FCC PART 15C TEST REPORT FOR CERTIFICATION
On Behalf of

SHENZHEN ZOWEE TECHNOLOGY CO.,LTD

Tablet PC

Model No.: PT301, S1219T, PC'TAB100X-X("X"=0~9)

FCC ID: 2AAP6M1042M

Prepared for : SHENZHEN ZOWEE TECHNOLOGY CO.,LTD
Science &Technology Industrial Park of Privately Owned Enterprises, Pingshan, Xili, Nanshan District, Shenzhen

Prepared By : Audix Technology (Shenzhen) Co., Ltd.
No. 6, Ke Feng Rd., 52 Block,
Shenzhen Science & Industrial Park,
Nantou, Shenzhen, Guangdong, China

Tel: (0755) 26639496

Report Number : ACS-F15231
Date of Test : Jul.24~Aug.03, 2015
Date of Report : Aug.12, 2015

TABLE OF CONTENTS

TEST REPORT CERTIFICATION

Applicant	:	SHENZHEN ZOWEE TECHNOLOGY CO.,LTD
Manufacturer	:	SHENZHEN ZOWEE TECHNOLOGY CO.,LTD
EUT Description	:	Tablet PC
FCC ID	:	2AAP6M1042M
(A) MODEL NO.	:	PT301, S1219T, PC'TAB100X-X("X"=0~9)
(B) Power Supply.	:	DC 5V
(C) Test Voltage	:	DC 5V From Adapter Input AC 120V/60Hz

Tested for comply with:
FCC Rules and Regulations Part 15 Subpart C: 2014

Test procedure used:
ANSI C63.10: 2013

The device described above is tested by AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. to confirm comply with all the FCC Part 15 Subpart C requirements. The test results are contained in this test report and AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. is assumed full responsibility for the accuracy and completeness of these tests. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC and IC requirements. This report contains data that are not covered by the NVLAP accreditation.

This Report is made under FCC Part 2.1075. No modifications were required during testing to bring this product into compliance.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.

Date of Test : Jul.24~Aug.03, 2015 Report of date: Aug.12, 2015

Prepared by : Cindy Zhu
Cindy Zhu / Assistant

Reviewed by :
Sunny Lu/ Assistant Manager

AUDIX® 信華科技（深圳）有限公司
Audix Technology (Shenzhen) Co., Ltd.
EMC 部門報告專用章
Stamp only for EMC Dept. Report
Signature: David Jin 8.12

Approved & Authorized Signer :
David Jin / Manager

1. SUMMARY OF STANDARDS AND RESULTS

1.1.Description of Standards and Results

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

EMISSION		
Description of Test Item	**Standard**	**Results**
Power Line Conducted Emission Test	FCC Part 15: 15.207 ANSI C63.10 2013	PASS
Radiated Emission Test	FCC Part 15 15.209 FCC Part 15 15.247(d) ANSI C63.10 2013	PASS
Conducted Spurious Emissions	FCC Part 15: 15.247(a)(1) ANSI C63.10 2013	PASS
Carrier Frequency Separation Test	FCC Part 15: 15.247(a)(1) ANSI C63.10 2013	PASS
20dB Bandwidth Test	FCC Part 15: 15.215 ANSI C63.10 2013	PASS
Number Of Hopping Frequency Test	FCC Part 15: 15.247(a)(1)(iii) ANSI C63.10 2013	PASS
Dwell Time Test	FCC Part 15: 15.247(a)(1)(iii) ANSI C63.10 2013	PASS
Maximum Peak Output Power Test	FCC Part 15 15.247(b)(1)\ ANSI C63.10 2013	PASS
Band Edge Compliance Test	FCC Part 15 15.247(d) ANSI C63.10 2013	PASS

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

Product Name	:	Tablet PC
Model Number	:	PT301, S1219T, PC'TAB100X-X("X"=0~9) (Only model name and brand name difference.)
Test Model	:	PT301
FCC ID	:	2AAP6M1042M
Radio	:	IEEE802.11 a/b/g/n; Bluetooth V3.0+EDR; Bluetooth V4.0
Operation Frequency	:	**IEEE 802.11a**: 5180MHz—5240MHz; 5260MHz—5320MHz; 5500MHz—5700MHz; 5745MHz—5825MHz **IEEE 802.11b**: 2412MHz—2462MHz **IEEE 802.11g**: 2412MHz—2462MHz **IEEE802.11n HT20**: 2412MHz—2462MHz; 5180MHz—5240MHz;5260MHz—5320MHz; 5500MHz—5700MHz; 5745MHz—5825MHz **Bluetooth** : 2402-2480MHz
Modulation Technology	:	IEEE 802.11b: DSSS(CCK,DQPSK,DBPSK) IEEE 802.11a/g: OFDM(64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n HT20: OFDM(64QAM, 16QAM,QPSK,BPSK) Bluetooth V3.0+EDR: GFSK, π/4DQPSK,8-DPSK Bluetooth V4.0: GFSK
Antenna Assembly Gain	:	**FPC Antenna,** Bluetooth Peak Gain: 2.64dBi; 2.4GHz Peak Gain: 2.64dBi 5180-5240MHz Band: 1.99dBi; 5260-5320MHz Band: 1.18dBi 5500-5700MHz Band: 2.04dBi; 5745-5825MHz Band: 1.84dBi
Applicant	:	SHENZHEN ZOWEE TECHNOLOGY CO.,LTD Science &Technology Industrial Park of Privately Owned Enterprises, Pingshan, Xili, Nanshan District, Shenzhen
Manufacturer	:	SHENZHEN ZOWEE TECHNOLOGY CO.,LTD Science &Technology Industrial Park of Privately Owned Enterprises, Pingshan, Xili, Nanshan District, Shenzhen
Power Adapter	:	Manufacturer: Ktec, Model No.: KSA29B0500200D5

OTG Cable : Shielded, Detachable, 10cm

USB Cable : Shielded, Detachable, 70cm(with one core)

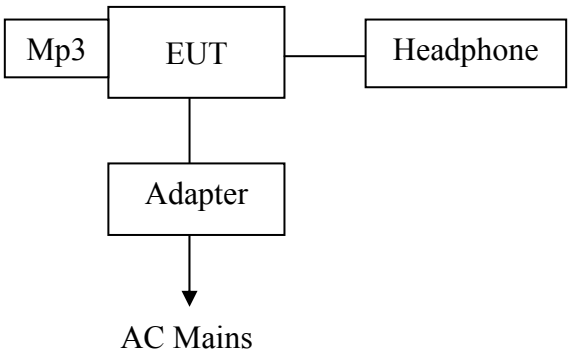
Date of Test : Jul.24~Aug.03, 2015

Date of Receipt : Jul.14, 2015

1.1. Tested Supporting System Details

No.	Description	ACS No.	Manufacturer	Model	Serial Number	Approved type
1.	Headphone	ACS-EMC-EP01	OVANN	OV880V	--	☐FCC DoC ☐BSMI ID
		Date Cable: Shielded, Undetachabled, 4.0m				
2.	Mp3	--	SONY	NWZ-B172F	--	☐FCC DoC ☐BSMI ID

1.2. Block diagram of connection between the EUT and simulators



(EUT: Tablet PC)

1.3. Test information

A special software was used to control EUT work in Continuous TX mode, and select test channel.

Tested mode, channel, and data rate information			
Mode	data rate (Mbps)	Channel	Frequency (MHz)
Tx Mode GFSK modulation	1	Low :CH 0	2402
	1	Middle: CH39	2441
	1	High: CH78	2480
Tx Mode 8-DPSK modulation	3	Low :CH 0	2402
	3	Middle: CH39	2441
	3	High: CH78	2480
Note: π/4DQPSK modulation is same type modulation with 8-DPSK, and according exploratory test, 8-DPSK will have worse emissions, so the final test were only performed with GFSK and 8-DPSK modulation.			

1.4. Test Facility

Site Description

Name of Firm	:	Audix Technology (Shenzhen) Co., Ltd. No. 6, Ke Feng Rd., 52 Block, Shenzhen Science & Industrial Park,Nantou, Shenzhen, Guangdong, China
3m Anechoic Chamber	:	Certificated by FCC, USA Registration Number: 90454 Valid Date: Dec.30, 2017
3m & 10m Anechoic Chamber	:	Certificated by FCC, USA Registration Number: 794232 Valid Date: Jul.12, 2017
EMC Lab.	:	Certificated by Industry Canada Registration Number: IC 5183A-1 Valid Date: May.14, 2017
	:	Certificated by DAkkS, Germany Registration No: D-PL-12151-01-00 Valid Date: Dec.15, 2016
	:	Accredited by NVLAP, USA NVLAP Code: 200372-0 Valid Date: Mar.31, 2016

1.5. Measurement Uncertainty (95% confidence levels, k=2)

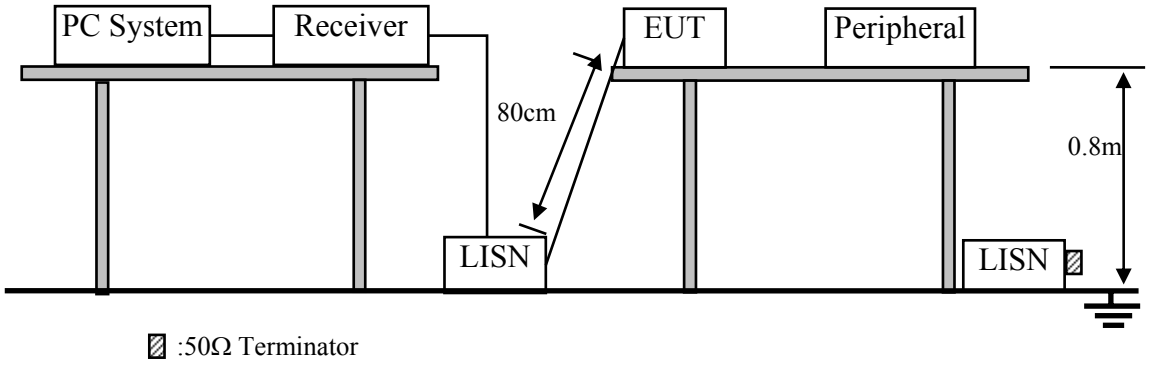
Test Item	Uncertainty
Uncertainty for Conduction emission test in No. 1 Conduction	3.4dB (150KHz to 30MHz)
Uncertainty for Radiation Emission test in 3m chamber	3.0 dB(30~200MHz, Polarize: H)
	3.0 dB(30~200MHz, Polarize: V)
	3.2 dB(200M~1GHz, Polarize: H)
	3.1 dB(200M~1GHz, Polarize: V)
Uncertainty for Radiation Emission test in 3m chamber (1GHz-18GHz)	6.3 dB (1~6GHz, Distance: 3m)
	5.7 dB (6~18GHz, Distance: 3m)
Uncertainty for Radiated Spurious Emission test in RF chamber	3.6 dB
Uncertainty for Conduction Spurious emission test	2.0 dB
Uncertainty for Output power test	0.8 dB
Uncertainty for Bandwidth test	83 kHz
Uncertainty for DC power test	0.1 %
Uncertainty for test site temperature and humidity	0.6℃
	3%

2. POWER LINE CONDUCTED EMISSION TEST

2.1.Test Equipments

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	1# Shielding Room	AUDIX	N/A	N/A	Apr.17,15	1 Year
2.	Test Receiver	Rohde & Schwarz	ESCI	100842	Apr.28,15	1 Year
3.	L.I.S.N.#1	Rohde & Schwarz	ESH2-Z5	100429	Oct.29,14	1 Year
4.	L.I.S.N#2	Kyoritsu	K NW-403D	8-1750-2	Apr.28,15	1 Year
5.	Terminator	Hubersuhner	50Ω	No.1	Apr.28,15	1 Year
6.	Terminator	Hubersuhner	50Ω	No.2	Apr.28,15	1 Year
7.	RF Cable	MIYAZAKI	3D-2W	No.1	Apr.28,15	1Year
8.	Coaxial Switch	Anritsu	MP59B	6200766906	Apr.28,15	1 Year
9.	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	101838	Oct.29,14	1 Year
10.	Test Software	AUDIX	E3	6.100913a	N/A	N/A

2.2.Block Diagram of Test Setup



2.3.Power Line Conducted Emission Test Limits

Frequency	Maximum RF Line Voltage	
	Quasi-Peak Level dB(μV)	Average Level dB(μV)
150kHz ~ 500kHz	66 ~ 56*	56 ~ 46*
500kHz ~ 5MHz	56	46
5MHz ~ 30MHz	60	50

Notes: 1. * Decreasing linearly with logarithm of frequency.
2. The lower limit shall apply at the transition frequencies.

2.4. Configuration of EUT on Test

The following equipment are installed on Power Line Conducted Emission Test to meet the commission requirement and operating regulations in a manner which tends to maximize its emission characteristics in a normal application.

2.4.1. Tablet PC (EUT)

Model Number : PT301
Serial Number : N/A

2.4.2. Support Equipment: As Tested Supporting System Details, in Section 2.2.

2.5. Operating Condition of EUT

2.5.1. Setup the EUT and simulator as shown as Section 3.2.

2.5.2. Turned on the power of all equipment.

2.5.3. PC run test software to control EUT work in Tx mode.

2.6. Test Procedure

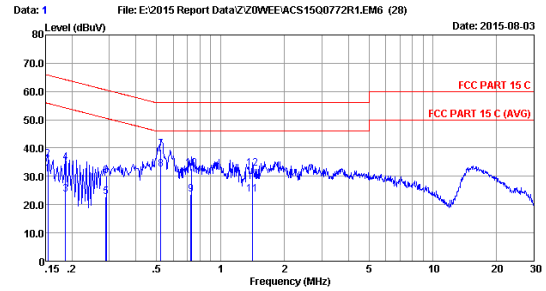
The EUT was placed on a non-metallic table, 80cm above the ground plane. The EUT Power Via PC connected to the power mains through a line impedance stabilization network (L.I.S.N. 1#). This provides a 50 ohm coupling impedance for the EUT (Please refer the block diagram of the test setup and photographs). The AC line are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.10: 2013 on Conducted Emission Test.

The bandwidth of test receiver (R & S ESHS10) is set at 9kHz.

The frequency range from 150kHz to 30MHz is checked.

2.7. Power Line Conducted Emission Test Results

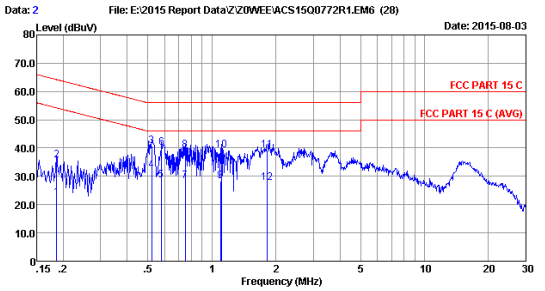
PASS. **(**All emissions not reported below are too low against the prescribed limits.)



Site no :1# Conduction Data No :1
Dis./Lisn :2014 ESH2-Z5 LINE
Limit :FCC PART 15 C
Env./Ins. :25.2°C/53% Engineer :Nick_Huang
EUT :Tablet PC
Power Rating :AC 120V/60Hz
Test Mode :TX Mode (BT3.0)
M/N:PT301

No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.154	0.14	9.92	20.50	30.56	55.78	25.22	Average
2	0.154	0.14	9.92	26.06	36.12	65.78	29.66	QP
3	0.186	0.13	9.93	13.60	23.66	54.21	30.55	Average
4	0.186	0.13	9.93	24.87	34.93	64.20	29.27	QP
5	0.289	0.13	9.93	12.80	22.86	50.55	27.69	Average
6	0.289	0.13	9.93	20.03	30.09	60.54	30.45	QP
7	0.524	0.15	9.94	29.50	39.59	56.00	16.41	QP
8	0.525	0.15	9.94	22.50	32.59	46.00	13.41	Average
9	0.727	0.14	9.95	13.60	23.69	46.00	22.31	Average
10	0.727	0.14	9.95	22.70	32.79	56.00	23.21	QP
11	1.410	0.17	9.96	13.61	23.74	46.00	22.26	Average
12	1.418	0.17	9.96	22.72	32.85	56.00	23.15	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss(Include 10dB pulse limit)+Reading.
2.If the average limit is met when useing a quasi-peak detector.
the EUT shall be deemed to meet both limits and measurement
with average detector is unnecessary.



Site no :1# Conduction Data No :2
Dis./Lisn :2014 ESH2-Z5 NEUTRAL
Limit :FCC PART 15 C
Env./Ins. :25.2°C/53% Engineer :Nick_Huang
EUT :Tablet PC
Power Rating :AC 120V/60Hz
Test Mode :TX Mode (BT3.0)
M/N:PT301

No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.186	0.13	9.93	12.50	22.56	54.21	31.65	Average
2	0.186	0.13	9.93	25.57	35.63	64.20	28.57	QP
3	0.521	0.16	9.94	30.78	40.88	56.00	15.12	QP
4	0.521	0.16	9.94	22.10	32.20	46.00	13.80	Average
5	0.578	0.16	9.94	18.60	28.70	46.00	17.30	Average
6	0.579	0.16	9.94	30.03	40.13	56.00	15.87	QP
7	0.750	0.16	9.95	18.30	28.41	46.00	17.59	Average
8	0.751	0.16	9.95	29.21	39.32	56.00	16.68	QP
9	1.100	0.18	9.96	18.20	28.34	46.00	17.66	Average
10	1.106	0.18	9.96	29.21	39.35	56.00	16.65	QP
11	1.819	0.19	9.98	29.20	39.37	56.00	16.63	QP
12	1.820	0.19	9.98	17.60	27.77	46.00	18.23	Average

Remarks: 1.Emission Level=LISN Factor+Cable Loss(Include 10dB pulse limit)+Reading.
2.If the average limit is met when useing a quasi-peak detector.
the EUT shall be deemed to meet both limits and measurement
with average detector is unnecessary.

