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FCC PART 15 SUBPART C TEST REPORT

FCC Part 15.249

Report Reference No......: **CTL1507151956-WF02**

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Date of issue.....: June 11, 2015

Test Firm.....: **Shenzhen CTL Testing Technology Co., Ltd.**

Address.....: Floor 1-A, Baisha Technology Park, No. 3011, Shahexi Road, Nanshan, Shenzhen 518055 China.

Applicant's name.....: **HONG KONG NATURAL SOUND ELECTRONICS LIMITED**

Address.....: FLAT/RM M 4/F CONTINENTAL MANSION, 300 KING'S ROAD, Hong Kong

Test specification:

Standard: **FCC Part 15.249:** Operation within the bands 920-928 MHz, 2400-2483.5 MHz, 5725-5850 MHz and 24.0 - 24.25 GHz.

TRF Originator: Shenzhen CTL Testing Technology Co., Ltd.

Master TRF: Dated 2011-01

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Test item description: Tablet PC

Trade Mark: trio

Models/Type reference: HM-7845Q, WH785H, WH78XX, PC790BXC, Trio-7.85

Modulation: GFSK

Work Frequency: 2402 MHz~2480 MHz

Antenna Type: internal

Antenna Gain: 0.5dBi

FCC ID: PWK-PC790BXC

Result: **Positive**

TEST REPORT

Test Report No. :	CTL1507151956-WF02	June 11, 2015 Date of issue
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Equipment under Test : Tablet PC

Model /Type : HM-7845Q

Listed Modes : WH785H, WH78XX, PC790BXC, Trio-7.85

Difference Description : Only the color and model's name is different

Applicant : **HONG KONG NATURAL SOUND ELECTRONICS LIMITED**

Address : FLAT/RM M 4/F CONTINENTAL MANSION, 300 KING'S ROAD, Hong Kong

Manufacturer : **Jiangxi Wei Heng Digital Company Limited**

Address : National High-tech Industrial Development Zone, Xinyu City, Jiangxi Province, China

Test Result according to the standards on page 4:	Positive
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The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

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1. TEST STANDARDS

The tests were performed according to following standards:

FCC Rules Part 15.249: Operation within the bands 902 - 928 MHz, 2400 - 2483.5 MHz, 5725 - 5875 MHz, and 24.0 - 24.25 GHz.

[ANSI C63.4-2009](#)



2. SUMMARY

2.1. General Remarks

Date of receipt of test sample	:	June 03, 2015
Testing commenced on	:	June 03, 2015
Testing concluded on	:	June 11, 2015

2.2. Equipment Under Test

Power supply system utilised

Power supply voltage : 120V / 60 Hz 115V / 60Hz
 12 V DC 24 V DC
 Other (specified in blank below)

DC 3.7V from battery

2.3. Short description of the Equipment under Test (EUT)

The EUT is a Tablet PC work at 2402~2480 MHz support Bluetooth 4.0.

Channel List:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
00	2402	21	2444
01	2404	22	2446
02	2406	23	2448
03	2408	24	2450
04	2410	25	2452
05	2412	26	2454
06	2414	27	2456
07	2416	28	2458
08	2418	29	2460
09	2420	30	2462
10	2422	31	2464
11	2424	32	2466
12	2426	33	2468
13	2428	34	2470
14	2430	35	2472
15	2432	36	2474
16	2434	37	2476
17	2436	38	2478
18	2438	39	2480
19	2440		
20	2442		

Modulation: GFSK

For more details, refer to the user's manual of the EUT.

Serial number: Prototype

2.4. EUT operation mode

Test Mode(TM)	Description	Remark
TM1	Bottom Channel Transmitting	/
TM2	Middle Channel Transmitting	/
TM3	Top Channel Transmitting	/

The field strength of radiation emission was measured in the following position: EUT stand-up position (Y axis), lie-down position (X, Z axis).

The following data show only with the worst case setup.

The worst case of Y axis was reported.

Based on client request, all normal using modes of the normal function were tested but only the worst test data of the worst mode is reported by this report.

Remark: all models are tested the worst case mode is TM1(1Mbps), and only reported worst result in the report.

