

TEST REPORT

Reference No...... : WTS16S1164608E
FCC ID : XBAFT130
Applicant..... : Aeon Labs LLC.
Address..... : 121 Buckingham Drive, Unit 36, Santa Claras, California, United States
Manufacturer : Fantem Technologies (Shenzhen) Co., Ltd.
Address..... : North,3/F, Yitao Technology Industrial Park,Baihua Yuan Rd.,The Second Industrial Area,Guangming Sub-districtOffice,Guangming New District,Shenzhen, Guangdong, China.
Product Name..... : MOTE,WallMote Quad,WallMote
Model No...... : FT130-A,ZW130-A,FT129-A,ZW129-A
Brand..... : AEOTEC,FANTEM
Standards..... : FCC CFR47 Part 15 Section 15.225: 2016
Date of Receipt sample : Nov. 01, 2016
Date of Test : Nov. 01 – Nov. 05, 2016
Date of Issue..... : Nov. 16, 2016
Test Result..... : **Pass**
Note : This report is for NFC Function

Remarks:

The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

Prepared By:

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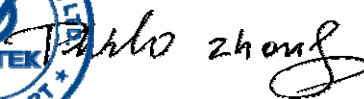
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Compiled by:



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Approved by:



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3 Revision History

Test report No.	Date of Receipt sample	Date of Test	Date of Issue	Purpose	Comment	Approved
WTS16S1164608E	Nov. 01, 2016	Nov. 01 – Nov. 05, 2016	Nov. 14, 2016	original	-	Replaced
WTS16S1164608E	Nov. 01, 2016	Nov. 01 – Nov. 05, 2016	Nov. 16, 2016	Revision1	Update test Setup Photos	Valid

4 General Information

4.1 General Description of E.U.T.

Product Name:	MOTE,WallMote Quad,WallMote
Model No.:	FT130-A,ZW130-A,FT129-A,ZW129-A
Model Differences Description	
All the models are the same RF radio Module (Z-wave and NFC) and the same Antenna. Only the Product Name and model name, brand name, control buttons number is different. For the detail please see below: FT130-A and ZW130-A is a 4 ways Smart touch control switch; FT129-A and ZW129-A is a 2 ways Smart touch control switch; FT130-A and FT129-A brand name is FANTEM; ZW130-A and ZW129-A brand name is AEOTEC; FT130-A product name is MOTE, FT129-A product name is WallMote, ZW130-A product name is WallMote Quad, ZW129-A product name is WallMote.	
Type of Modulation:	FSK for Z-wave; ASK,2ASK for NFC
Frequency Range:	908.40MHz,908.42MHz for Z-wave; 13.56MHz for NFC
The Lowest Oscillator:	13.56MHz
Antenna installation:	Integrated Antenna for Z-wave; Loop Antenna for NFC
Antenna Gain:	-3dBi for Z-wave

4.2 Details of E.U.T.

Technical Data: DC 3.7V, 640mAh, 2.368Wh by battery
 USB: DC 5V, 1A by PC

4.3 Channel List

Z-wave Test Mode				NFC Test Mode	
Channel No.	Frequency (MHz)	Channel No.	Frequency (MHz)	Channel No.	Frequency (MHz)
0	908.40	1	908.42MHz	0	13.56MHz

4.4 Standards Applicable for Testing

The tests were performed according to following standards:

FCC CFR47 Part 15 Section 15.225: 2015 Telecommunication-RADIO FREQUENCY DEVICES-Intentional Radiators- Operation within the band 13.110-14.010 MHz

4.5 Test Facility

The test facility has a test site registered with the following organizations:

- **IC – Registration No.: 7760A-1**

Waltek Services (Shenzhen) Co., Ltd. has been registered and fully described in a report filed with the Industry Canada. The acceptance letter from the Industry Canada is maintained in our files. Registration 7760A-1, October 15, 2015

- **FCC Test Site 1#– Registration No.: 880581**

Waltek Services(Shenzhen) Co., Ltd. EMC Laboratory `has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 880581, April 29, 2014.

- **FCC Test Site 2#– Registration No.: 328995**

Waltek Services(Shenzhen) Co., Ltd. EMC Laboratory `has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 328995, December 3, 2014.

4.6 NFC Test Mode

All test mode(s) and condition(s) mentioned were considered and evaluated respectively by performing full tests.

And according to Part 15.31(m).

Measurements on intentional radiators or receivers, other than TV broadcast receivers, shall be performed and, if required, reported for each band in which the device can be operated with the device operating at the number of frequencies in each band specified in the following table:

Frequency range over which device operates	Number of frequencies	Location in the range of operation
1 MHz or less	1	Middle.
1 to 10 MHz	2	1 near top and 1 near bottom.
More than 10 MHz	3	1 near top, 1 near middle and 1 near bottom

So frequency range over 13.56MHz to 13.56MHz is 1MHz or less, only the Middle channel were recorded and reported.

Test mode	Lower channel	Middle channel	Upper channel
Transmitting	N/AMHz	13.56MHz	N/AMHz

5 Equipment Used during Test

5.1 Equipments List

Conducted Emissions Test Site 1#						
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Calibration Date	Calibration Due Date
1.	EMI Test Receiver	R&S	ESCI	100947	Sep.12, 2016	Sep.11, 2017
2.	LISN	R&S	ENV216	101215	Sep.12, 2016	Sep.11, 2017
3.	Cable	Top	TYPE16(3.5M)	-	Sep.12, 2016	Sep.11, 2017
Conducted Emissions Test Site 2#						
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Calibration Date	Calibration Due Date
1.	EMI Test Receiver	R&S	ESCI	101155	Sep.12, 2016	Sep.11, 2017
2.	LISN	SCHWARZBECK	NSLK 8128	8128-289	Sep.12, 2016	Sep.11, 2017
3.	Limiter	York	MTS-IMP-136	261115-001-0024	Sep.12, 2016	Sep.11, 2017
4.	Cable	LARGE	RF300	-	Sep.12, 2016	Sep.11, 2017
3m Semi-anechoic Chamber for Radiation Emissions Test site 1#						
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Calibration Date	Calibration Due Date
1	Spectrum Analyzer	R&S	FSP	100091	Apr.29, 2016	Apr.28, 2017
2	Amplifier	Agilent	8447D	2944A10178	Jan.13, 2016	Jan.12, 2017
3	Active Loop Antenna	Beijing Dazhi	ZN30900A	0703	Oct.17, 2016	Oct.16, 2017
4	Trilog Broadband Antenna	SCHWARZBECK	VULB9163	33 6	Apr.09, 2016	Apr.08, 2017
5	Coaxial Cable (below 1GHz)	Top	TYPE16(13M)	-	Sep.12, 2016	Sep.11, 2017
6	Broad-band Horn Antenna	SCHWARZBECK	BBHA 9120 D	667	Apr.09, 2016	Apr.08, 2017
7	Broadband Preamplifier	COMPLIANCE DIRECTION	PAP-1G18	2004	Apr.13, 2016	Apr.12, 2017
8	Coaxial Cable (above 1GHz)	Top	1GHz-18GHz	EW02014-7	Apr.13, 2016	Apr.12, 2017
3m Semi-anechoic Chamber for Radiation Emissions Test site 2#						
Item	Equipment	Manufacturer	Model No.	Serial No	Last Calibration Date	Calibration Due Date
1	Test Receiver	R&S	ESCI	101296	Apr.13, 2016	Apr.12, 2017
2	Trilog Broadband Antenna	SCHWARZBECK	VULB9160	9160-3325	Apr.09, 2016	Apr.08, 2017
3	Amplifier	ANRITSU	MH648A	M43381	Apr.13, 2016	Apr.12, 2017
4	Cable	HUBER+SUHNER	CBL2	525178	Apr.13, 2016	Apr.12, 2017

RF Conducted Testing						
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Calibration Date	Calibration Due Date
1.	EMC Analyzer (9k~26.5GHz)	Agilent	E7405A	MY45114943	Sep.12, 2016	Sep.11, 2017
2.	Spectrum Analyzer (9k-6GHz)	R&S	FSL6	100959	Sep.12, 2016	Sep.11, 2017
3.	Signal Analyzer (9k~26.5GHz)	Agilent	N9010A	MY50520207	Sep.12, 2016	Sep.11, 2017

5.2 Measurement Uncertainty

Parameter	Uncertainty
Radio Frequency	$\pm 1 \times 10^{-6}$
RF Power	± 1.0 dB
RF Power Density	± 2.2 dB
Radiated Spurious Emissions test	± 5.03 dB (Bilog antenna 30M~1000MHz)
	± 5.47 dB (Horn antenna 1000M~25000MHz)

5.3 Test Equipment Calibration

All the test equipments used are valid and calibrated by CEPREI Certification Body that address is No.110 Dongguan Zhuang RD. Guangzhou, P.R.China.

6 Test Summary

Test Items	Test Requirement	Result
Conducted Emissions	15.207	C
Radiated Emission	15.205(a) 15.209 15.225	C
Frequency Tolerance	15.225	C
20dB Bandwidth	15.215(c)	C
Antenna Requirement	15.203	C
Note: C=Compliance; NC=Not Compliance; NT=Not Tested; N/A=Not Applicable.		

7 Conducted Emission

Test Requirement:	FCC CFR 47 Part 15 Section 15.207
Test Method:	ANSI C63.10:2013;ANSI C63.4:2014
Frequency Range:	150kHz to 30MHz
Class/Severity:	Class B
Limit:	66-56 dB μ V between 0.15MHz & 0.5MHz 56 dB μ V between 0.5MHz & 5MHz 60 dB μ V between 5MHz & 30MHz
Detector:	Peak for pre-scan (9kHz Resolution Bandwidth)
Test Result:	☒ Pass ☐ not applicable (Remark)

7.1 E.U.T. Operation

Operating Environment :

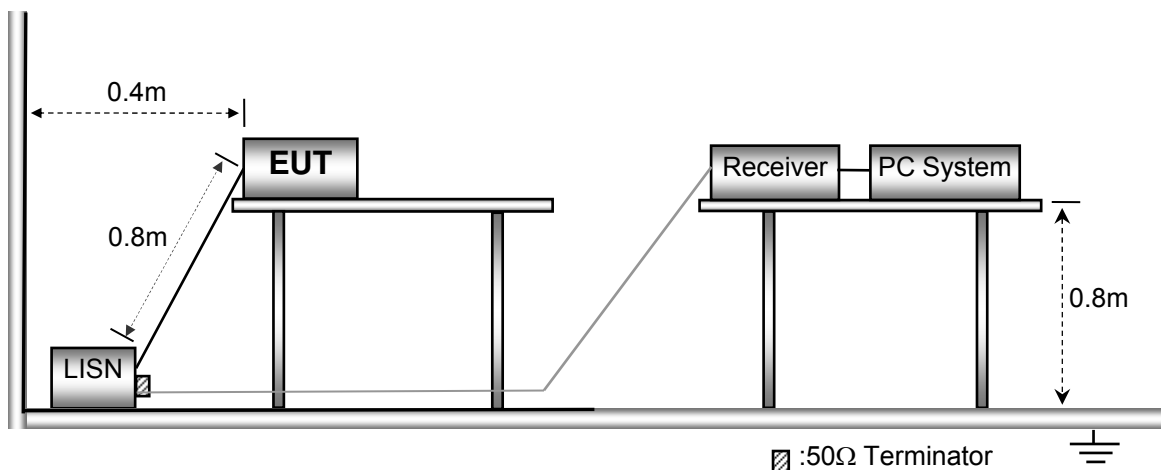
Temperature:	25.5 °C
Humidity:	51 % RH
Atmospheric Pressure:	101.2kPa

EUT Operation :

The test was performed in transmitting mode, the test data were shown in the report.