3. RADIATED EMISSION MEASUREMENT

3.1. Test Equipment

Frequency rang: 30~1000MHz

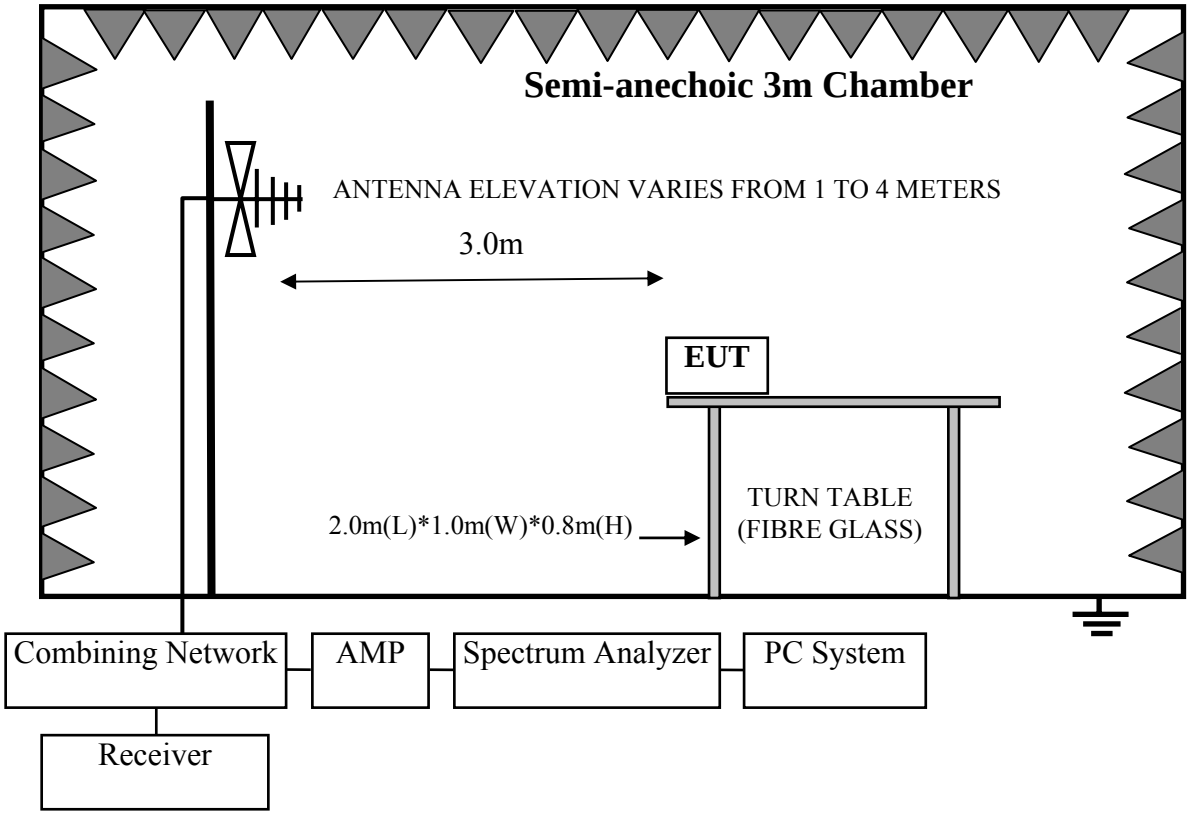
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	3#Chamber	AUDIX	N/A	N/A	Nov.23,14	1 Year
2.	EMI Spectrum	Agilent	E4407B	MY41440292	Apr.28,15	1 Year
3.	Test Receiver	Rohde & Schwarz	ESVS10	834468/011	Apr.28,15	1 Year
4.	Amplifier	HP	8447D	2648A04738	Apr.28,15	1 Year
5.	Trilog-Broadband Antenna	SCHWARZBECK	VULB 9168	9168-493	May.06,15	1 Year
6.	RF Cable	MIYAZAKI	CFD400-NW(3.5M)	No.3	Apr.28,15	1 Year
7.	RF Cable	MIYAZAKI	CFD400-LW(22M)	No.7	Apr.28,15	1 Year
8.	Coaxial Switch	Anritsu	MP59B	6201397222	Apr.28,15	1 Year
9.	Test Software	AUDIX	E3	6.2009-5-21a(n)	N/A	N/A

Frequency rang: above 1000MHz

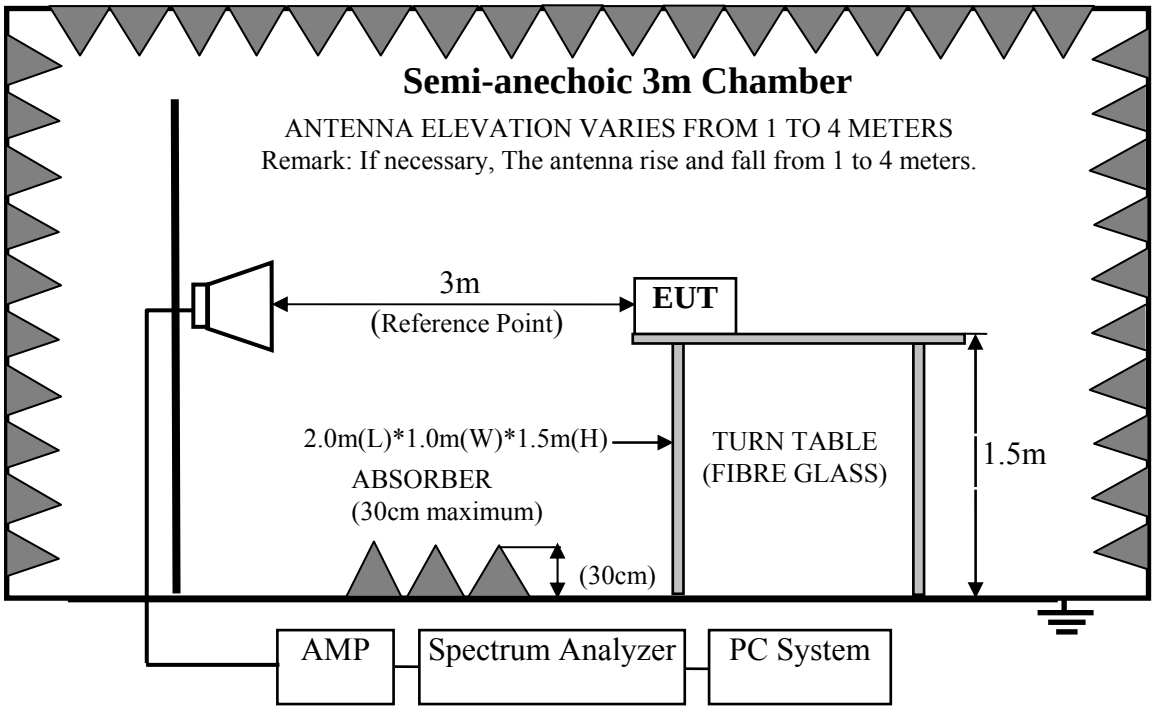
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	3#Chamber	AUDIX	N/A	N/A	Nov.02, 14	1 Year
2.	Spectrum Analyzer	Agilent	E4407B	MY41440292	Apr. 28,15	1 Year
3.	Horn Antenna	ETS	3115	9607-4877	Sep.20, 14	1 Year
4.	Amplifier	Agilent	8449B	3008A00863	Apr. 28,15	1 Year
5.	RF Cable	Hubersuhner	SUCOFLEX106	77977/6	Apr. 28,15	1 Year
6.	RF Cable	Hubersuhner	SUCOFLEX106	28616/2	Apr. 28,15	1 Year
7.	Horn Antenna	ETS	3116	00060089	Sep.20, 14	1 Year

3.2.Block Diagram of Test Setup

For frequency range 30MHz-1000MHz



For frequency range 1GHz-25GHz



3.3. Radiated Emission Limit Standard:

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMIT	
		μV/m	dB(μV)/m
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0
Above 1000MHz	3	74.0 dB(μV)/m (Peak) 54.0 dB(μV)/m (Average)	

Remark： (1) Emission level dBμV = 20 log Emission level μV/m

(2) The smaller limit shall apply at the cross point between two frequency bands.

(3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

(4) The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.

3.4. EUT Configuration on Test

The following equipment are installed on Radiated Emission Test to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

3.4.1. Tablet PC (EUT)

Model Number : PT301
Serial Number : N/A

3.5. Operating Condition of EUT

3.5.1. Setup the EUT and simulator as shown as Section 4.2.

3.5.2. Turned on the power of all equipment.

3.5.3. Let EUT work in Tx mode.

3.6. Test Procedure

EUT and its simulators are placed on a turn table, which is 0.8 meter high above ground for frequency 30MHz~1000MHz, 1.5 meter high above ground for frequency above 1GHz and put the absorbing with 2.4m(L)*2.4m(W)*0.3m(H) on the ground . The turn table can rotate 360 degrees to determine the position of the maximum emission level. Power on the EUT and let it working in test mode, then test it.EUT is set 3 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down between 1 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna for frequency 30MHz~1000MHz, and the Horm antenna is used as receiving antenna for frequency above 1GHz. Both horizontal and vertical polarization of the antenna is set on Test. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.10-2013 on radiated emission Test.

This test was performed with EUT in X, Y, Z position, and the worse case was found when EUT in X position as the test photo indicated.

The bandwidth of the EMI test receiver (R&S ESVS10) is set at 120kHz for frequency range from 30MHz to 1000 MHz.

The bandwidth of the Spectrum's RBW is set at 1MHz and VBW is set at 3MHz for peak emissions measurement above 1GHz

This device is pulse Modulated, a duty cycle factor was used to calculated average level based measured peak level.

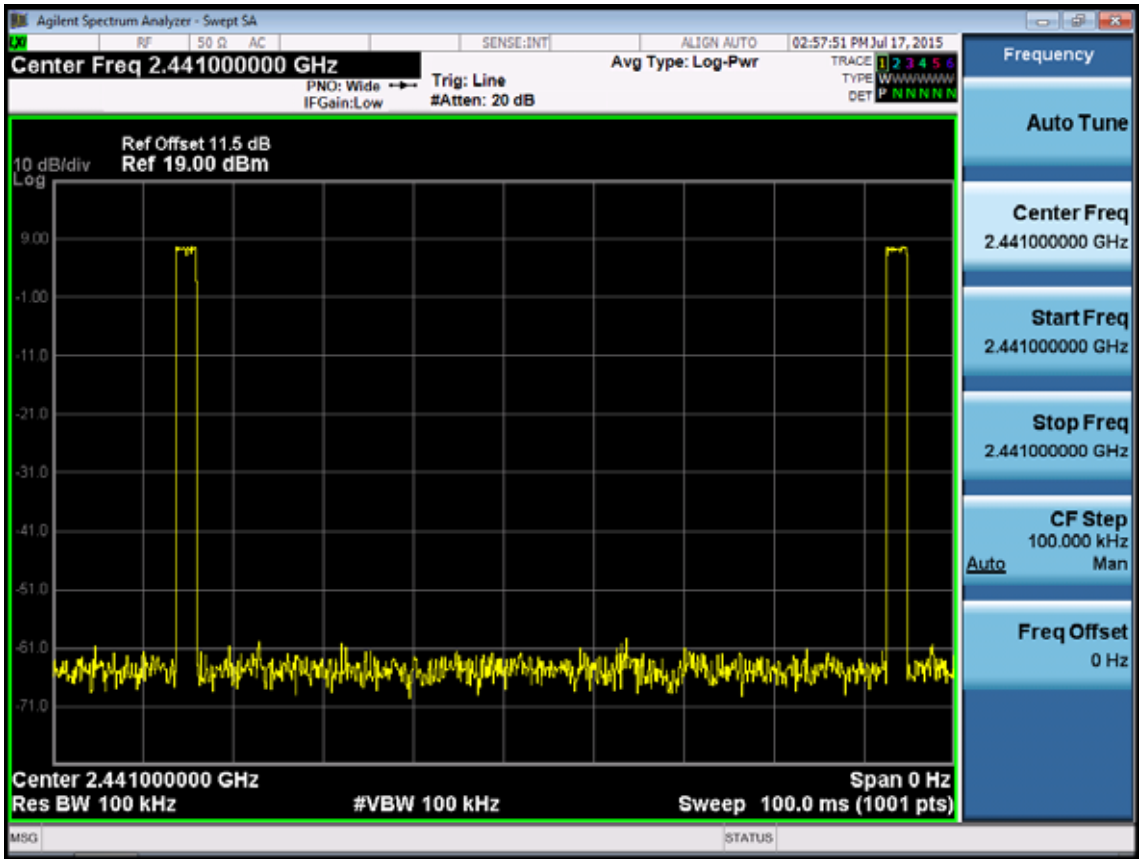
The frequency range from 30MHz to 10th harmonic (25GHz) are checked. and no any emissions were found from 18GHz to 25 GHz, So the radiated emissions from 18GHz to 25GHz were not record.

3.7. Radiated Emission Test Results

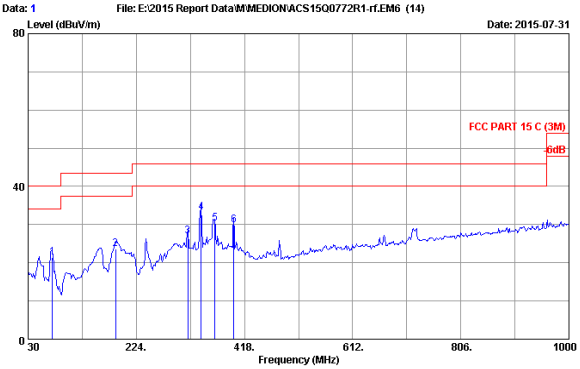
PASS.

All the emissions from 30MHz to 25GHz were comply with the 15.209 Limit.
Note: The duty cycle factor for calculate average level is -26.897 dB, and average limit is 20dB below peak limit, so if peak measured level comply with average limit, the average level was deemed to comply with average limit.

Duty cycle factor = 20log（Dwell time/100ms）= -26.897



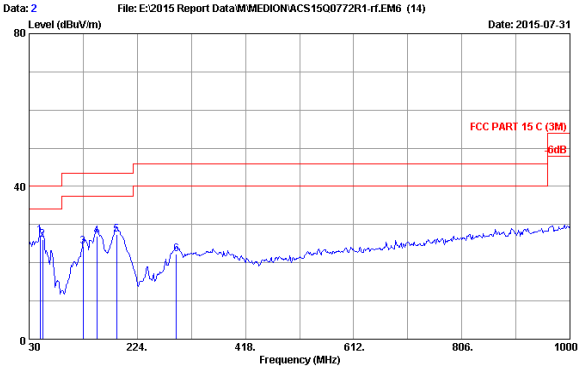
Frequency: 30MHz~1GHz



Site no. : 3m Chamber Data no. : 1
Dis. / Ant. : 3m 2015 VULB 9168-493 Ant. pol. : HORIZONTAL
Limit : FCC PART 15 C (3M)
Env. / Ins. : 24°C/56% Engineer : Jolly_Xu
EUT : Tablet PC M/N:PT301
Power rating : DC 5V From Adapter Input AC 120V/60Hz
Test Mode : Tx Mode

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	73.650	10.87	0.98	9.65	21.50	40.00	18.50	QP
2	187.140	12.03	1.46	10.12	23.61	43.50	19.89	QP
3	316.150	14.43	1.94	10.60	26.97	46.00	19.03	QP
4	340.400	14.91	2.03	16.21	33.15	46.00	12.85	QP
5	364.650	15.51	2.10	12.73	30.34	46.00	15.66	QP
6	398.600	16.47	2.20	11.17	29.84	46.00	16.16	QP

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

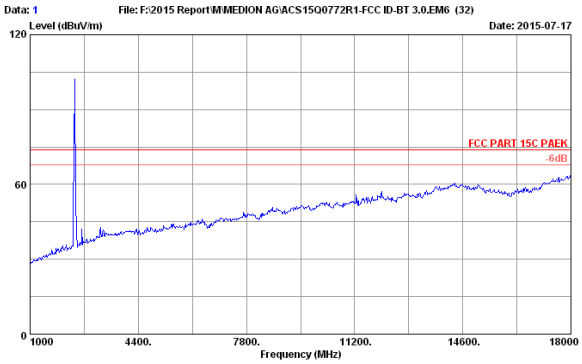


Site no. : 3m Chamber Data no. : 2
Dis. / Ant. : 3m 2015 VULB 9168-493 Ant. pol. : VERTICAL
Limit : FCC PART 15 C (3M)
Env. / Ins. : 24°C/56% Engineer : Jolly_Xu
EUT : Tablet PC M/N:PT301
Power rating : DC 5V From Adapter Input AC 120V/60Hz
Test Mode : Tx Mode

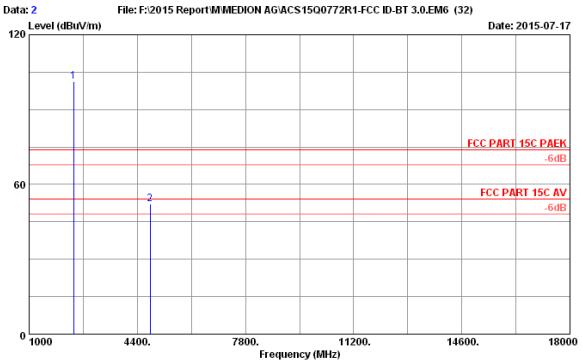
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	49.400	14.38	0.81	12.03	27.22	40.00	12.78	QP
2	54.250	14.00	0.85	11.26	26.11	40.00	13.89	QP
3	127.000	12.94	1.21	10.12	24.27	43.50	19.23	QP
4	151.250	14.31	1.32	11.33	26.96	43.50	16.54	QP
5	187.140	12.03	1.46	13.82	27.31	43.50	16.19	QP
6	293.840	13.95	1.87	6.44	22.26	46.00	23.74	QP

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

Frequency: 1GHz~18GHz



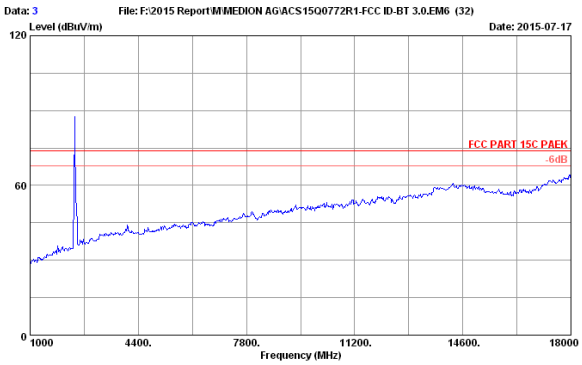
Site no. : 3m Chamber Data no. : 1
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PAEK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Tablet PC
Power rating : DC 5V From Adapter Input AC 120V/60Hz
Test Mode : GFSK 2402MHz Tx Mode
: PT301
:



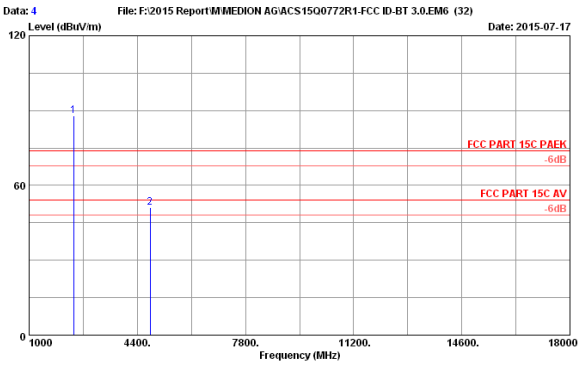
Site no. : 3m Chamber Data no. : 2
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PAEK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Tablet PC
Power rating : DC 5V From Adapter Input AC 120V/60Hz
Test Mode : GFSK 2402MHz Tx Mode
: PT301
:

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2402.000	28.26	7.32	36.62	102.27	101.23	74.00	-27.23	Peak
2	4804.000	33.02	9.46	35.54	45.12	52.06	74.00	21.94	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 3
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C PAEK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Tablet PC
Power rating : DC 5V From Adapter Input AC 120V/60Hz
Test Mode : GFSK 2402MHz Tx Mode
: PT301
:

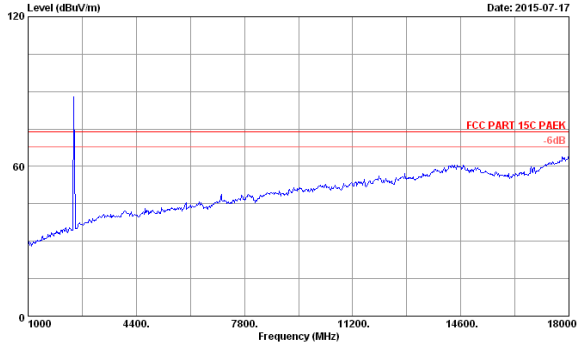


Site no. : 3m Chamber Data no. : 4
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C PAEK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Tablet PC
Power rating : DC 5V From Adapter Input AC 120V/60Hz
Test Mode : GFSK 2402MHz Tx Mode
: PT301
:

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2402.000	28.26	7.32	36.62	86.94	87.90	74.00	-13.90	Peak
2	4804.000	33.02	9.46	35.54	44.31	51.25	74.00	22.75	Peak

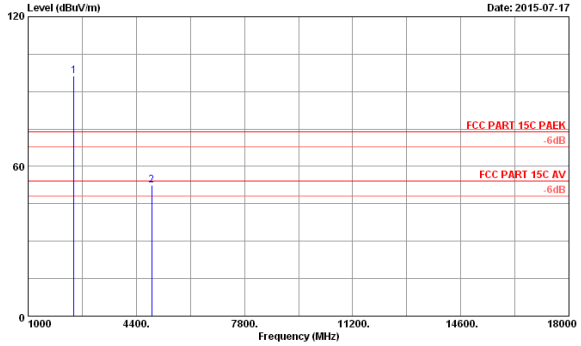
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.