2.5. EUT configuration

The following peripheral devices and interface cables were connected during the measurement:

- supplied by the manufacturer

- supplied by the lab

AC adapter

FCC VOC approved

Manufacturer : Shenzhen Perfect Gallant Tec Co., Ltd

Model No. : PGAE0500200U1UL

2.6. Related Submittal(s) / Grant (s)

This submittal(s) (test report) is intended for FCC ID: PWK-PC790BXC filing to comply with Section 15.249 of the FCC Part 15, Subpart C Rules.

2.7. Modifications

No modifications were implemented to meet testing criteria.

Remark: Product Tablet PC with FCC ID : PWK-PC790BXC and Model is HM-7845Q,WH785H, WH78XX, PC790BXC ,Trio-7.85 And product :Tablet PC ,Models : HM-7845Q, WH785H, WH78XX, With FCC ID :2ACH9HM-7845Q are electrically identical .So data of FCC ID : PWK-PC790BXC in report CTL1507151956-WF02 are same as data of FCC ID :2ACH9HM-7845Q in report CTL1506031501-WF02

3. TEST ENVIRONMENT

3.1. Address of the test laboratory

Shenzhen CTL Testing Technology Co., Ltd.
Floor 1-A, Baisha Technology Park, No. 3011, Shahexi Road, Nanshan, Shenzhen 518055 China

There is one 3m semi-anechoic chamber and two line conducted labs for final test. The Test Sites meet the requirements in documents ANSI C63.4 and CISPR 22/EN 55022 requirements.

3.2. Test Facility

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

IC Registration No.: 9618B

The 3m alternate test site of Shenzhen CTL Testing Technology Co., Ltd. EMC Laboratory has been registered by Certification and Engineer Bureau of Industry Canada for the performance of with Registration No.: 9618B on November 13, 2013.

FCC-Registration No.: 970318

Shenzhen CTL Testing Technology Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 970318, December 19, 2013.

3.3. Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

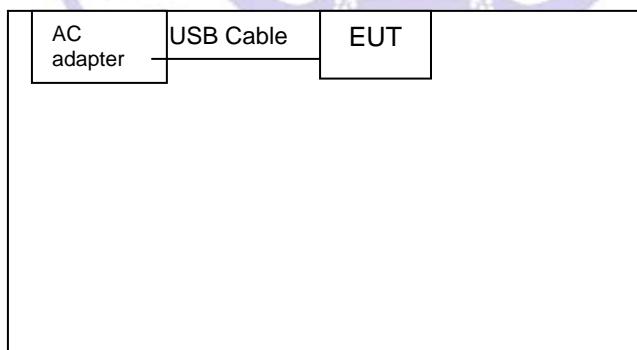
Temperature: 15-35 °C

Humidity: 30-60 %

Atmospheric pressure: 950-1050mbar

3.4. Configuration of Tested System

Fig. 2-1 Configuration of Tested System



Cable List and Details

Cable Description	Length (M)	Shielded/Unshielded	With Core/Without Core
USB Cable	1.2	Unshielded	Without Core

3.5. Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to CISPR 16 - 4 „Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements“ and is documented in the Shenzhen CTL Testing Technology Co., Ltd. quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Hereafter the best measurement capability for CTL laboratory is reported:

Test	Range	Measurement Uncertainty	Notes
Radiated Emission	30~1000MHz	4.10dB	(1)
Radiated Emission	1~26.5GHz	4.32dB	(1)
Conducted Disturbance	0.15~30MHz	3.20dB	(1)

(1) This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.



