FCC Report

Application Purpose	:	Original grant
Applicant Name:	:	SHENZHEN DIVOOM TECHNOLOGY CO., LTD.
FCC ID	:	A8IVOOMBOX-PARTY
Equipment Type	:	Bluetooth speaker
Model Name	:	VOOMBOX-PARTY
Report Number	:	FCC15019859-2
Standard(S)	:	FCC Part 15 Subpart C
Date Of Receipt	:	March 01, 2015
Date Of Issue	:	March 09, 2015

Test By :

(Neil Wong)

Reviewed By :

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REPORT REVISE RECORD

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	March 09, 2015	Valid	Original Report

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1. GENERAL INFORMATION

GENERAL DESCRIPTION OF EUT

Test Model	VOOMBOX-PARTY
Applicant	SHENZHEN DIVOOM TECHNOLOGY CO., LTD.
Address	A3, 2nd Floor, Block A, Zhengxing Building, No. 33 Taizi Road, Shekou, Nanshan District, Shenzhen, Guangdong, China
Manufacturer	SHENZHEN DIVOOM TECHNOLOGY CO., LTD.
Address	A3, 2nd Floor, Block A, Zhengxing Building, No. 33 Taizi Road, Shekou, Nanshan District, Shenzhen, Guangdong, China
Equipment Type	Bluetooth speaker
Brand Name	**DIVOOM**
Hardware version:	F4 1.6T
Software version:	V1.0
Extreme Temp. Tolerance	-10℃ to +50℃
Operating Voltage	Charge: Via usb cable, 5V-1A Li-ion Battery: Voltage: 3.7V Capacity: 4200mAh Limited Charge Voltage: 4.2V
Operating Frequency	2402-2480MHz
Channels	40
Channel Spacing	2MHz
Modulation Type	GFSK
Version	V4.0 BLE mode
Antenna Type:	Integral Antenna
Antenna gain:	1.0dBi
Data of receipt	March 01, 2015
Date of test	March 01, 2015 to March 08, 2015
Deviation	None
Condition of Test Sample	Normal

We hereby certify that:

The above equipment was tested by
Building A, Baoshi Science & Technology Park, Baoshi Road, Bao'an District, Shenzhen, Guangdong, China

The data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C 63.4:2009. The sample tested as described in this report is in compliance with the FCC Rules Part15 Subpart C.
The test results of this report relate only to the tested sample identified in this report.

2. TEST DESCRIPTION

2.1 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	Uncertainty
1	Conducted Emission Test	±3.2dB
2	RF power, conducted	±0.16dB
3	Spurious emissions, conducted	±0.21dB
4	All emissions, radiated(<1G)	±4.7dB
5	All emissions, radiated(>1G)	±4.7dB
6	Temperature	±0.5°C
7	Humidity	±2%

2.2 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Mode	Description
Mode 1	CH00
Mode 2	CH20
Mode 3	CH39
Mode 4	Charging & Normal Operating

For Conducted Emission	
Final Test Mode	Description
Mode 4	Charging & Normal Operating

For Radiated Emission	
Final Test Mode	Description
Mode 1	CH00
Mode 2	CH20
Mode 3	CH39

Note:

(1) The measurements are performed at the highest, middle, lowest available channels.

(2) The EUT use fully-charged battery.

(3) The EUT was programmed to be in continuously transmitting mode and the transmit duty cycle is not less than 98%

(4)The data rate was set in 1Mbps for radiated emission due to the highest RF output power.

(5) Record the worst case of each test item in this report.

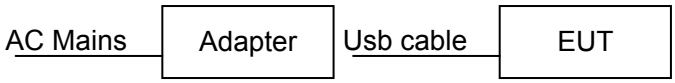
2.3 Table of Parameters of Text Software Setting

During testing channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product power parameters of FHSS

Test software Version	4.0		
Test program	Blue test		
Frequency	2402 MHz	2440 MHz	2480 MHz
Parameters(1Mbps)	DEF	DEF	DEF
Parameters(2Mbps)	DEF	DEF	DEF
Parameters(3Mbps)	DEF	DEF	DEF

2.4 CONFIGURATION OF SYSTEM UNDER TEST

For Conducted Emission (1)



For Radiated Emission (2)

(EUT: Bluetooth speaker)

2.5 Peripherals Equipment List

Item	Equipment	Model No.	ID or Specification	Remark
1	Usb cable	N/A	N/A	0.6m, Unshielded,

2.6 DESCRIPTION OF SUPPORT UNITS (CONDUCTED MODE)

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.

Item	Equipment	Mfr/Brand	Model/Type No.	Series No.	Note
1	Adapter	TECNO	A88-501000	N/A	Input: AC100-240V 50/60HZ Output: DC5V 1A

Note:

(1) The support equipment was authorized by Declaration of Confirmation.

(2) For detachable type I/O cable should be specified the length in cm in 『Length』 column.

(3) "YES" is means "shielded" "with core"; "NO" is means "unshielded" "without core".

(4) The adapter supply by the laboratory.

3. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

FCC Part15 (15.247) , Subpart C			
Standard Section	**Test Item**	**Judgment**	Remark
15.203	Antenna Requirement	PASS	
15.207	Conducted Emission	PASS	
15.209, 15.205, 15.247(d)	Spurious Emission	PASS	
15.247(a) (2)	6dB Bandwidth Testing	PASS	
15.247(b) (3)	Maximum Peak Output Power	PASS	
15.247(d)	100 KHz Bandwidth of Frequency Band Edge	PASS	
15.247(e)	Maximum Conducted Power Spectral Density	PASS	

NOTE:

(1)" N/A" denotes test is not applicable in this test report.

4. MEASUREMENT INSTRUMENTS

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last Calibrated	Calibrated until
ESPI Test Receiver	R&S	ESPI	100379	2014-08-19	2015-08-18
EMI Test Receiver	R&S	ESCI	100005	2014-08-19	2015-08-18
LISN	Mestec	AN3016	04/10040	2014-08-19	2015-08-18
Coaxial cable	Megalon	LMR400	C001	2014-08-19	2015-08-18
System Controller	CT	SC100	011208	2014-08-19	2015-08-18
Bi-log Antenna	Chase	CBL6111C	2576	2014-08-19	2015-08-18
Spectrum analyzer	R&S	FSU26	200409	2014-08-19	2015-08-18
Horn Antenna	SCHWARZBECK	9120D	1141	2014-08-19	2015-08-18
Loop Antenna	EMCO	6502	00042960	2014-08-22	2015-08-21
Pre Amplifier	H.P.	HP8447E	2945A02715	2014-10-13	2015-10-12
Pre-Amplifier	CDSI	PAP-1G18-38	7621	2014-10-13	2015-10-12
8*4*3 Anechoic	SAEMC	L×W×H 8×4×3	A001	2014-08-21	2015-08-20
9*6*6 Anechoic	SAEMC	L×W×H 9×6×6	A002	2014-08-21	2015-08-20
Power meter	Anritsu	ML2487A	6K00003613	2014-08-23	2015-08-22
MXA Signal Analyzer	Aglient	N9020A	54123254	2014-08-19	2015-08-18
Power sensor	Anritsu	MX248XD	95327410	2014-08-19	2015-08-18
RF cable	H+S	SUCOFLEX 102	R002	2014-08-19	2015-08-18
Horn Antenna	SCHWARZBECK	BBHA 9170	1123	2014-08-19	2015-08-18
Antenna connector	muRata	MM9329-2700	R003	2014-08-19	2015-08-18

I/O CABLES (Conducted Setup)

I/O Cable List						
Cable No	**Port**	**# of identical ports**	**Connector Type**	**Cable Type**	**Cable Length**	**Remarks**
1	Antenna	1	SMA	Shielded	0.2m	To Spectrum Analyzer

§15.203 - ANTENNA REQUIREMENT

Standard Applicable

According to § 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. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the user of a standard antenna jack or electrical connector is prohibited. The structure and application of the EUT were analyzed to determine compliance with section §15.203 of the rules. §15.203 state that the subject device must meet the following criteria:

a. Antenna must be permanently attached to the unit.
b. Antenna must use a unique type of connector to attach to the EUT.

Unit must be professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.

Antenna Connector Construction

The EUT's antenna integrated on PCB, The antenna's gain is 1.0 dBi and meets the requirement.

§15.207 - CONDUCTED EMISSIONS

Applicable Standard

The specification used was with the FCC Part 15.207 limits.

Test Procedure

During the conducted emission test, the EUT was connected to the outlet of the LISN.
Maximizing procedure was performed on the six (6) highest emissions of the EUT.
All data was recorded in the Quasi-peak and average detection mode.

Test Result

PASS

Test Mode: Charging & Normal Operating

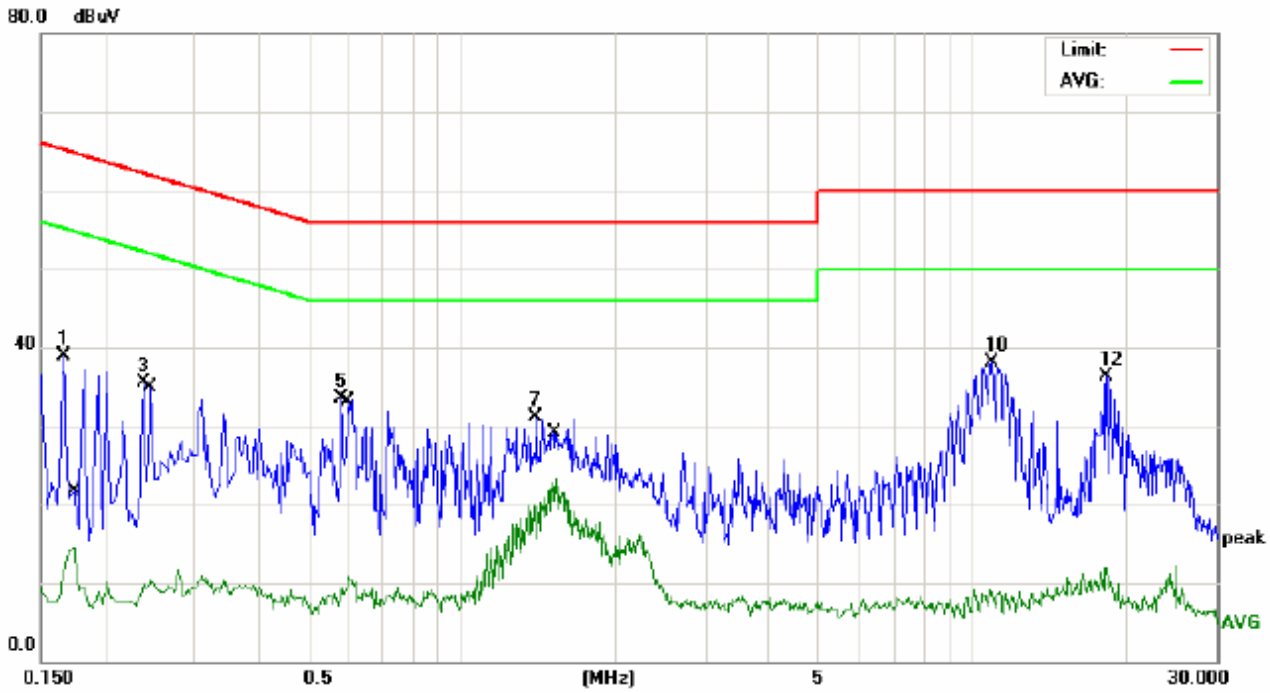
Environmental Conditions

Temperature:	23 °C
Relative Humidity:	57%
ATM Pressure:	100.0kPa

Plot(s) of Test Data

Plot(s) of Test Data is presented hereinafter as reference.

