious Emissions

Frequency Range (9 kHz-30MHz)

Frequency (MHz)	Level@3m (dBμV/m)	Limit@3m (dBμV/m)
--	--	--
--	--	--
--	--	--
--	--	--

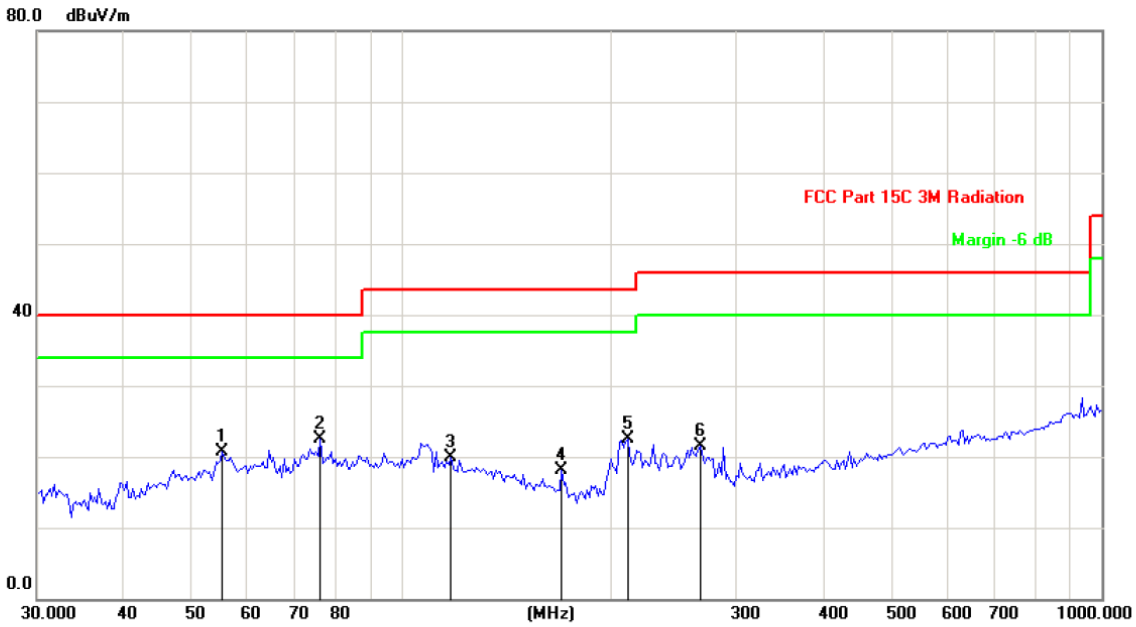
Note: *1. Emission Level=Reading+ Cable loss-Antenna factor-Amp factor.*

2. The emission levels are 20 dB below the limit value, which are not reported. It is deemed to comply with the requirement.

3. For fundamental frequency, RBW >20dB BW , VBW>=RBW, PK detector is for PK value, RMS detector is for AV value.

Frequency Range (30MHz-1GHz)

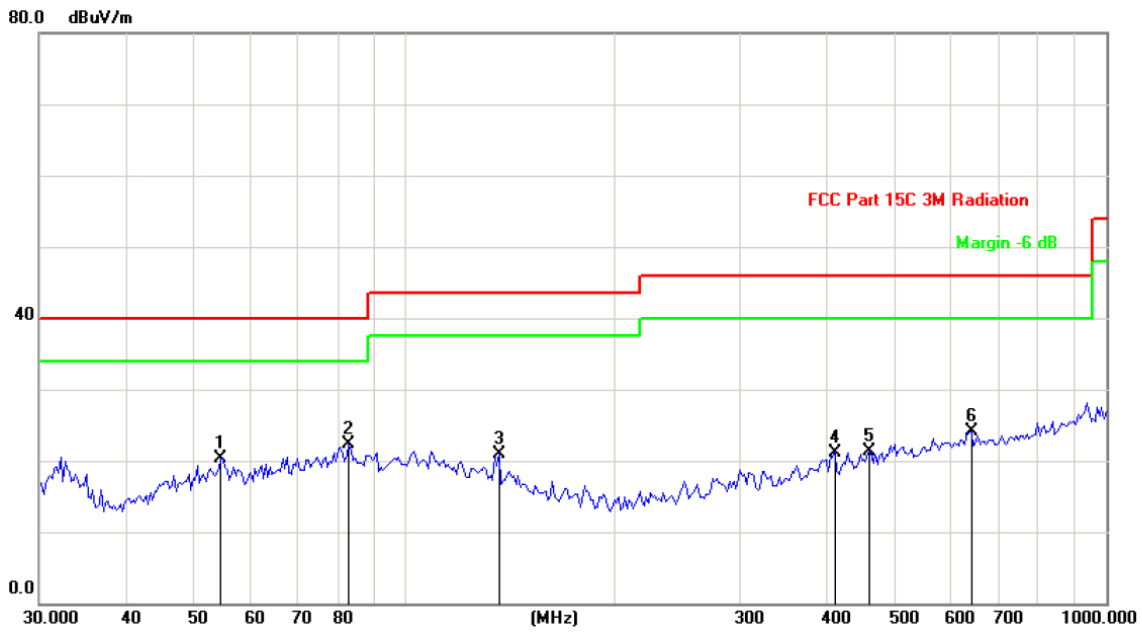
Horizontal:



Site	Polarization: ***Horizontal***	Temperature:	25
Limit: FCC Part 15C 3M Radiation	Power: AC 120V/60Hz	Humidity:	55 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1		55.2882	32.01	-11.27	20.74	40.00	-19.26	peak
2	*	76.3867	38.78	-16.32	22.46	40.00	-17.54	peak
3		117.2686	30.79	-10.81	19.98	43.50	-23.52	peak
4		168.9970	33.52	-15.41	18.11	43.50	-25.39	peak
5		210.1294	36.14	-13.72	22.42	43.50	-21.08	peak
6		266.8394	33.53	-12.01	21.52	46.00	-24.48	peak

Vertical:



Site		Polarization:	***Vertical***	Temperature:	25
Limit: FCC Part 15C 3M Radiation		Power:	AC 120V/60Hz	Humidity:	55 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1		54.5167	31.30	-11.07	20.23	40.00	-19.77	peak
2	*	83.1076	37.06	-14.74	22.32	40.00	-17.68	peak
3		135.9163	36.69	-15.81	20.88	43.50	-22.62	peak
4		409.6505	30.03	-8.83	21.20	46.00	-24.80	peak
5		458.3987	29.52	-8.17	21.35	46.00	-24.65	peak
6		642.2921	29.69	-5.61	24.08	46.00	-21.92	peak

Note: *1. Measurements were conducted in all channels (high, middle, low), and the worst case (low channel) was submitted only.*
2. Any value more than 10dB below limit have not been specifically reported.