7.2 EUT Setup

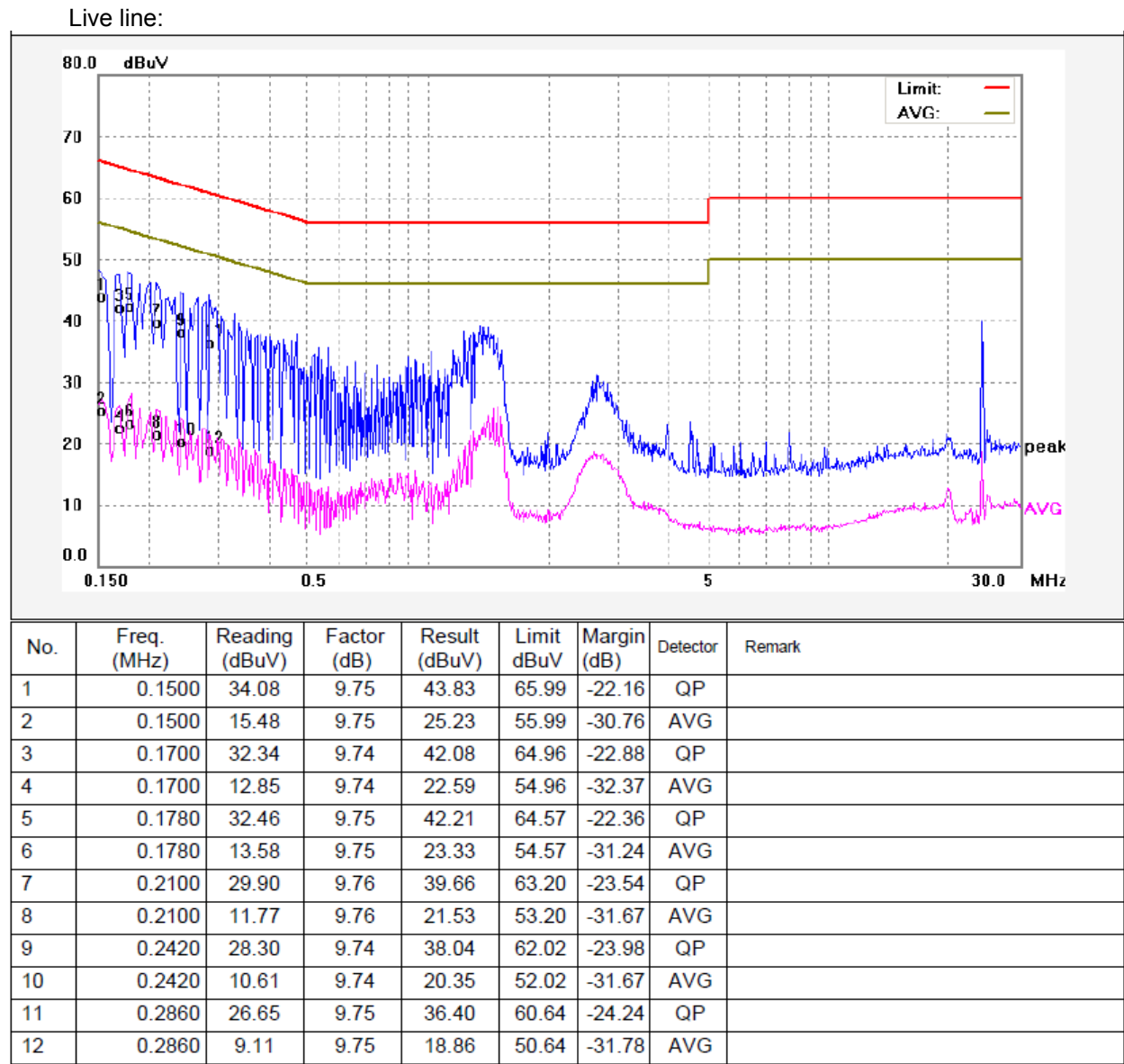
The conducted emission tests were performed using the setup accordance with the ANSI C63.10:2013



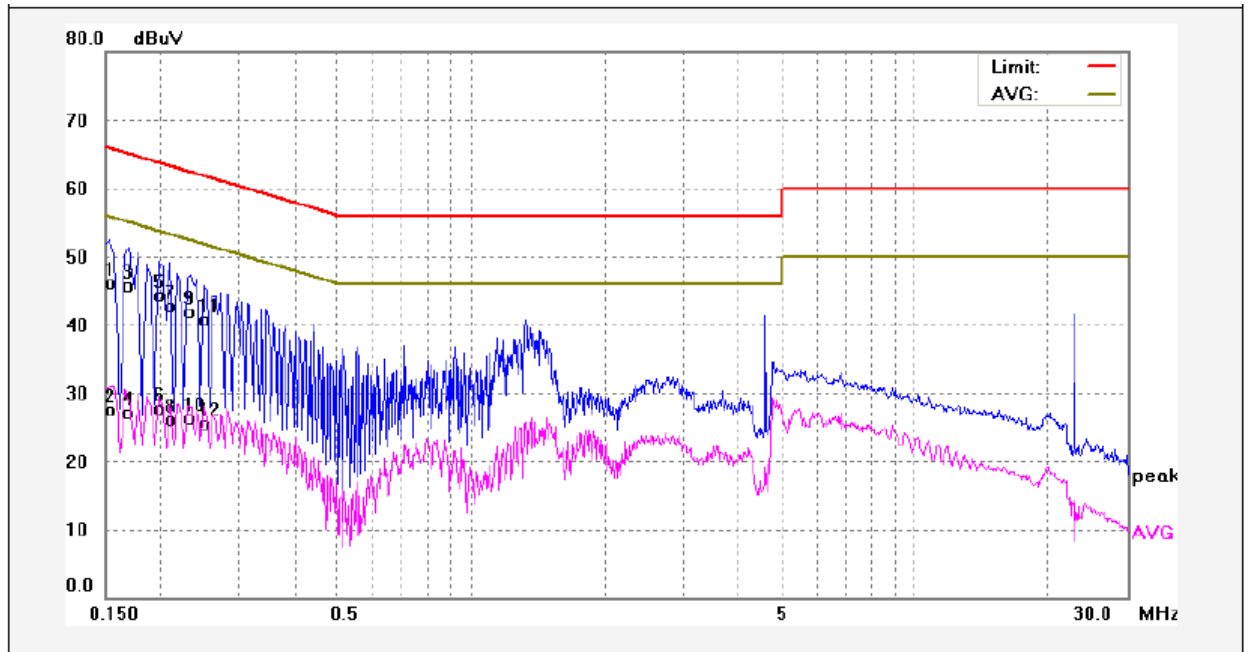
7.3 Measurement Description

The maximised peak emissions from the EUT was scanned and measured for both the Live and Neutral Lines. Quasi-peak & average measurements were performed if peak emissions were within 6dB of the average limit line.

7.4 Test Result



Neutral line:



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit dBuV	Margin (dB)	Detector	Remark
1	0.1539	36.30	9.75	46.05	65.78	-19.73	QP	
2	0.1539	17.67	9.75	27.42	55.78	-28.36	AVG	
3	0.1700	35.92	9.74	45.66	64.96	-19.30	QP	
4	0.1700	17.44	9.74	27.18	54.96	-27.78	AVG	
5	0.1980	34.57	9.76	44.33	63.69	-19.36	QP	
6	0.1980	17.92	9.76	27.68	53.69	-26.01	AVG	
7	0.2100	32.95	9.76	42.71	63.20	-20.49	QP	
8	0.2100	16.29	9.76	26.05	53.20	-27.15	AVG	
9	0.2340	32.15	9.75	41.90	62.30	-20.40	QP	
10	0.2340	16.50	9.75	26.25	52.30	-26.05	AVG	
11	0.2500	30.88	9.74	40.62	61.75	-21.13	QP	
12	0.2500	15.85	9.74	25.59	51.75	-26.16	AVG	

8 Radiated Spurious Emissions

Test Requirement: FCC Part15 Paragraph 15.225&15.209&15.205

Test Method: ANSI 63.10: 2013;ANSI C63.4:2014

Measurement Distance: 3m

Test Result: ☒ Pass ☐ Fail

Limit:

FCC Part15 Paragraph 15.209

Frequency (MHz)	Field Strength		Field Strength Limit at 3m Measurement Dist	
	uV/m	Distance (m)	uV/m	dBuV/m
0.009 ~ 0.490	2400/F(kHz)	300	10000 * 2400/F(kHz)	$20\log^{(2400/F(kHz))} + 80$
0.490 ~ 1.705	24000/F(kHz)	30	100 * 24000/F(kHz)	$20\log^{(24000/F(kHz))} + 40$
1.705 ~ 30	30	30	100 * 30	$20\log^{(30)} + 40$
30 ~ 88	100	3	100	$20\log^{(100)}$
88 ~ 216	150	3	150	$20\log^{(150)}$
216 ~ 960	200	3	200	$20\log^{(200)}$
Above 960	500	3	500	$20\log^{(500)}$

FCC Part15 Paragraph 15.225

(a) The field strength of any emissions within the band 13.553-13.567 MHz shall not exceed 15,848 microvolts/meter at 30 meters, equal to 124dBuV/m at 3 meters.

(b) Within the bands 13.410-13.553 MHz and 13.567-13.710 MHz, the field strength of any emissions shall not exceed 334 microvolts/meter at 30 meters, equal to 90.47dBuV/m at 3 meters..

(c) Within the bands 13.110-13.410 MHz and 13.710-14.010 MHz the field strength of any emissions shall not exceed 106 microvolts/meter at 30 meters, equal to 80.51dBuV/m at 3 meters..

(d) The field strength of any emissions appearing outside of the 13.110-14.010 MHz band shall not exceed the general radiated emission limits in § 15.209.

8.1 EUT Operation

Operating Environment :

Temperature: 23.5 °C

Humidity: 51.1 % RH

Atmospheric Pressure: 101.2kPa

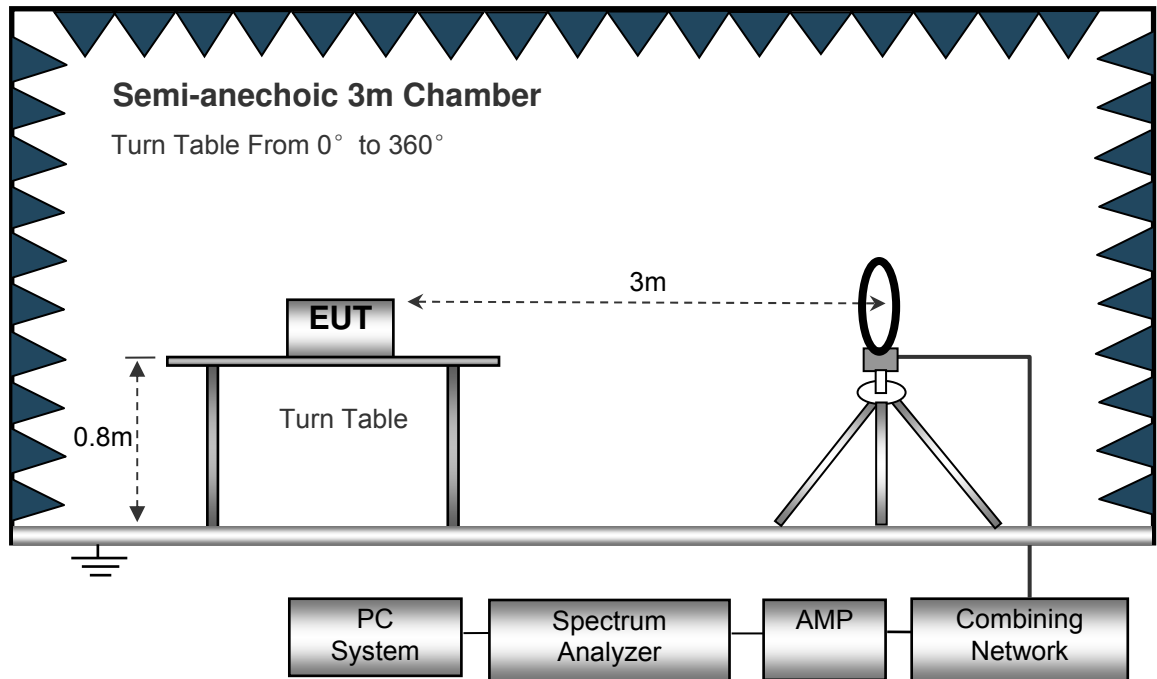
EUT Operation :

The test was performed in transmitting mode, the test data were shown in the report.

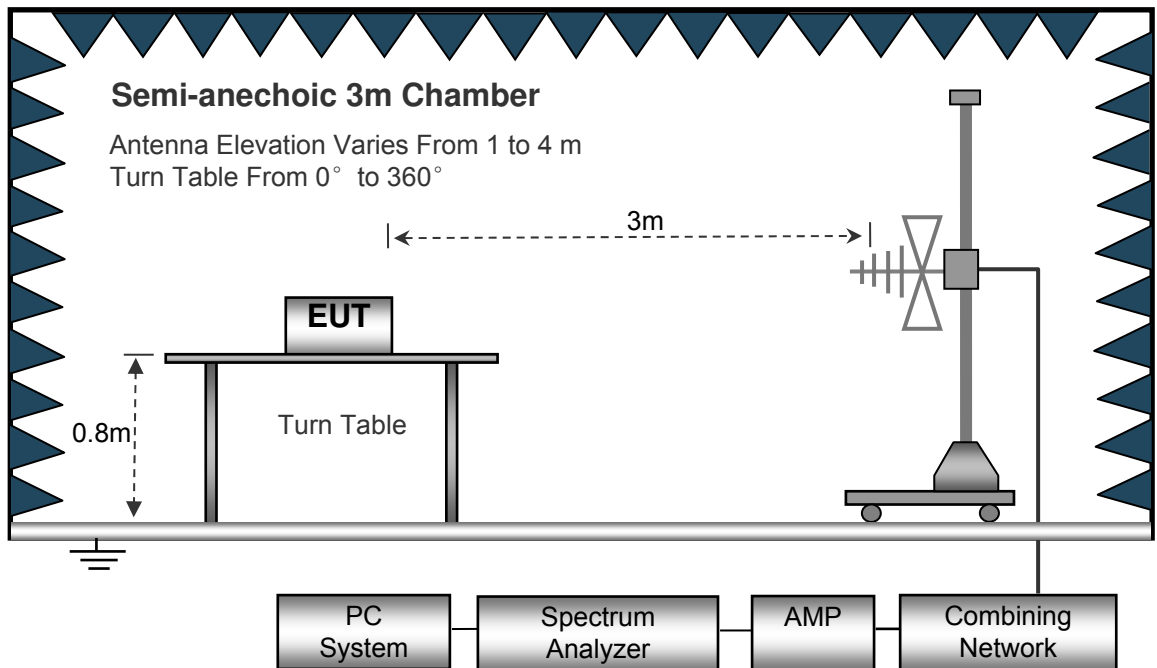
8.2 Test Setup

The radiated emission tests were performed in the 3m Semi- Anechoic Chamber test site, using the setup accordance with the ANSI C63.10: 2013