Data: 7 File: F:\2015 Report\M\MEDION AG\ACS15Q0772R1-FCC ID-BT 3.0.EM6 (32)



Site no. : 3m Chamber Data no. : 7
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PAEK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Tablet PC
Power rating : DC 5V From Adapter Input AC 120V/60Hz
Test Mode : GFSK 2441MHz Tx Mode
: PT301
:

Data: 8 File: F:\2015 Report\M\MEDION AG\ACS15Q0772R1-FCC ID-BT 3.0.EM6 (32)

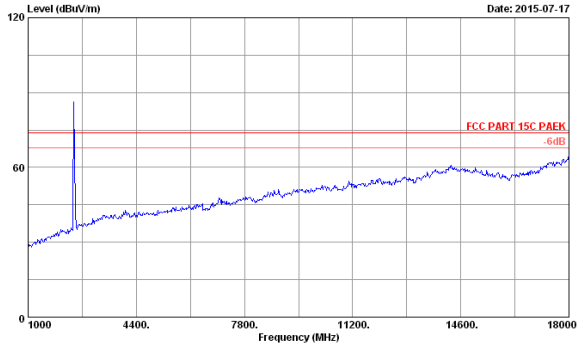


Site no. : 3m Chamber Data no. : 8
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PAEK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Tablet PC
Power rating : DC 5V From Adapter Input AC 120V/60Hz
Test Mode : GFSK 2441MHz Tx Mode
: PT301
:

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2441.000	28.31	7.39	36.60	97.30	96.40	74.00	-22.40	Peak
2	4882.000	33.17	9.49	35.51	45.41	52.56	74.00	21.44	Peak

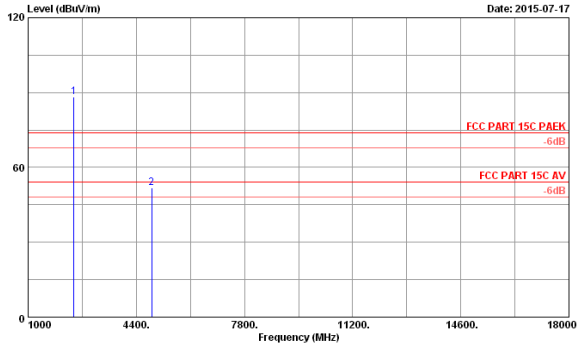
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.

Data: 9 File: F:\2015 Report\M\MEDION AG\ACS15Q0772R1-FCC ID-BT 3.0.EM6 (32)



Site no. : 3m Chamber Data no. : 9
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C PAEK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Tablet PC
Power rating : DC 5V From Adapter Input AC 120V/60Hz
Test Mode : GFSK 2441MHz Tx Mode
: PT301
:

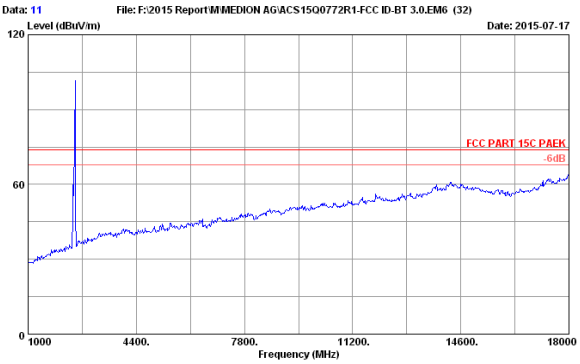
Data: 10 File: F:\2015 Report\M\MEDION AG\ACS15Q0772R1-FCC ID-BT 3.0.EM6 (32)



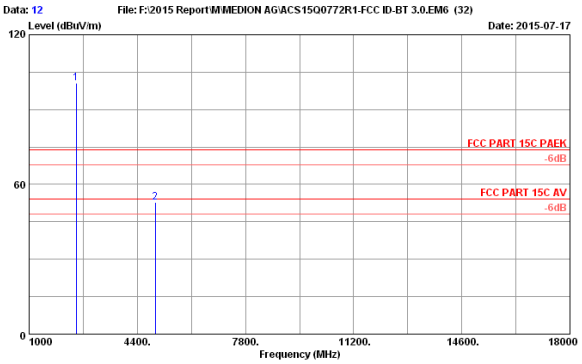
Site no. : 3m Chamber Data no. : 10
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C PAEK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Tablet PC
Power rating : DC 5V From Adapter Input AC 120V/60Hz
Test Mode : GFSK 2441MHz Tx Mode
: PT301
:

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2441.000	28.31	7.39	36.60	89.00	88.10	74.00	-14.10	Peak
2	4882.000	33.17	9.49	35.51	44.52	51.67	74.00	22.33	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



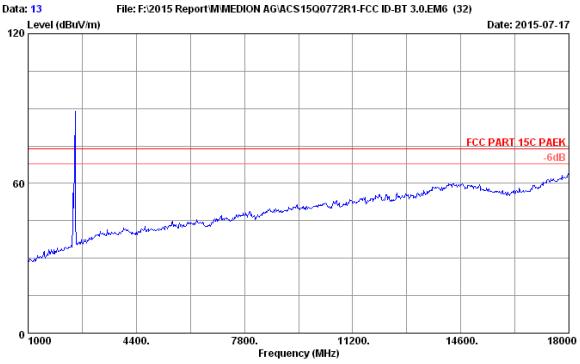
Site no. : 3m Chamber Data no. : 11
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PAEK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Tablet PC
Power rating : DC 5V From Adapter Input AC 120V/60Hz
Test Mode : GFSK 2480MHz Tx Mode
: PT301
:



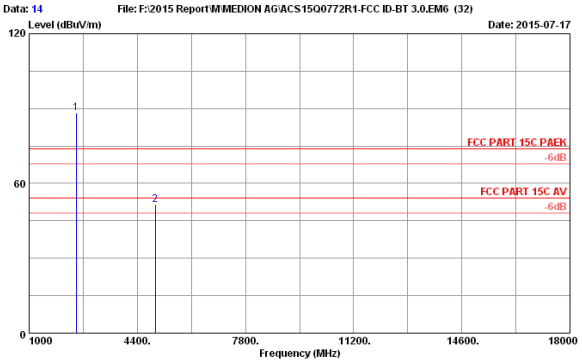
Site no. : 3m Chamber Data no. : 12
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PAEK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Tablet PC
Power rating : DC 5V From Adapter Input AC 120V/60Hz
Test Mode : GFSK 2480MHz Tx Mode
: PT301
:

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2480.000	28.37	7.47	36.59	101.30	100.55	74.00	-26.55	Peak
2	4960.000	33.32	9.52	35.47	45.32	52.69	74.00	21.31	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



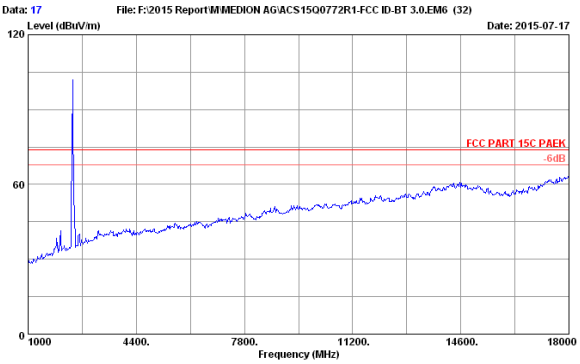
Site no. : 3m Chamber Data no. : 13
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C PAEK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Tablet PC
Power rating : DC 5V From Adapter Input AC 120V/60Hz
Test Mode : GFSK 2480MHz Tx Mode
: PT301
:



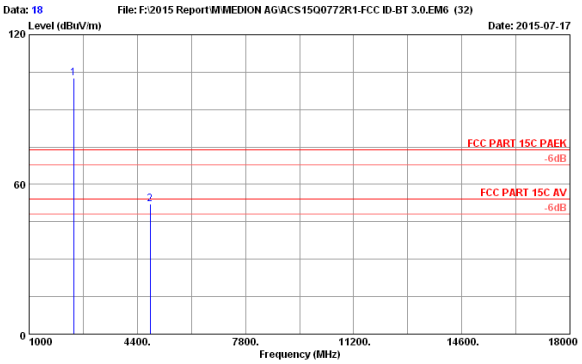
Site no. : 3m Chamber Data no. : 14
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C PAEK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Tablet PC
Power rating : DC 5V From Adapter Input AC 120V/60Hz
Test Mode : GFSK 2480MHz Tx Mode
: PT301
:

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2480.000	28.37	7.47	36.59	89.09	88.34	74.00	-14.34	Peak
2	4960.000	33.32	9.52	35.47	44.25	51.62	74.00	22.38	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



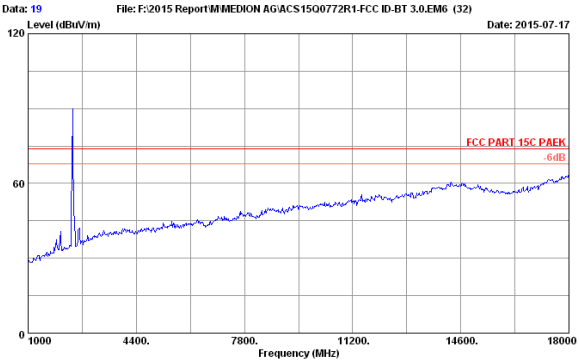
Site no. : 3m Chamber Data no. : 17
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PAEK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Tablet PC
Power rating : DC 5V From Adapter Input AC 120V/60Hz
Test Mode : 8-DPSK 2402MHz Tx Mode
: PT301
:



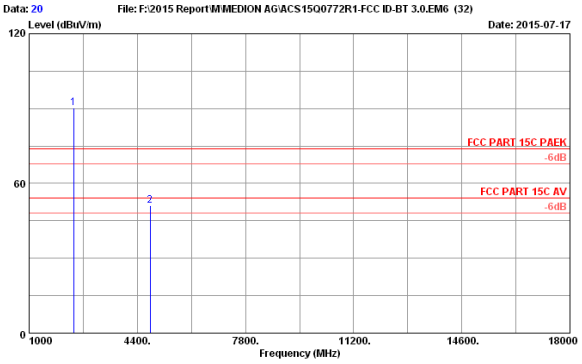
Site no. : 3m Chamber Data no. : 18
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PAEK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Tablet PC
Power rating : DC 5V From Adapter Input AC 120V/60Hz
Test Mode : 8-DPSK 2402MHz Tx Mode
: PT301
:

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2402.000	28.26	7.32	36.62	103.57	102.53	74.00	-28.53	Peak
2	4804.000	33.02	9.46	35.54	45.35	52.29	74.00	21.71	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 19
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C PAEK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Tablet PC
Power rating : DC 5V From Adapter Input AC 120V/60Hz
Test Mode : 8-DPSK 2402MHz Tx Mode
: PT301
:

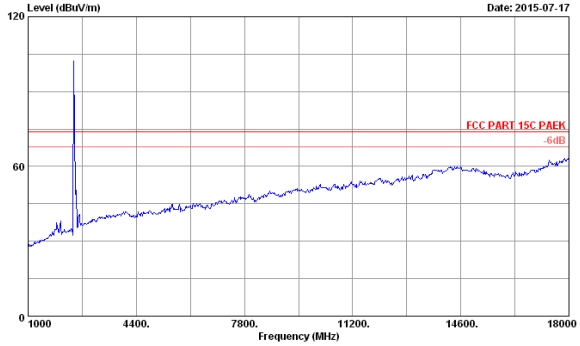


Site no. : 3m Chamber Data no. : 20
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C PAEK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Tablet PC
Power rating : DC 5V From Adapter Input AC 120V/60Hz
Test Mode : 8-DPSK 2402MHz Tx Mode
: PT301
:

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2402.000	28.26	7.32	36.62	91.27	90.23	74.00	-16.23	Peak
2	4804.000	33.02	9.46	35.54	44.06	51.00	74.00	23.00	Peak

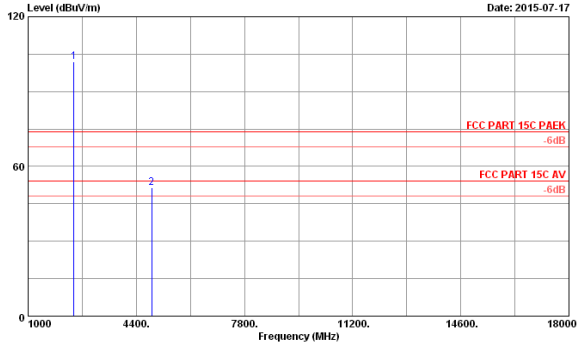
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.

Data: 23 File: F:\2015 Report\M\MEDION AG\ACS15Q0772R1-FCC ID-BT 3.0.EM6 (32)



Site no. : 3m Chamber Data no. : 23
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PAEK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Tablet PC
Power rating : DC 5V From Adapter Input AC 120V/60Hz
Test Mode : 8-DPSK 2441MHz Tx Mode
: PT301
:

Data: 24 File: F:\2015 Report\M\MEDION AG\ACS15Q0772R1-FCC ID-BT 3.0.EM6 (32)

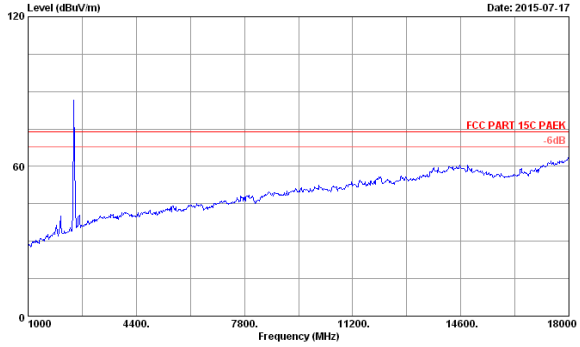


Site no. : 3m Chamber Data no. : 24
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PAEK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Tablet PC
Power rating : DC 5V From Adapter Input AC 120V/60Hz
Test Mode : 8-DPSK 2441MHz Tx Mode
: PT301
:

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2441.000	28.31	7.39	36.60	102.74	101.84	74.00	-27.84	Peak
2	4882.000	33.17	9.49	35.51	44.20	51.35	74.00	22.65	Peak

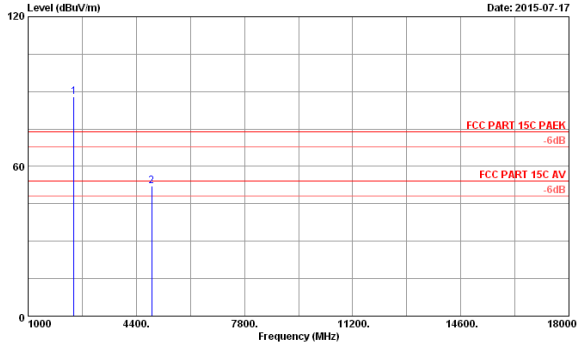
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.

Data: 25 File: F:\2015 Report\M\MEDION AG\ACS15Q0772R1-FCC ID-BT 3.0.EM6 (32)



Site no. : 3m Chamber Data no. : 25
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C PAEK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Tablet PC
Power rating : DC 5V From Adapter Input AC 120V/60Hz
Test Mode : 8-DPSK 2441MHz Tx Mode
: PT301
:

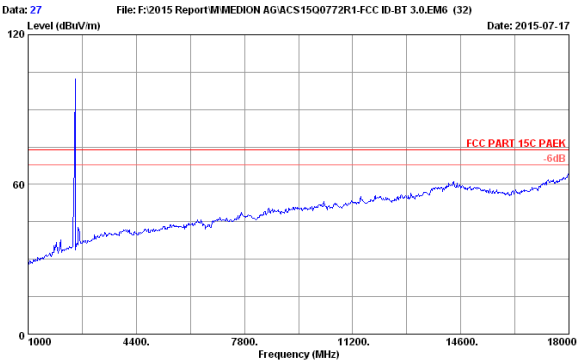
Data: 26 File: F:\2015 Report\M\MEDION AG\ACS15Q0772R1-FCC ID-BT 3.0.EM6 (32)



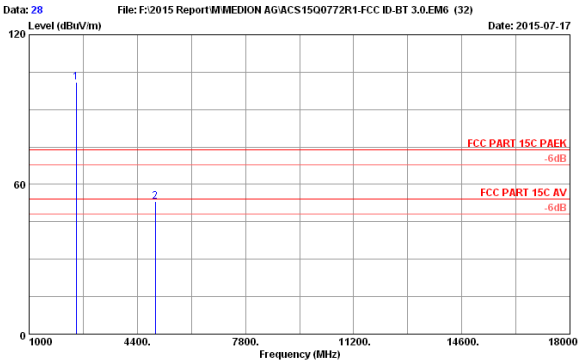
Site no. : 3m Chamber Data no. : 26
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C PAEK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Tablet PC
Power rating : DC 5V From Adapter Input AC 120V/60Hz
Test Mode : 8-DPSK 2441MHz Tx Mode
: PT301
:

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2441.000	28.31	7.39	36.60	88.74	87.84	74.00	-13.84	Peak
2	4882.000	33.17	9.49	35.51	44.89	52.04	74.00	21.96	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



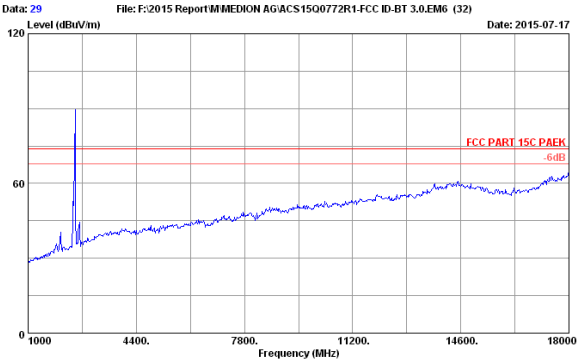
Site no. : 3m Chamber Data no. : 27
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PAEK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Tablet PC
Power rating : DC 5V From Adapter Input AC 120V/60Hz
Test Mode : 8-DPSK 2480MHz Tx Mode
: PT301
:



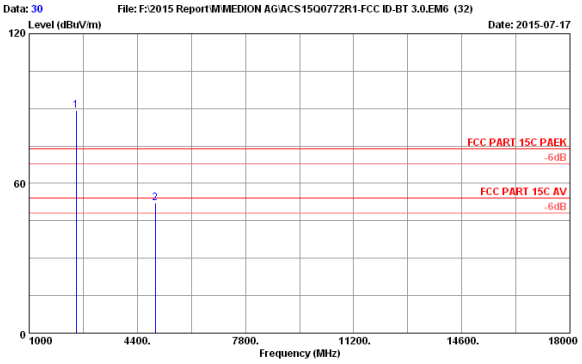
Site no. : 3m Chamber Data no. : 28
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PAEK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Tablet PC
Power rating : DC 5V From Adapter Input AC 120V/60Hz
Test Mode : 8-DPSK 2480MHz Tx Mode
: PT301
:

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2480.000	28.37	7.47	36.59	101.84	101.09	74.00	-27.09	Peak
2	4960.000	33.32	9.52	35.47	45.64	53.01	74.00	20.99	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 29
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C PAEK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Tablet PC
Power rating : DC 5V From Adapter Input AC 120V/60Hz
Test Mode : 8-DPSK 2480MHz Tx Mode
: PT301
:



Site no. : 3m Chamber Data no. : 30
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C PAEK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Tablet PC
Power rating : DC 5V From Adapter Input AC 120V/60Hz
Test Mode : 8-DPSK 2480MHz Tx Mode
: PT301
:

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2480.000	28.37	7.47	36.59	89.95	89.20	74.00	-15.20	Peak
2	4960.000	33.32	9.52	35.47	44.82	52.19	74.00	21.81	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.