Above 1GHz

Low channel: 2409MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBuV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
4818.00	H	51.15	---	-3.94	47.21	---	74	54	-6.79
7227.00	H	49.76	---	0.52	50.28	---	74	54	-3.72
---	---	---	---	---	---	---	---	---	---
4818.00	V	49.62	---	-3.94	45.68	---	74	54	-8.32
7227.00	V	46.44	---	0.52	46.96	---	74	54	-7.04
---	---	---	---	---	---	---	---	---	---

Middle channel: 2441MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
4882.00	H	52.24	---	-3.98	48.26	---	74	54	-5.74
7323.00	H	49.36	---	0.57	49.93	---	74	54	-4.07
---	---	---	---	---	---	---	---	---	---
4882.00	V	51.85	---	-3.98	47.87	---	74	54	-6.13
7323.00	V	49.34	---	0.57	49.91	---	74	54	-4.09
---	---	---	---	---	---	----	---	---	---

High channel: 2475MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
4950.00	H	53.17	---	-3.98	49.19	---	74	54	-4.81
7425.00	H	48.67	---	0.57	49.24	---	74	54	-4.76
---	---	---	---	---	---	---	---	---	---
4950.00	V	52.49	---	-3.98	48.51	---	74	54	-5.49
7425.00	V	50.76	---	0.57	51.33	---	74	54	-2.67
---	---	---	---	---	---	---	---	---	---

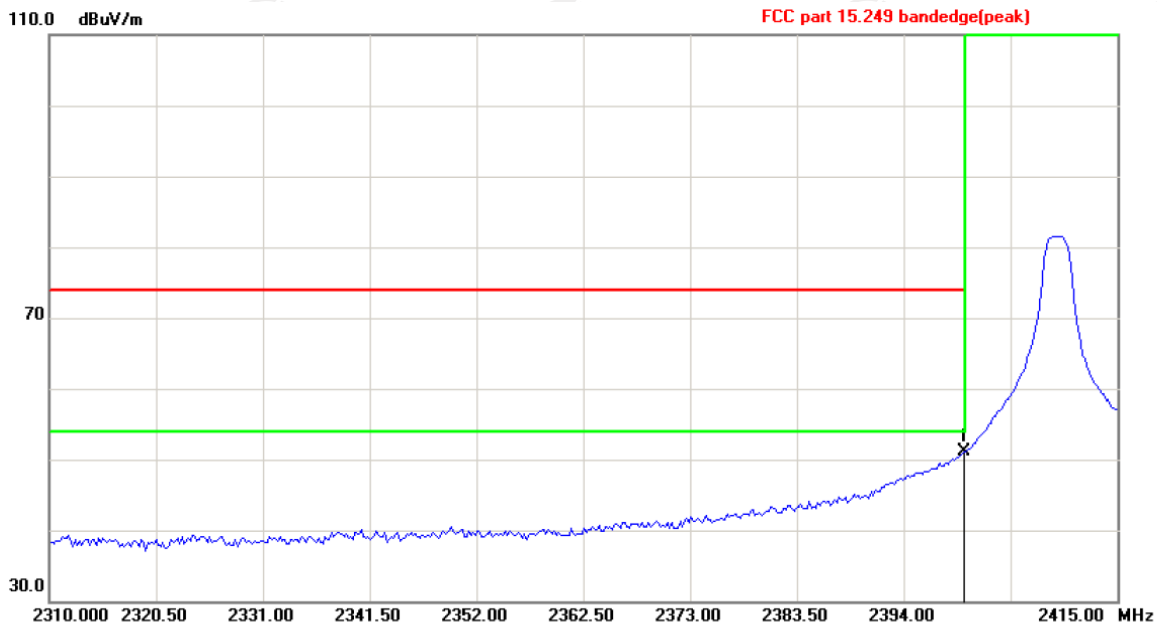
Note:

1. *Emission Level=Peak Reading + Correction Factor; Correction Factor= Antenna Factor + Cable loss – Pre-amplifier*
2. *Margin (dB) = Emission Level (Peak) (dBμV/m)-Average limit (dBμV/m)*
3. *The emission levels of other frequencies are very lower than the limit and not show in test report.*
4. *Measurements were conducted from 1 GHz to the 10th harmonic of highest fundamental frequency.*
5. *Data of measurement shown "---"in the above table mean that the reading of emissions is attenuated more than 20 dB below the limits or the field strength is too small to be measured.*
6. *All the restriction bands are compliance with the limit of 15.209.*

Band Edge Requirement

Lowest channel 2409:

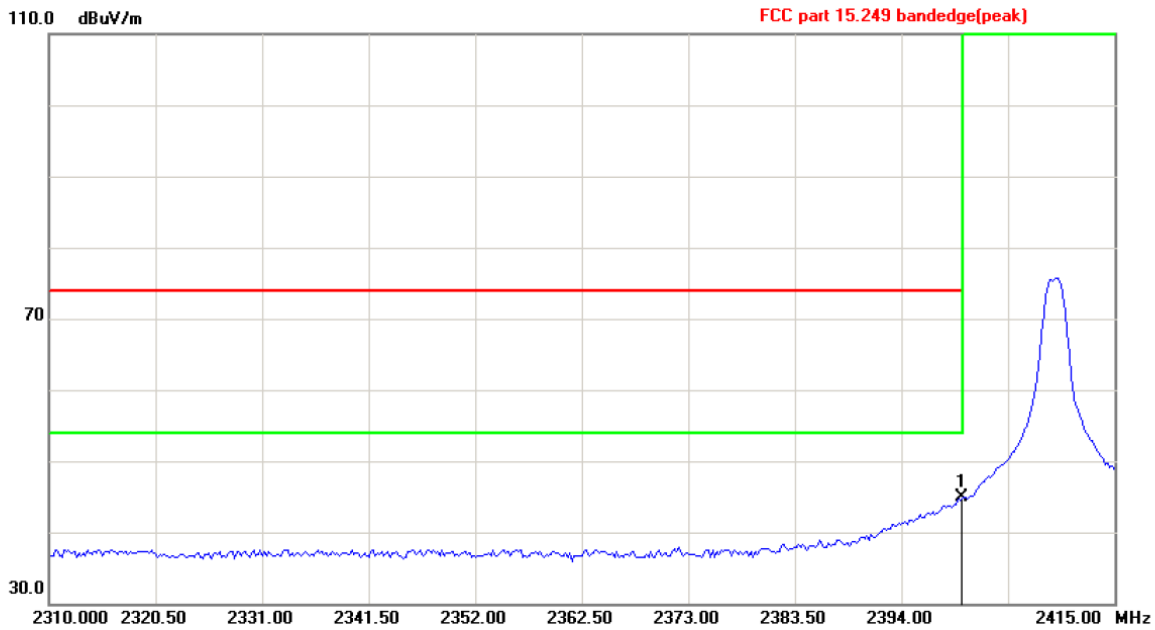
Horizontal:



Site	Polarization: ***Horizontal***	Temperature:	25
Limit: FCC part 15.249 bandedge(peak)	Power: DC 3.7V	Humidity:	55 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1	*	2400.000	64.24	-13.12	51.12	74.00	-22.88	peak

Vertical:

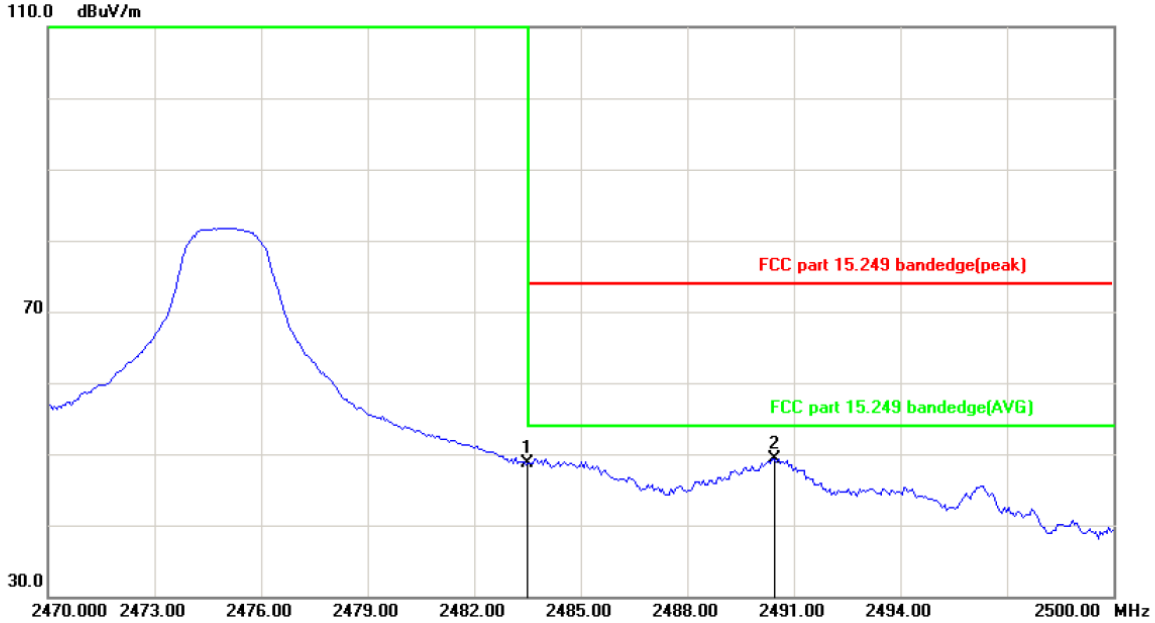


Site	Polarization: *Vertical*	Temperature:	25
Limit: FCC part 15.249 bandedge(peak)	Power: DC 3.7V	Humidity:	55 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1	*	2400.000	57.90	-13.02	44.88	74.00	-29.12	peak

Highest channel 2475:

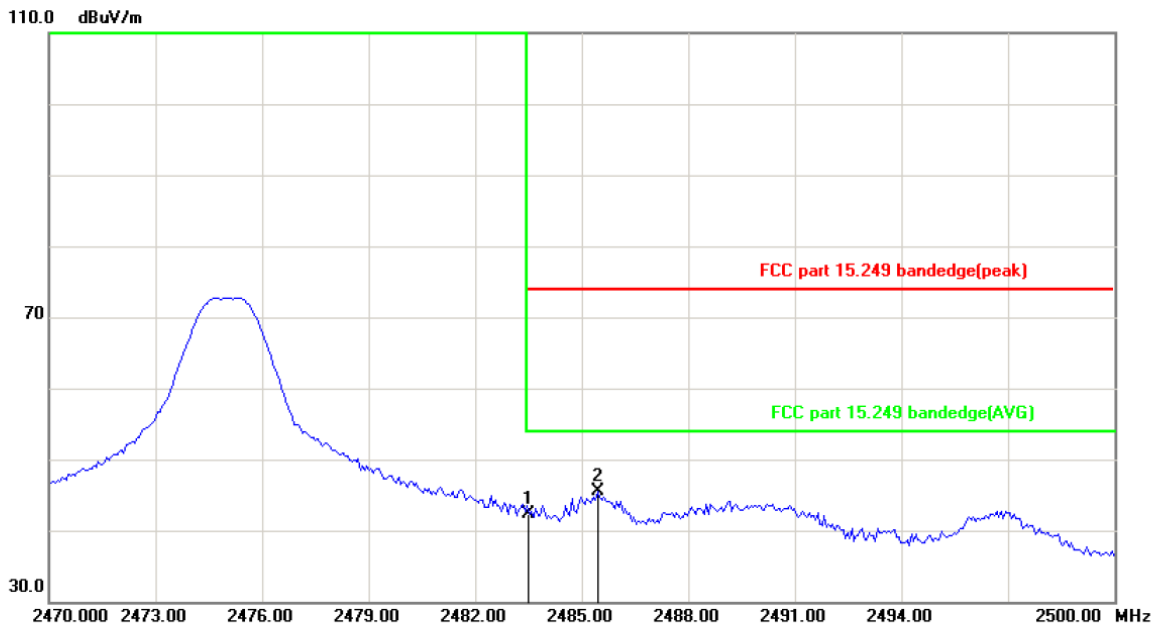
Horizontal:



Site	Polarization: ***Horizontal***	Temperature:	25
Limit: FCC part 15.249 bandedge(peak)	Power: DC 3.7V	Humidity:	55 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1		2483.500	61.54	-12.84	48.70	74.00	-25.30	peak
2	*	2490.441	62.09	-12.81	49.28	74.00	-24.72	peak

Vertical:



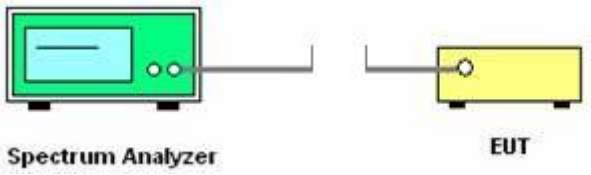
Site	Polarization: ***Vertical***	Temperature: 25	
Limit: FCC part 15.249 bandedge(peak)	Power: DC 3.7V	Humidity: 55 %	

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1		2483.500	55.07	-12.84	42.23	74.00	-31.77	peak
2	*	2485.451	58.36	-12.83	45.53	74.00	-28.47	peak

Note: *Measurements were conducted in all channels (high, middle, low), and the worst case (low channel) was submitted only.*

6.4. 20dB Occupied Bandwidth

6.4.1. Test Specification

Test Requirement:	FCC Part15 C Section 15.215(c)
Test Method:	ANSI C63.10: 2013
Limit:	N/A
	1. According to the follow Test-setup, keep the relative position between the artificial antenna and the EUT. 2. Set to the maximum power setting and enable the EUT transmit continuously. 3. Use the following spectrum analyzer settings for 20dB Bandwidth measurement. Span = approximately 2 to 3 times the 20 dB bandwidth, centered on a hopping channel; RBW≥1% of the 20 dB bandwidth; VBW≥RBW; Sweep = auto; Detector function = peak; Trace = max hold. 4. Measure and record the results in the test report.
Test setup:	
Test Mode:	Transmitting mode with modulation
Test results:	PASS

6.4.2. Test Instruments

Equipment	Manufacturer	Model	Serial Number	Calibration Due
Spectrum Analyzer	R&S	FSU	200054	Sep. 11, 2020

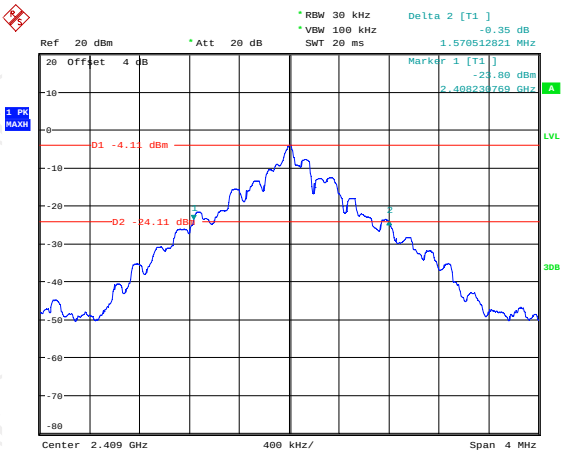
Note: *The calibration interval of the above test instruments is 12 months and the calibrations are traceable to international system unit (SI).*

6.4.3. Test data

Test Channel	20dB Occupy Bandwidth (kHz)	Limit	Conclusion
Lowest	1570.51	---	PASS
Middle	1576.92	---	PASS
Highest	1583.33	---	PASS

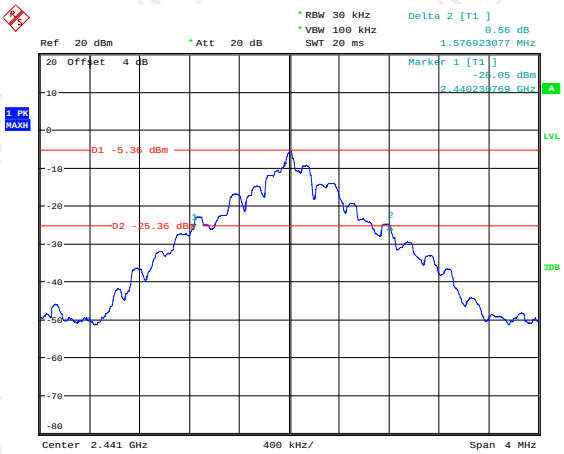
Test plots as follows:

Lowest channel



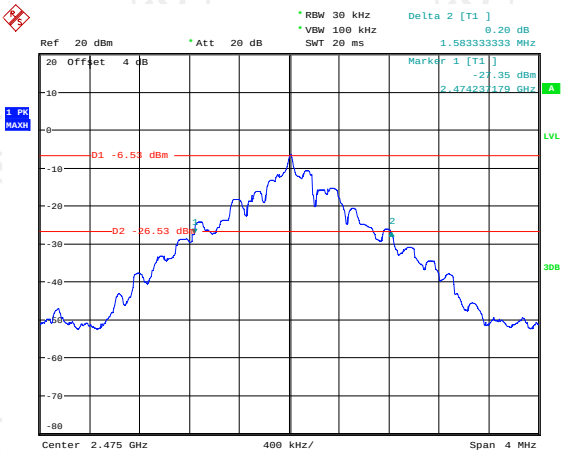
Date: 28.AUG.2019 12:54:51

Middle channel



Date: 28.AUG.2019 12:57:39

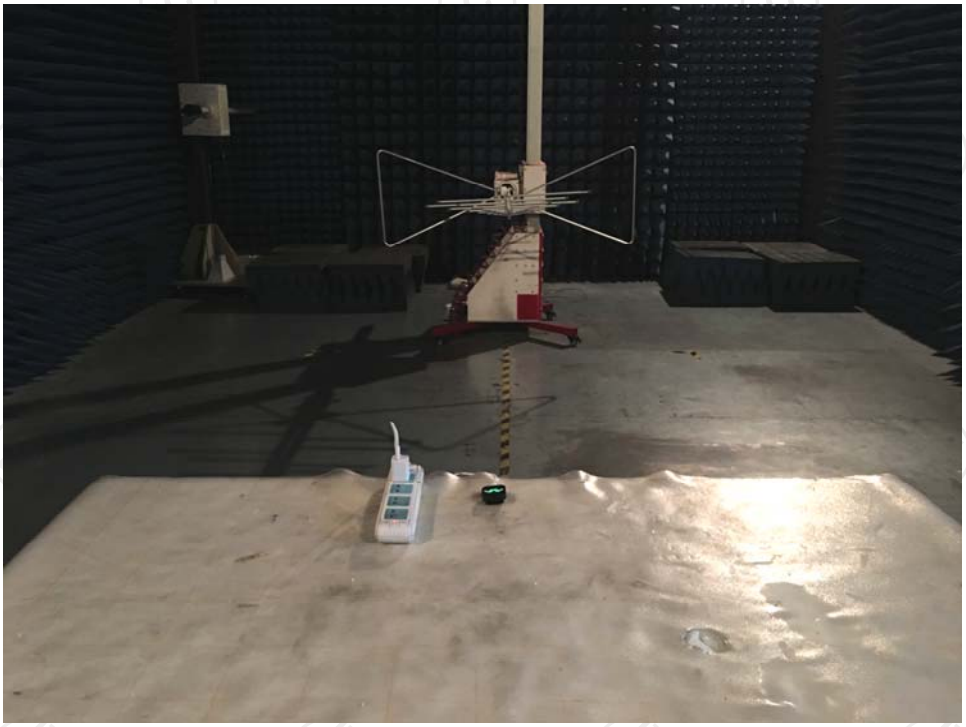
Highest channel

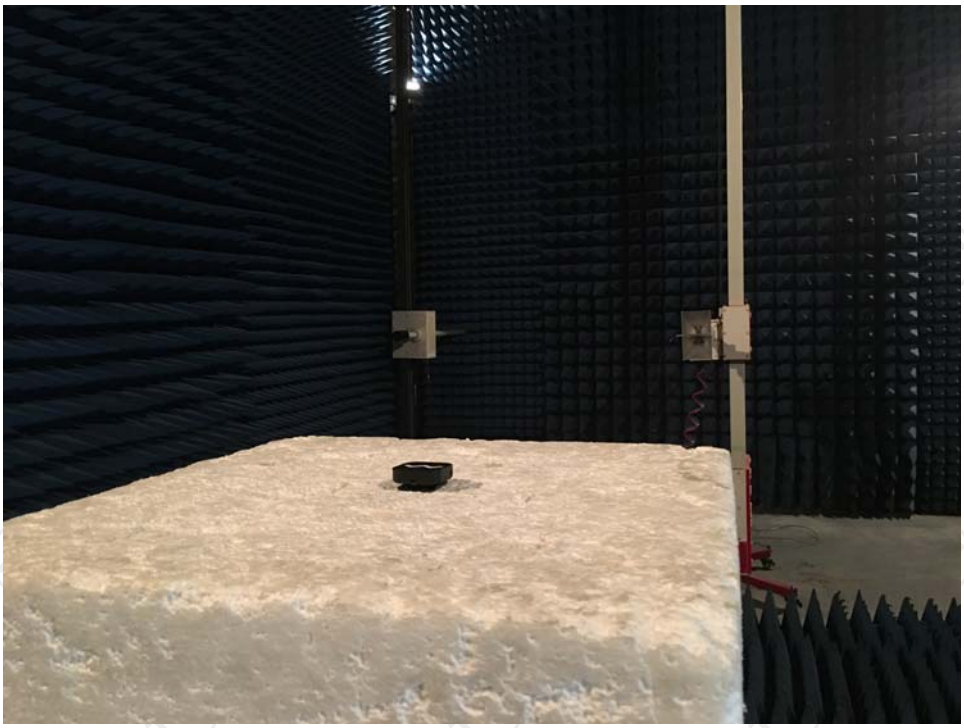


Date: 28.AUG.2019 12:59:10

Appendix A: Photographs of Test Setup

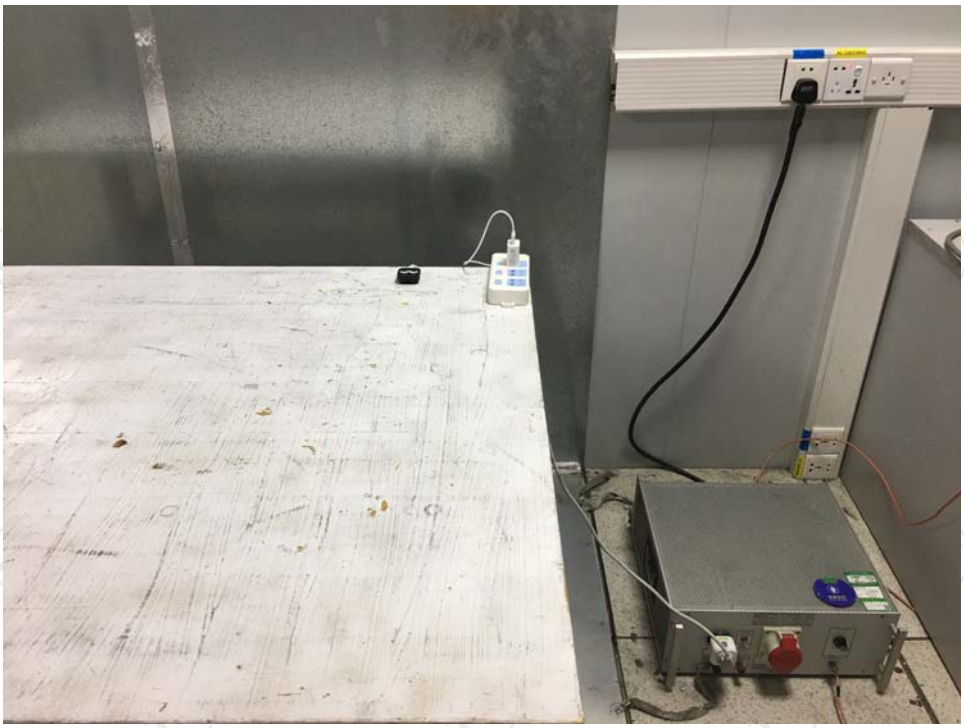
Product: Hearing Amplifier & TV Listener
Model: TV002
Radiated Emission





Hotline: 400-6611-140 Tel: 86-755-27673339 Fax: 86-755-27673332 http://www.tct-lab.com