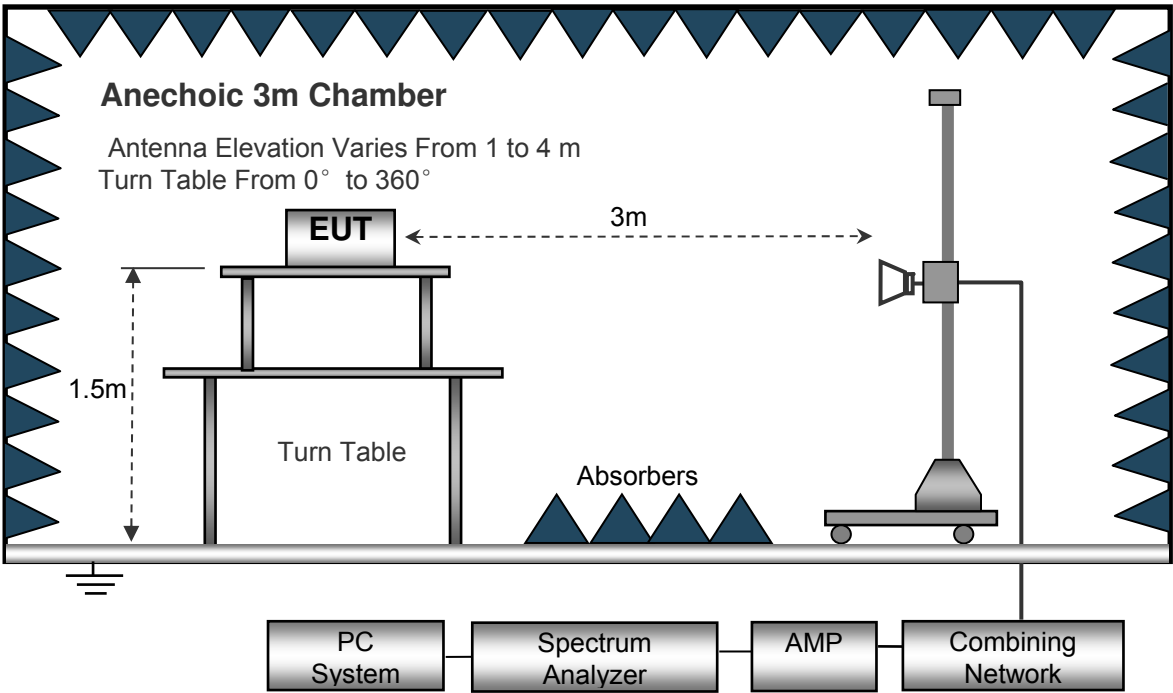
The test setup for emission measurement below 30MHz.



The test setup for emission measurement from 30 MHz to 1 GHz.



The test setup for emission measurement above 1 GHz.



8.3 Spectrum Analyzer Setup

Below 30MHz

- Sweep SpeedAuto
- IF Bandwidth.....10kHz
- Video Bandwidth.....10kHz
- Resolution Bandwidth.....10kHz

30MHz ~ 1GHz

- Sweep SpeedAuto
- DetectorPK
- Resolution Bandwidth.....100kHz
- Video Bandwidth.....300kHz

Above 1GHz

- Sweep SpeedAuto
- DetectorPK
- Resolution Bandwidth.....1MHz
- Video Bandwidth.....3MHz

8.4 Test Procedure

1. The EUT is placed on a turntable. For below 1GHz, the EUT is 0.8m above ground plane; For above 1GHz, the EUT is 1.5m above ground plane.
2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is moved from 1m to 4m to find out the maximum emissions. The spectrum was investigated from the lowest radio frequency signal generated in the device, without going below 9 kHz, up to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
6. Repeat above procedures until the measurements for all frequencies are complete.
7. The radiation measurements are tested under 3-axes(X, Y, Z) position(X denotes lying on the table, Y denotes side stand and Z denotes vertical stand). After pre-test, It was found that the worse radiation emission was get at the X position. So the data shown was the X position only.

8.5 Frequency range of radiated measurements.

According to FCC 47 CFR Section 15.33:

(a) For an intentional radiator, the spectrum shall be investigated from the lowest radio frequency signal generated in the device, without going below 9 kHz, up to at least the frequency shown in this paragraph:

(1) If the intentional radiator operates below 10 GHz: to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.

(2) If the intentional radiator operates at or above 10 GHz and below 30 GHz: to the fifth harmonic of the highest fundamental frequency or to 100 GHz, whichever is lower.

(3) If the intentional radiator operates at or above 30 GHz: to the fifth harmonic of the highest fundamental frequency or to 200 GHz, whichever is lower, unless specified otherwise elsewhere in the rules.

(4) If the intentional radiator contains a digital device, regardless of whether this digital device controls the functions of the intentional radiator or the digital device is used for additional control or function purposes other than to enable the operation of the intentional radiator, the frequency range shall be investigated up to the range specified in paragraphs (a)(1) through (a)(3) of this section or the range applicable to the digital device, as shown in paragraph (b)(1) of this section, whichever is the higher frequency range of investigation.

Result: So the Frequency range of radiated form: 9 KHz to 1GHz.

8.6 Summary of Test Results

Test Frequency: 9 kHz ~ 30MHz Note: Correct factor = Cable loss + Antenna factor

Frequency	Receiver Reading (PK)	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude (PK)	FCC Part 15.225/15.209/205	
			Height	Polar			Limit	Margin
(MHz)	(dBμV) @3m	Degree	(m)	(H/V)	(dB/m)	(dBμV/m) @3m	(dBμV/m)@3m	(dB)
13.56	43.51	123	1.9	H	19.68	63.19	124	-60.81
13.56	34.50	316	1.5	V	19.68	54.18	124	-69.82

Frequency (MHz)	Receiver Reading	Detector	Correct factor	Extrapolation factor	Measurement results (calculated)	Limits	Margin
	dBμV @3m	QP	dB/m	dB	dBμV/m @30m	dBμV/m @30m	dB
4.259	32.64	QP	20.20	40.00	12.84	29.54	-16.70
11.437	35.38	QP	19.90	40.00	15.28	29.54	-14.26

Frequency Range (MHz)	Frequency (MHz)	Maximum Reading	Detector	Correct factor	Extrapolation factor	Measurement results (calculated)	Limits	Margin
		dBμV @3m	QP	dB/m	dB	dBμV/m @30m	dBμV/m @30m	dB
13.110~13.41	13.401	40.12	QP	21.55	40	21.67	40.51	-18.84
13.410~13.553	13.546	48.65	QP	21.55	40	30.20	50.47	-20.27
13.567~13.71	13.587	48.05	QP	21.55	40	29.60	50.47	-20.87
13.710~14.01	13.719	37.65	QP	21.55	40	19.20	40.51	-21.31

Test Frequency: 30MHz ~ 1GHz

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.225/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dBμV) @3m	(QP)	Degree	(m)	(H/V)	(dB)	(dBμV/m) @3m	(dBμV/m) @3m	(dB)
32.59	31.41	QP	150	1.2	H	-14.30	17.11	40.00	-22.89
32.59	32.96	QP	206	2.0	V	-14.30	18.66	40.00	-21.34
223.45	36.12	QP	51	1.8	H	-13.58	22.54	46.00	-23.46
223.45	40.81	QP	117	1.6	V	-13.58	27.23	46.00	-18.77
517.98	39.25	QP	192	1.7	H	-5.63	33.62	46.00	-12.38
517.98	40.13	QP	173	1.6	V	-5.63	34.50	46.00	-11.50

9 Frequency Tolerance

Test Requirement: FCC Part15.225

Test Method: ANSI C63.10: 2013

Limit The frequency tolerance of the carrier signal shall be maintained within +/- 0.01% of the operating frequency over a temperature variation of -20 degrees to +50 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C. For battery operated equipment, the equipment tests shall be performed using a new battery.

9.1 Test Procedure

1. The EUT was placed on a turn table which is 0.8m above ground plane.
2. Set EUT as normal operation
3. Set SPA Centre Frequency = fundamental frequency, RBW=30 Hz, VBW= 100 Hz, Span =3 kHz.
4. Set SPA Max hold. Mark peak.

9.2 Test Result

Power Supply	Temperature (°C)	Measured Frequency (MHz)	Frequency Error	Part 15.225 Limit
DC 3.7V\	-20	13.5612	0.0091%	±0.01%
	-10	13.5606	0.0043%	±0.01%
	0	13.5598	-0.0018%	±0.01%
	+10	13.5595	-0.0035%	±0.01%
	+20	13.5608	0.0059%	±0.01%
	+30	13.5592	-0.0058%	±0.01%
	+40	13.5593	-0.0053%	±0.01%
	+50	13.5605	0.0037%	±0.01%
DC 3.145 V	-20	13.5607	0.0052%	±0.01%
	-10	13.5602	0.0016%	±0.01%
	0	13.5597	-0.0022%	±0.01%

	+10	13.5608	0.0061%	±0.01%
	+20	13.5609	0.0066%	±0.01%
	+30	13.5611	0.0083%	±0.01%
	+40	13.5594	-0.0044%	±0.01%
	+50	13.5609	0.0070%	±0.01%
DC4.255V	-20	13.5604	0.0029%	±0.01%
	-10	13.5601	0.0076%	±0.01%
	0	13.5596	-0.0032%	±0.01%
	+10	13.5601	0.0006%	±0.01%
	+20	13.5600	0.0001%	±0.01%
	+30	13.5593	-0.0055%	±0.01%
	+40	13.5606	0.0046%	±0.01%
	+50	13.5603	0.0024%	±0.01%

10 20dB Bandwidth

Test Requirement: FCC Part15.215(C)
Test Method: ANSI C63.10: 2013

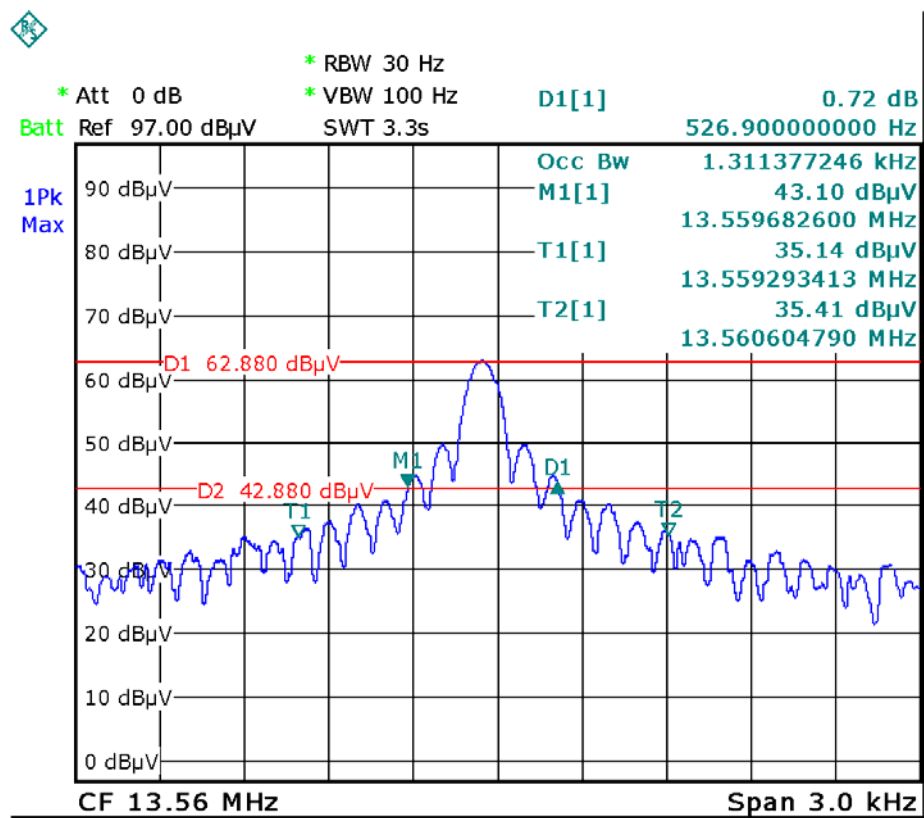
10.1 Test Procedure

- 1. The transmitter output (antenna port) was connected to the spectrum analyzer in peak mode.
- 2. 20dB Bandwidth the resolution bandwidth of 30 Hz and the video bandwidth of 100 Hz were used.
- 3. Measured the spectrum width with power higher than 20dB below carrier.