4. CONDUCTED SPURIOUS EMISSIONS

4.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum	Agilent	N9030A	MY51380221	Oct.29, 14	1Year
2.	Attenuator (20dB)	Agilent	8491B	MY39262165	Apr. 28,15	1 Year
3.	RF Cable	Hubersuhner	SUCOFLEX102	28620/2	Apr. 28,15	1 Year

4.2. Limit

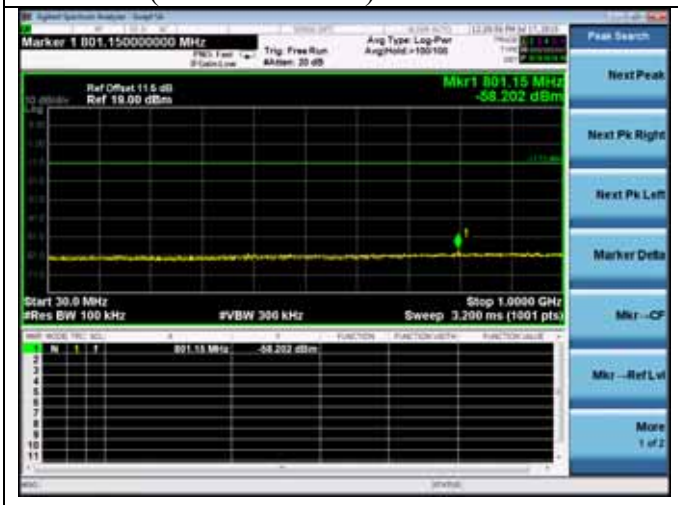
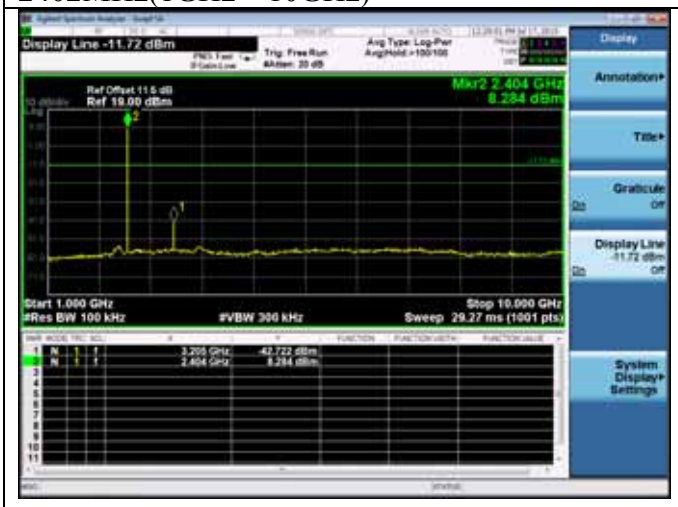
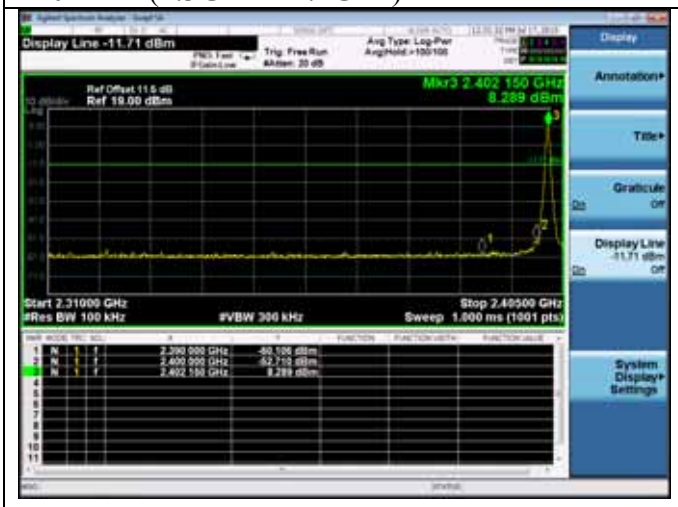
In any 100kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator in operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power.

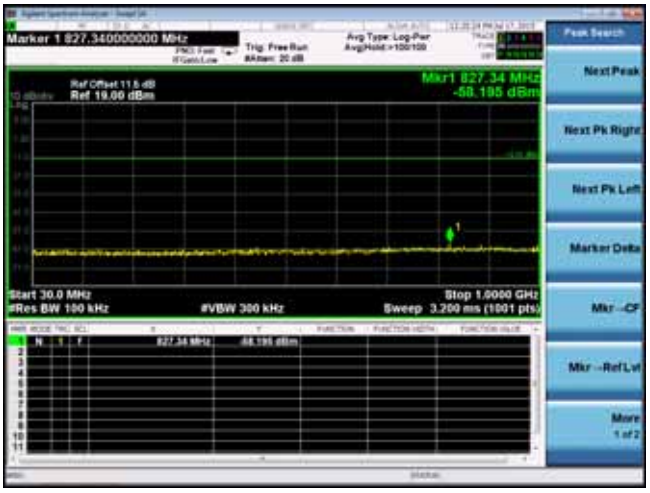
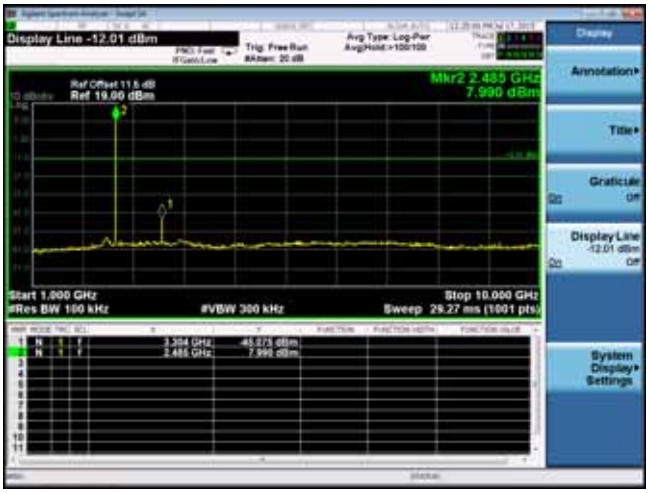
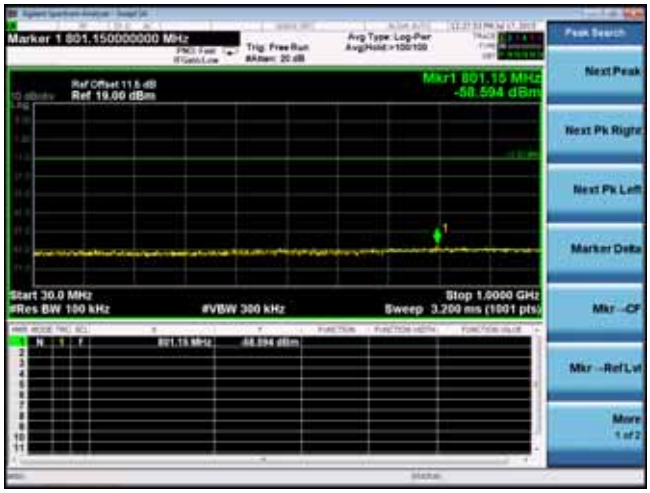
4.3. Test Procedure

The transmitter output was connected to a spectrum analyzer, The resolution bandwidth is set to 100 kHz, The video bandwidth is set to 300 kHz and measure all the emissions With peak detector.

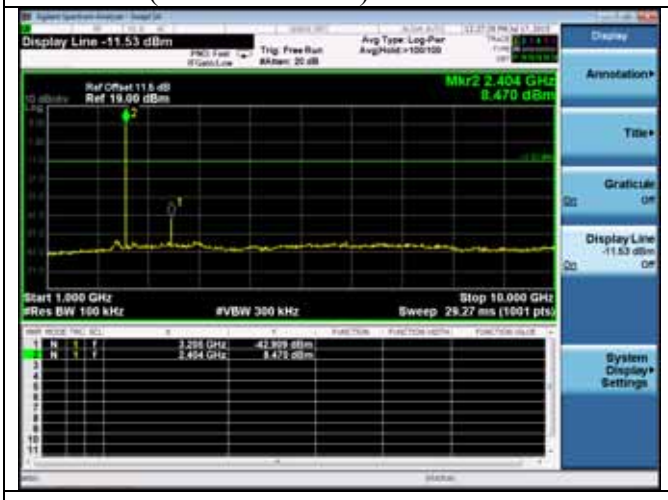
4.4. Test result

PASS (The testing data was attached in the next pages.)

Hopping off	
GFSK	
2402MHz(30MHz – 1GHz)	2402MHz(10GHz – 25GHz)
	
2402MHz(1GHz – 10GHz)	2441(30MHz – 1GHz)
	
2402MHz(2.3GHz – 2.4GHz)	2441(1GHz – 10GHz)
	

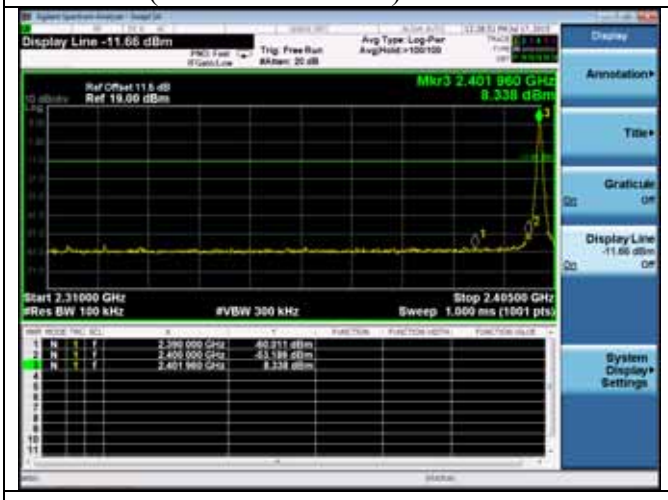
2441(10GHz – 25GHz)	2480MHz(2.4GHz – 2.5GHz)
	
2480MHz(30MHz – 1GHz)	2480MHz(10GHz – 25GHz)
	
	8-DPSK
2480MHz(1GHz – 10GHz)	2402MHz(30MHz – 1GHz)
	

2402MHz(1GHz – 10GHz)



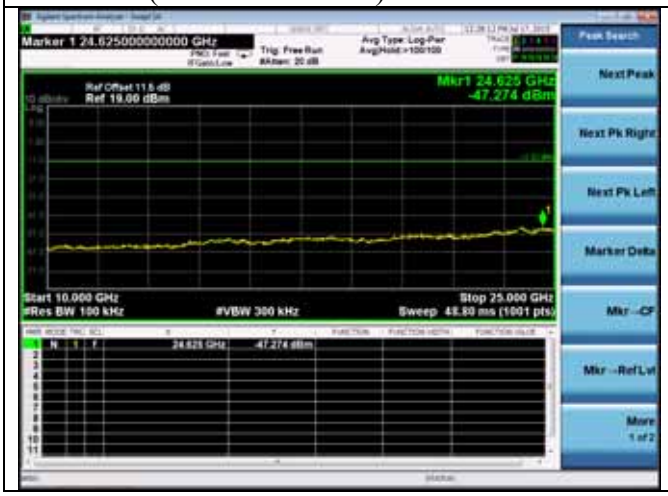
2441MHz (30MHz – 1GHz)

2402MHz(2.3GHz – 2.4GHz)

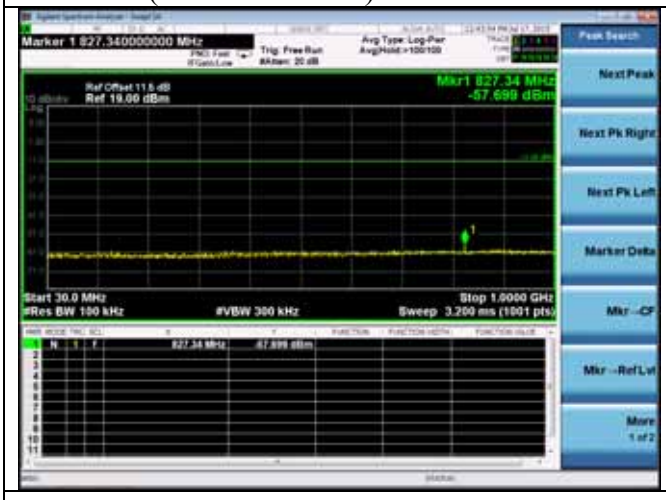
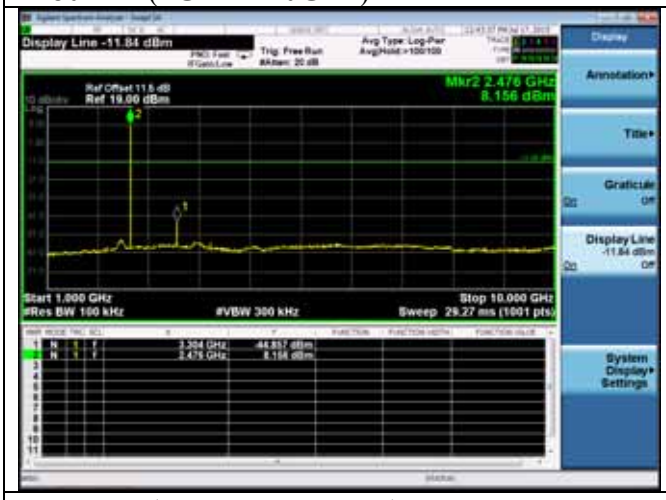
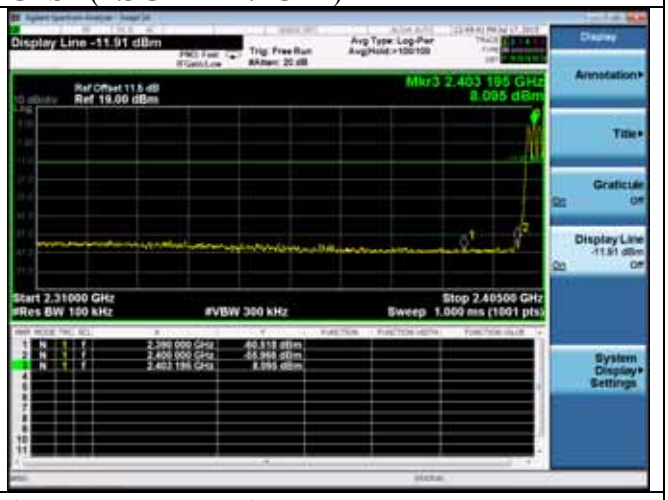
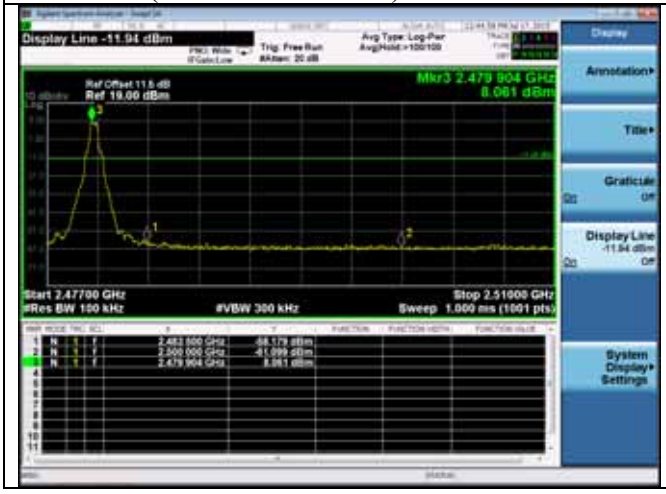


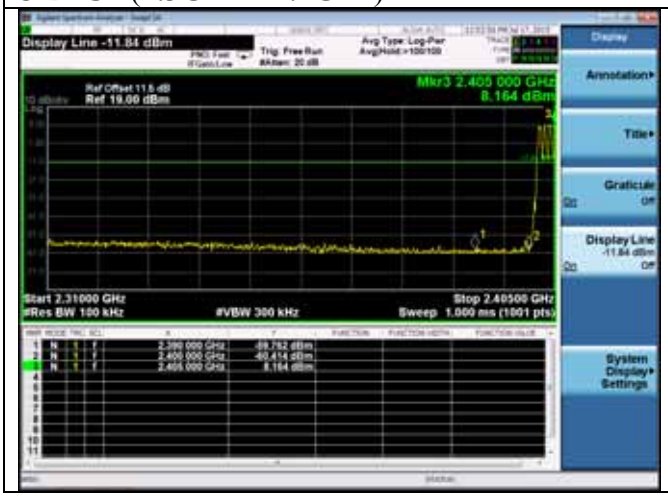
2441MHz(1GHz – 10GHz)

2402MHz(10GHz – 25GHz)



2441MHz(10GHz – 25GHz)

2480MHz(30MHz – 1GHz)	2480MHz(10GHz – 25GHz)
	
	Hopping on
2480MHz(1GHz – 10GHz)	GFSK(2.3GHz – 2.4GHz)
	
2480MHz(2.4GHz – 2.5GHz)	(2.4GHz – 2.5GHz)
	

8-DPSK(2.3GHz – 2.4GHz)	(2.4GHz – 2.5GHz)
	

5. 20 DB BANDWIDTH TEST

5.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum	Agilent	N9030A	MY51380221	Oct.29, 14	1Year
2.	Attenuator (20dB)	Agilent	8491B	MY39262165	Apr. 28,15	1 Year
3.	RF Cable	Hubersuhner	SUCOFLEX102	28620/2	Apr. 28,15	1 Year

5.2. Limit

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.

5.3. Test Results

EUT: Tablet PC		
M/N: PT301		
Test date: 2015-07-16	Pressure: 101.3±1.0 kpa	Humidity: 51.2±3.0%
Tested by: Alice-yang	Test site: RF site	Temperature:23.2±0.6 ℃

Test Mode	Frequency (MHz)	20dB bandwidth (KHz)	Limit (KHz)
GFSK	2402	1041.0	N/A
	2441	1040.0	N/A
	2480	1042.0	N/A
8-DPSK	2402	647.4	N/A
	2441	649.1	N/A
	2480	651.3	N/A
Conclusion：PASS			

GFSK	8-DPSK
2402MHz	2402MHz
	
2441MHz	2441MHz
	
2480MHz	2480MHz
	

6. CARRIER FREQUENCY SEPARATION TEST

6.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Spectrum Analyzer	Agilent	N9030A	MY51380221	Oct.29, 14	1Year
2.	RF Cable	Hubersuhner	SUCOFLEX102	28620/2	Apr. 28,15	1 Year

6.2.Limit

Frequency hopping systems shall have hopping channel carrier frequency separated by a minimum of 25kHz or the 20dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW.

6.3.Test Results.