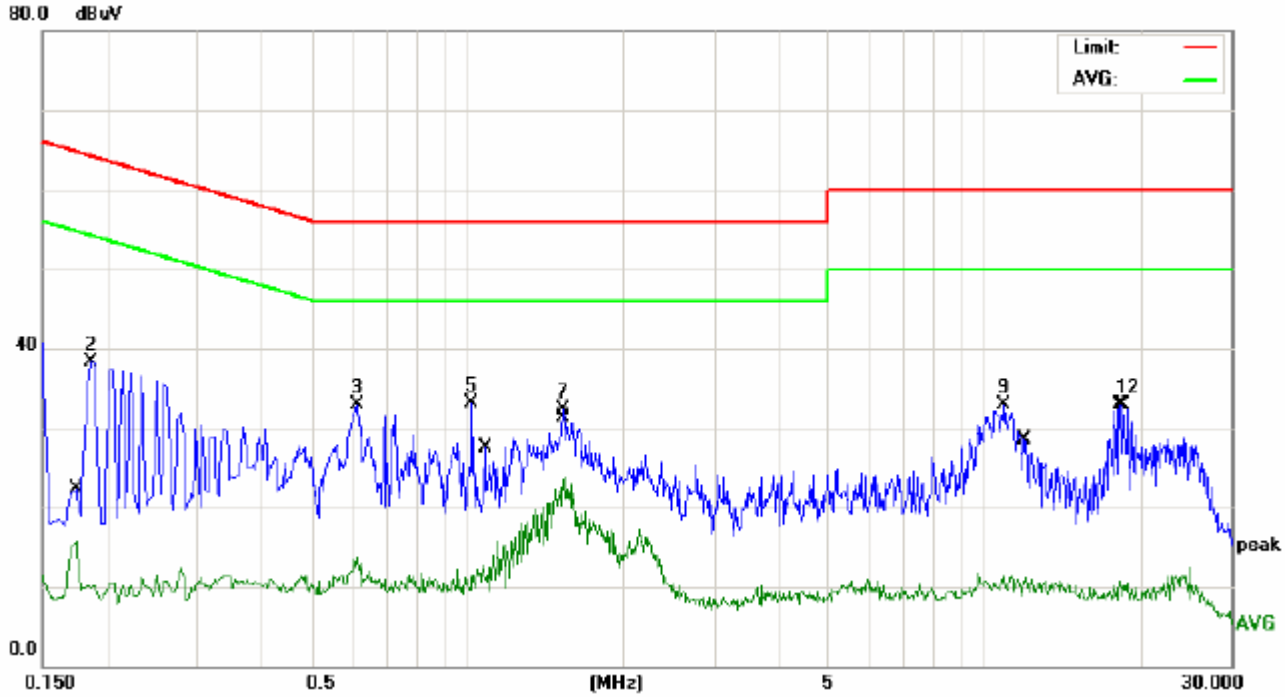
Phase: Live



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1		0.1660	28.45	10.40	38.85	65.15	-26.30	peak
2		0.1740	4.21	10.38	14.59	54.76	-40.17	AVG
3		0.2380	25.12	10.43	35.55	62.16	-26.61	peak
4		0.2460	-0.24	10.46	10.22	51.89	-41.67	AVG
5		0.5820	22.80	10.65	33.45	56.00	-22.55	peak
6		0.5980	0.29	10.69	10.98	46.00	-35.02	AVG
7		1.3980	20.45	10.74	31.19	56.00	-24.81	peak
8		1.5300	12.58	10.73	23.31	46.00	-22.69	AVG
9		10.8459	-1.27	10.41	9.14	50.00	-40.86	AVG
10	*	10.9139	27.64	10.41	38.05	60.00	-21.95	peak
11		18.2259	1.39	10.48	11.87	50.00	-38.13	AVG
12		18.3219	25.83	10.48	36.31	60.00	-23.69	peak

Remark: All of the Tx modes have been investigated, and only worst mode is presented in this report.

Phase: Neutral



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1		0.1740	5.34	10.38	15.72	54.76	-39.04	AVG
2		0.1860	28.00	10.34	38.34	64.21	-25.87	peak
3		0.6100	22.16	10.72	32.88	56.00	-23.12	peak
4		0.6100	2.93	10.72	13.65	46.00	-32.35	AVG
5		1.0180	22.31	10.75	33.06	56.00	-22.94	peak
6		1.0700	1.99	10.75	12.74	46.00	-33.26	AVG
7		1.5300	21.62	10.73	32.35	56.00	-23.65	peak
8	*	1.5540	12.92	10.73	23.65	46.00	-22.35	AVG
9		10.9179	22.43	10.41	32.84	60.00	-27.16	peak
10		12.0179	0.69	10.42	11.11	50.00	-38.89	AVG
11		18.2739	0.22	10.48	10.70	50.00	-39.30	AVG
12		18.5619	22.46	10.49	32.95	60.00	-27.05	peak

Remark: All of the Tx modes have been investigated, and only worst mode is presented in this report.

§15.209, §15.205, §15.247(d) - SPURIOUS EMISSIONS

Test Equipment

Please refer to section 4 this report.

Test Procedure

The out of band emission tests were performed in the 3-meter chamber test site, using the setup accordance with the ANSI C63.4-2009. The specification used was the FCC Part Subpart C limits.

Environmental Conditions

Temperature:	24 °C
Relative Humidity:	55%
ATM Pressure:	100.0kPa

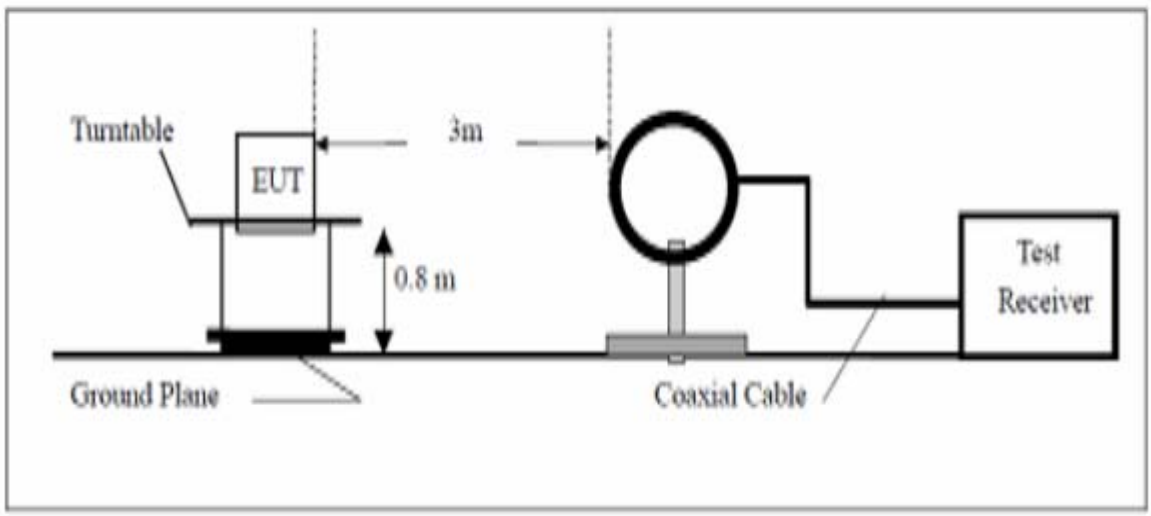
Radiated Test Setup

The system was investigated from 9 KHz to 25 GHz.

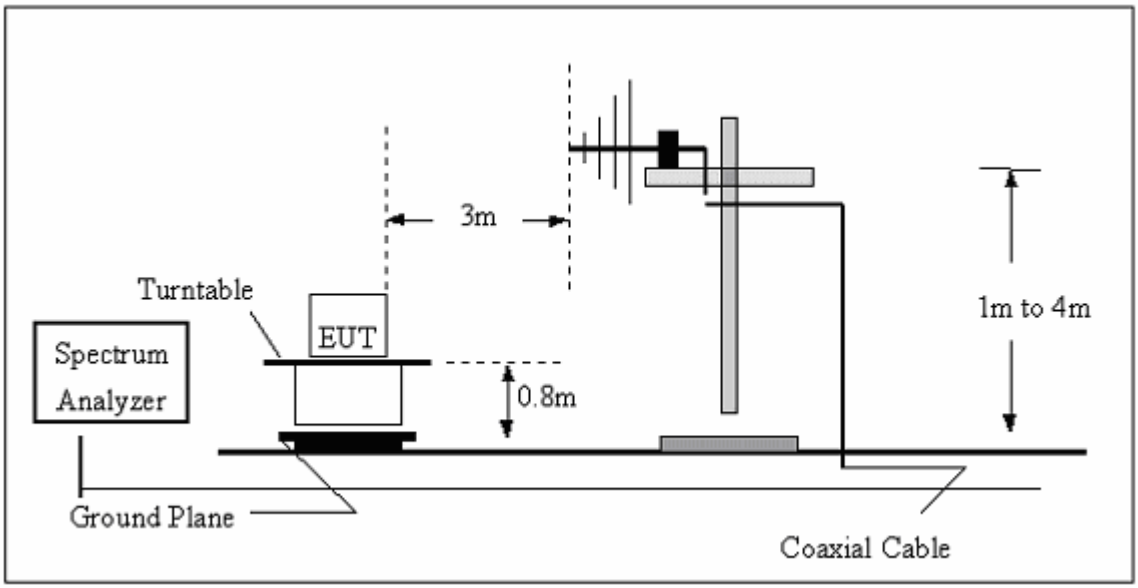
During the radiated emission test, the EMI test receiver & Spectrum Analyzer Setup were set with the following configurations:

Frequency Range	RBW	Video B/W	Detector
9KHz-30MHz	9kHz	30 kHz	QP
30 MHz – 1000 MHz	100 kHz	300 kHz	QP
1000 MHz – 25 GHz	1 MHz	3 MHz	PK
1000 MHz – 25 GHz	1 MHz	10 Hz	Ave

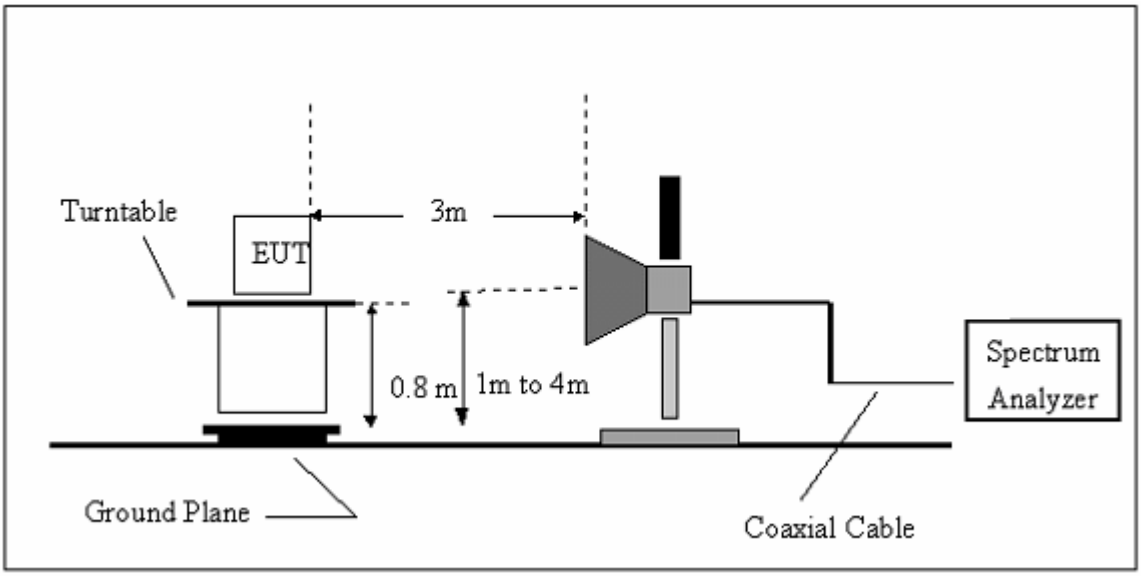
（A）Radiated Emission Test-Up Frequency Below 30MHz



（B）Radiated Emission Test-Up Frequency 30MHz~1GHz



（C）Radiated Emission Test-Up Frequency Above 1GHz



For the accrual test configuration, please refer to the related items-photos of Testing.

Radiated Emission Limit

Applicable Standard

FCC §15.247 (d); §15.209; §15.205;

Radiated Emission Test Result

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009–0.490	2400/F(kHz)	300
0.490–1.705	24000/F(kHz)	30
1.705–30.0	30	30
30–88	100**	3
88–216	150**	3
216–960	200**	3
Above 960	500	3

Test Mode: Transmitting

Note:

Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis.

The worst case emissions were reported

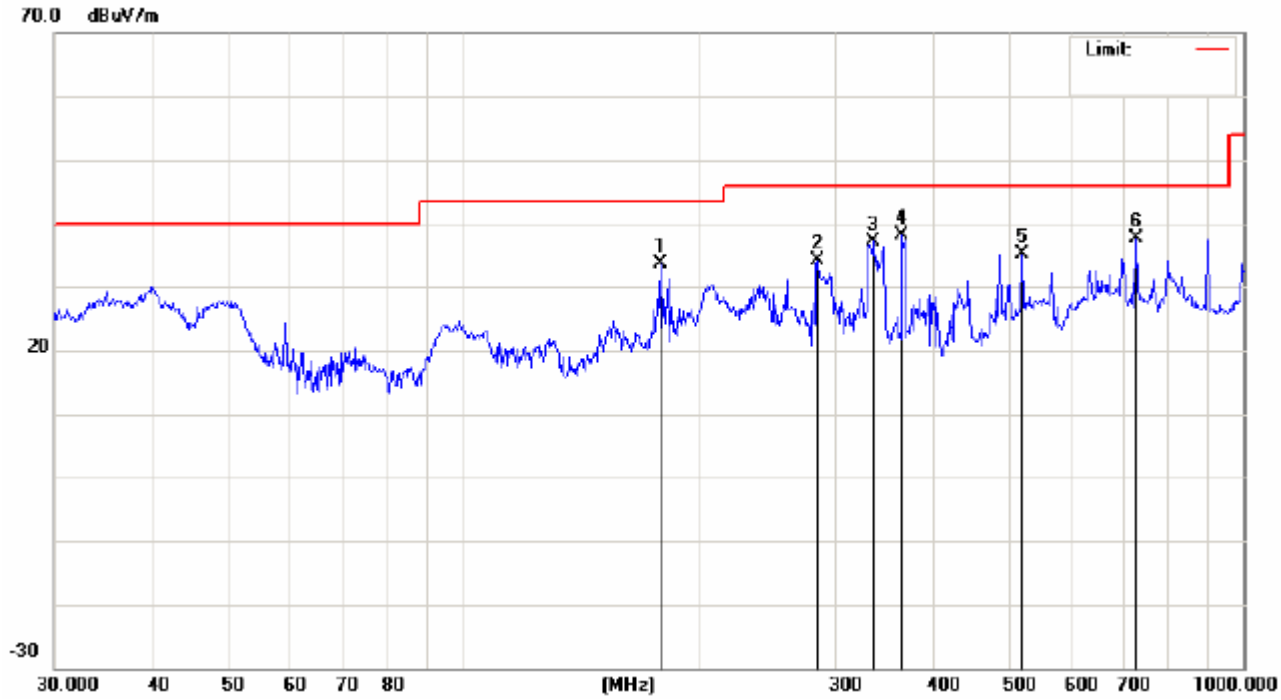
Test result:

From 9KHz to 30MHz

NOTE: 9KHz-30MHz the measurements were greater than 20dB below the limit.

From 30MHz to 1GHz

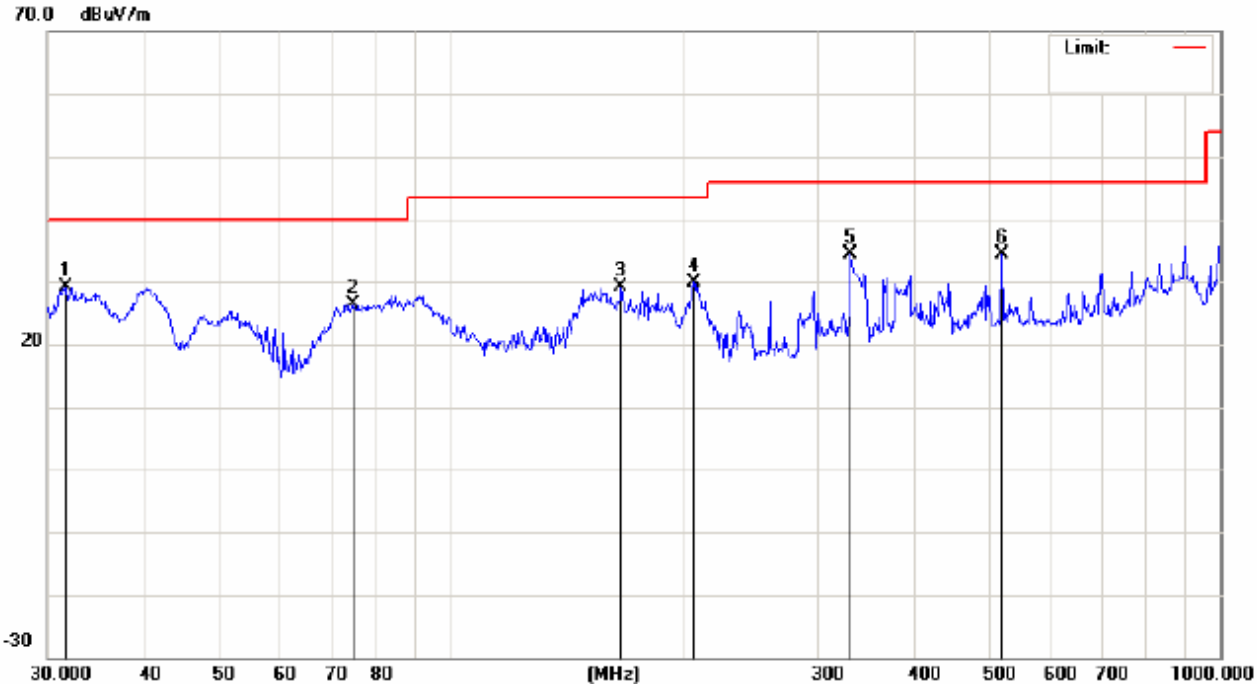
Horizontal:



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
6		520.8881	35.45	-1.02	34.43	46.00	-11.57	peak
1		179.3863	41.67	-7.99	33.68	43.50	-9.82	peak
2		284.9766	36.98	-2.88	34.10	46.00	-11.90	peak
3		336.0351	40.12	-3.00	37.12	46.00	-8.88	peak
4	*	365.5391	40.76	-2.64	38.12	46.00	-7.88	peak
5		520.8881	33.93	1.27	35.20	46.00	-10.80	peak
6		729.3582	34.39	3.23	37.62	46.00	-8.38	peak

Remark: All the modes have been investigated, the y orientation and Channel 20 are worst case, and only worst mode is presented in this report

Vertical:



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1	*	31.6202	34.40	-5.19	29.21	40.00	-10.79	peak
2		74.9191	40.13	-13.74	26.39	40.00	-13.61	peak
3		166.6513	34.37	-5.32	29.05	43.50	-14.45	peak
4		207.1226	35.55	-5.76	29.79	43.50	-13.71	peak
5		331.3546	38.47	-4.00	34.47	46.00	-11.53	peak
6		520.8881	35.45	-1.02	34.43	46.00	-11.57	peak

Remark: All the modes have been investigated, t the y orientation and Channel 20 are worst case, and only worst mode is presented in this report

From 1GHz to 25GHz:

Operation Mode:	Channel 0	Test Date :	March 03, 2015
Frequency Range:	Above 1GHz	Temperature :	28℃
Test Result:	PASS	Humidity :	65 %
Measured Distance:	3m	Test By:	Neil Wong

Freq. (MHz)	Ant.Pol. H/V	Emission Level(dBuV)		Limit 3m(dBuV/m)		Over(dB)	
		PK	AV	PK	AV	PK	AV
4804.63	V	59.63	41.81	74	54	-14.37	-12.19
7206.91	V	58.51	39.15	74	54	-15.49	-14.85
4804.63	H	59.86	40.22	74	54	-14.14	-13.78
7206.91	H	58.62	39.62	74	54	-15.38	-14.38

All emissions not reported were more than 20dB below the specified limit or in the noise floor.