Conducted Emission

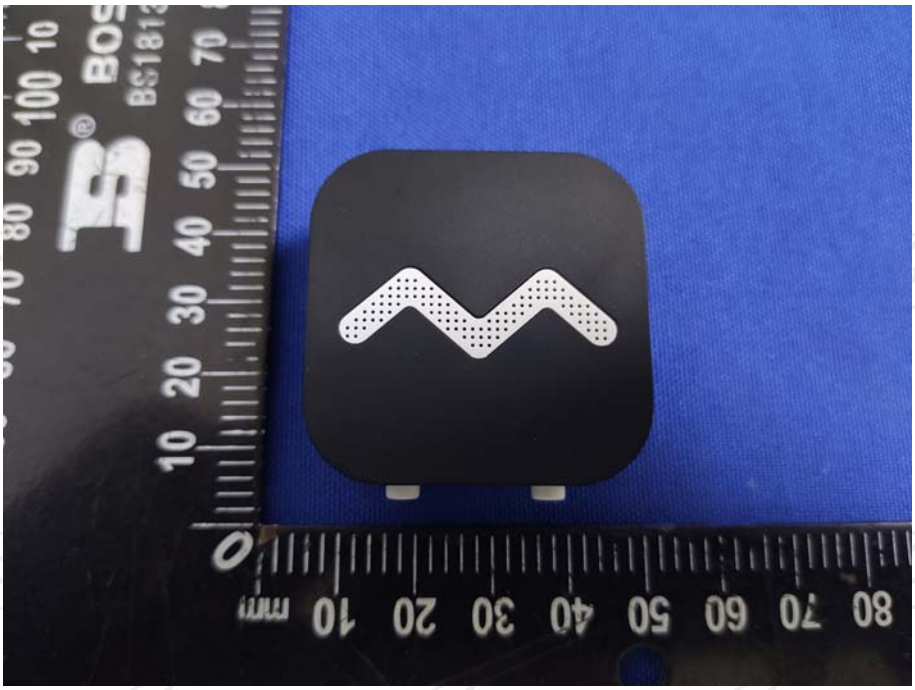


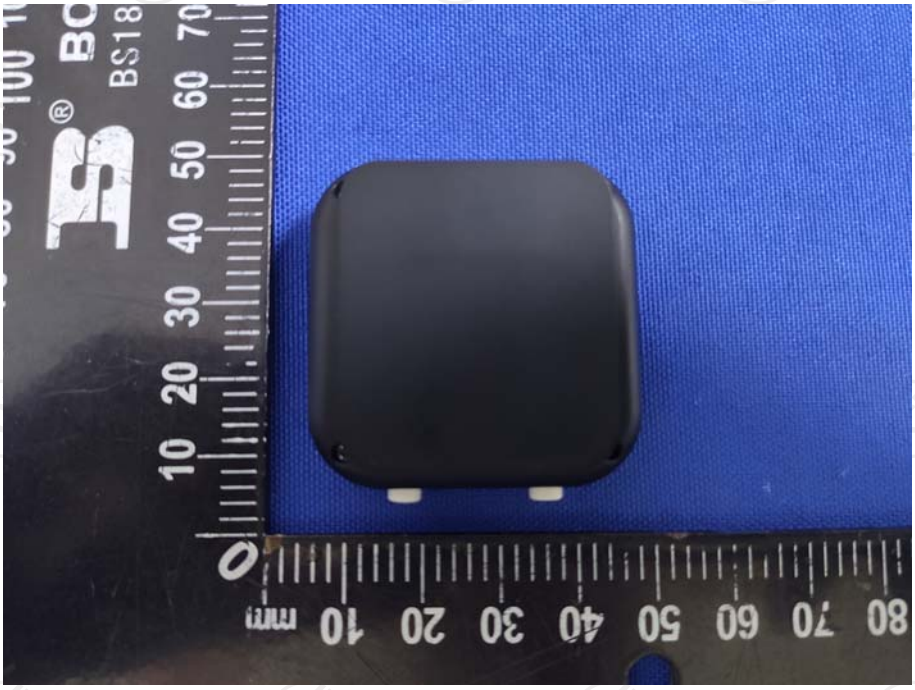
Appendix B: Photographs of EUT

Product: Hearing Amplifier & TV Listener

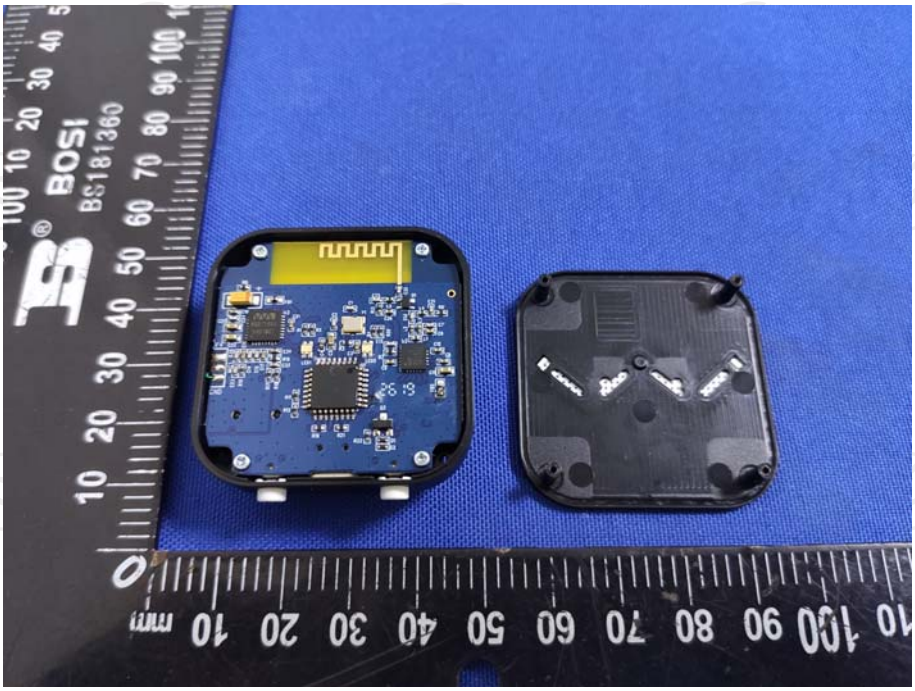
Model: TV002

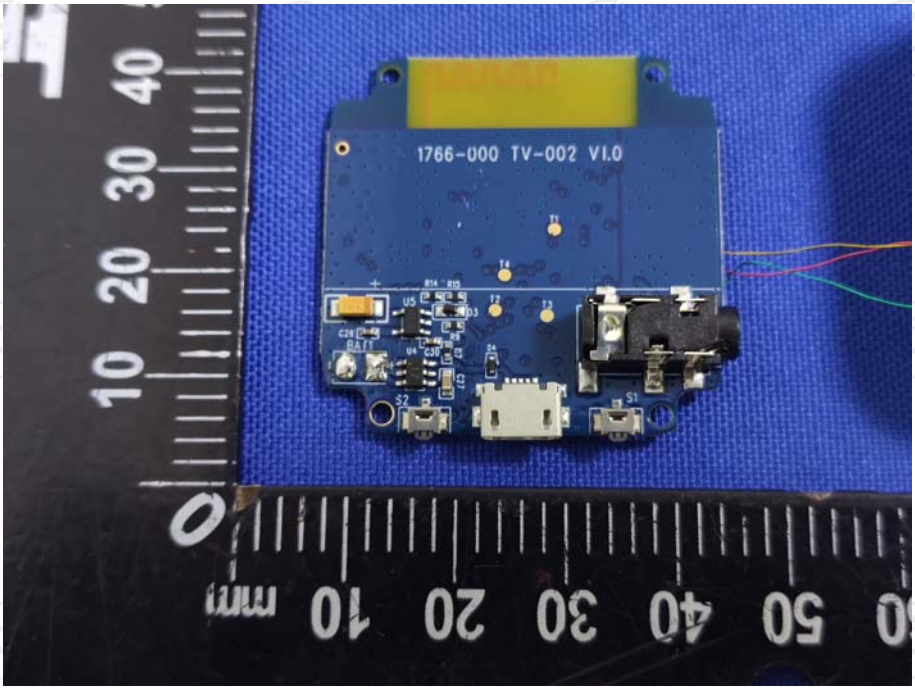