10.2 Test Result

Frequency(MHz)	Bandwidth Emission(Hz)
13.56	526.90

Test Plot



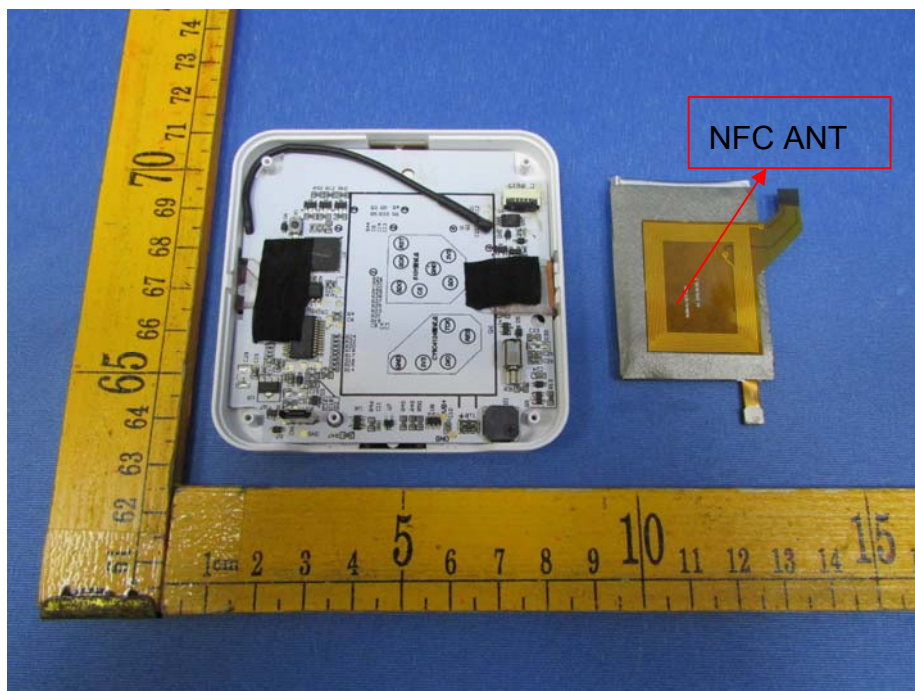
11 Antenna Requirement

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 shall be considered sufficient to comply with the provisions of this section. 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. This requirement does not apply to carrier current devices or to devices operated under the provisions of §15.211, §15.213, §15.217, §15.219, or §15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with §15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

For intentional device, according to FCC 47 CFR Section 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.

Result:

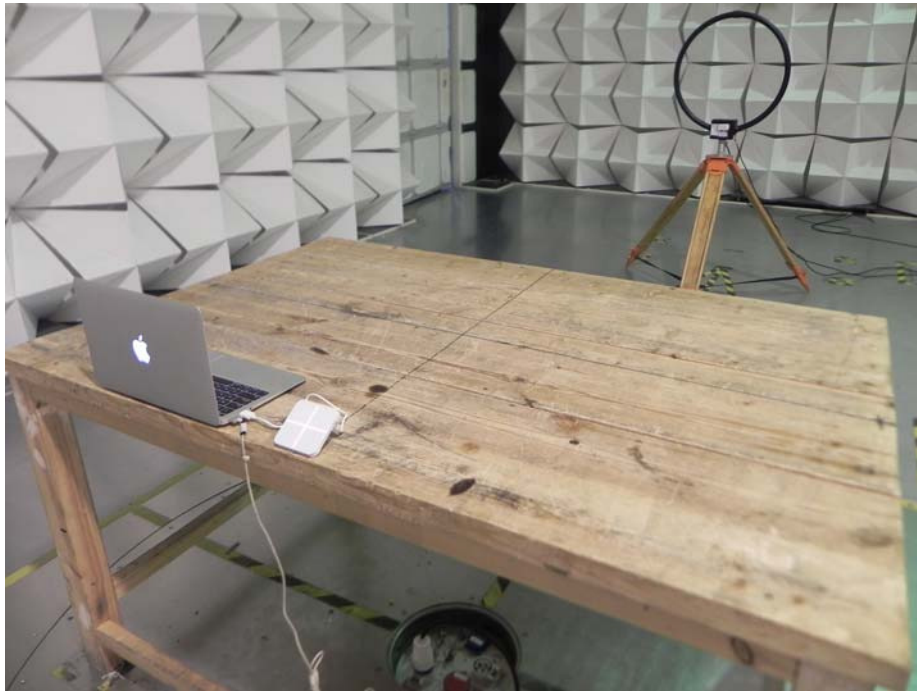
The EUT has oneLoop Antenna, meets the requirements of FCC 15.203.



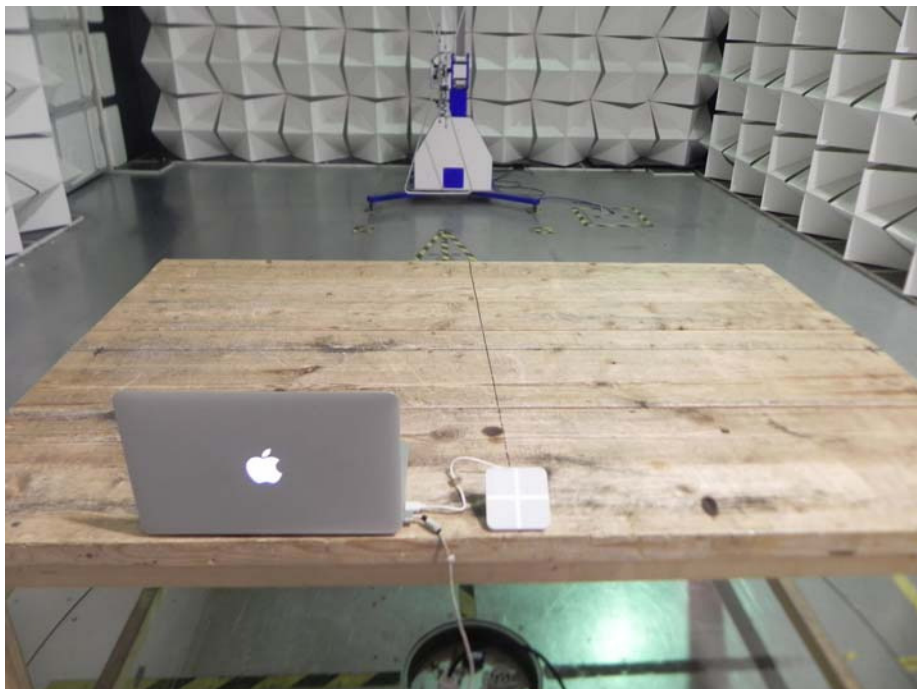
12 Photographs- Model FT130-A Test Setup Photos