Note: (1) All Readings are Peak Value and AV.

(2) Data of measurement within this frequency range shown “--” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

Operation Mode:	Channel 20	Test Date :	March 03, 2015
Frequency Range:	Above 1GHz	Temperature :	28℃
Test Result:	PASS	Humidity :	65 %
Measured Distance:	3m	Test By:	Neil Wong

Freq. (MHz)	Ant.Pol. H/V	Emission Level(dBuV)		Limit 3m(dBuV/m)		Over(dB)	
		PK	AV	PK	AV	PK	AV
4884.62	V	58.50	41.58	74	54	-15.50	-12.42
7326.51	V	59.67	39.70	74	54	-14.33	-14.30
4884.83	H	58.02	39.34	74	54	-15.98	-14.66
7326.54	H	58.77	39.77	74	54	-15.23	-14.23

All emissions not reported were more than 20dB below the specified limit or in the noise floor.

Note: (1) All Readings are Peak Value and AV.

(2) Data of measurement within this frequency range shown "--" in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

Operation Mode:	Channel 39	Test Date :	March 03, 2015
Frequency Range:	Above 1GHz	Temperature :	28℃
Test Result:	PASS	Humidity :	65 %
Measured Distance:	3m	Test By:	Neil Wong

Freq.	Ant.Pol.	Emission Level(dBuV)		Limit 3m(dBuV/m)		Over(dB)	
(MHz)	H/V	PK	AV	PK	AV	PK	AV
4960.64	V	59.26	39.15	74	54	-14.74	-14.85
7440.91	V	58.68	39.39	74	54	-15.32	-14.61
4960.58	H	58.85	40.66	74	54	-15.15	-13.34
7440.68	H	58.73	39.73	74	54	-15.27	-14.27

All emissions not reported were more than 20dB below the specified limit or in the noise floor.

Note: (1) All Readings are Peak Value and AV.

(2) Data of measurement within this frequency range shown " -- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

§15.247(a) (2) – 6dB BANDWIDTH TESTING

Test Equipment

Please refer to Section 4 this report.

Test Procedure

1. Set EUT in the transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
3. Set the spectrum analyzer as RBW=100KHz,VBW≥3×RBW, Span=3MHz,Sweep=auto.
4. Mark the peak frequency and -6dB(upper and lower)frequency.
5. Repeat until all the rest channels are investigated.

Note：The EUT was tested according to KDB 558074 for compliance to FCC 47CFR 15.247 requirements.

Environmental Conditions

Temperature:	24 °C
Relative Humidity:	55%
ATM Pressure:	100.0kPa

Applicable Standard

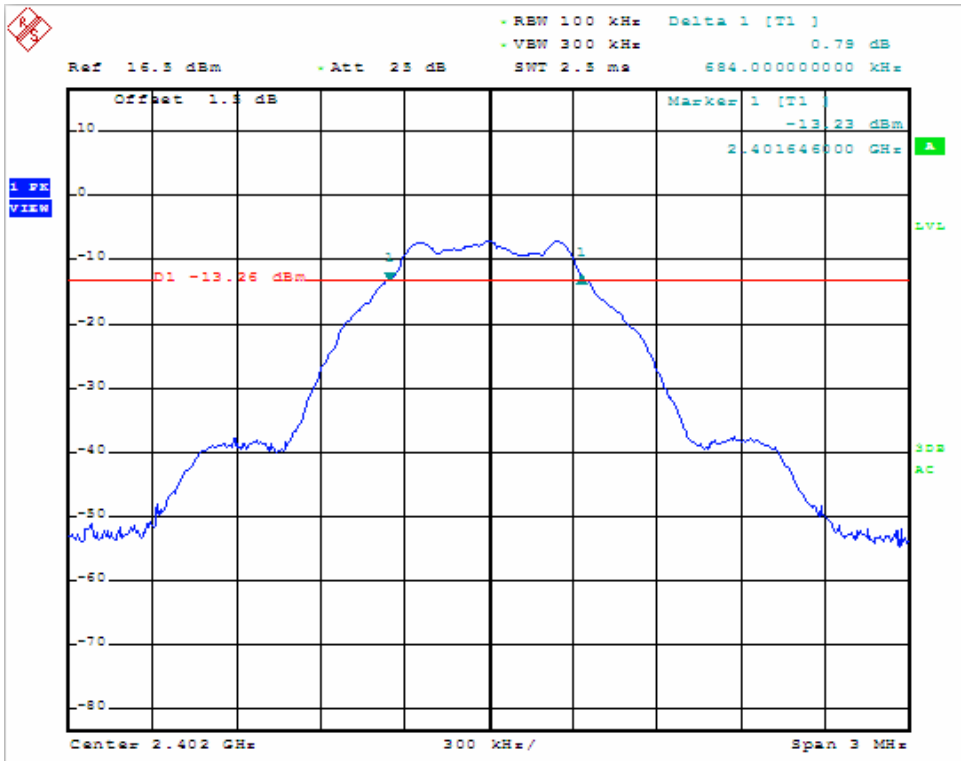
Systems using digital modulation techniques may operate in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

Test Result: Pass.

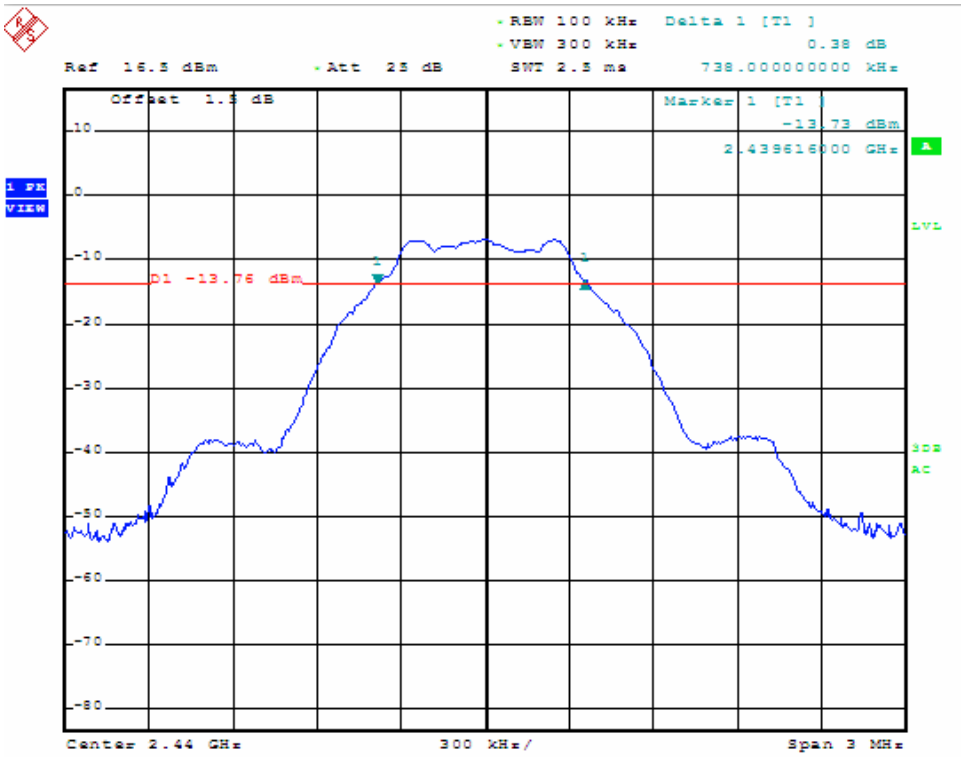
Please refer to the following tables

Channel Frequency (MHz)	Data Rate (Mbps)	6dB Bandwidth (kHz)	Limit (kHz)	Ref. Plot
2402	1	684.00	＞500	PLOT 1
2440	1	738.00	＞500	PLOT 2
2480	1	744.00	＞500	PLOT 3

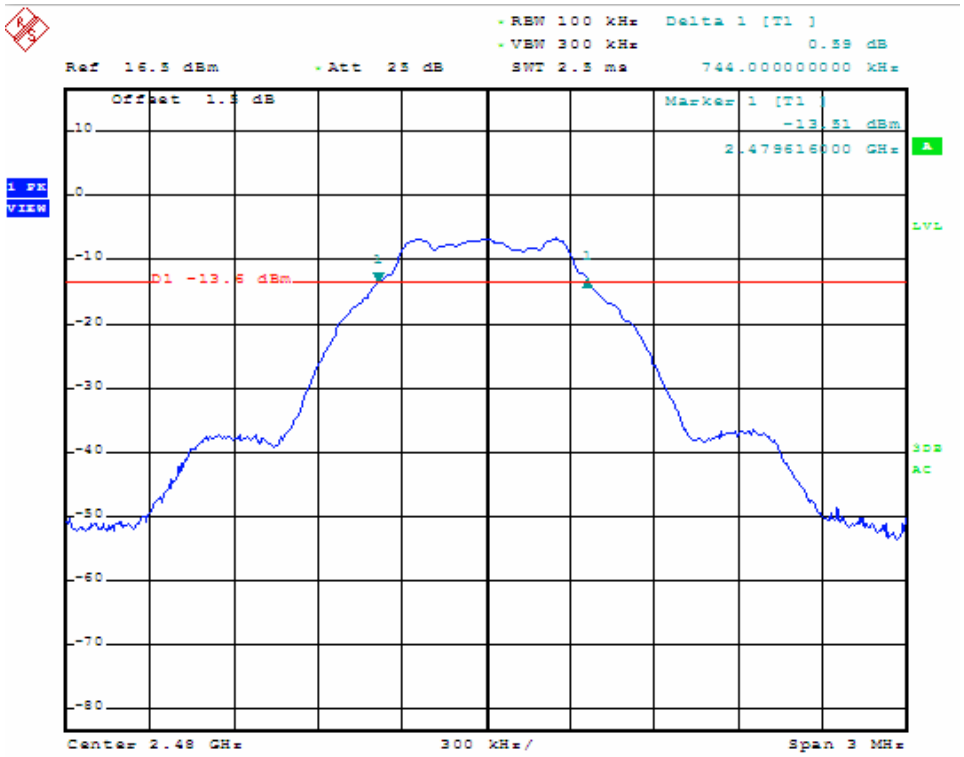
Low Channel



Middle channel



High Channel



§15.247(b) (3) - MAXIMUM PEAK OUTPUT POWER

Test Equipment

Please refer to Section 4 this report.