External Photos

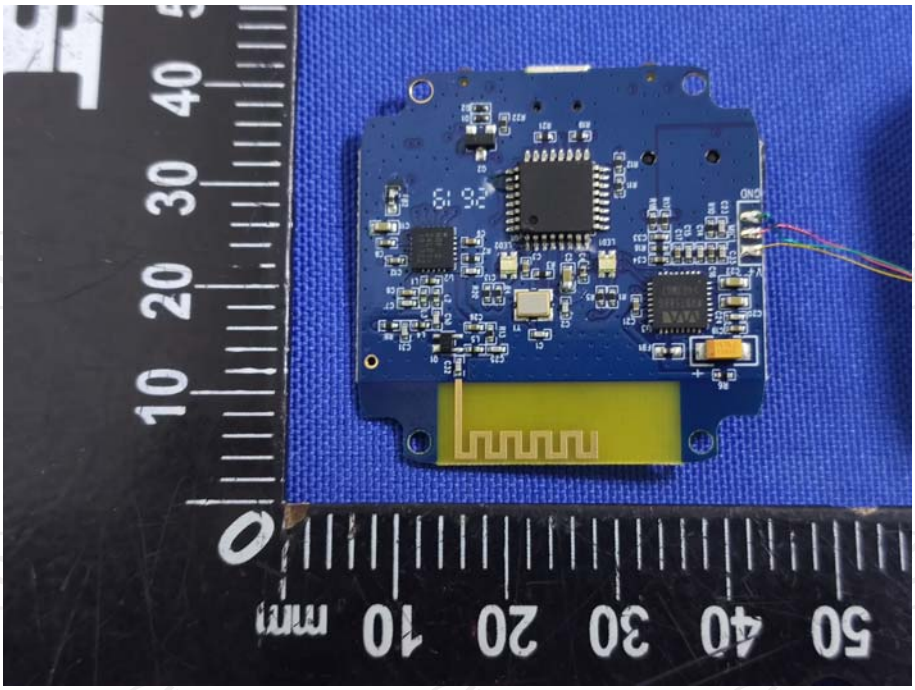


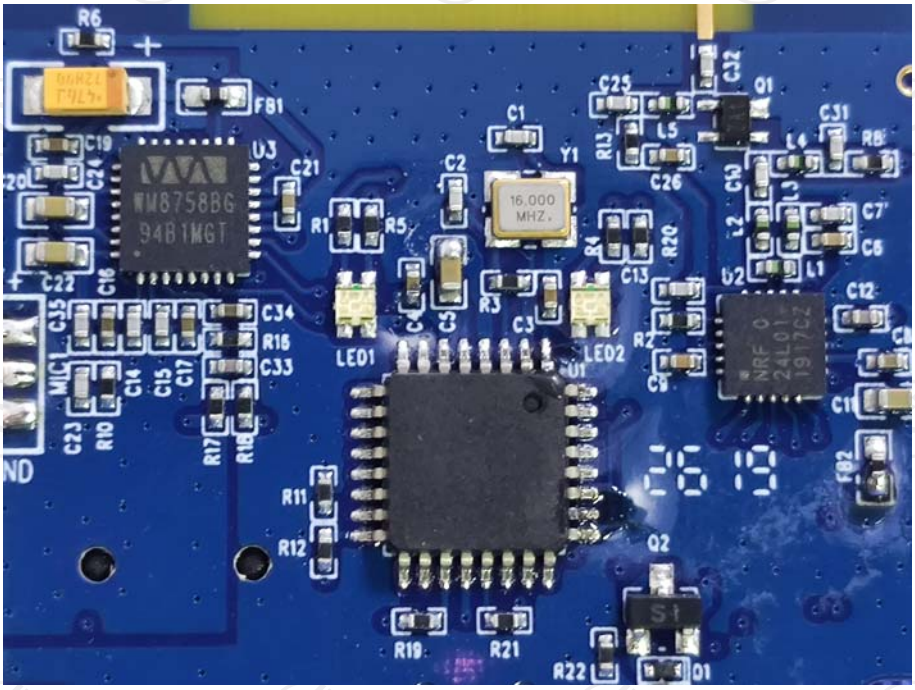


Product: Hearing Amplifier & TV Listener
Model: TV002
Internal Photos









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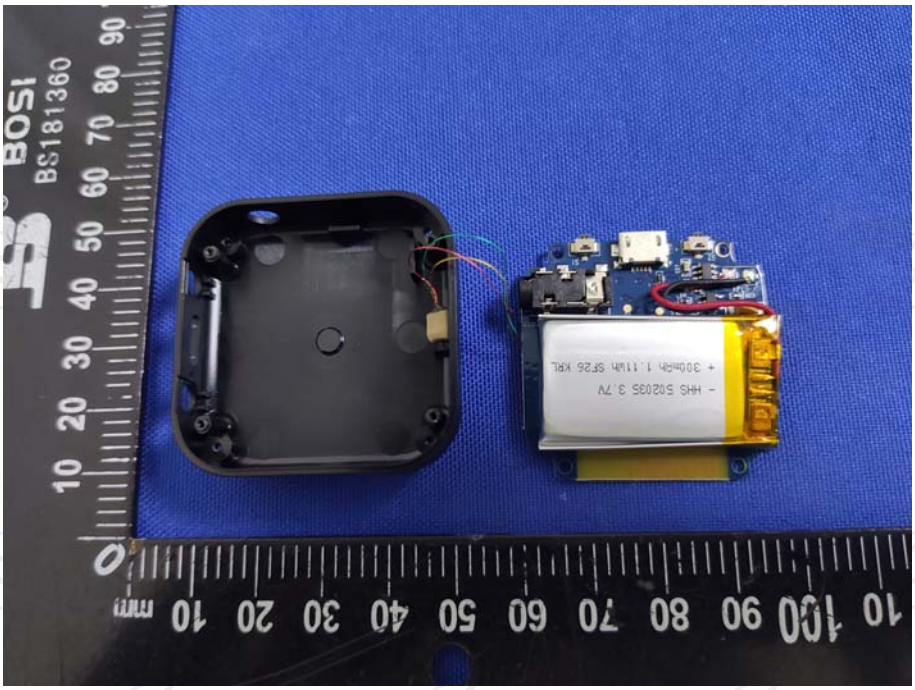