3.6. Equipments Used during the Test

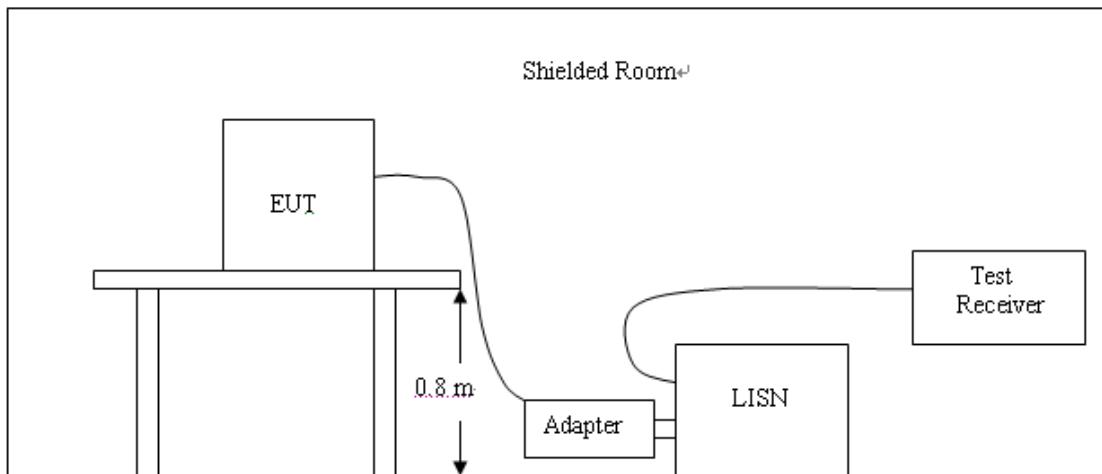
Test Equipment	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Due Date
Bilog Antenna	Sunol Sciences Corp.	JB1	A061713	2015/06/02	2016/06/01
EMI Test Receiver	R&S	ESCI	103710	2015/06/02	2016/06/01
Spectrum Analyzer	Agilent	E4407B	MY41440676	2015/05/21	2016/05/20
Controller	EM Electronics	Controller EM 1000	N/A	2015/05/21	2016/05/20
Horn Antenna	Sunol Sciences Corp.	DRH-118	A062013	2015/05/19	2016/05/18
Active Loop Antenna	SCHWARZBECK	FMZB1519	1519-037	2015/05/19	2016/05/18
LISN	R&S	ENV216	3560.6550.12	2015/06/02	2016/06/01
LISN	R&S	ESH2-Z5	860014/010	2015/06/02	2016/06/01
Amplifier	Agilent	8349B	3008A02306	2015/05/19	2016/05/18
Amplifier	Agilent	8447D	2944A10176	2015/05/19	2016/05/18
Transient Limiter	SCHWARZCECK	VTSD 9561F	9666	2015/06/02	2016/06/01
Temperature/Humidity Meter	Gangxing	CTH-608	02	2015/05/20	2016/05/19



4. TEST CONDITIONS AND RESULTS

4.1. Conducted Emissions Test

TEST CONFIGURATION



TEST PROCEDURE

- 1 The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. The EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.4.
- 2 Support equipment, if needed, was placed as per ANSI C63.4.
- 3 All I/O cables were positioned to simulate typical actual usage as per ANSI C63.4.
- 4 If a EUT received DC power from the USB Port of Notebook PC, the PC's adapter received AC120V/60Hz power through a Line Impedance Stabilization Network (LISN) which supplied power source and was grounded to the ground plane.
- 5 All support equipments received AC power from a second LISN, if any.
- 6 The EUT test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
- 7 Analyzer / Receiver scanned from 150 KHz to 30MHz for emissions in each of the test modes.
- 8 During the above scans, the emissions were maximized by cable manipulation.

The RBW/VBW for 150KHz to 30MHz: 9KHz

TEST MODE: KEEPING TX

CONDUCTED POWER LINE EMISSION LIMIT

For unintentional device, according to § 15.107(a) Line Conducted Emission Limits is as following :