Test Procedure

1. The EUT was placed on a table which is 0.8m above ground plane.
2. Set the EUT Work on the top, the middle and the bottom operation frequency individually.
3. Set the RBW ≥ DTS bandwidth, VBW ≧3×RBW, span≧3×RBW
   Sweep time = auto couple, Detector = peak, Trace mode = max hold.
4. Record the maximum power from the spectrum analyzer.
5. The maximum peak power shall be less 1 Watt (30dBm).

Note：The EUT was tested according to KDB 558074 for compliance to FCC 47CFR 15.247 requirements.

Environmental Conditions

Temperature:	26 °C
Relative Humidity:	55%
ATM Pressure:	100.0kPa

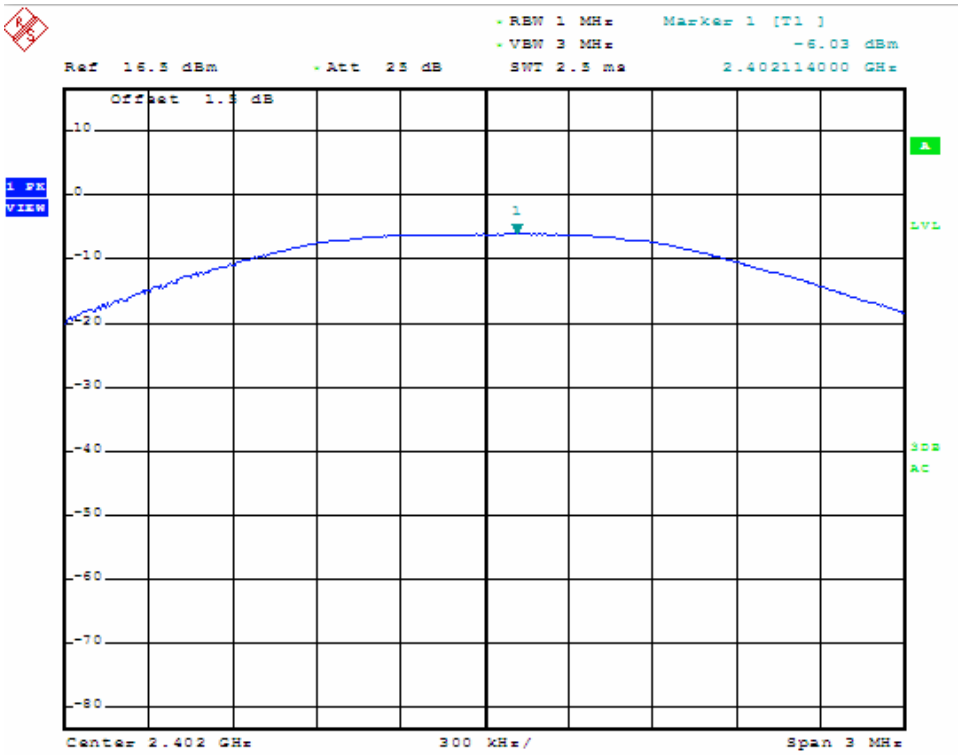
Applicable Standard

According to §15.247(b) (3), for systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or is transmitting at a reduced power level. If multiple modes of operation are possible (e.g., alternative modulation methods), the maximum conducted output power is the highest total transmit power occurring in any mode.

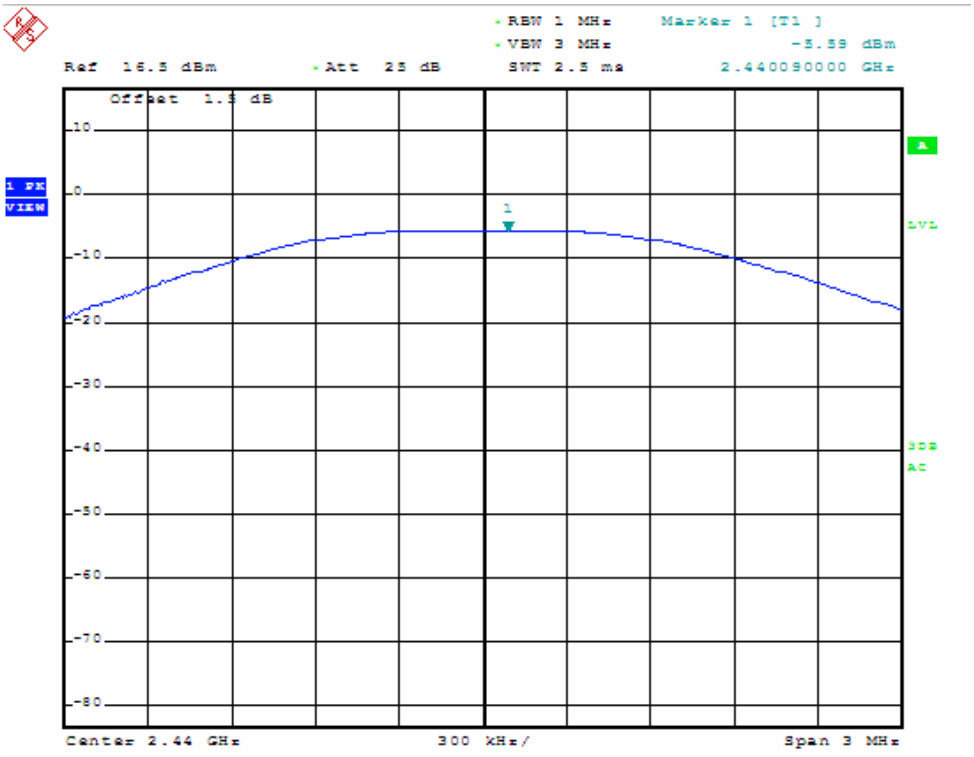
Test Result

Channel	Frequency (MHz)	Data Rate (Mbps)	Conducted Power (dBm)	Limit (dBm)
Low	2402	1	-6.03	30
Middle	2440	1	-5.59	30
High	2480	1	-5.36	30

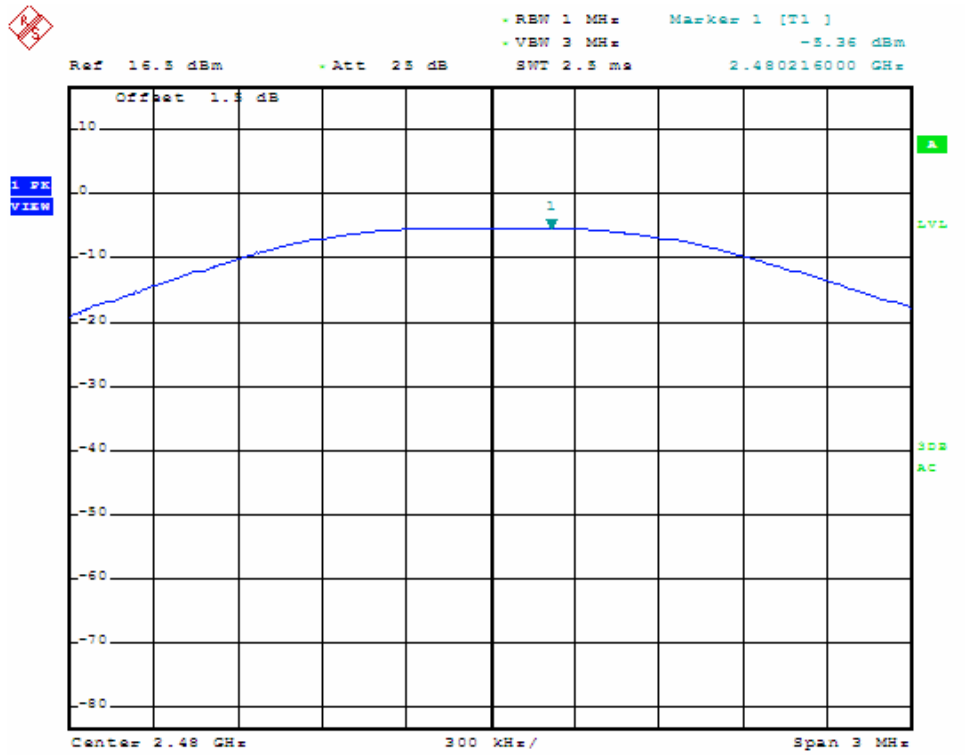
Low channel



Middle channel



High channel



§15.247(d) – 100 kHz BANDWIDTH OF FREQUENCY BAND EDGE

Test Equipment

Please refer to Section 4 this report.

Test Procedure

The out of band emission tests were performed in the 3-meter chamber test site, using the setup accordance with the ANSI C63.4-2009. The specification used was the FCC Part Subpart C limits.

Environmental Conditions

Temperature:	24 °C
Relative Humidity:	55%
ATM Pressure:	100.0kPa

Applicable Standard

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

Test Result

PASS

Radiated measurement:

Indicated		result	Table	Antenna		Correction Factor			FCC Part 15.247		
Frequency (MHz)	Receiver Reading (dBμV/m)	(PK/AV)	Angle Degree	Height (m)	Polar (H/V)	Ant. Factor (dB/m)	Cable Loss (dB)	Pre-Amp. Gain (dB)	Cord. Amp. (dBμV/m)	Limit (dBμV/m)	Margin (dB)
Low Channel (2402MHz)											
2390	40.12	AV	225	1.5	V	30.3	4.1	33.1	41.42	54	12.58
2390	41.84	AV	90	2	H	30.3	4.1	33.1	40.54	54	10.86
2390	61.17	PK	180	1.5	V	30.3	4.1	33.1	41.42	74	11.53
2390	61.87	PK	270	2	H	30.3	4.1	33.1	63.17	74	10.83
High Channel (2480MHz)											
2483.5	41.03	AV	360	1	V	31	4.4	32.7	43.73	54	10.27
2483.5	41.23	AV	90	2	H	31	4.4	32.7	43.93	54	10.07
2483.5	60.47	PK	180	1	V	31	4.4	32.7	63.17	74	10.83
2483.5	60.73	PK	225	2	H	31	4.4	32.7	63.43	74	10.57

§15.247(e) -MAXIMUM CONDUCTED POWER SPECTRAL DENSITY

Test Equipment

Please refer to Section 4 this report.

Test Procedure

1, This procedure shall be used if maximum peak conducted output power was used to demonstrate compliance, and is optional if the maximum conducted (average) output power was used to demonstrate compliance.

2, Set analyzer center frequency to DTS channel center frequency.

3, Set the RBW to:3 kHz ≦RBW ≦100 kHz, Set the VBW ≧3 RBW, Detector = peak. Sweep time = auto couple

4, Trace mode = max hold, Allow trace to fully stabilize.

Note：The EUT was tested according to KDB 558074 for compliance to FCC 47CFR 15.247 requirements.