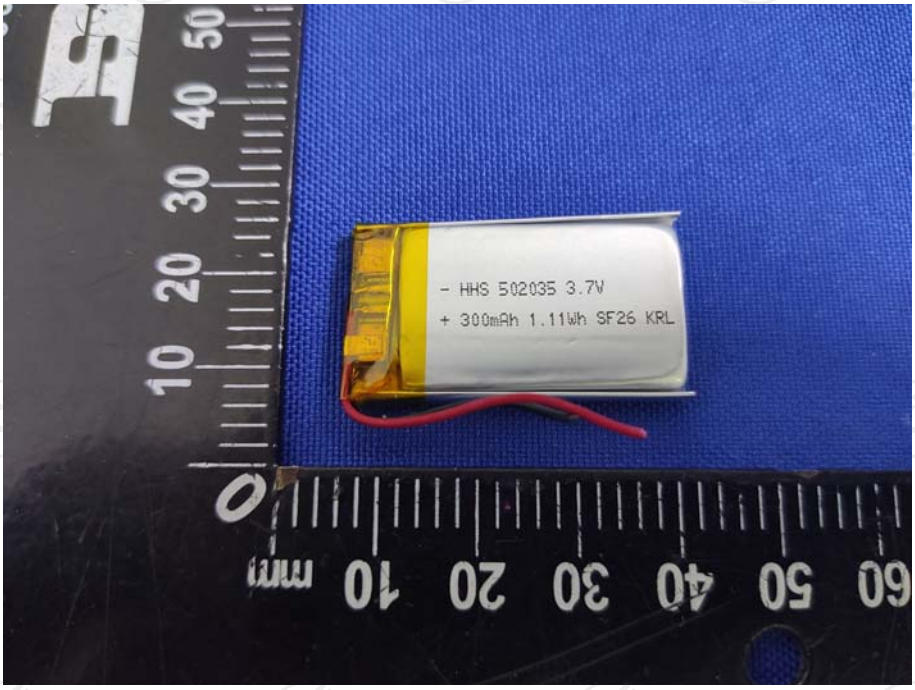
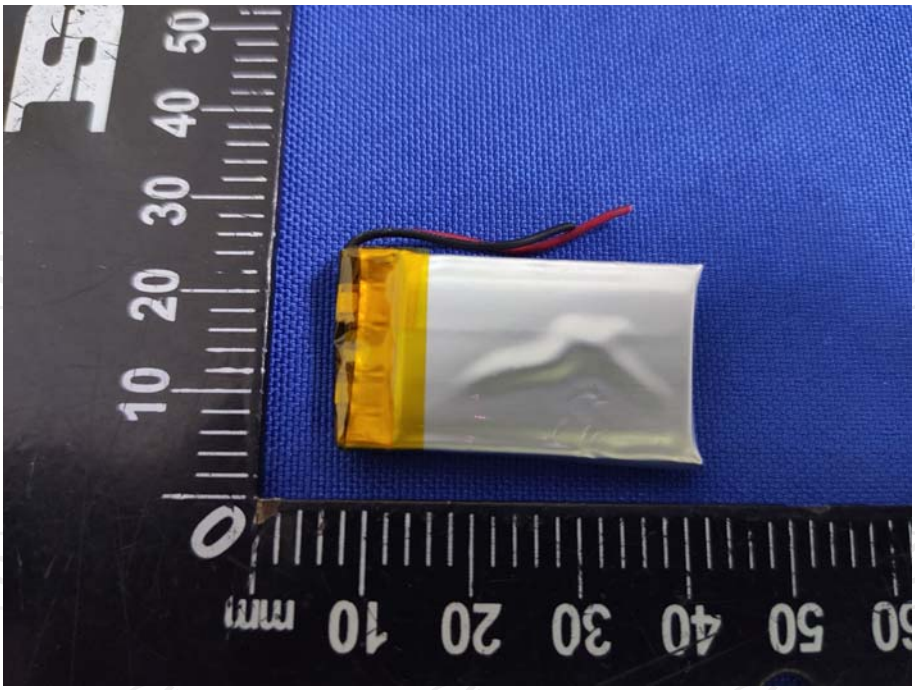

- HHS 502035 3.7V
+ 300mAh 1.11Wh SF26 KRL
BOSI
BS181360


- HHS 502035 3.7V
+ 300mAh 1.11Wh SF26 KRL



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