EUT: Tablet PC		
M/N: PT301		
Test date: 2015-07-17	Pressure: 101.4±1.0 kpa	Humidity: 51.4±3.0%
Tested by: Alice-yang	Test site: RF Site	Temperature: 23.4±0.6℃

Test Mode	Channel separation	Limit(KHz)	Conclusion
8-DPSK	1.0MHz	581.67	PASS
GFSK	1.0MHz	808.67	PASS

7. NUMBER OF HOPPING FREQUENCY TEST

7.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Spectrum Analyzer	Agilent	N9030A	MY51380221	Oct.29, 14	1Year
2.	RF Cable	Hubersuhner	SUCOFLEX102	28620/2	Apr.28, 15	1 Year

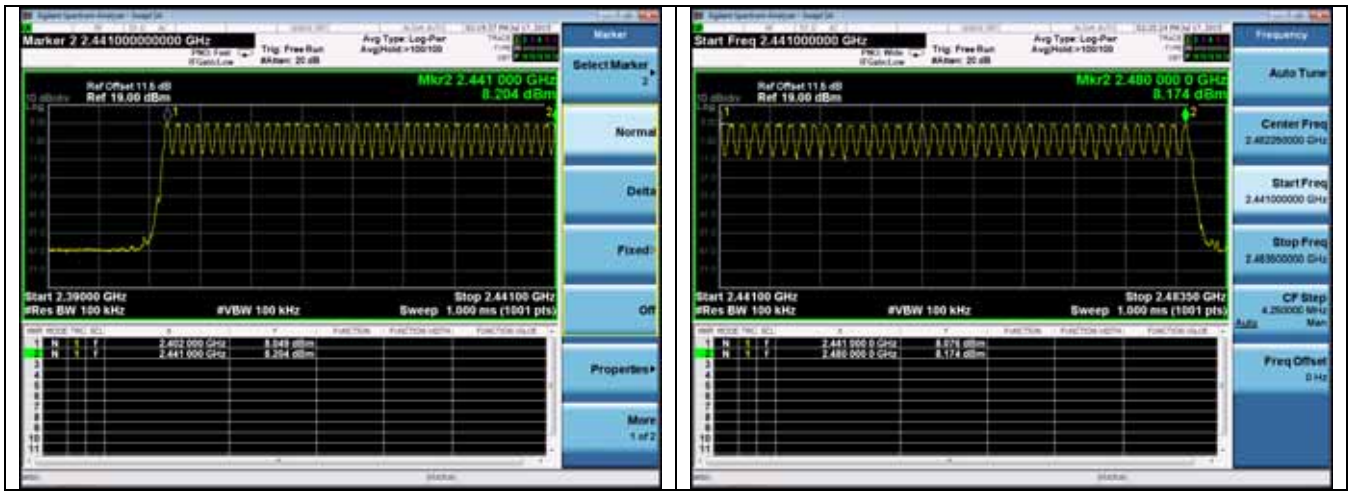
7.2.Limit

Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels

7.3.Test Results

EUT: Tablet PC		
M/N: PT301		
Test date: 2015-07-17	Pressure: 101.4±1.0 kpa	Humidity: 51.4±3.0%
Tested by: Alice-yang	Test site: RF Site	Temperature: 23.4±0.6℃

Test Mode	Number of channel	Limit	Conclusion
8-DPSK	79	>=15	PASS
GFSK	79	>=15	PASS



8. DWELL TIME

8.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Spectrum Analyzer	Agilent	N9030A	MY51380221	Oct.29, 14	1Year
2.	RF Cable	Hubersuhner	SUCOFLEX102	28620/2	Apr.28, 15	1 Year

8.2.Limit

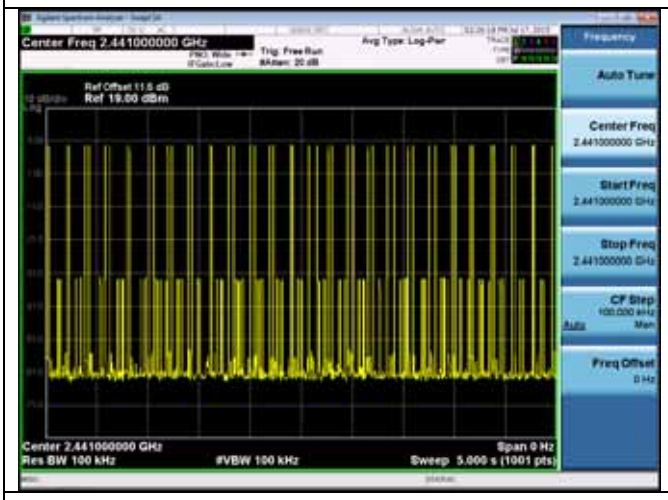
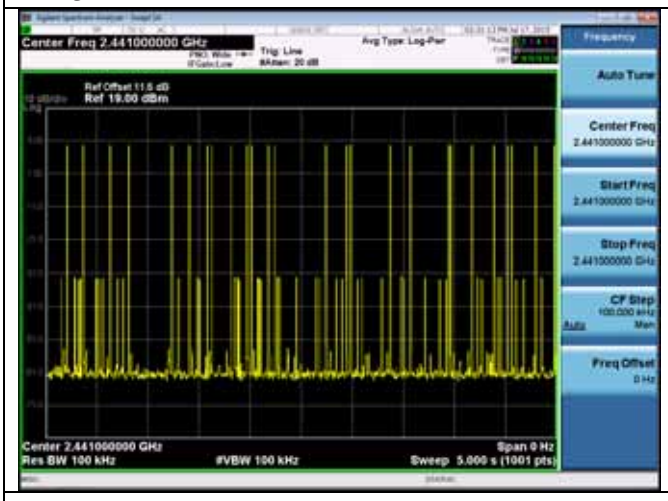
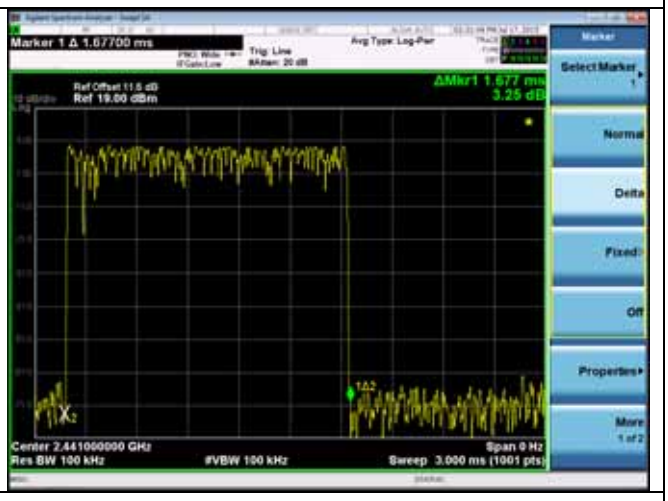
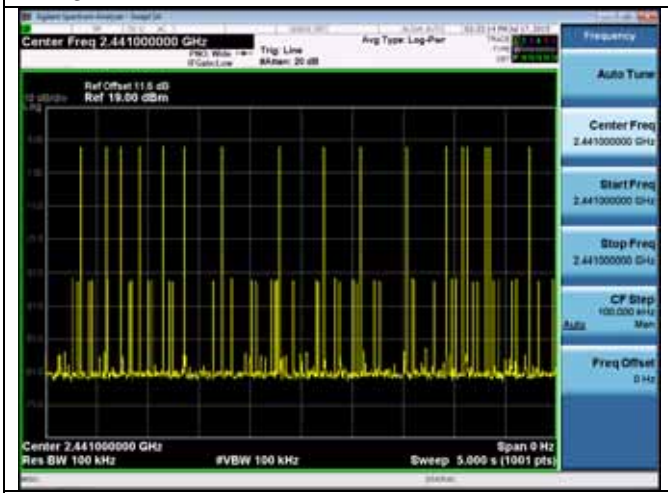
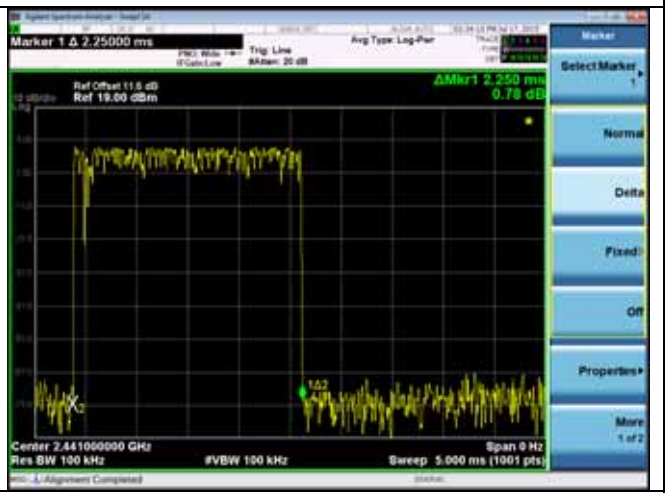
The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed.

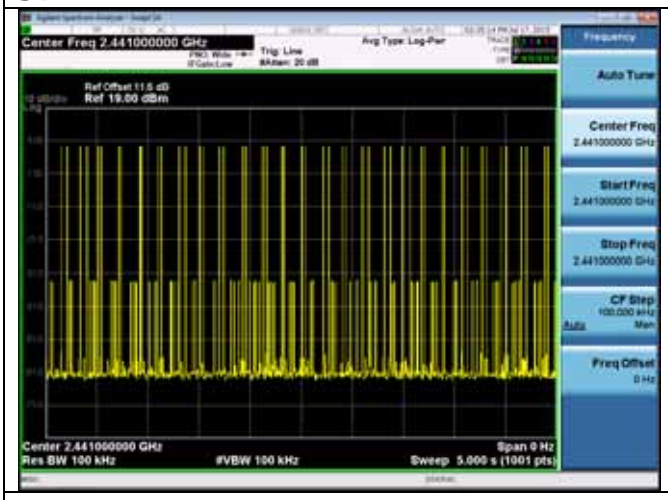
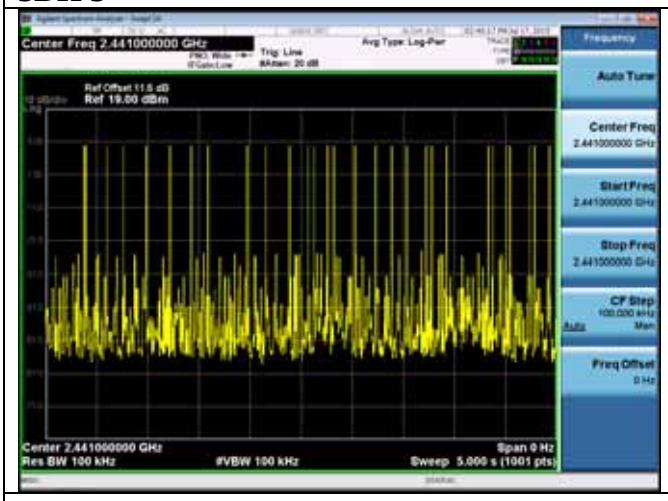
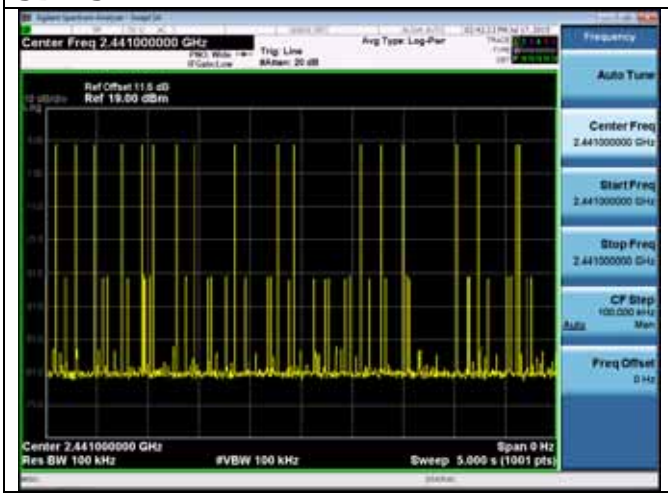
8.3.Test Results

EUT: Tablet PC		
M/N: PT301		
Test date: 2015-07-17	Pressure: 101.4±1.0 kpa	Humidity: 51.4±3.0%
Tested by: Alice-yang	Test site: RF Site	Temperature: 23.4±0.6℃

Mode		dwell time	Limit	Conclusion
GFSK	DH1	46hops/5s*0.4*79chanels*0.410ms =119.195ms	<400ms	PASS
	DH3	23hops/5s*0.4*79chanels*1.677ms =243.769ms	<400ms	PASS
	DH5	17hops/5s*0.4*79chanels*2.250ms =241.740ms	<400ms	PASS
8-DPSK	DH1	48hops/5s*0.4*79chanels*0.438ms =132.872ms	<400ms	PASS
	DH3	27hops/5s*0.4*79chanels*1.767ms =301.521ms	<400ms	PASS
	DH5	18hops/5s*0.4*79chanels*2.245ms =255.391ms	<400ms	PASS

Note: All the lower levels were signaled from receiver and should not be considered in here.

GFSK	
DH 1	
	
DH 3	
	
DH 5	
	

8-DPSK	
3DH 1	
	
3DH 3	
	
3DH 5	
	

9. MAXIMUM PEAK OUTPUT POWER TEST

9.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum	Agilent	N9030A	MY51380221	Oct.29, 14	1Year
2.	Power meter	Anritsu	ML2487A	6K00002472	Apr. 28,15	1Year
3.	Power sensor	Anritsu	MA2491A	0033005	Apr. 28,15	1Year
4.	Attenuator (20dB)	Agilent	8491B	MY39262165	Apr. 28,15	1Year
5.	RF Cable	Hubersuhner	SUCOFLEX102	28610/2	Apr. 28,15	1Year

9.2. Limit

For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1 watt.

9.3. Test Procedure

Connected the EUT's antenna port to Power Sensor, and use power meter to test peak output power directly.

9.4. Test Results

EUT：Tablet PC			
M/N:PT301			
Test date: 2015-07-17		Pressure: 101.6±1.0 kpa	Humidity: 52.3±1.0%
Tested by: Alice-Yang		Test site: RF Site	Temperature：21.9±0.6℃
Test Mode	Frequency (MHz)	Max. Conducted Output Power (dBm)	Limit (dBm)
GFSK	2402	8.891	30
	2441	8.563	30
	2480	8.594	30
8-DPSK	2402	8.691	30
	2441	8.313	30
	2480	8.481	30
Conclusion: PASS			

10. BAND EDGE COMPLIANCE TEST

10.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum	Agilent	E4446A	US44300459	Apr.28,15	1 Year
2.	Amp	HP	8449B	3008A02495	Apr.28,15	1 Year
3.	Horn Antenna	ETS	3115	9510-4877	Sep.20,14	1 Year
4.	HF Cable	Hubersuhner	Sucoflex104	274094/4	Apr.28,15	1 Year

10.2. Limit

All the lower and upper band-edges emissions appearing within 2310MHz to 2390MHz and 2483.5MHz to 2500MHz restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions outside operation frequency band 2400MHz to 2483.5MHz shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

10.3. Test Produce

For upper band emissions that are up to two bandwidths(2MHz) away (2483.5MHz to 2485.5MHz） from the band-edge use below produce:

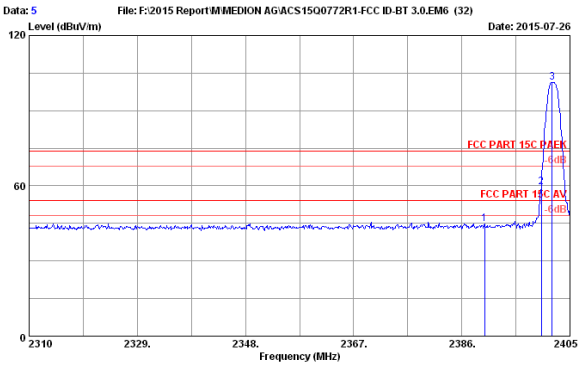
1. Choose a spectrum analyzer span that encompasses both the peak of the fundamental emission and the band-edge emission under investigation. Set the analyzer RBW to 100KHz and with a video bandwidth 300KHz. Record the peak levels of the fundamental emission and the relevant band-edge emission, Observe the stored trace and measure the amplitude delta between the peak of the fundamental and the peak of the band-edge emission. This is not a field strength measurement, it is only a relative measurement to determine the amount by which the emission drops at the band edge relative to the highest fundamental emission level.
2. Subtract the delta measured in step (1) from the maximum field strengths measured in clause 4 .The resultant field strengths are then used to determine band-edge compliance as required by Section 15.205

For emissions above two bandwidths away from the band-edge use below produce:

1. The EUT is placed on a insulating material (up to 12mm thick) worked at highest radiated power.
2. The turntable was rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.
4. Set the spectrum analyzer in the following setting in order to capture the lower and upperband-edges of the emission:
   (a) PEAK: RBW=1MHz ;VBW=3MHz, PK detector, Sweep=AUTO
   (b) This is pulse Modulation device a duty cycle factor was used to calculate average level based measured peak level.

10.4. Test Results

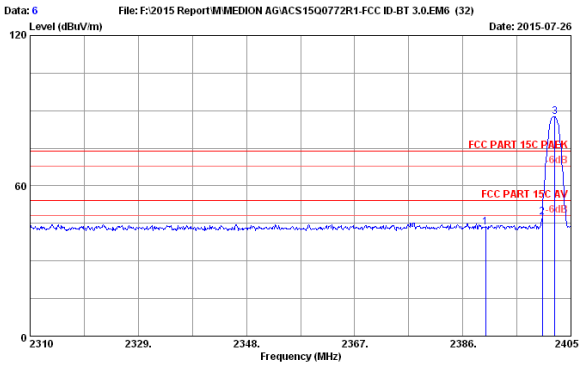
Pass (The testing data was attached in the next pages.)
Note: If the PK measured levels comply with average limit, then the average level were deemed to comply with average limit.