Environmental Conditions

Temperature:	25 °C
Relative Humidity:	55%
ATM Pressure:	100.0kPa

Applicable Standard

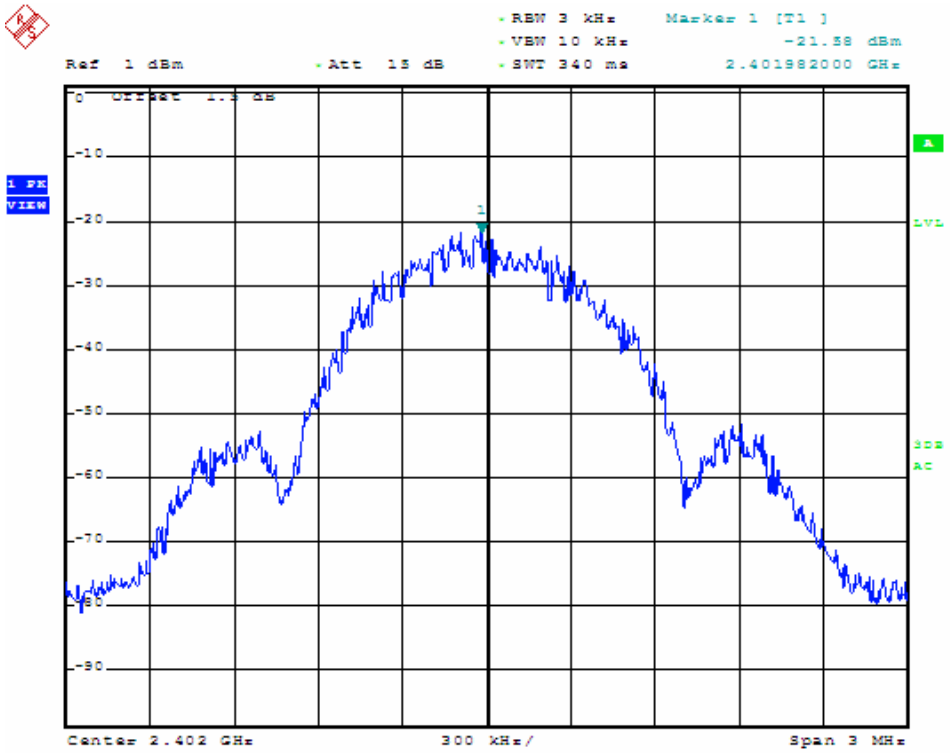
For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of paragraph (b) of this section. The same method of determining the conducted output power shall be used to determine the power spectral density.

Test Result

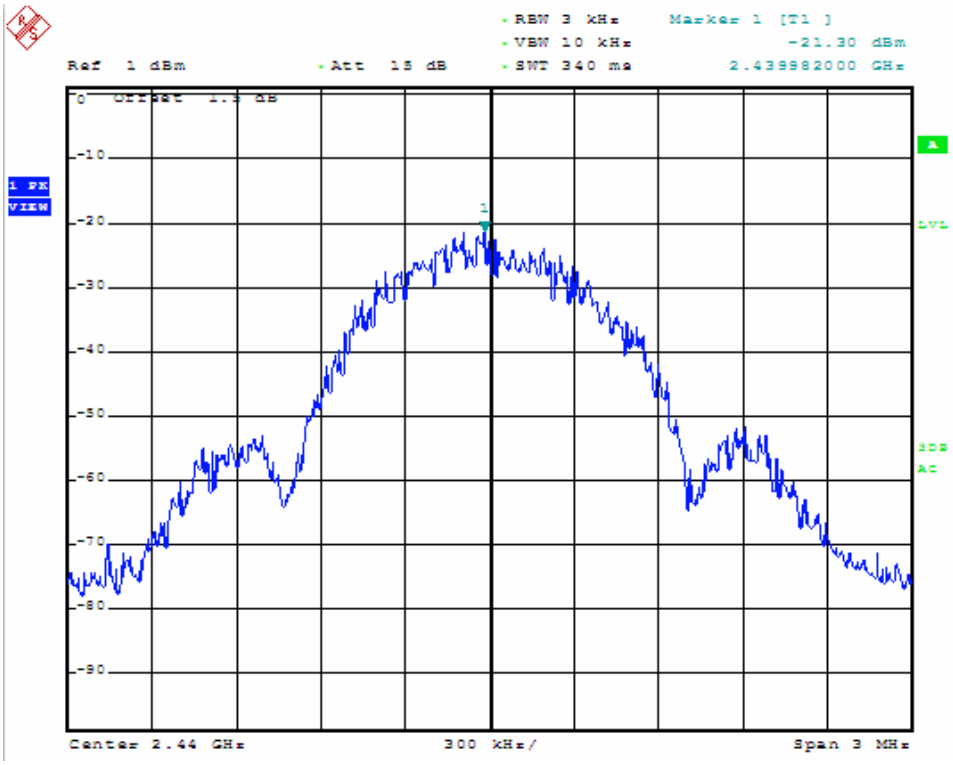
PASS

Channel Frequency (MHz)	Data Rate (Mbps)	PSD (dBm/3kHz)	Limit (dBm/3kHZ)	RESULT
2402	1	-21.58	8	Compliant
2440	1	-21.30	8	Compliant
2480	1	-21.68	8	Compliant