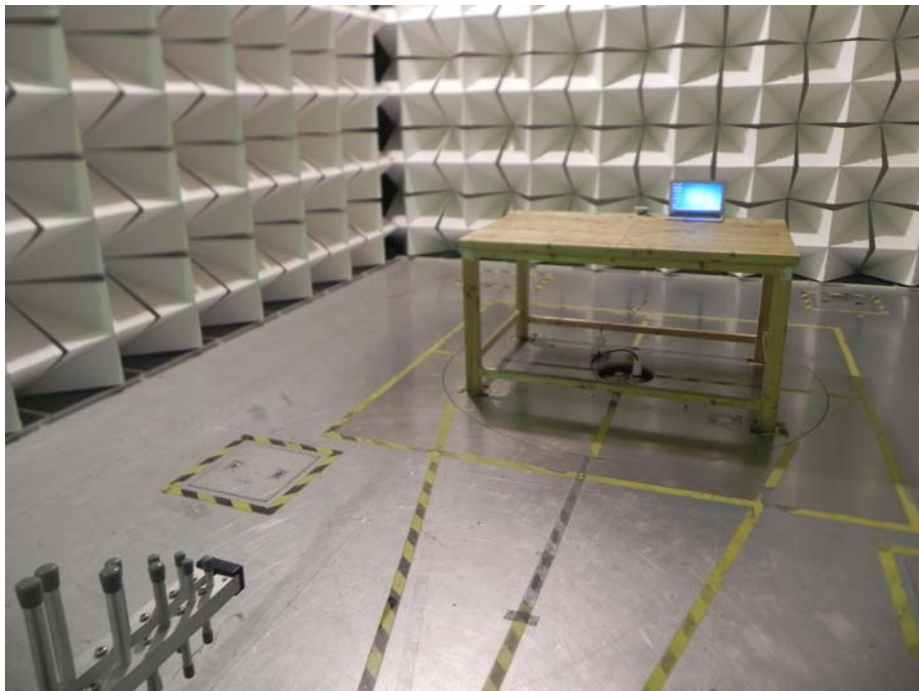
12.1 Photograph – Radiation Emission

Test frequency from 9 KHz to 30MHz at test site 2#



Test frequency from 30MHz to 1GHz at test site 2#





12.2 Photograph – Conducted Emission Test Setup at Test Site 2#



13 Photographs - Constructional Details

13.1 EUT - External Photos

Model FT130-A

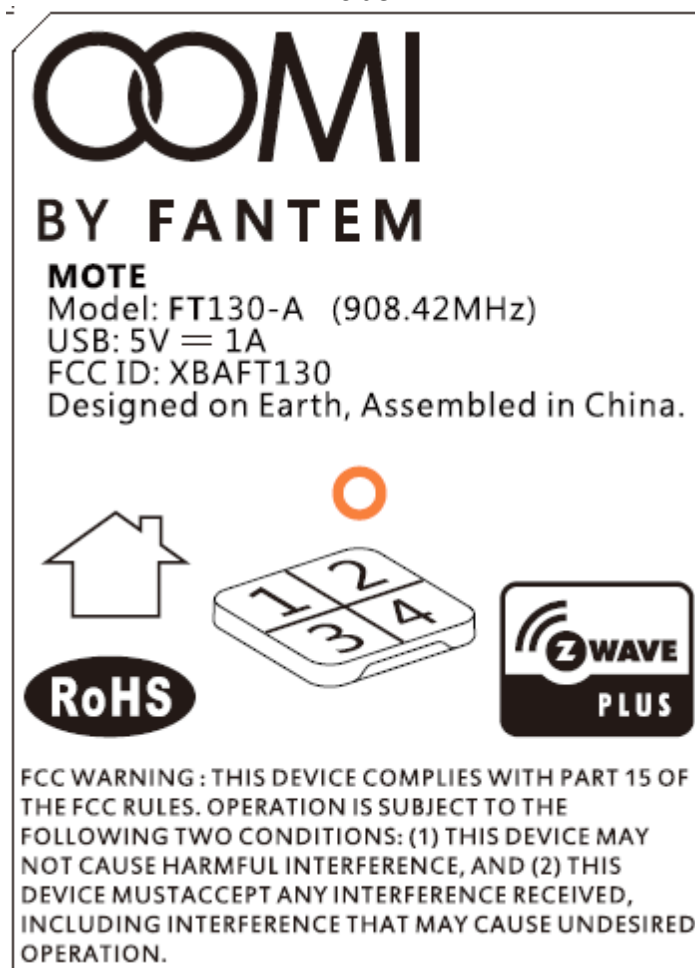








Label



Model ZW130-A



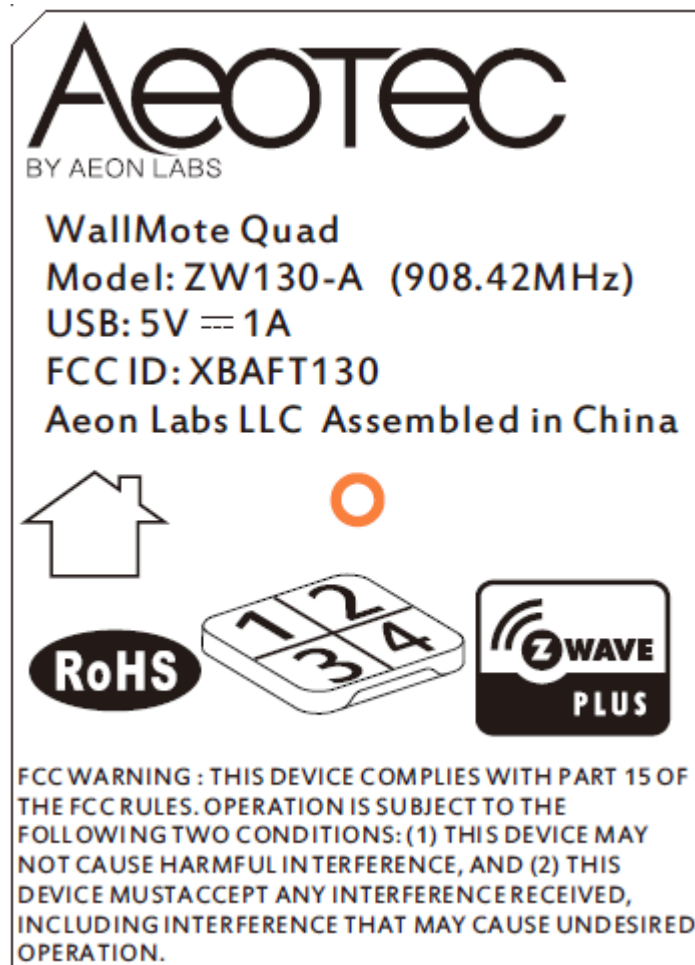








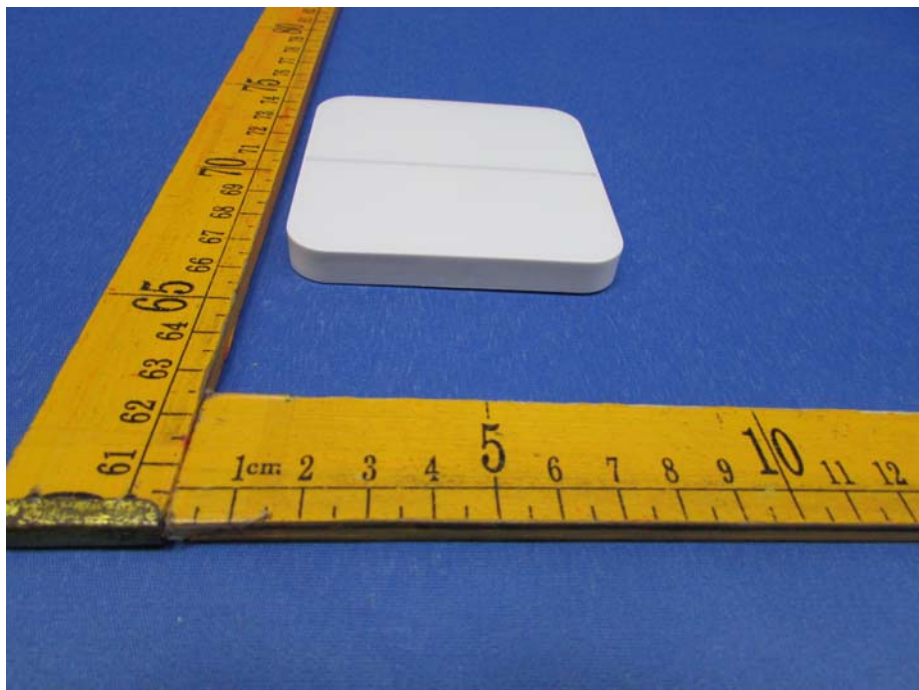
Label



Model FT129-A

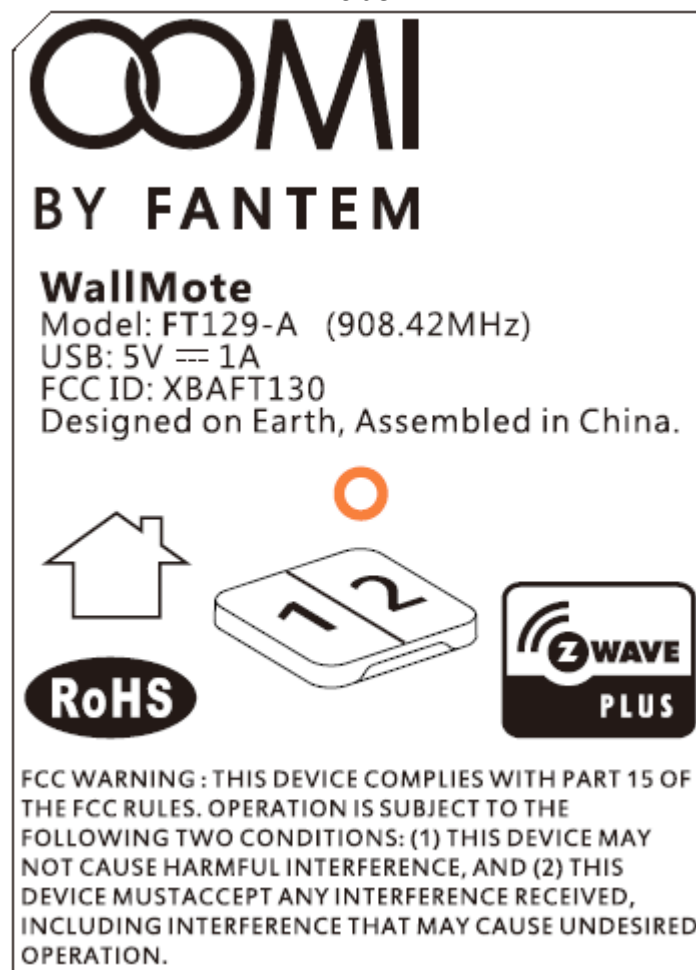








Label

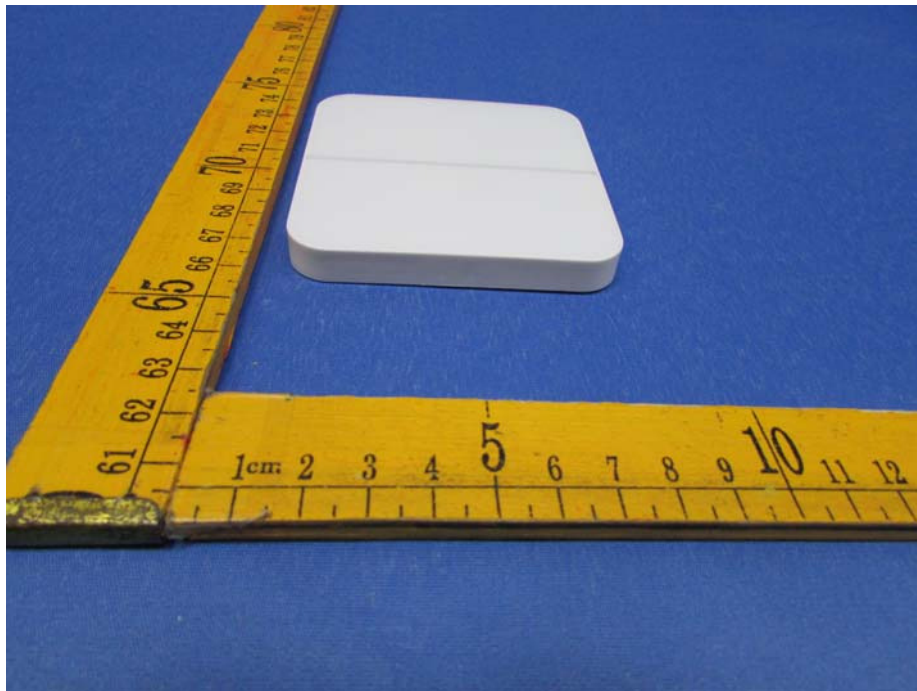


Model ZW129-A



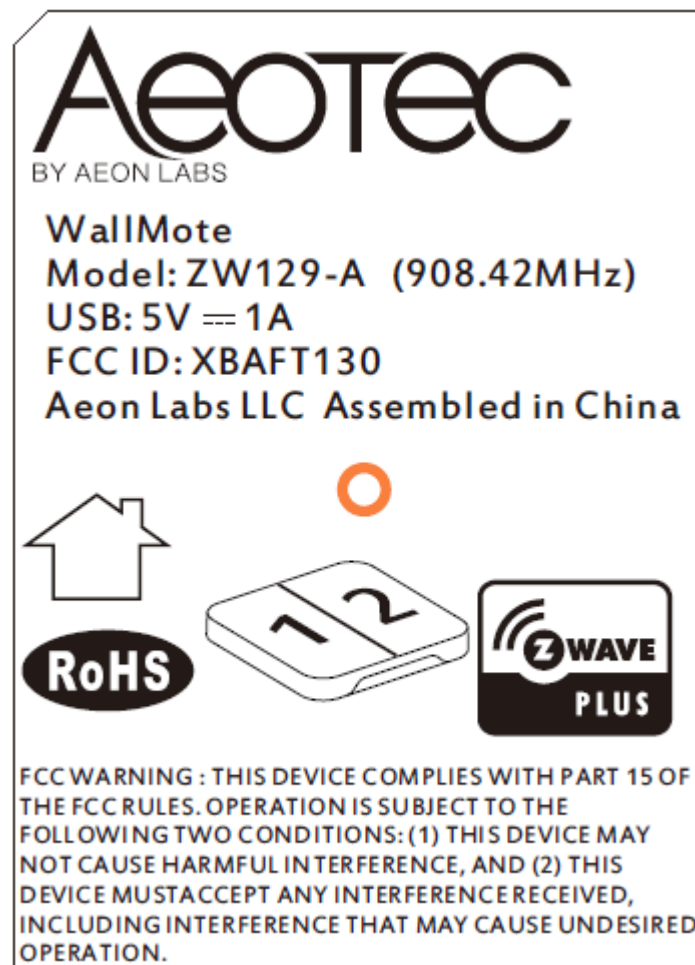






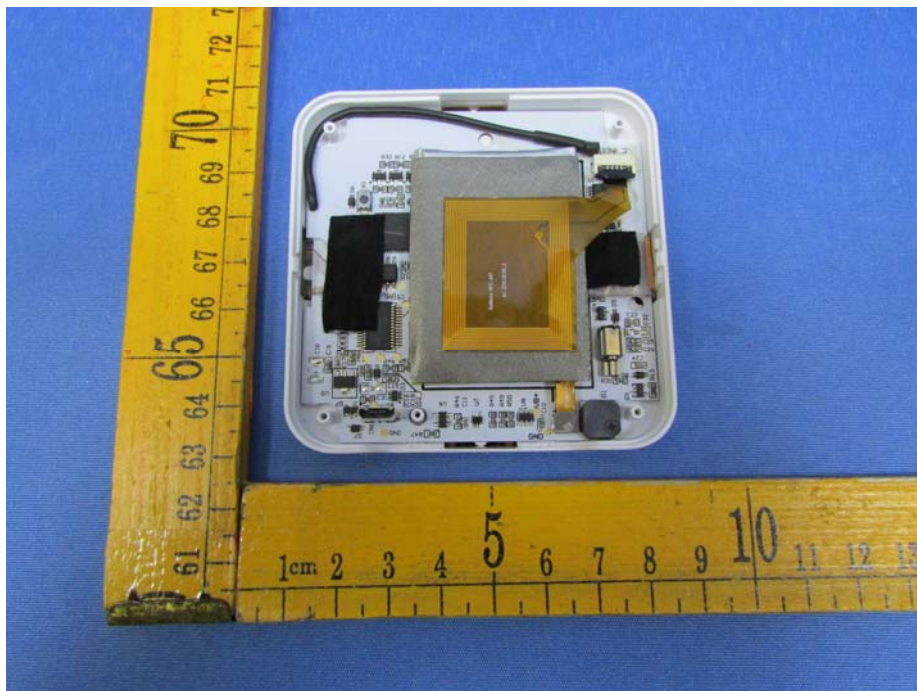
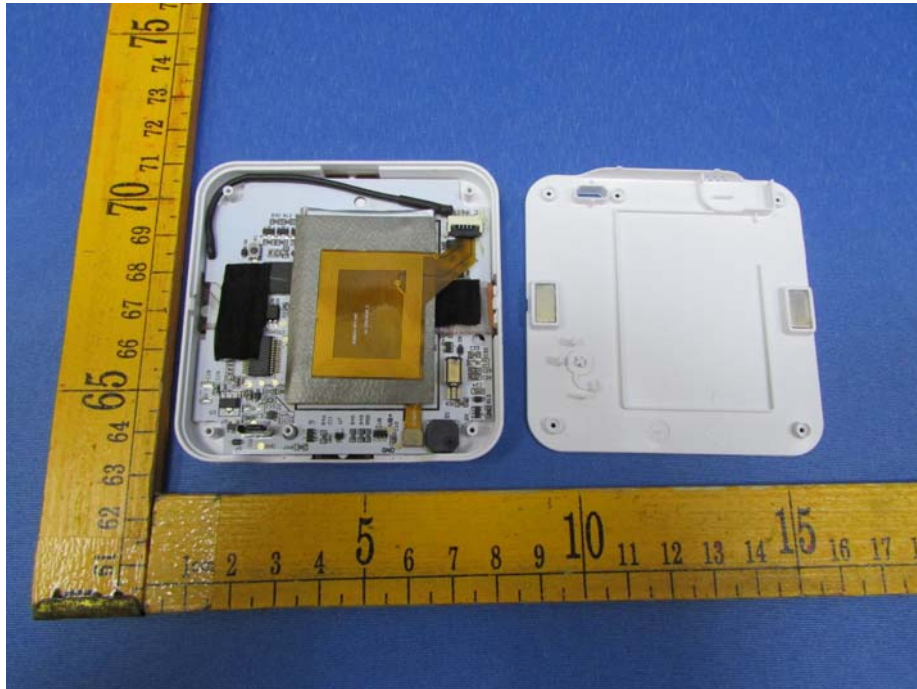