Site no. : 3m Chamber Data no. : 5
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PAEK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Tablet PC
Power rating : DC 5V From Adapter Input AC 120V/60Hz
Test Mode : GFSK 2402MHz Tx Mode
: PT301
:

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	28.24	7.28	36.62	45.75	44.65	74.00	29.35	Peak
2	2400.000	28.25	7.32	36.62	60.65	59.60	74.00	14.40	Peak
3	2401.865	28.26	7.32	36.62	102.47	101.43	74.00	-27.43	Peak

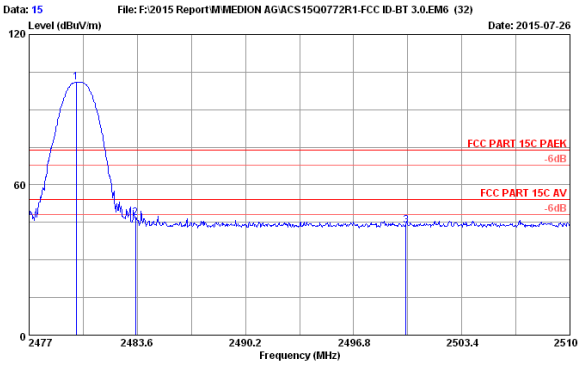
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 6
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C PAEK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Tablet PC
Power rating : DC 5V From Adapter Input AC 120V/60Hz
Test Mode : GFSK 2402MHz Tx Mode
: PT301
:

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	28.24	7.28	36.62	44.53	43.43	74.00	30.57	Peak
2	2400.000	28.25	7.32	36.62	48.47	47.42	74.00	26.58	Peak
3	2402.150	28.26	7.32	36.62	88.64	87.60	74.00	-13.60	Peak

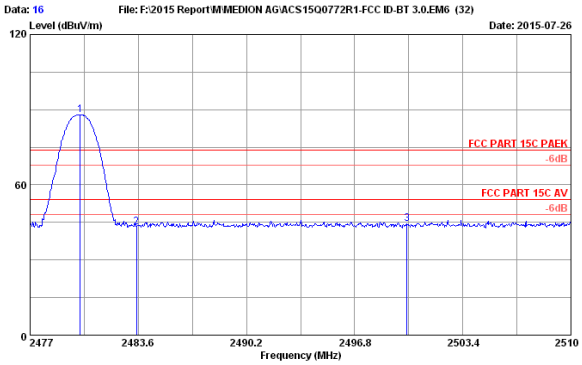
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 15
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PAEK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Tablet PC
Power rating : DC 5V From Adapter Input AC 120V/60Hz
Test Mode : GFSK 2480MHz Tx Mode
: PT301
:

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2479.871	28.37	7.47	36.59	101.78	101.03	74.00	-27.03	Peak
2	2483.500	28.38	7.51	36.59	47.40	46.70	74.00	27.30	Peak
3	2500.000	28.40	7.51	36.58	44.43	43.76	74.00	30.24	Peak

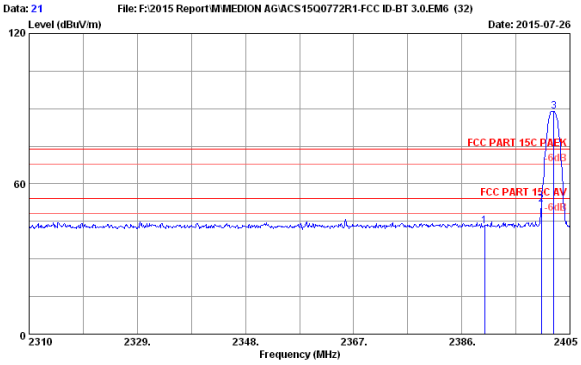
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 16
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C PAEK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Tablet PC
Power rating : DC 5V From Adapter Input AC 120V/60Hz
Test Mode : GFSK 2480MHz Tx Mode
: PT301
:

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2480.069	28.37	7.47	36.59	88.70	87.95	74.00	-13.95	Peak
2	2483.500	28.38	7.51	36.59	43.87	43.17	74.00	30.83	Peak
3	2500.000	28.40	7.51	36.58	45.15	44.48	74.00	29.52	Peak

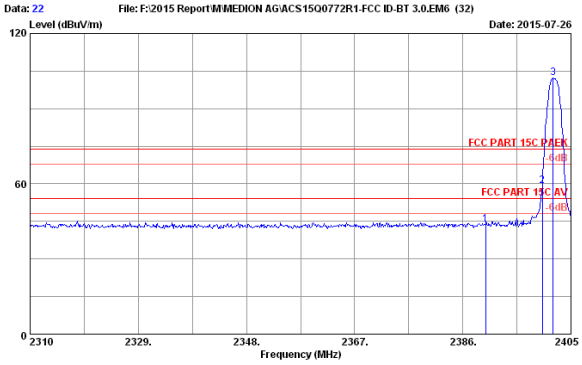
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 21
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C PAEK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Tablet PC
Power rating : DC 5V From Adapter Input AC 120V/60Hz
Test Mode : 8-DPSK 2402MHz Tx Mode
: PT301
:

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	28.24	7.28	36.62	44.17	43.07	74.00	30.93	Peak
2	2400.000	28.25	7.32	36.62	52.91	51.86	74.00	22.14	Peak
3	2402.150	28.26	7.32	36.62	90.05	89.01	74.00	-15.01	Peak

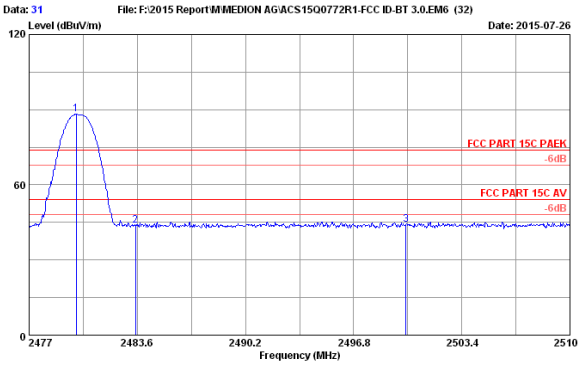
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 22
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PAEK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Tablet PC
Power rating : DC 5V From Adapter Input AC 120V/60Hz
Test Mode : 8-DPSK 2402MHz Tx Mode
: PT301
:

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	28.24	7.28	36.62	44.89	43.79	74.00	30.21	Peak
2	2400.000	28.25	7.32	36.62	60.13	59.08	74.00	14.92	Peak
3	2401.865	28.26	7.32	36.62	103.16	102.12	74.00	-28.12	Peak

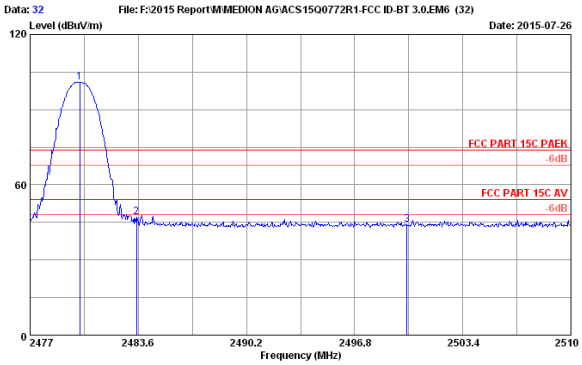
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 31
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C PAEK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Tablet PC
Power rating : DC 5V From Adapter Input AC 120V/60Hz
Test Mode : 8-DPSK 2480MHz Tx Mode
: PT301
:

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2479.871	28.37	7.47	36.59	88.88	88.13	74.00	-14.13	Peak
2	2483.500	28.38	7.51	36.59	44.46	43.76	74.00	30.24	Peak
3	2500.000	28.40	7.51	36.58	44.94	44.27	74.00	29.73	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 32
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PAEK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Tablet PC
Power rating : DC 5V From Adapter Input AC 120V/60Hz
Test Mode : 8-DPSK 2480MHz Tx Mode
: PT301
:

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2480.036	28.37	7.47	36.59	101.75	101.00	74.00	-27.00	Peak
2	2483.500	28.38	7.51	36.59	47.86	47.16	74.00	26.84	Peak
3	2500.000	28.40	7.51	36.58	44.66	43.99	74.00	30.01	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.

11. TENNA REQUIREMENT

11.1. STANDARD APPLICABLE

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. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

11.2. ANTENNA CONNECTED CONSTRUCTION

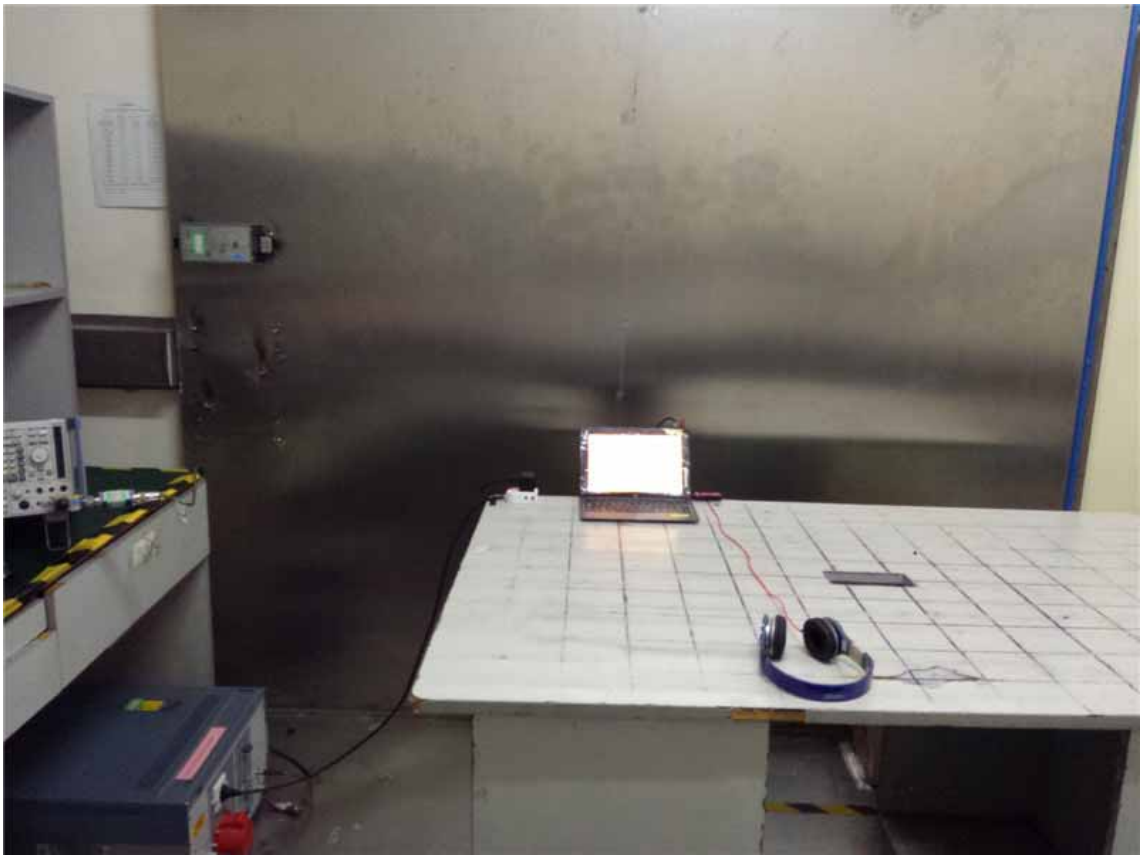
The antennas used for this product are FPC antenna that no antenna other than that furnished by the responsible party shall be used with the device, the maximum peak gain of the transmit antenna is 2.64dBi

12. DEVIATION TO TEST SPECIFICATIONS

[NONE]

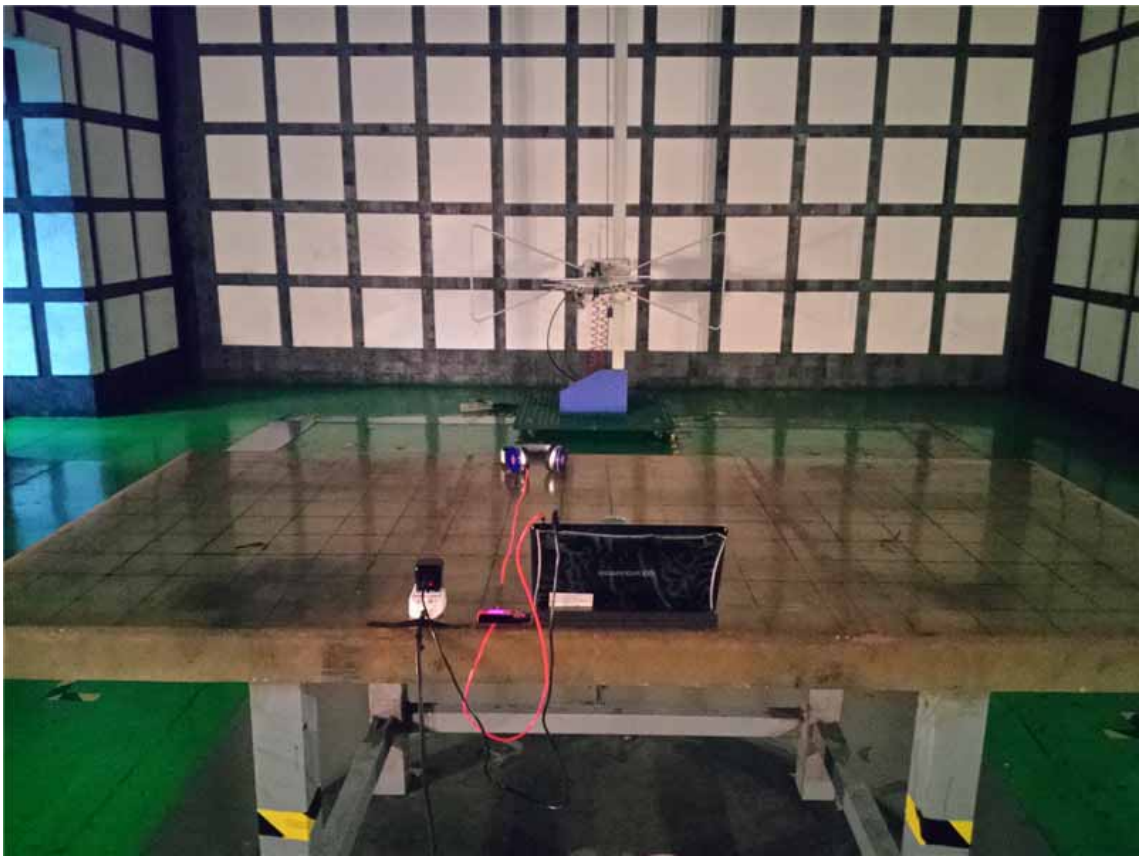
13. PHOTOGRAPH OF TEST

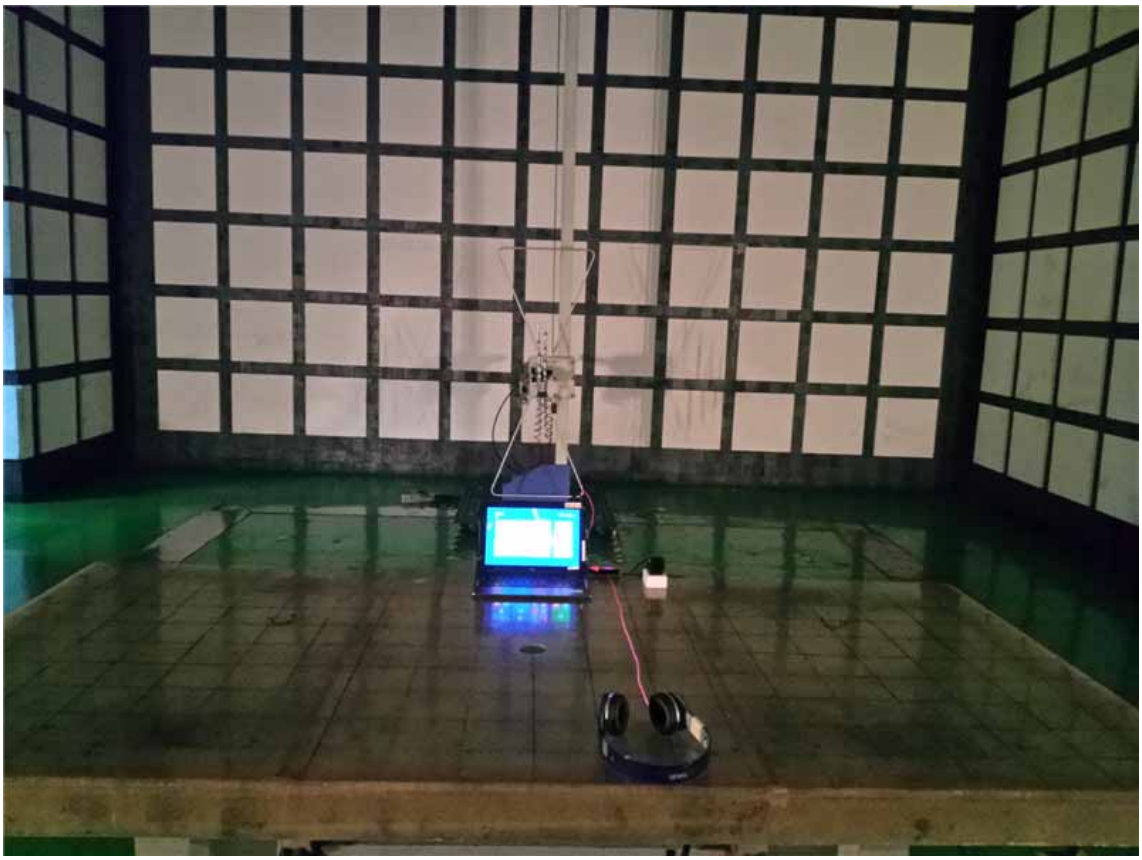
13.1. Photos of Power Line Conducted Emission Test