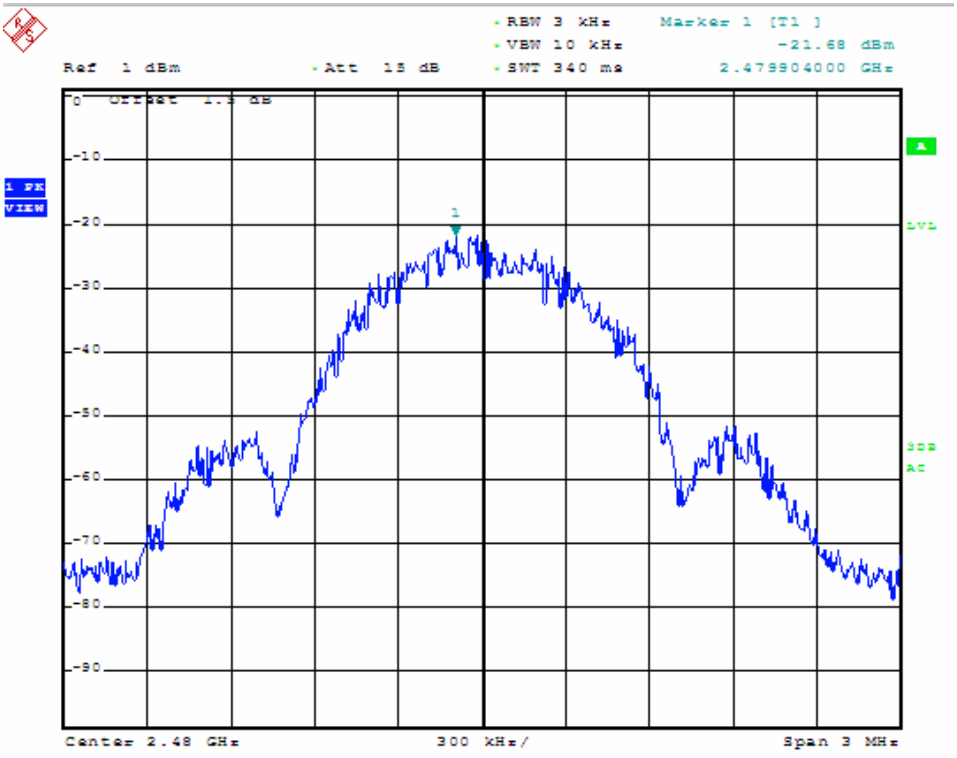
Low Channel



Middle Channel



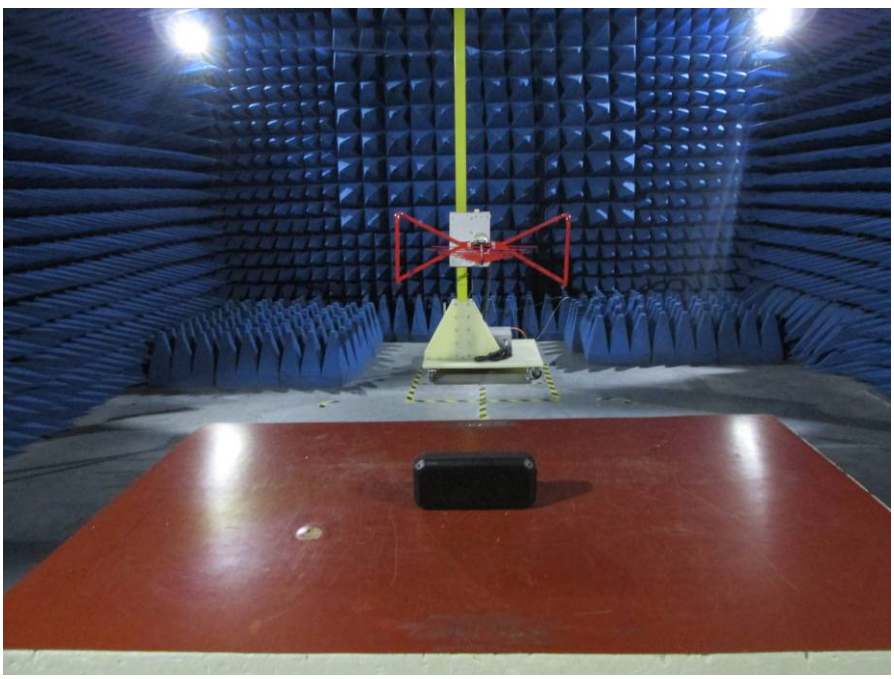
High Channel



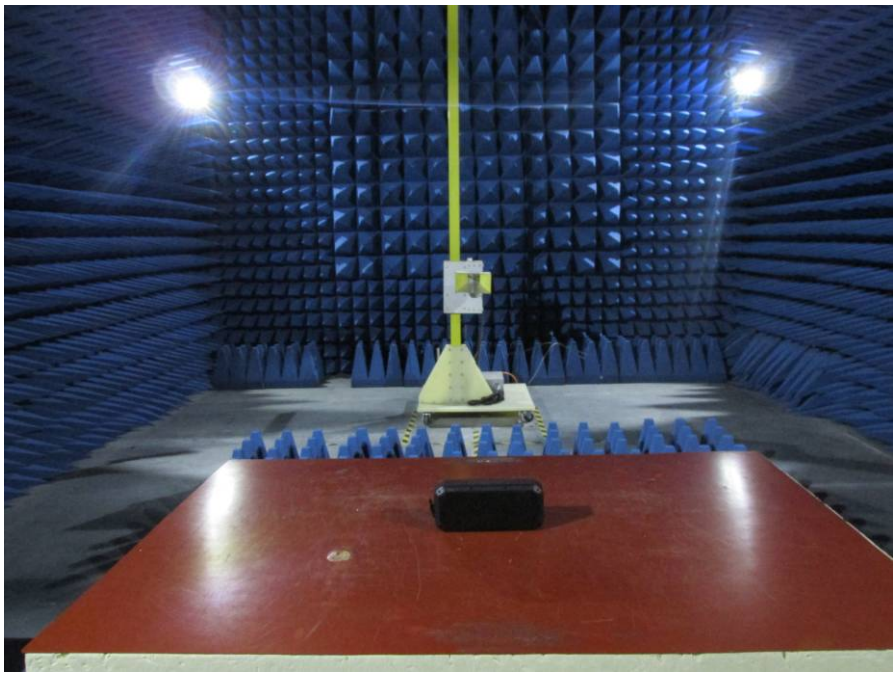
PHOTOGRAPHS OF THE TEST CONFIGURATION

CONDUCTED EMISSION TEST

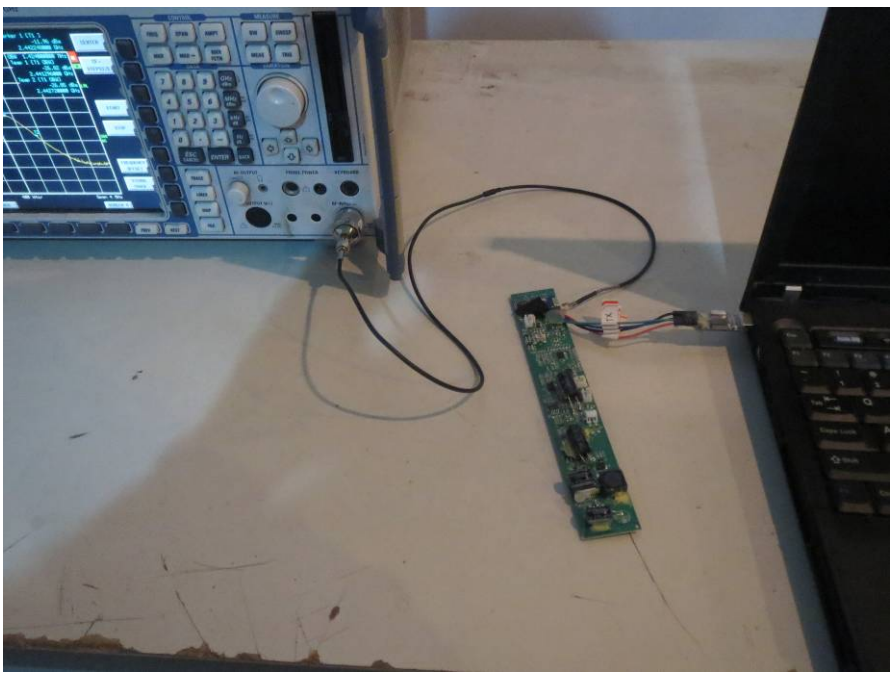
RADIATED EMISSION TEST



RADIATED EMISSION TEST



RF TEST



PHOTOGRAPHS OF EUT

Appearance photograph of EUT

Appearance photograph of EUT

Appearance photograph of EUT

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Appearance photograph of EUT

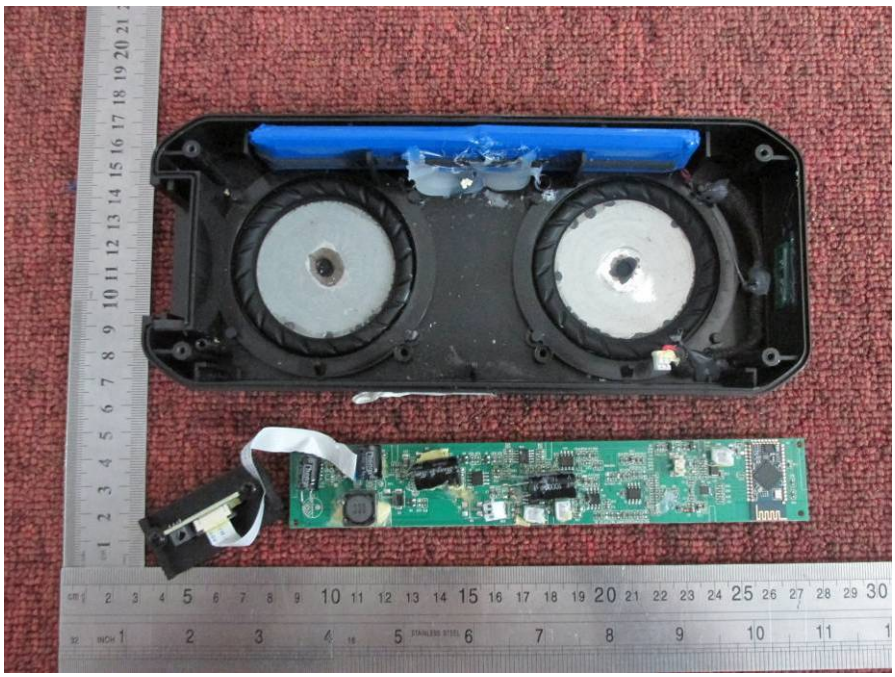
Appearance photograph of EUT

Appearance photograph of EUT

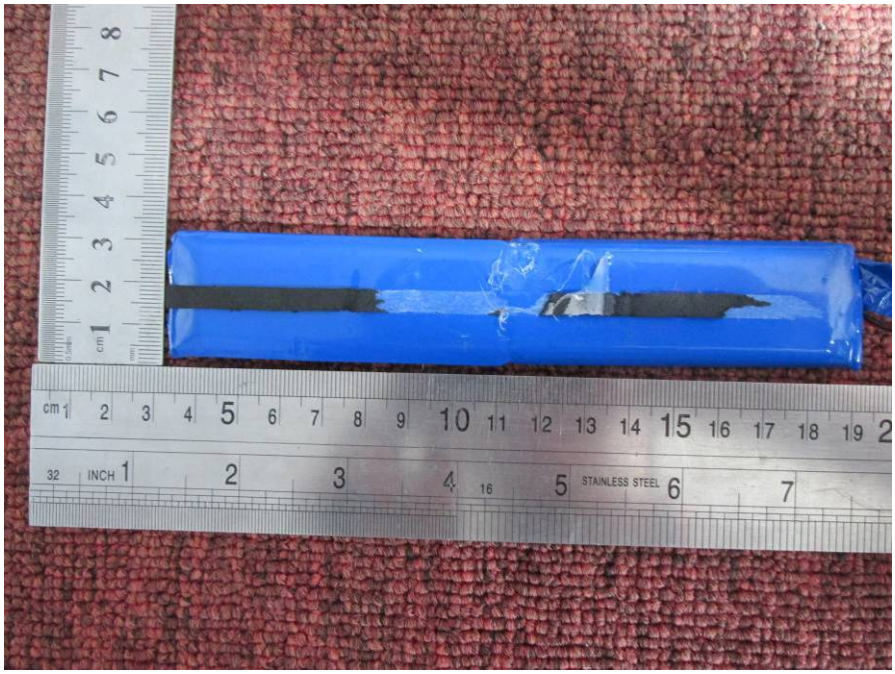
Internal photograph of EUT

Internal photograph of EUT

Internal photograph of EUT



Internal photograph of EUT



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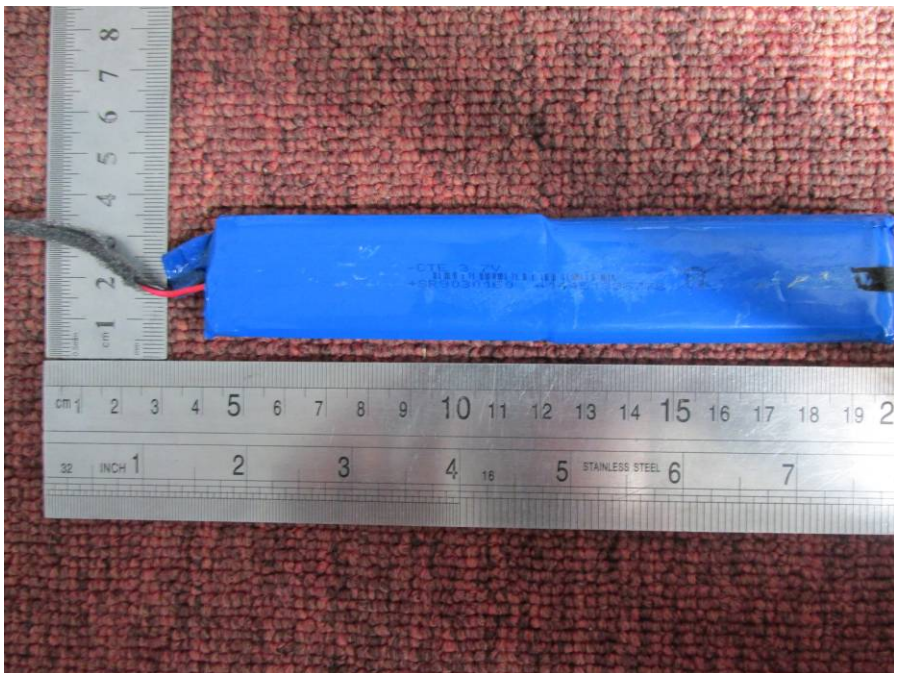
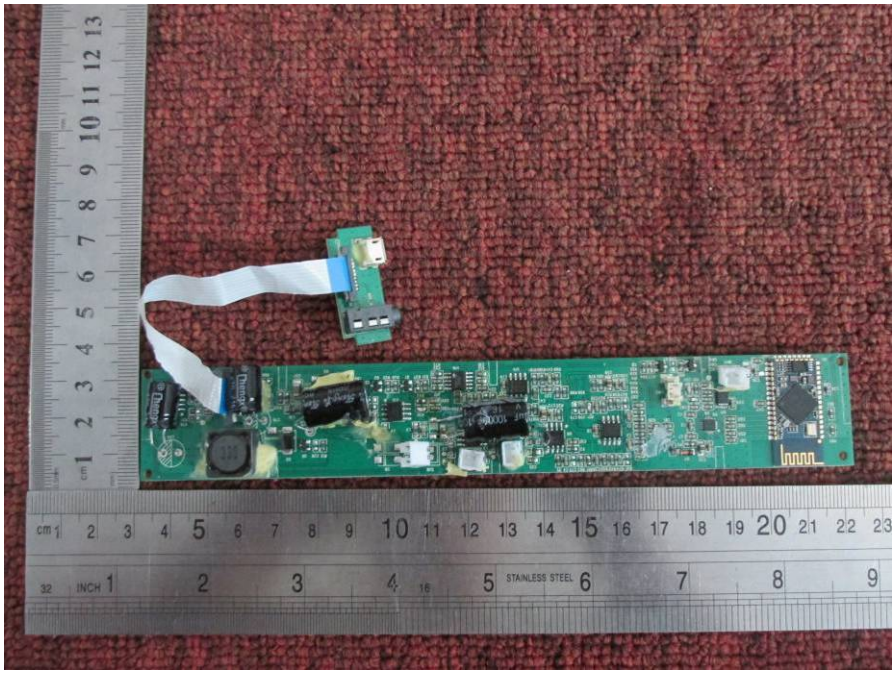