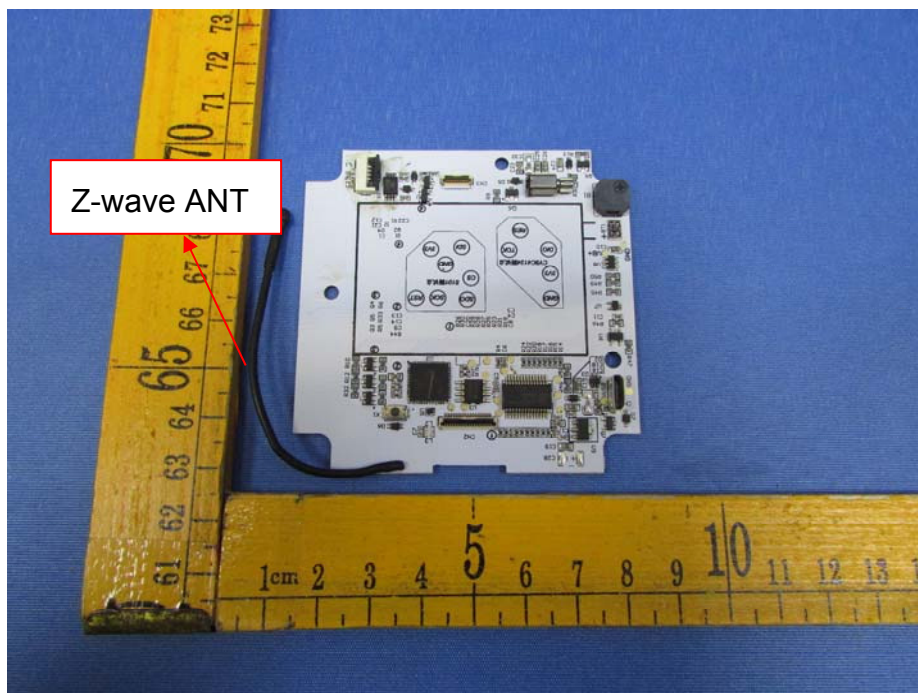
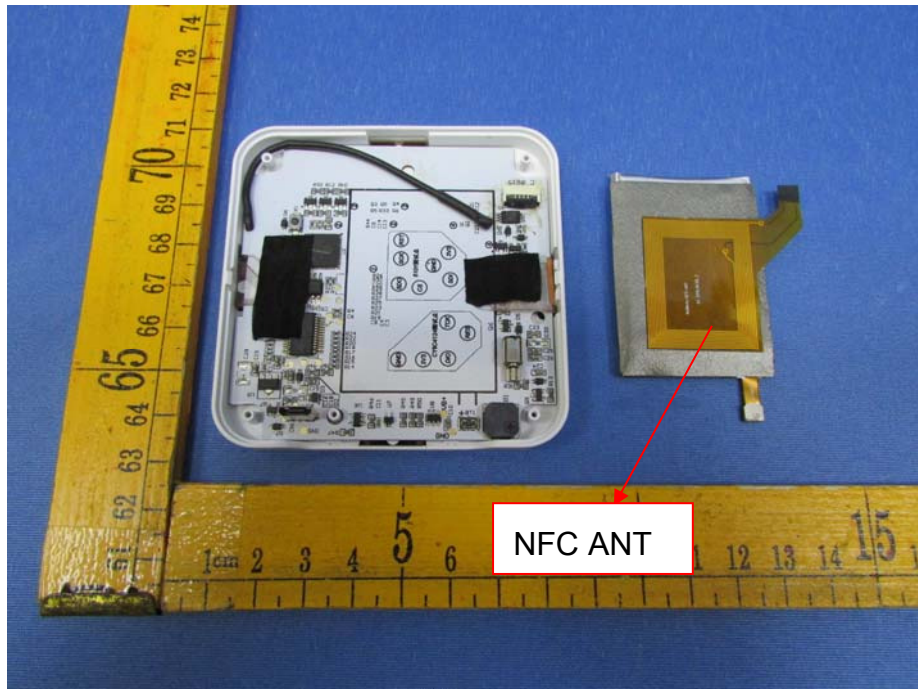
Label

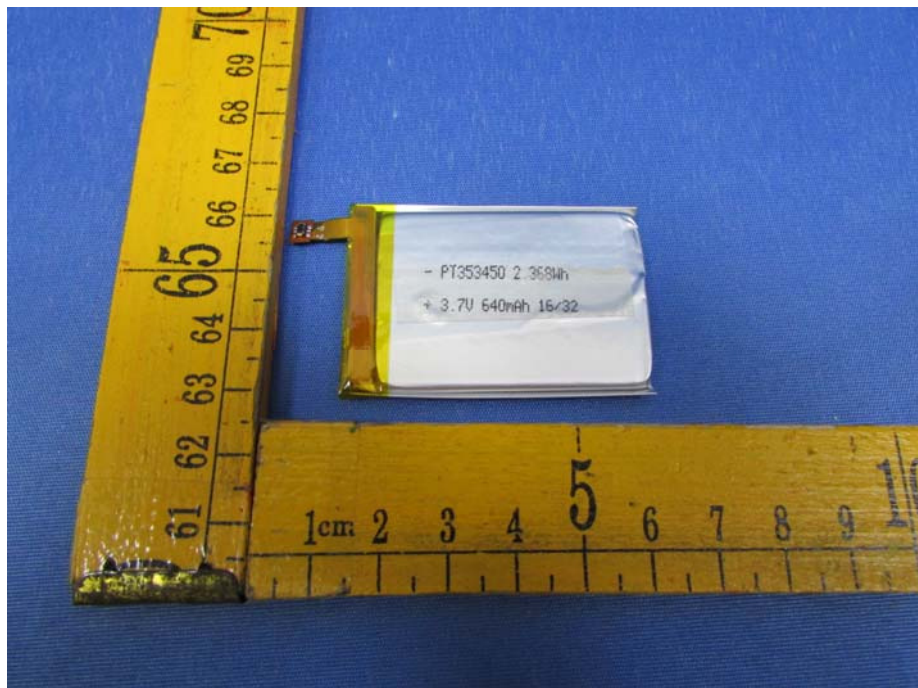
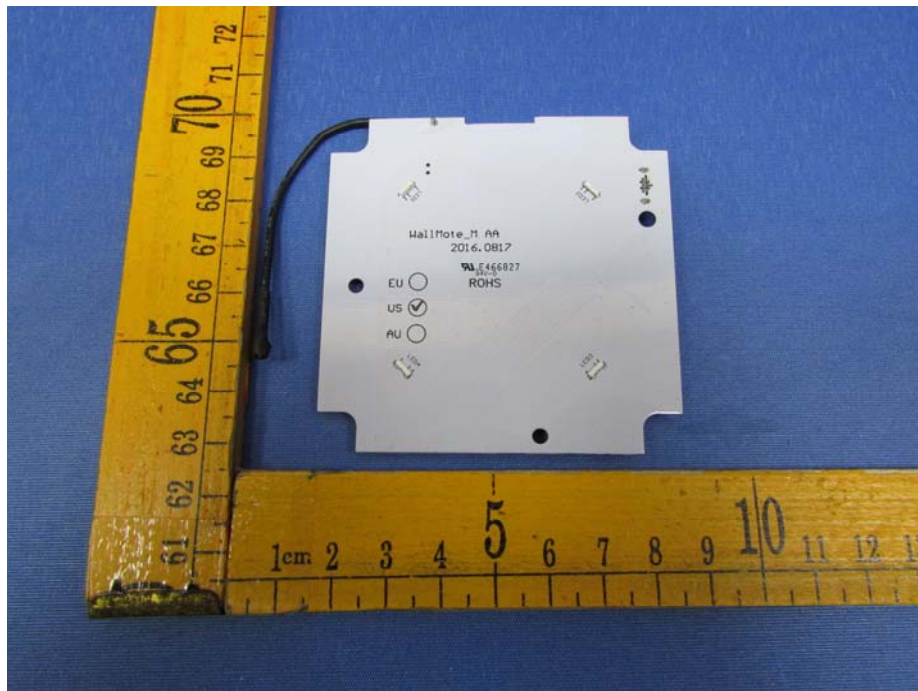