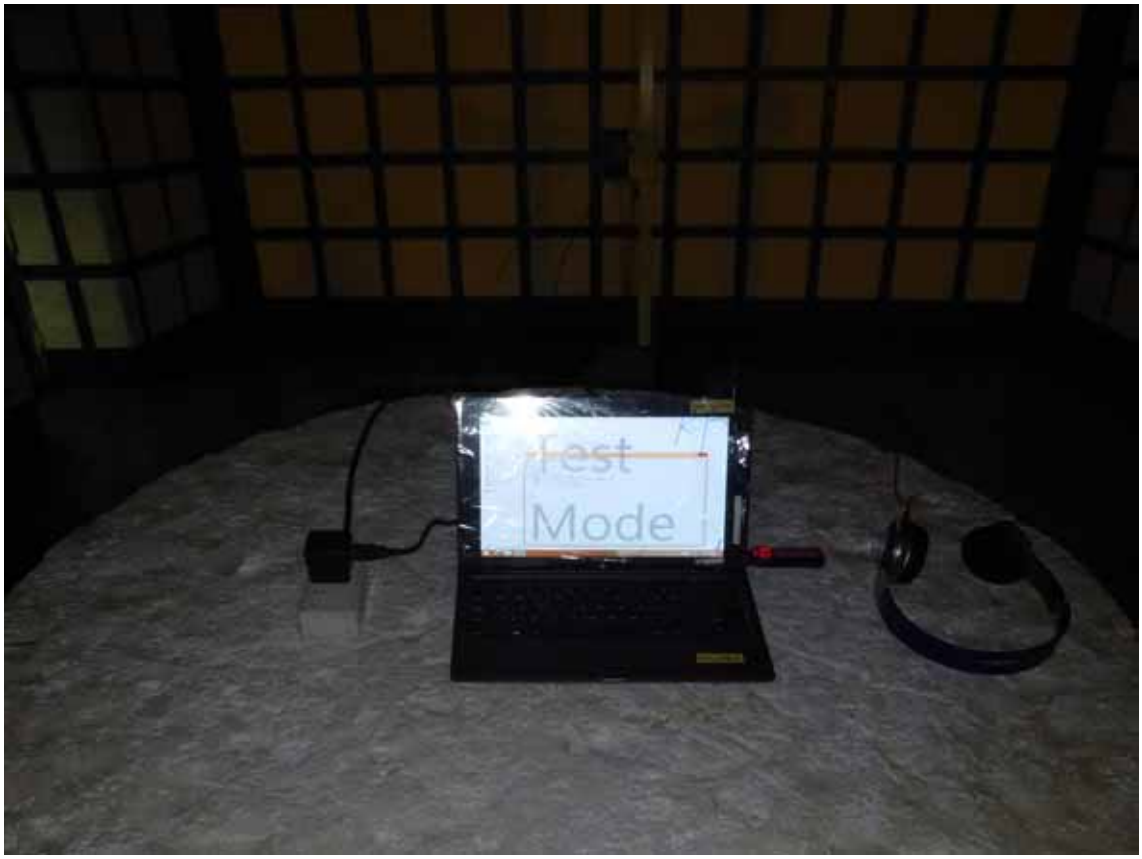
13.2.Photos of Radiated Emission Test

30-1000MHz





Above 1000MHz



14. PHOTOGRAPH OF EUT

Figure 1
General Appearance of the EUT

Figure 2
General Appearance of the EUT

Figure 3
General Appearance of the EUT

Figure 4
General Appearance of the EUT

Figure 5
General Appearance of the EUT

Figure 6
General Appearance of the EUT

Figure 7
General Appearance of the EUT

Figure 8
General Appearance of the EUT

Figure 9
General Appearance of the EUT

Figure 10
General Appearance of the EUT

Figure 11
General Appearance of the EUT

Figure 12
General Appearance of the EUT

Figure 13
General Appearance of the EUT

Figure 14
General Appearance of the EUT

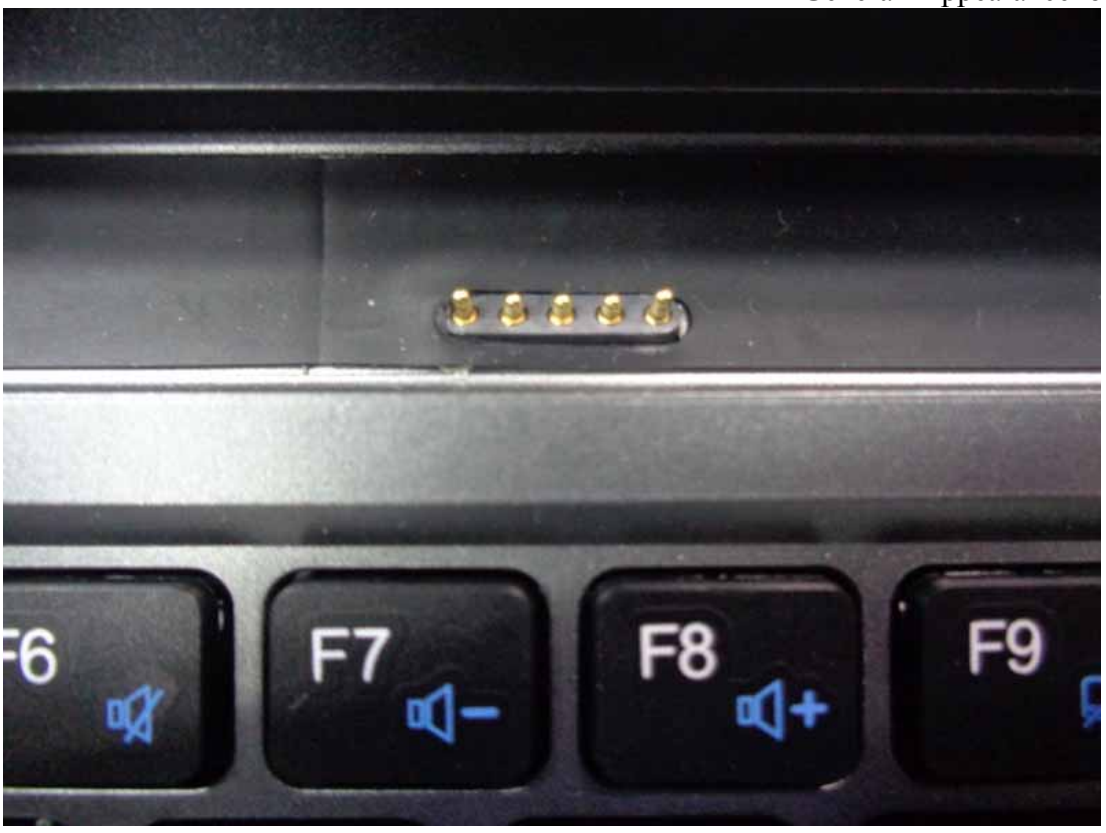


Figure 15
Inside of the EUT

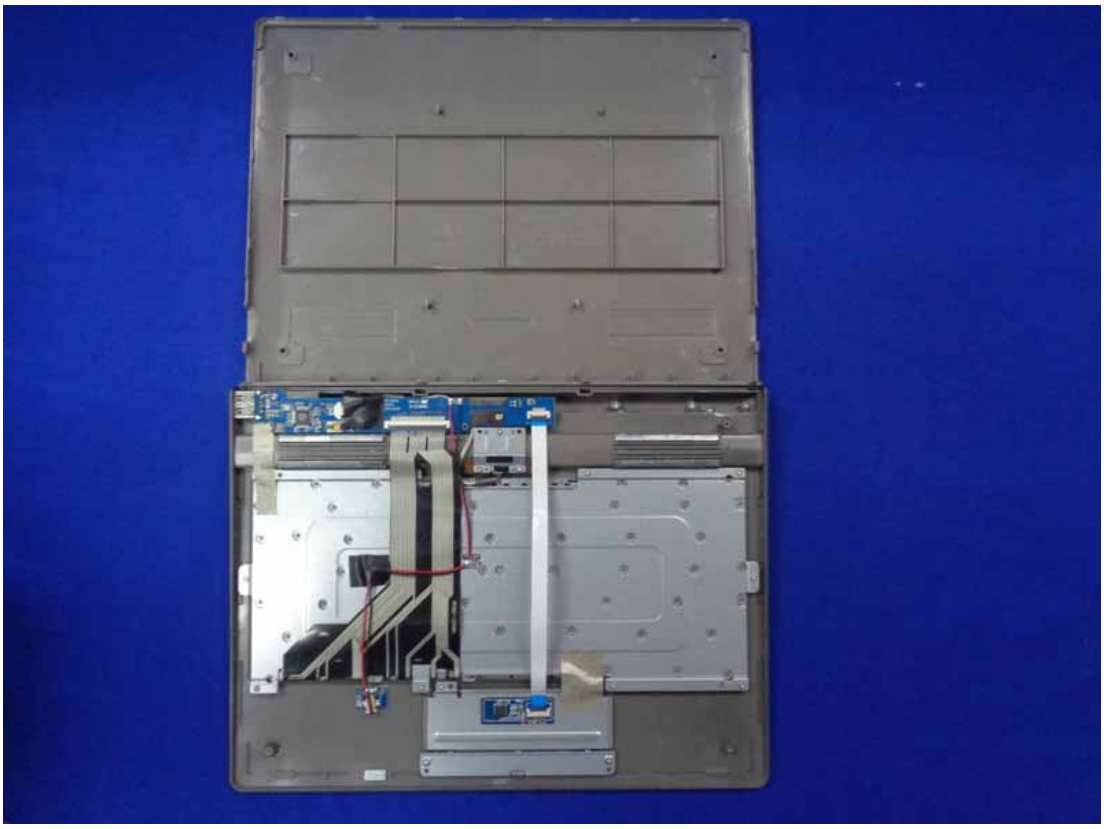


Figure 16
Inside of the EUT

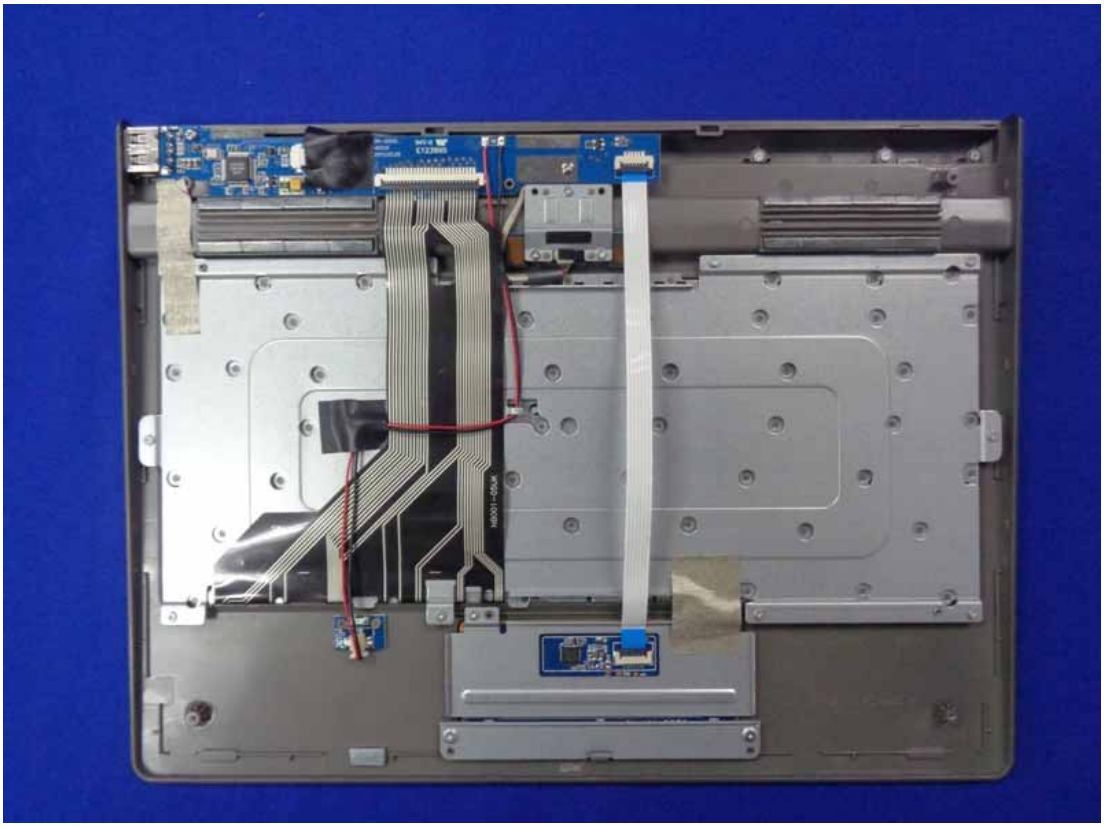


Figure 17
Inside of the EUT

Figure 18
Inside of the EUT