PCB photograph of EUT



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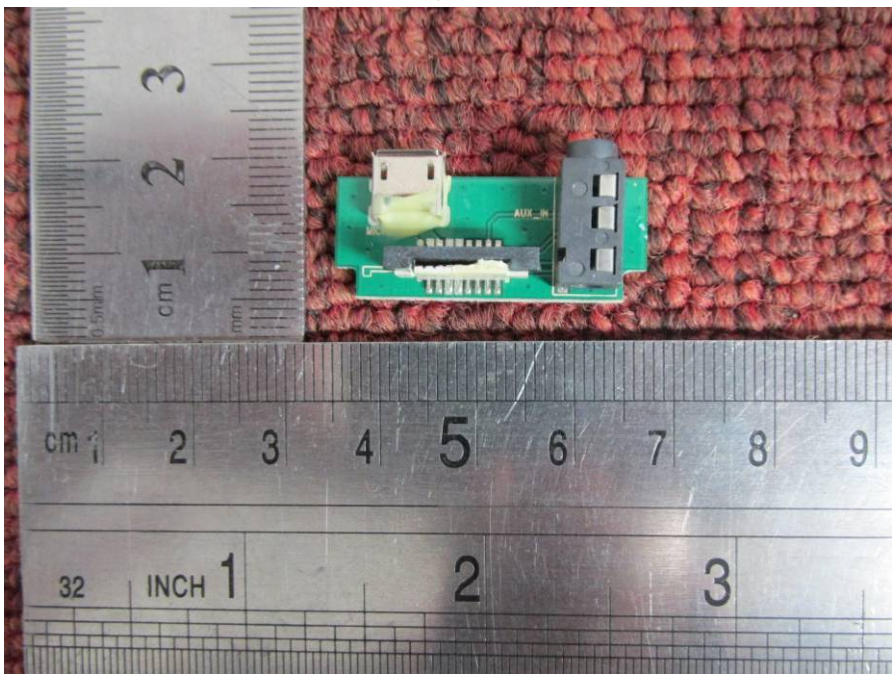
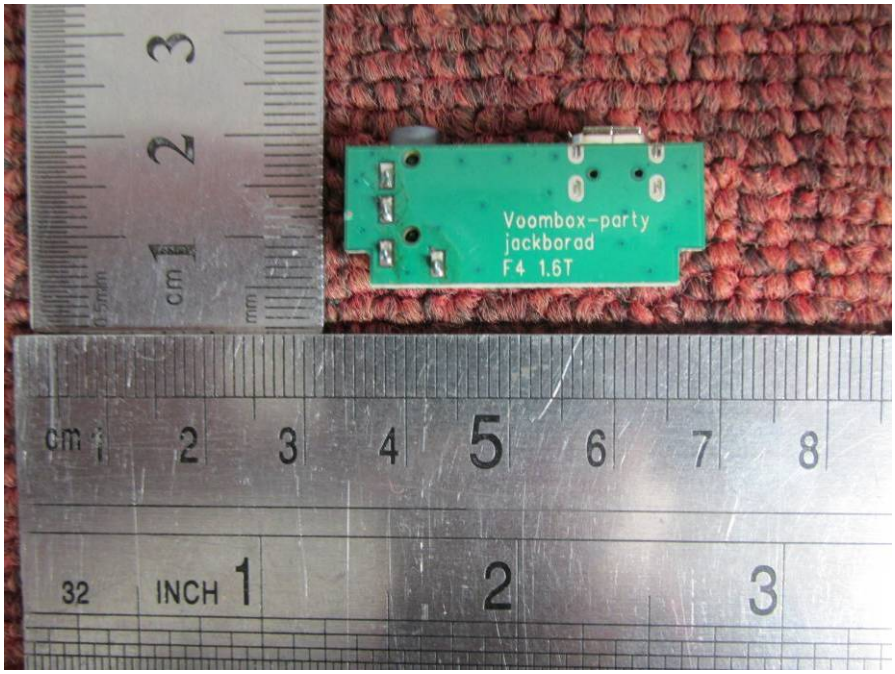
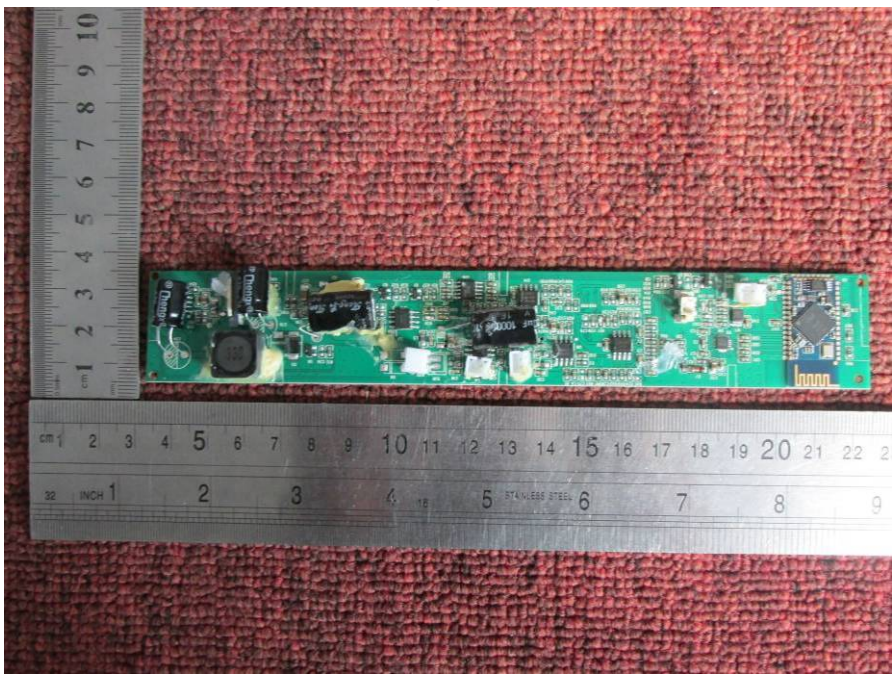


PCB photograph of EUT



PCB photograph of EUT



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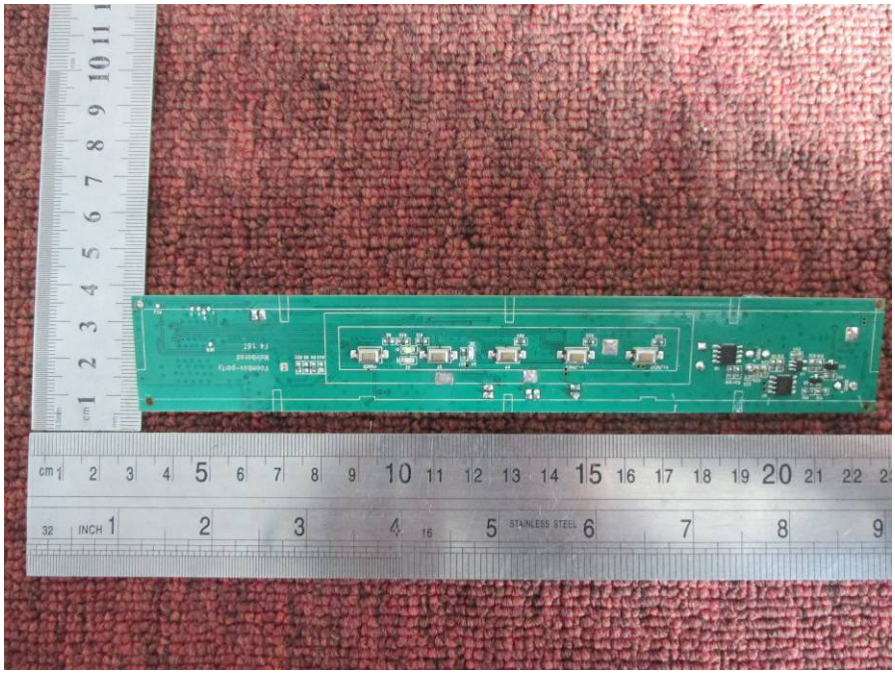
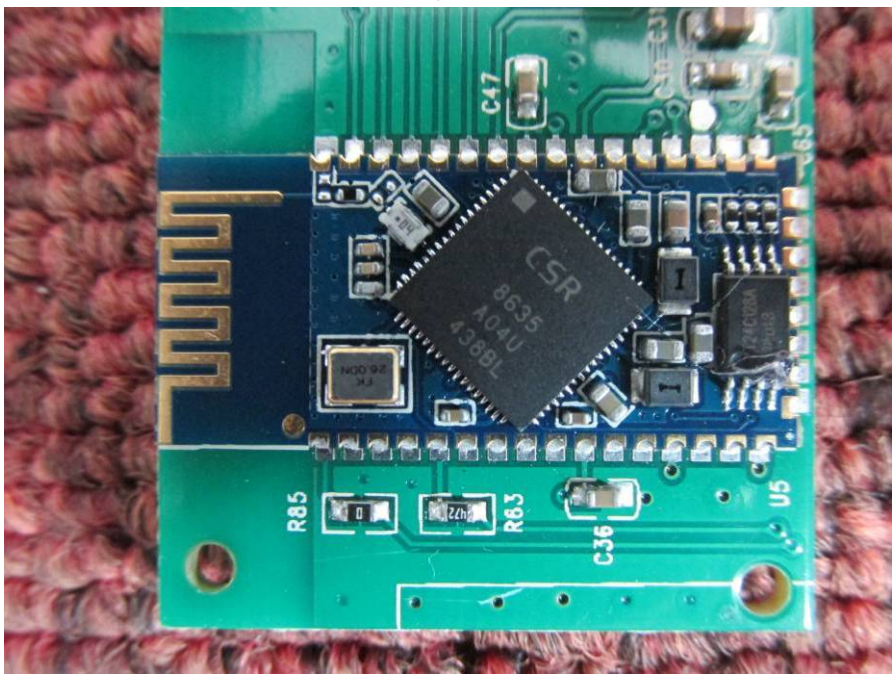


PCB photograph of EUT



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