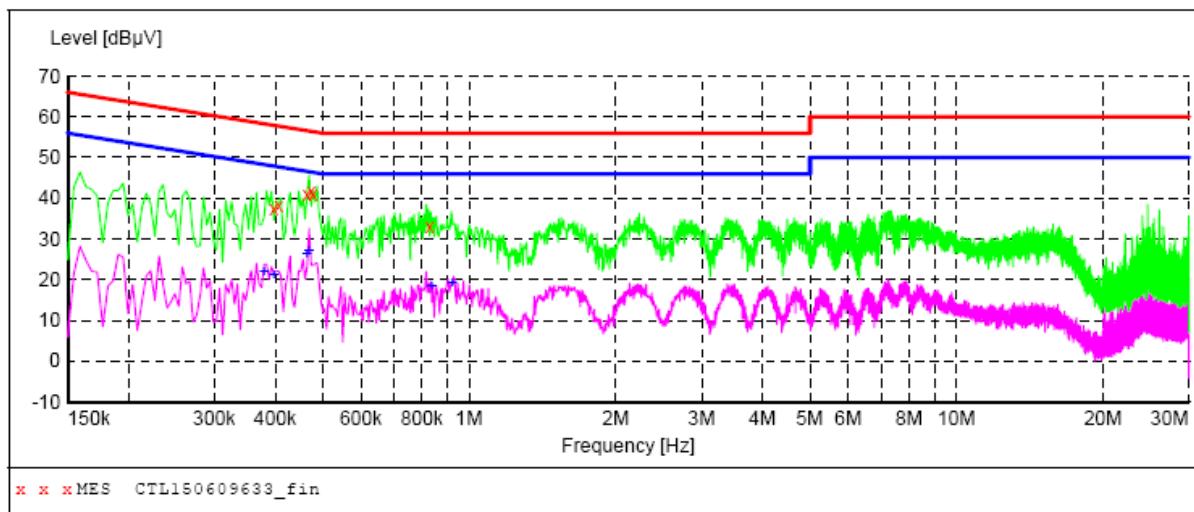
Frequency (MHz)	Maximum RF Line Voltage (dB μ V)			
	CLASS A		CLASS B	
	Q.P.	Ave.	Q.P.	Ave.
0.15 - 0.50	79	66	66-56*	56-46*
0.50 - 5.00	73	60	56	46
5.00 - 30.0	73	60	60	50

* Decreasing linearly with the logarithm of the frequency

For intentional device, according to §15.207(a) Line Conducted Emission Limit is same as above table.

TEST RESULTS

SCAN TABLE: "Voltage (9K-30M) FIN"
Short Description: 150K-30M Voltage

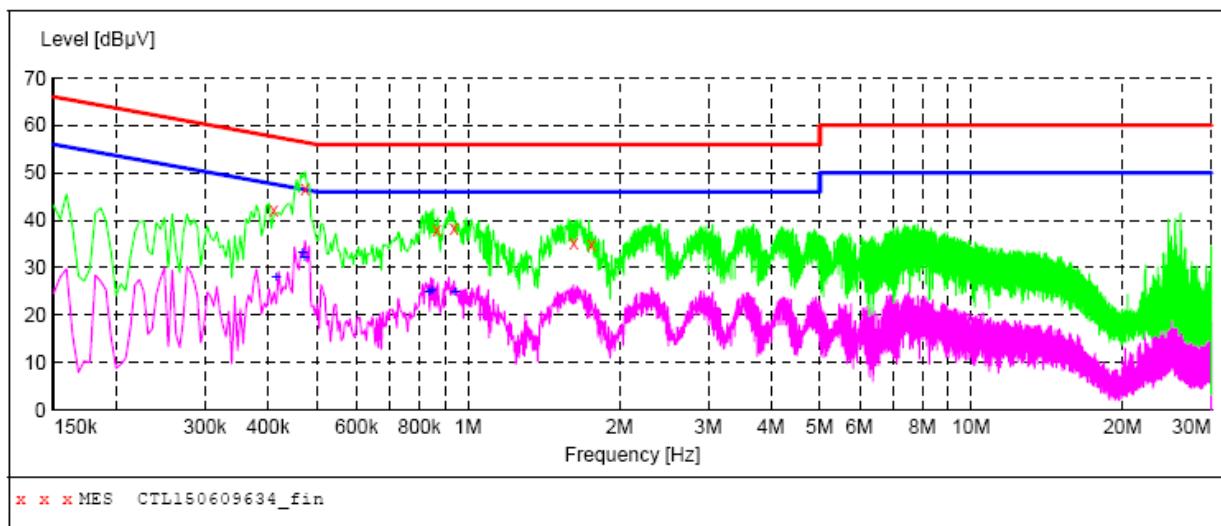
**MEASUREMENT RESULT: "CTL150609633_fin"**