13.2 EUT - Internal Photos

Model FT130-A

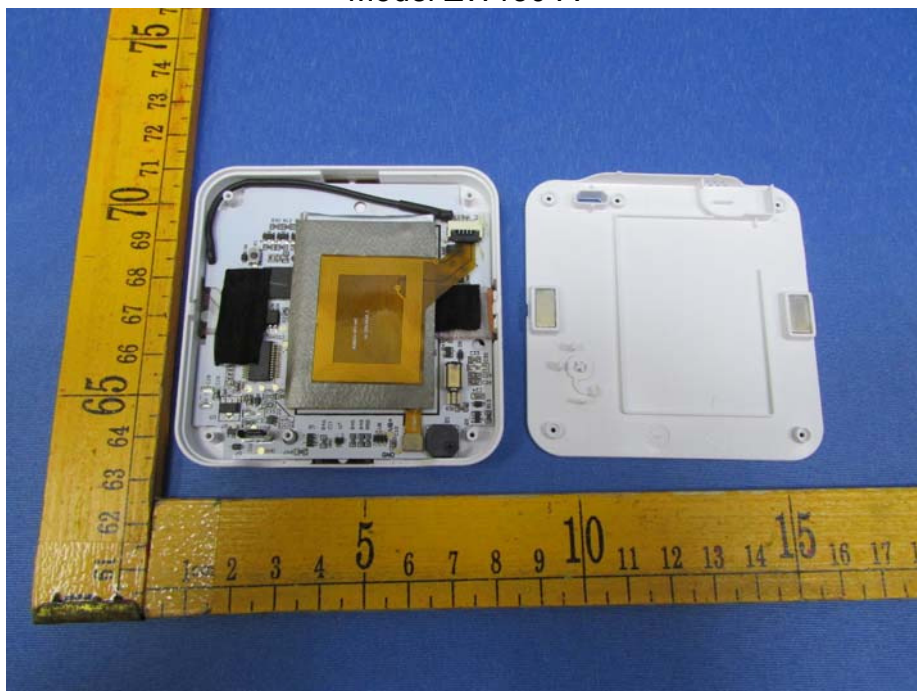


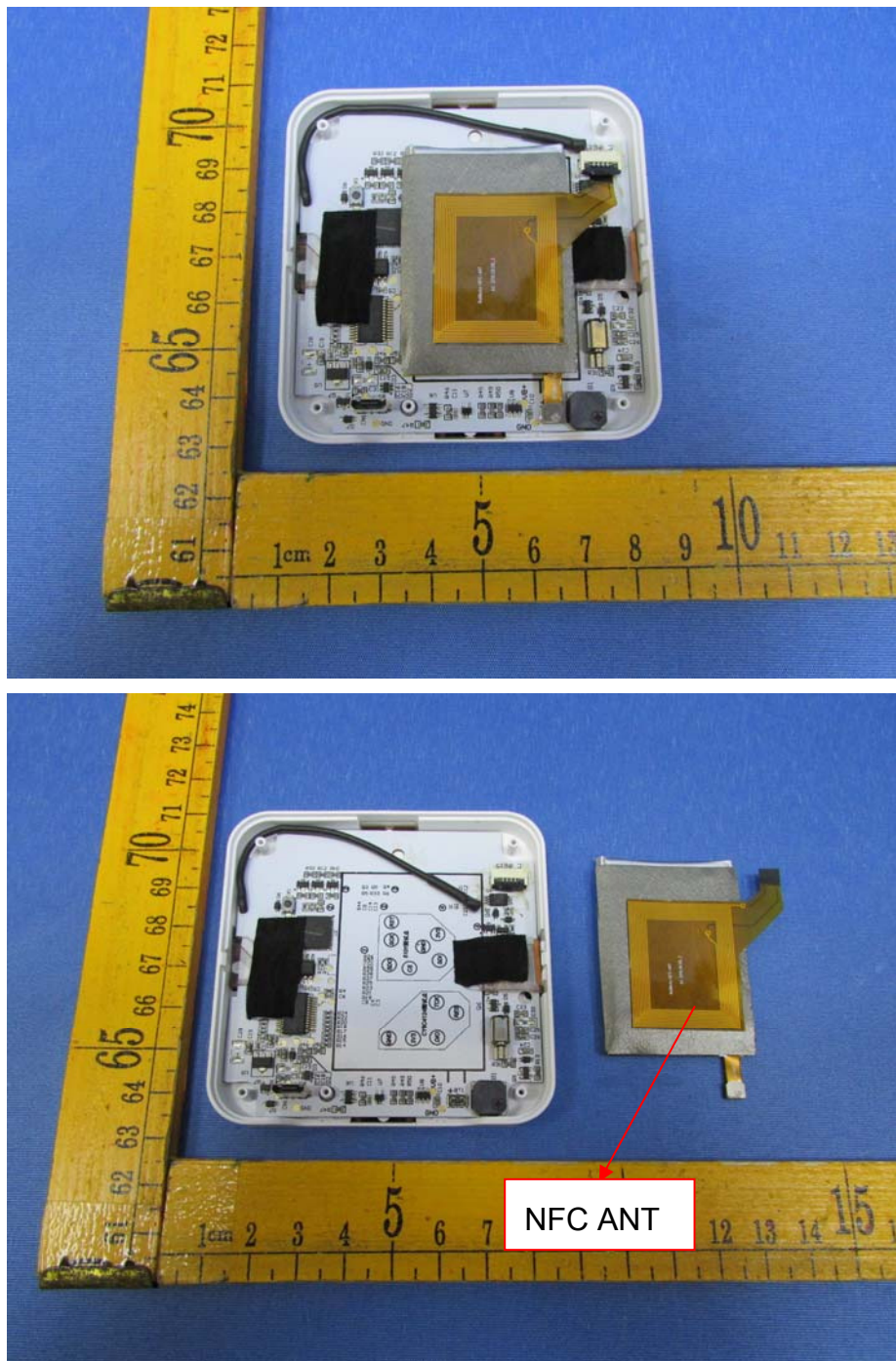


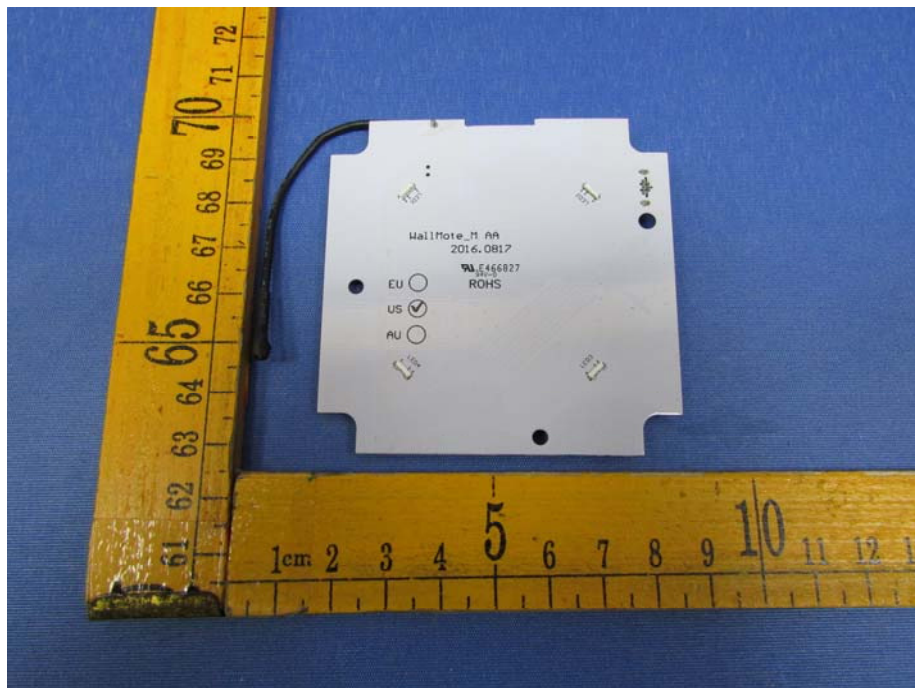
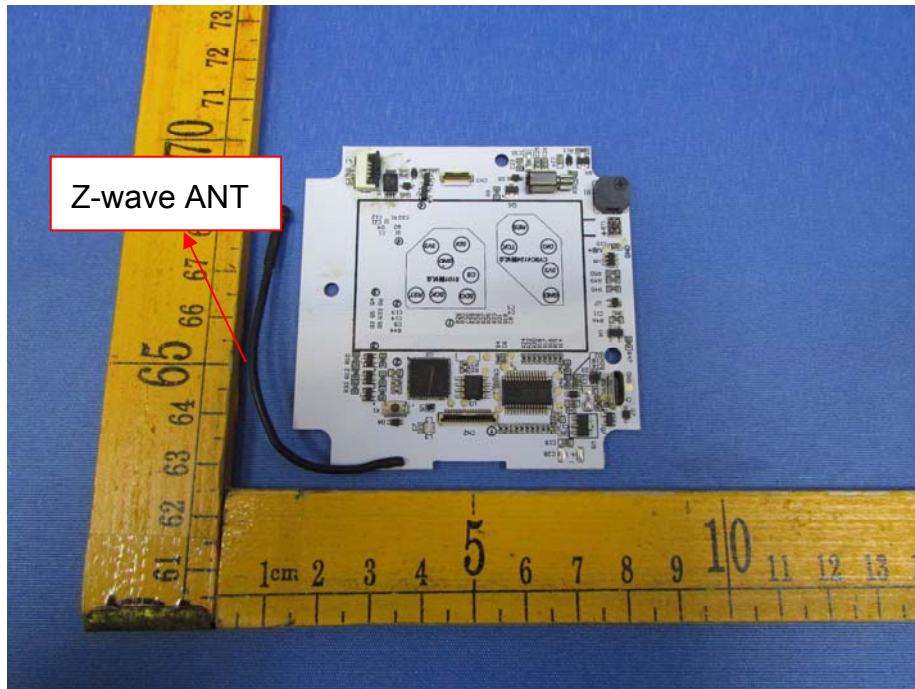




Model ZW130-A

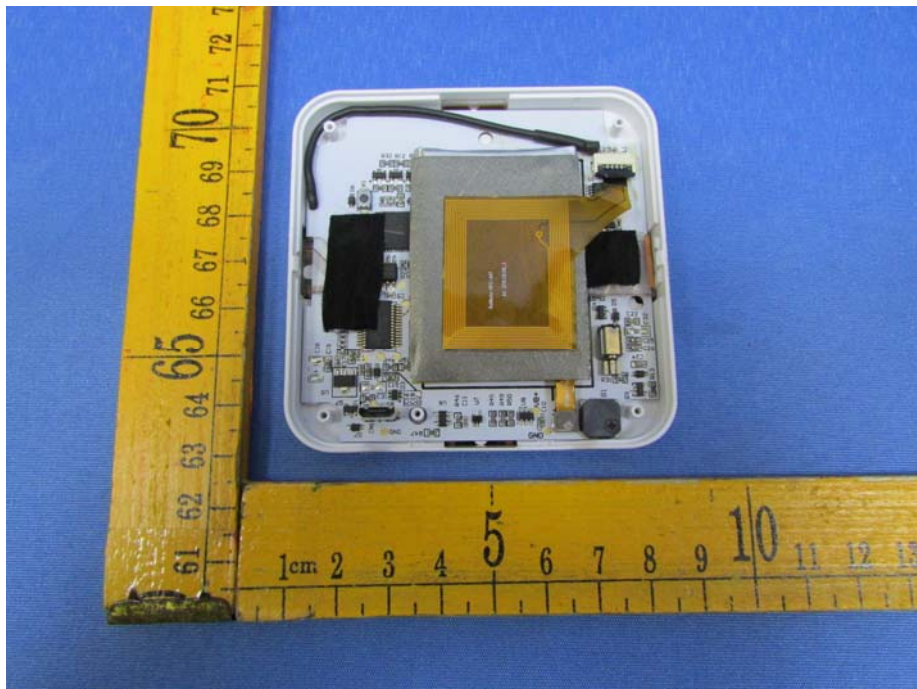
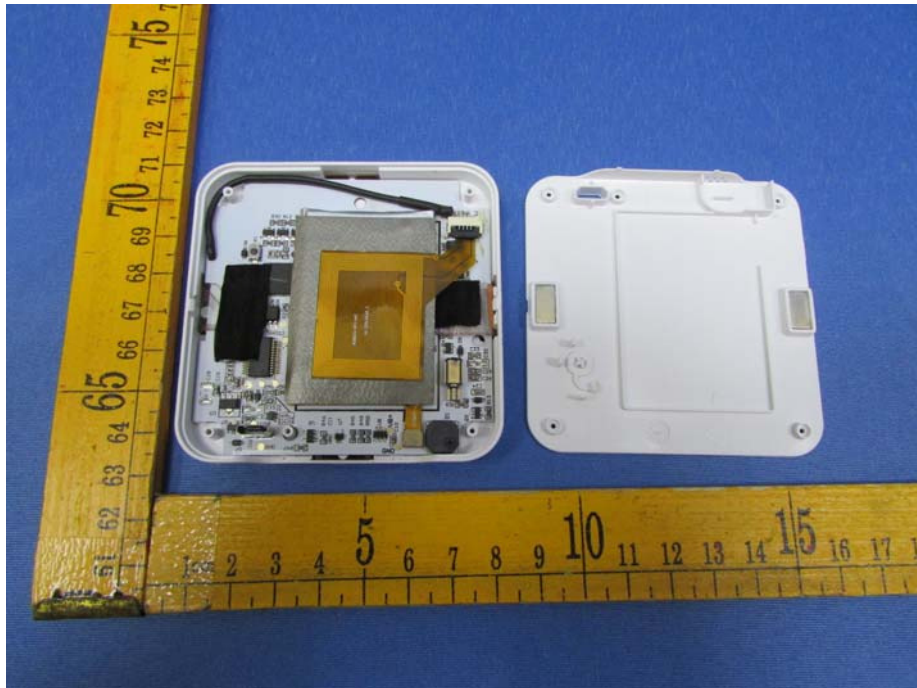


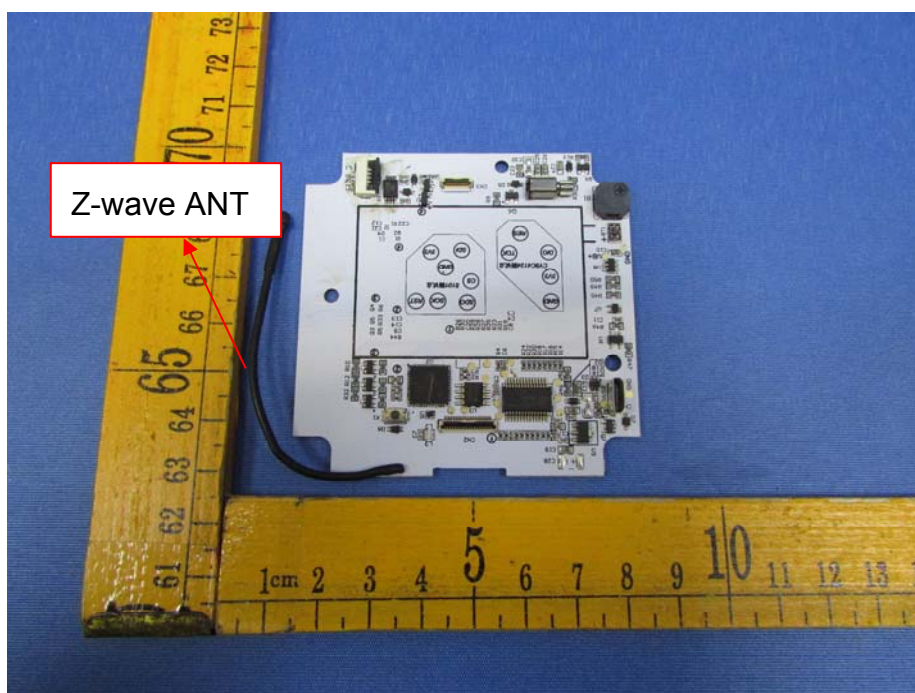
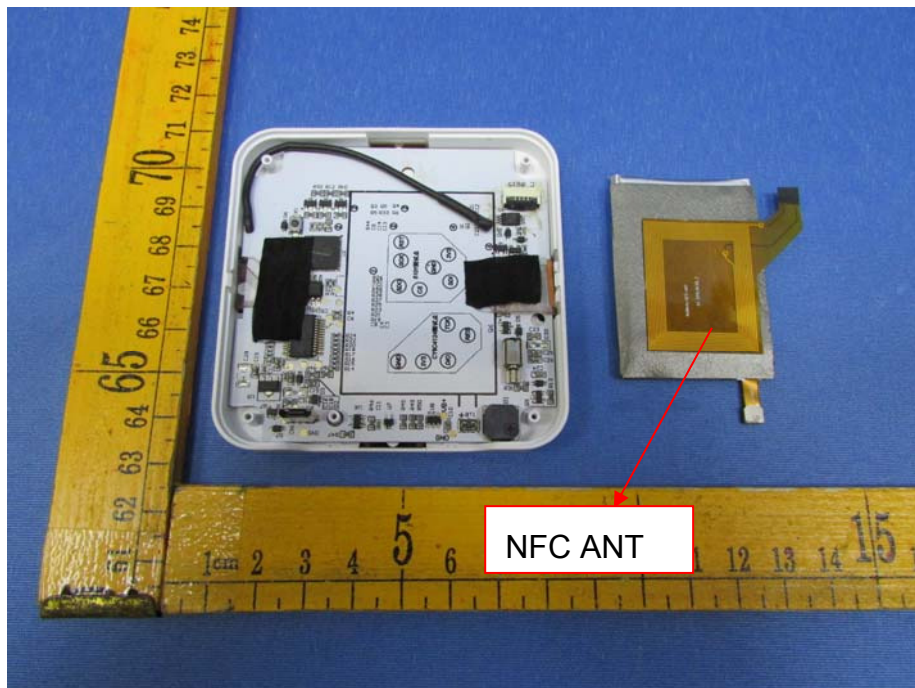