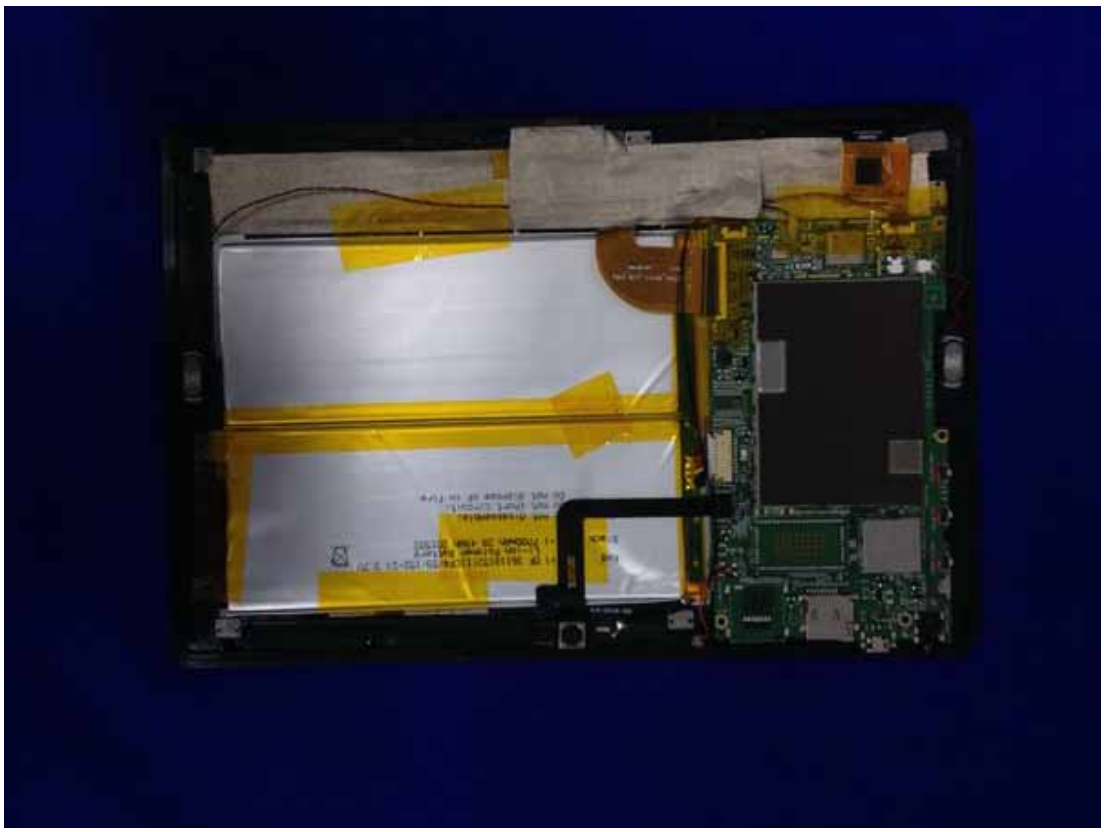


Figure 19
EUT of the Panel

Figure 20
EUT of the Panel

Figure 21
Panel of the Label

Figure 22
Component side of the PCB

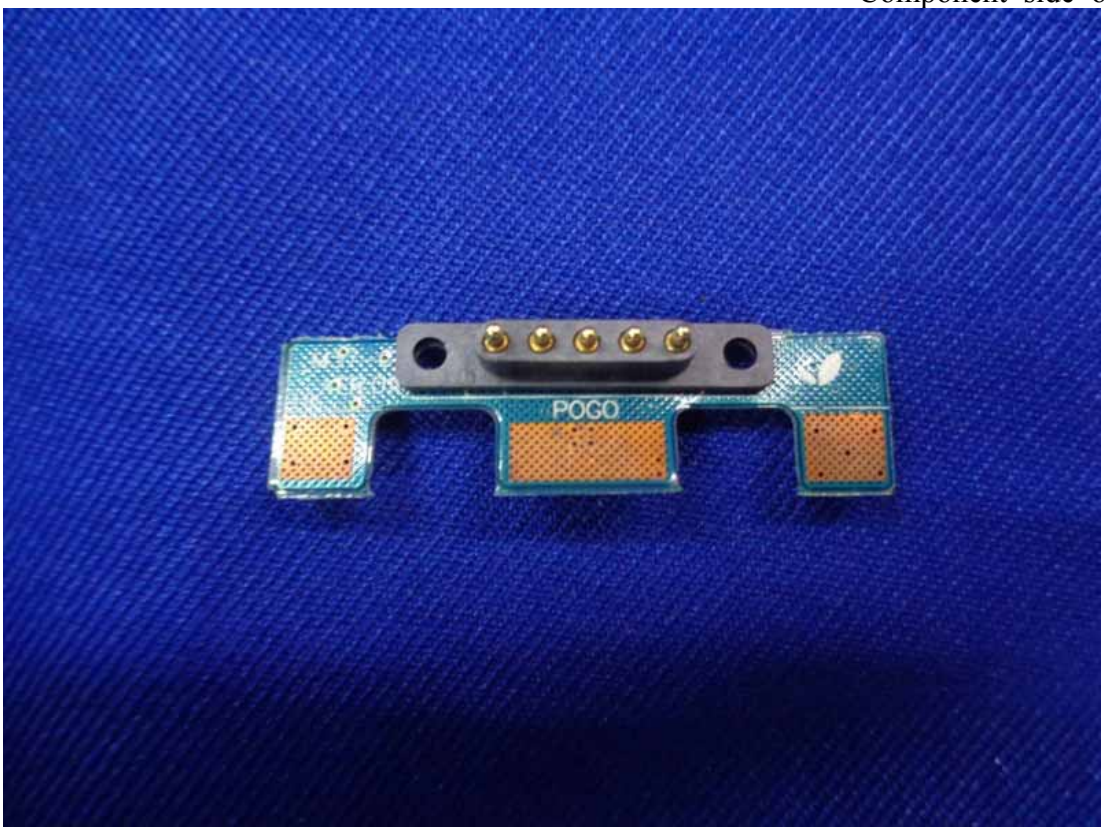


Figure 23
Component side of the PCB

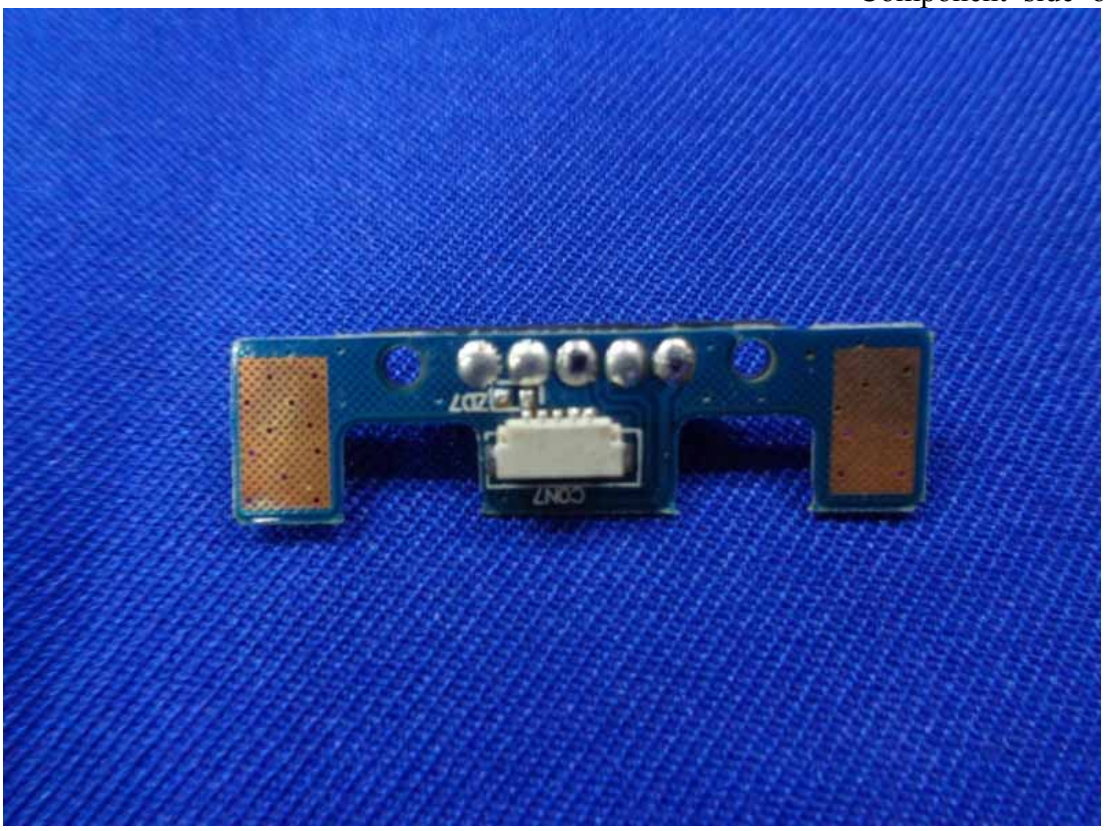


Figure 24
Component side of the PCB

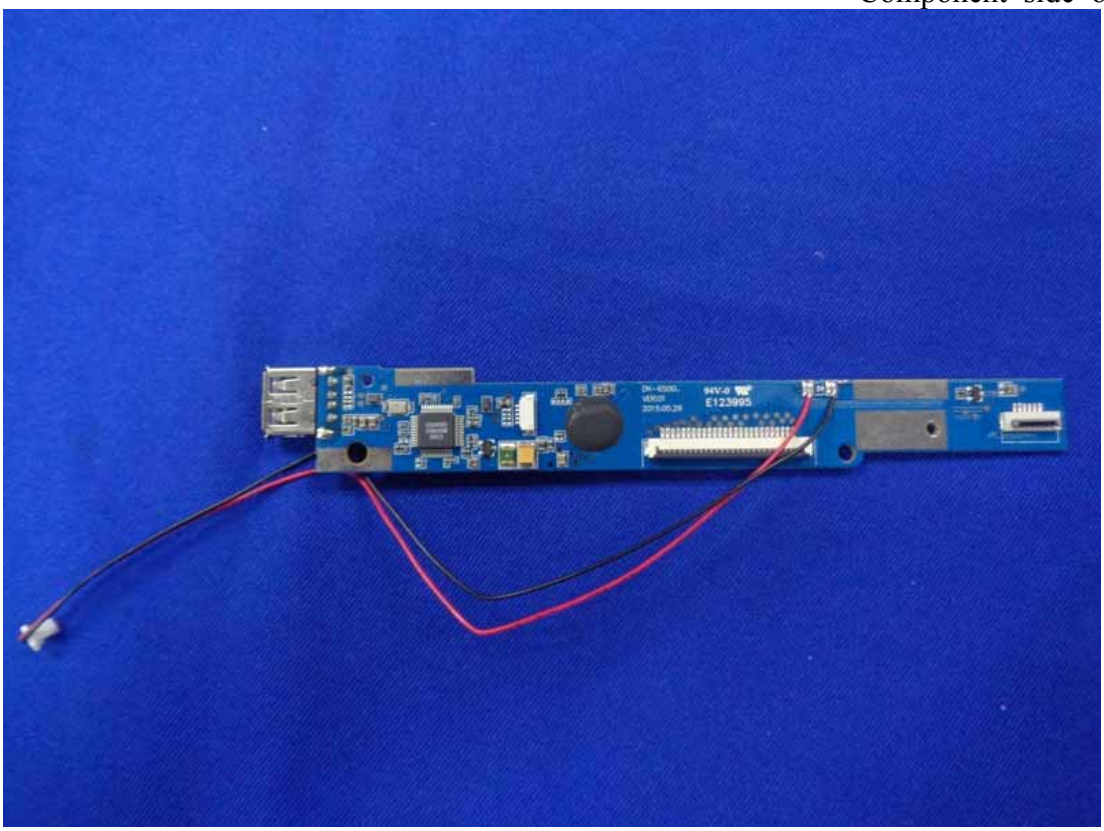


Figure 25
Component side of the PCB

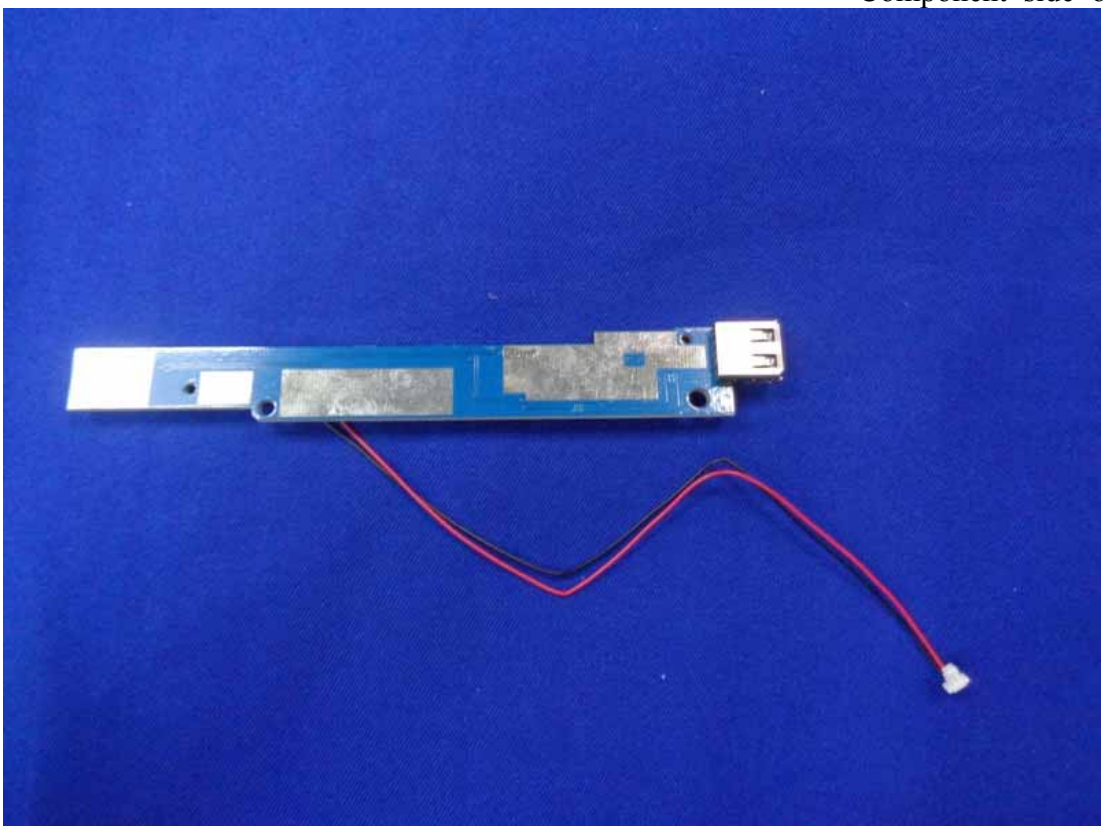


Figure 26
Component side of the PCB

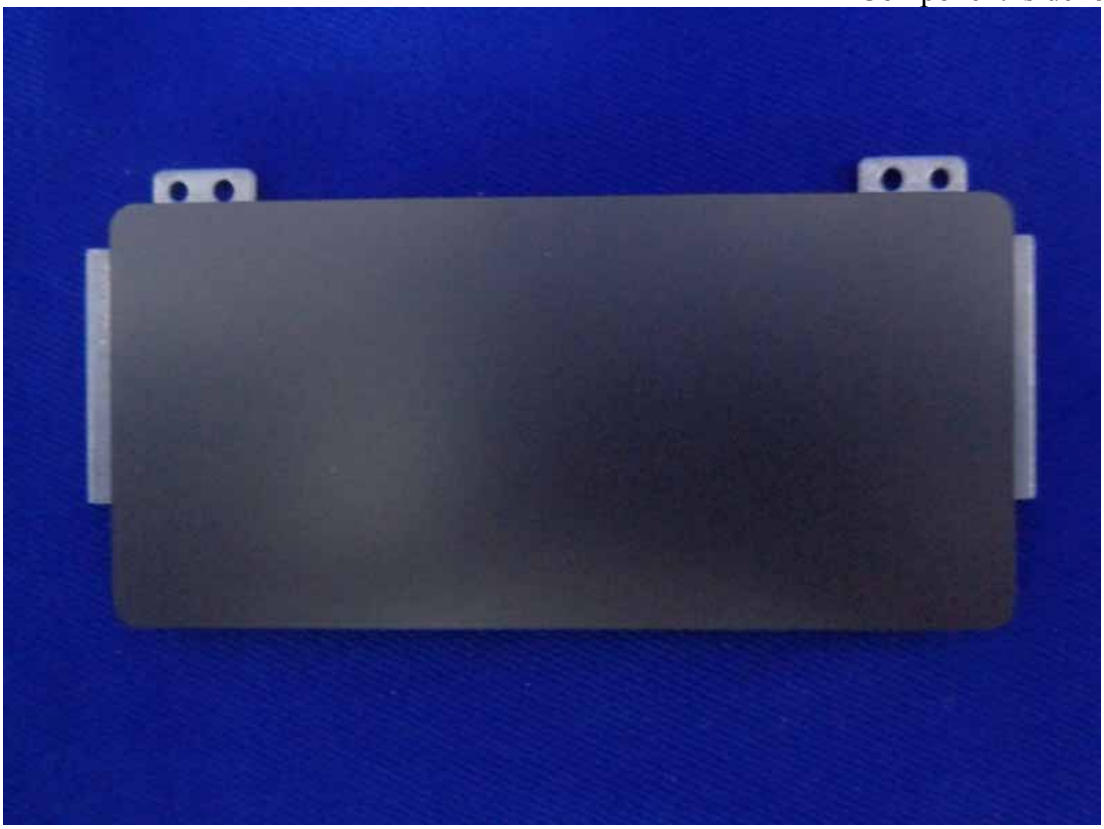


Figure 27
Component side of the PCB

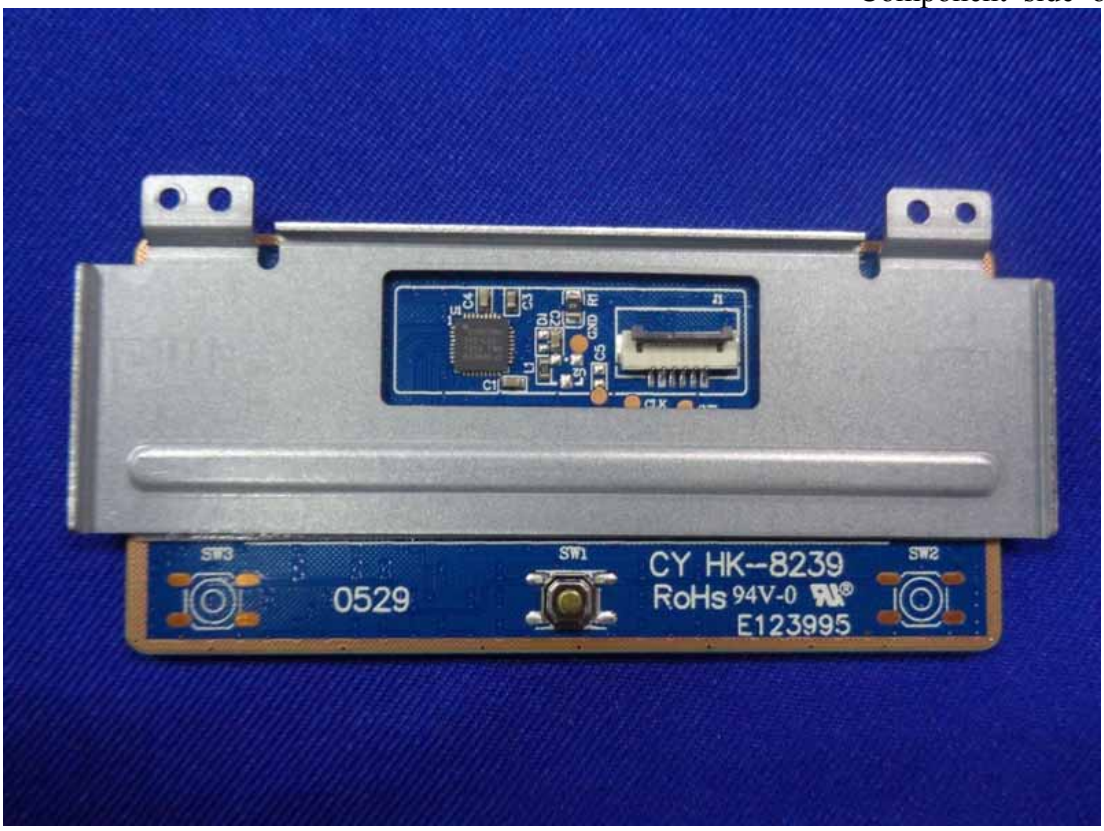


Figure 28
Power Adapter #1

Figure 29
Battery

Figure 30
Battery

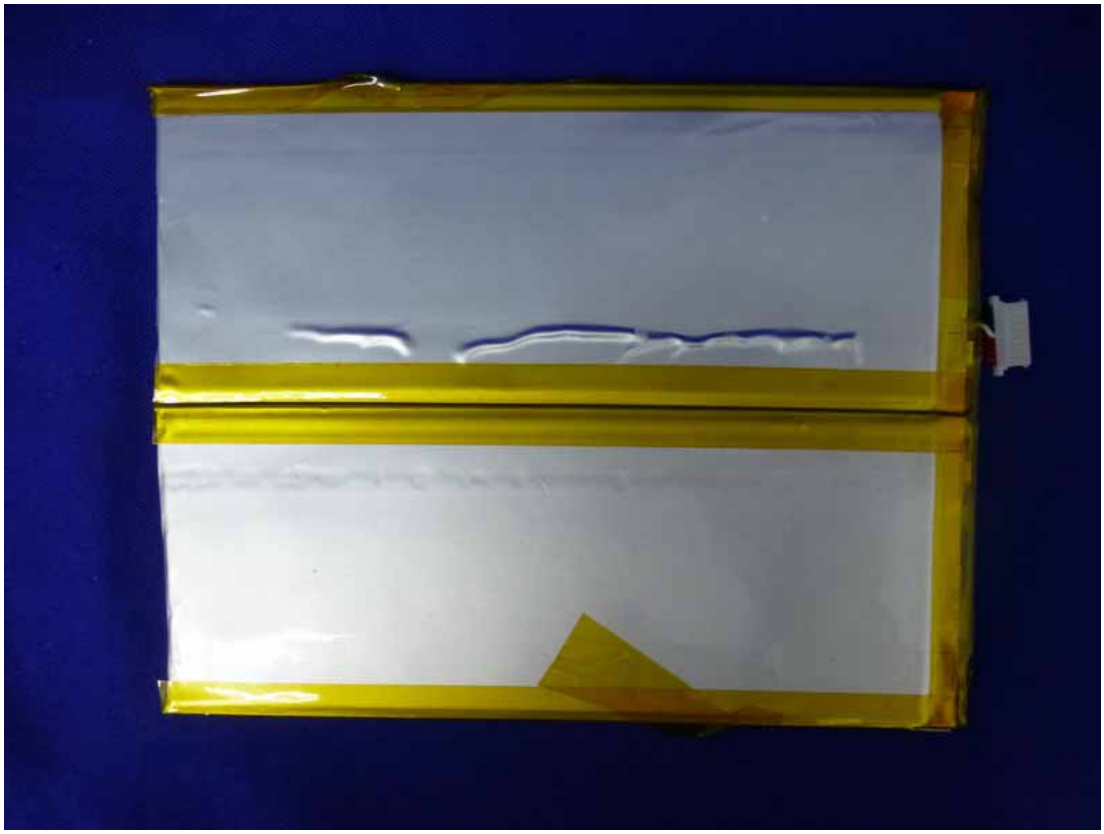


Figure 31
Battery

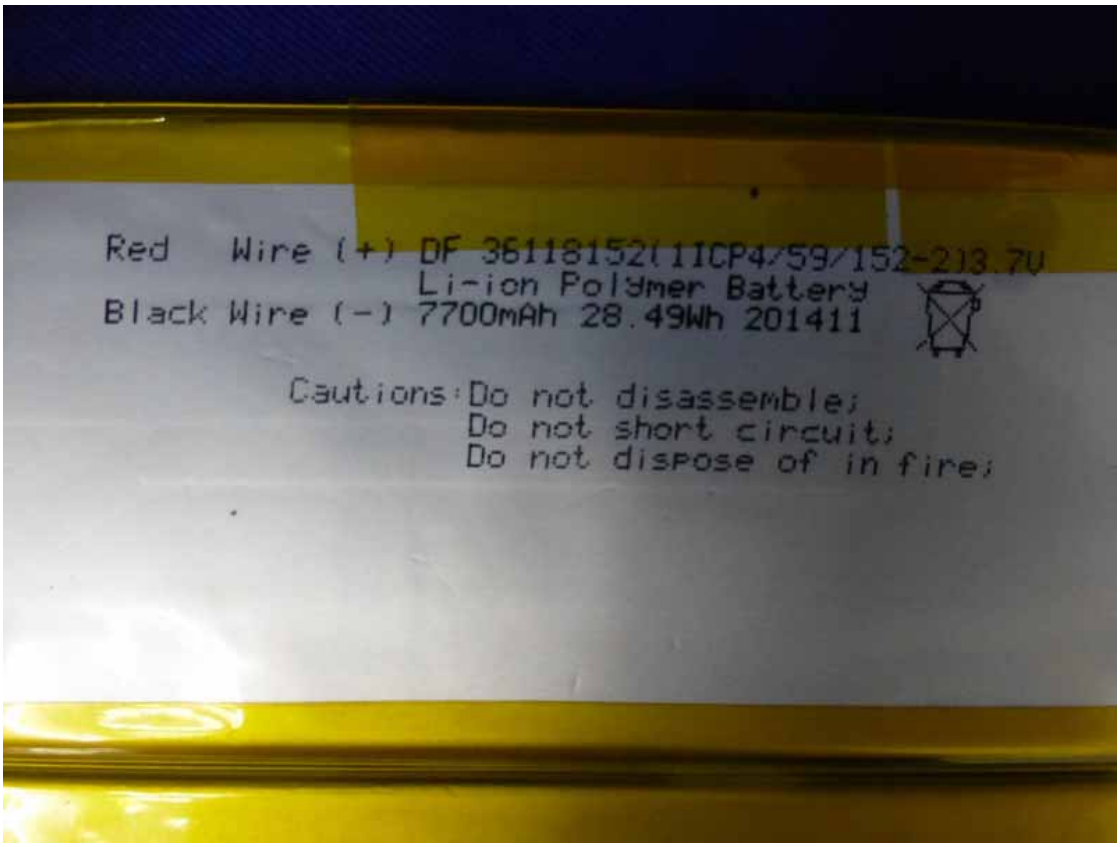


Figure 32
Speaker

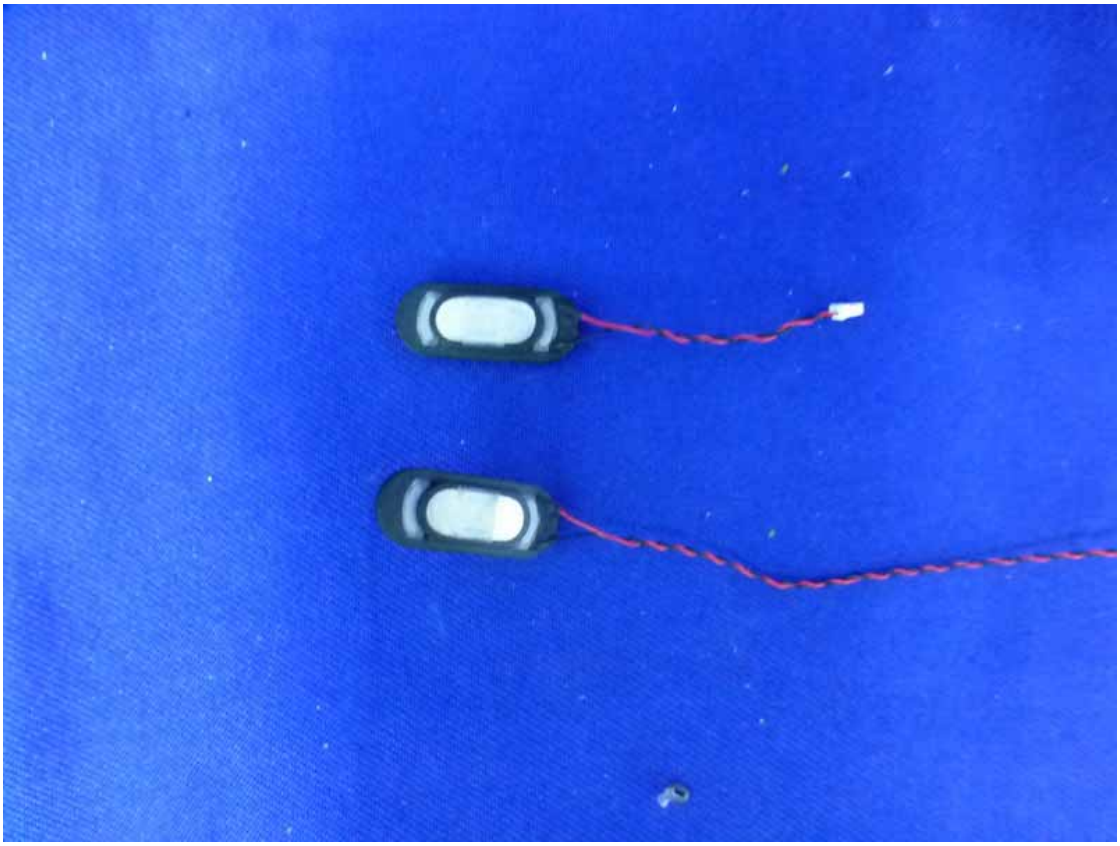


Figure 33
Power Adapter

Figure 34
Power Adapter

Figure 35
Power Adapter

Figure 36
OTG Cable

Figure 37
USB Cable