6/9/2015 1:51PM	Frequency	Level	Transd	Limit	Margin	Detector	Line	PE
	MHz	dB μ V	dB	dB μ V	dB			
	0.397500	37.40	10.2	58	20.5	QP	N	GND
	0.406500	38.30	10.2	58	19.4	QP	N	GND
	0.465000	41.10	10.2	57	15.5	QP	N	GND
	0.474000	41.90	10.2	56	14.5	QP	N	GND
	0.478500	41.10	10.2	56	15.3	QP	N	GND
	0.829500	32.90	10.2	56	23.1	QP	N	GND

MEASUREMENT RESULT: "CTL150609633_fin2"

6/9/2015 1:51PM	Frequency	Level	Transd	Limit	Margin	Detector	Line	PE
	MHz	dB μ V	dB	dB μ V	dB			
	0.379500	22.00	10.2	48	26.3	AV	N	GND
	0.397500	21.30	10.2	48	26.6	AV	N	GND
	0.465000	26.40	10.2	47	20.2	AV	N	GND
	0.469500	27.10	10.2	47	19.4	AV	N	GND
	0.838500	18.50	10.2	46	27.5	AV	N	GND
	0.924000	19.10	10.3	46	26.9	AV	N	GND

SCAN TABLE: "Voltage (9K-30M) FIN"
 Short Description: 150K-30M Voltage



MEASUREMENT RESULT: "CTL150609634_fin"

6/9/2015 1:54PM

Frequency MHz	Level dB μ V	Transd dB	Limit dB μ V	Margin dB	Detector	Line	PE
0.411000	42.20	10.2	58	15.4	QP	L1	GND
0.474000	46.50	10.2	56	9.9	QP	L1	GND
0.865500	38.00	10.2	56	18.0	QP	L1	GND
0.937500	38.30	10.3	56	17.7	QP	L1	GND
1.621500	35.10	10.3	56	20.9	QP	L1	GND
1.756500	34.80	10.3	56	21.2	QP	L1	GND

MEASUREMENT RESULT: "CTL150609634_fin2"

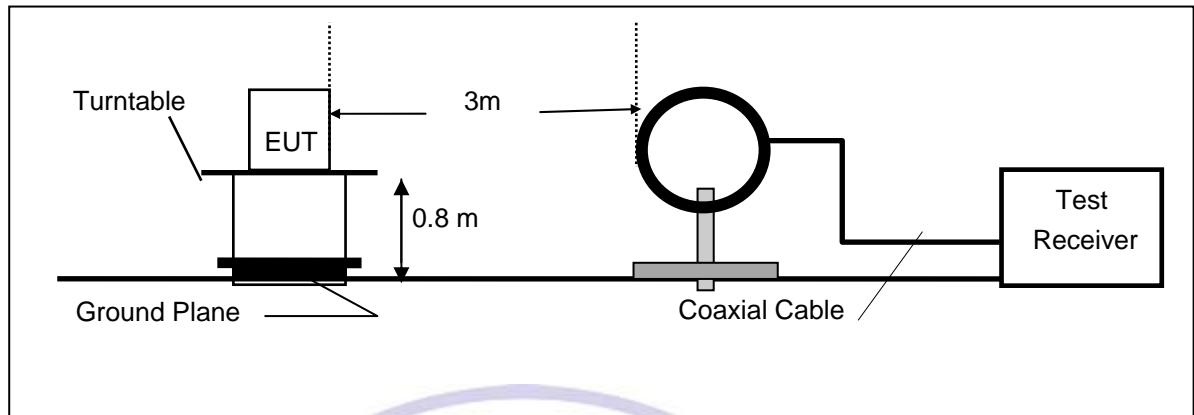
6/9/2015 1:54PM

Frequency MHz	Level dB μ V	Transd dB	Limit dB μ V	Margin dB	Detector	Line	PE
0.415500	27.80	10.2	48	19.7	AV	L1	GND
0.469500	33.00	10.2	47	13.5	AV	L1	GND
0.474000	32.00	10.2	46	14.4	AV	L1	GND
0.838500	25.00	10.2	46	21.0	AV	L1	GND
0.847500	25.20	10.2	46	20.8	AV	L1	GND
0.942000	24.80	10.3	46	21.2	AV	L1	GND