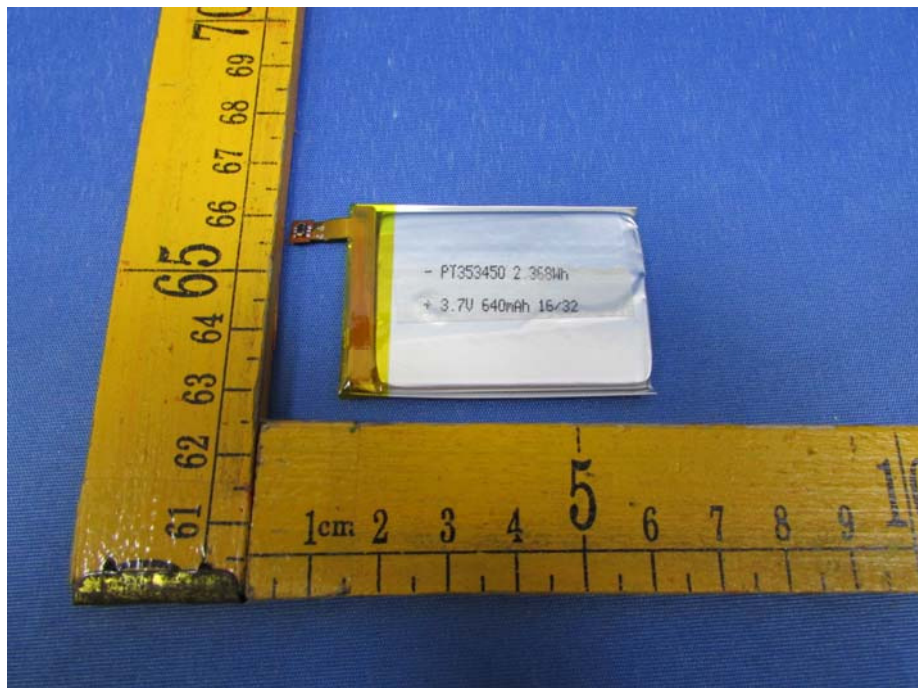
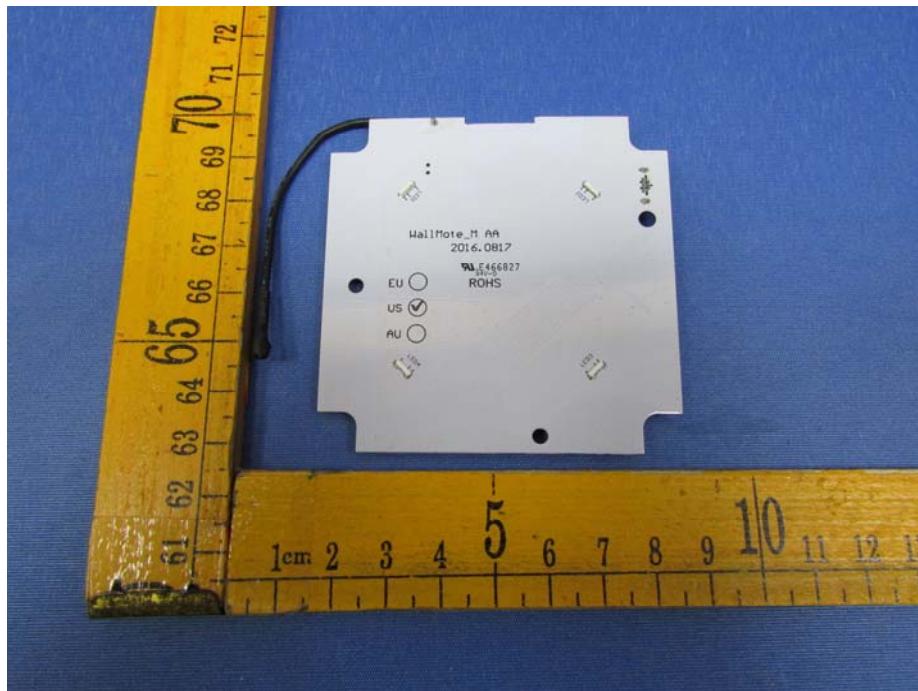




Model FT129-A

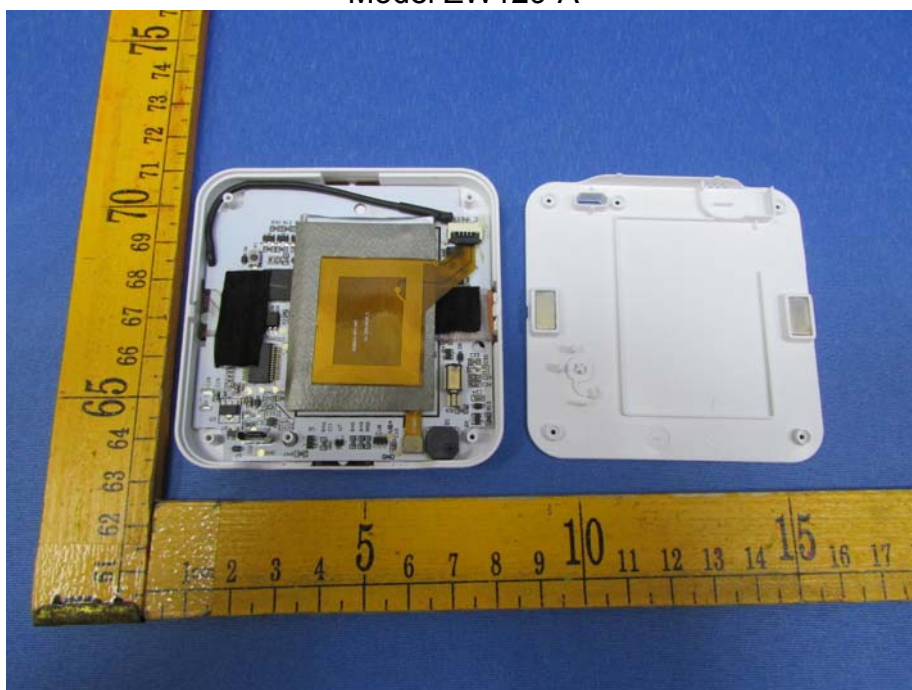


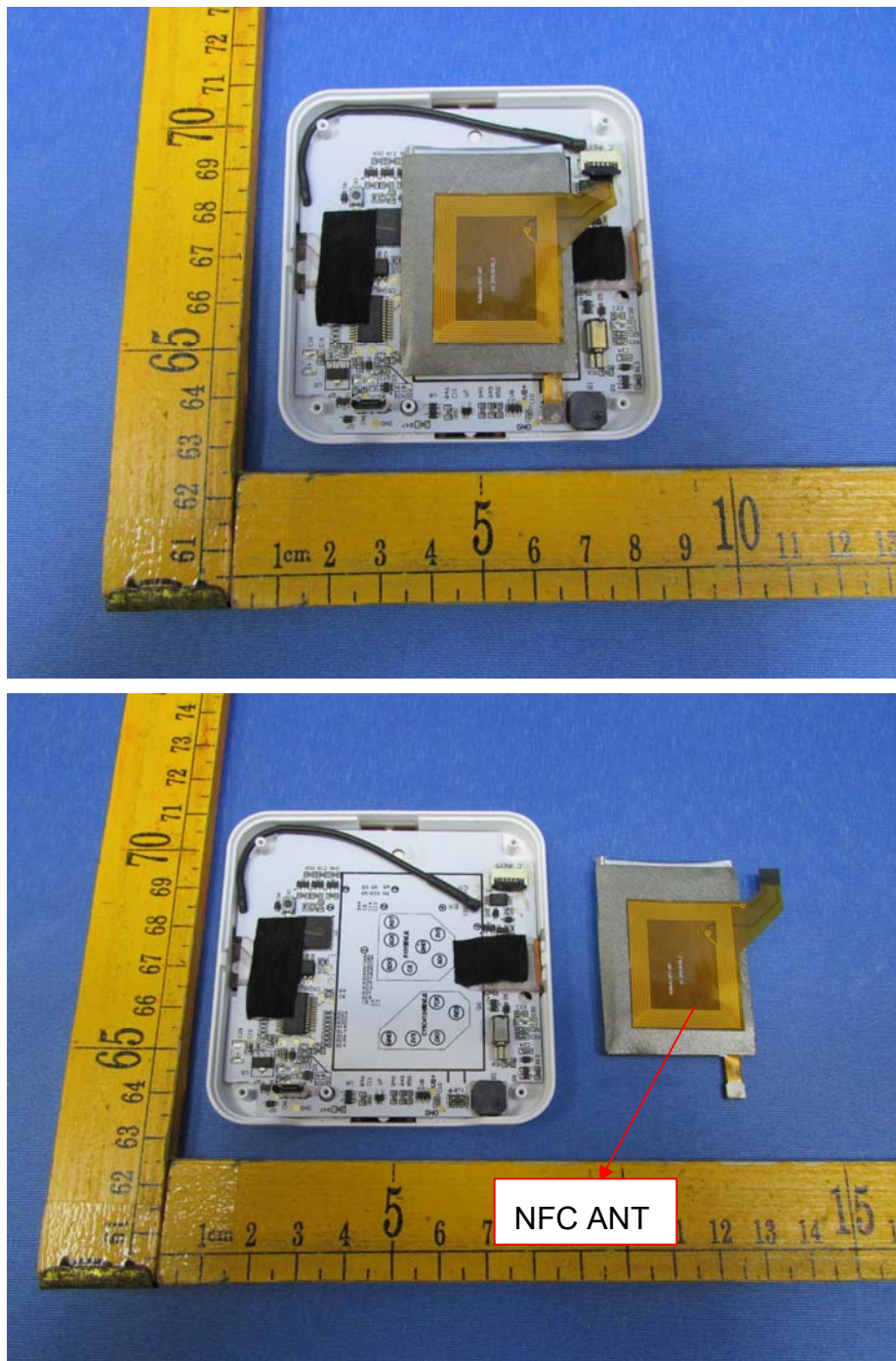


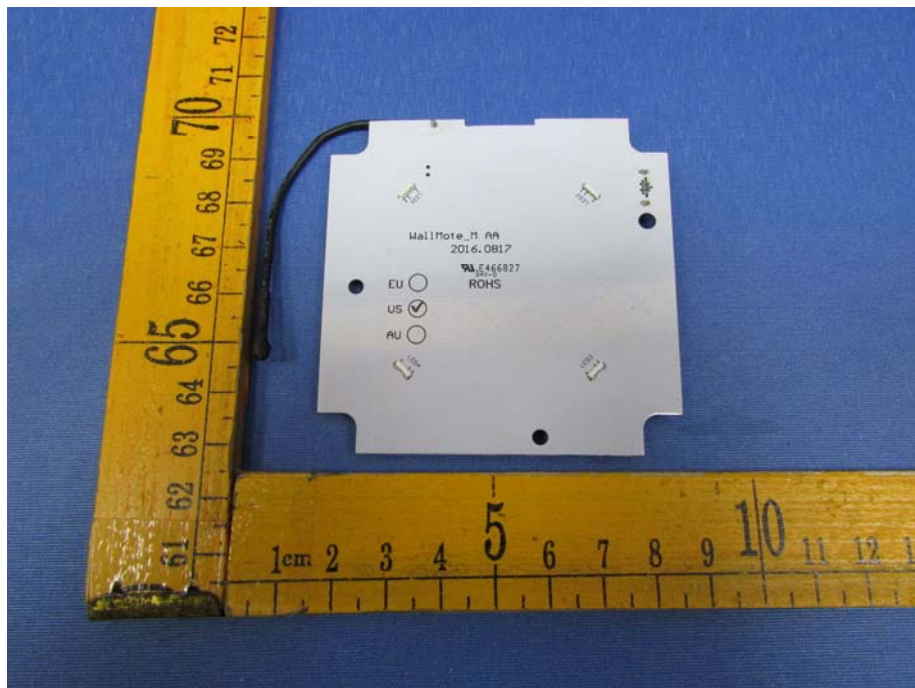
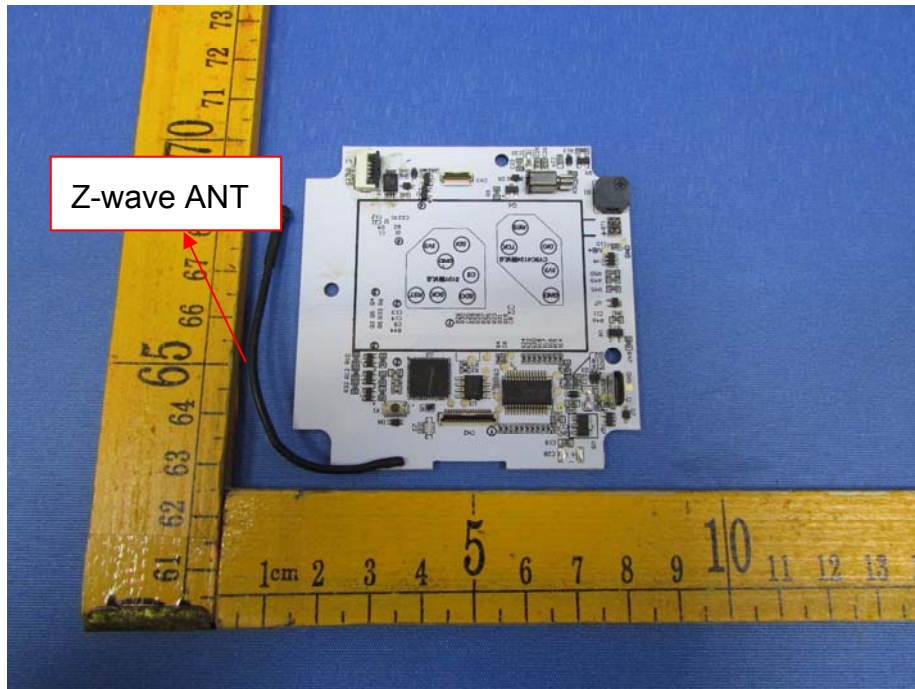




Model ZW129-A









=====End of Report=====