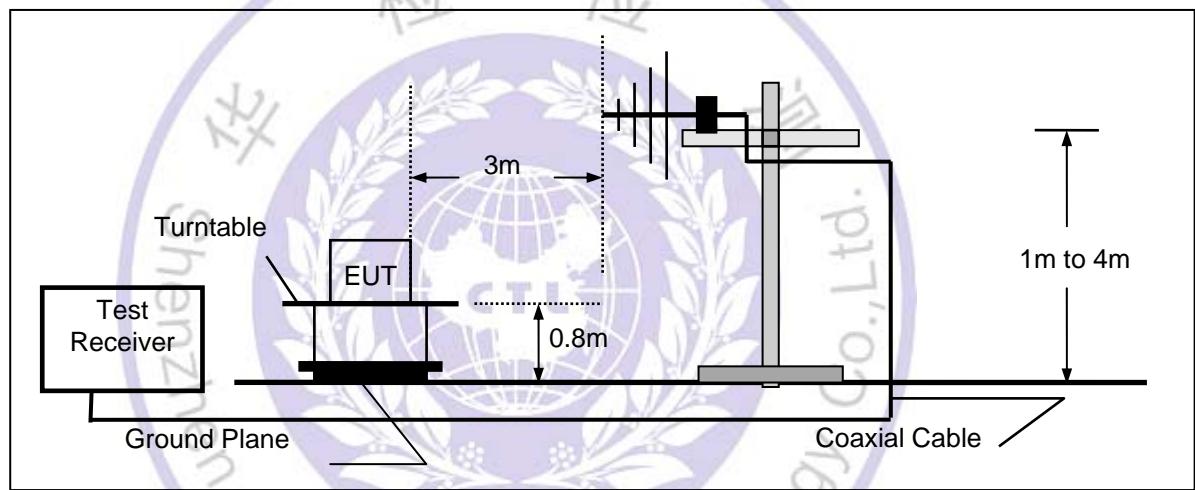
4.2. Radiated Emission Test

TEST CONFIGURATION

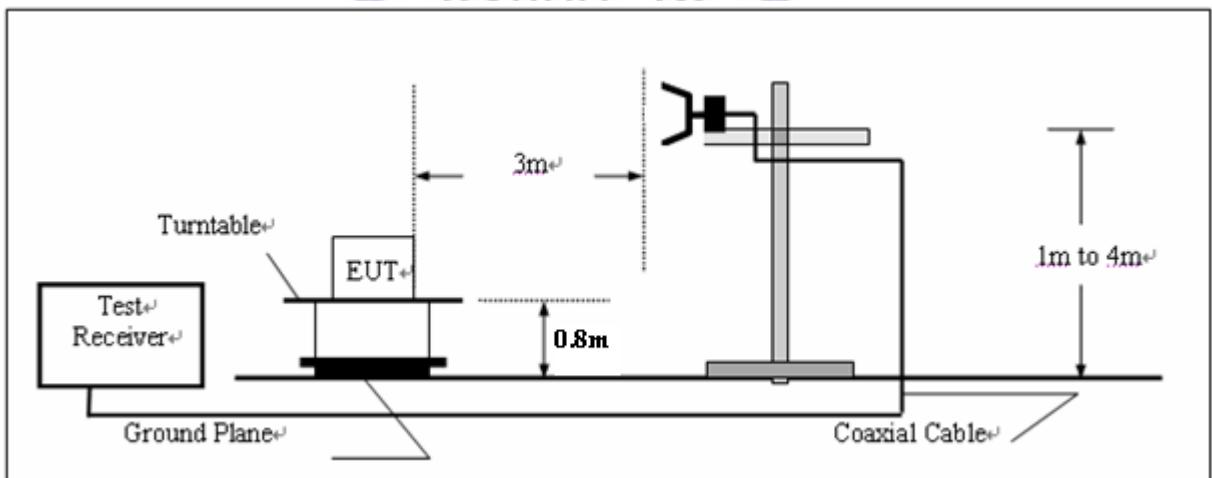
(A) Radiated Emission Test Set-Up, Frequency Below 30MHz



(B) Radiated Emission Test Set-Up, Frequency below 1000MHz



(C) Radiated Emission Test Set-Up, Frequency above 1000MHz



FIELD STRENGTH CALCULATION

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor(if any) from the measured reading. The basic equation with a sample calculation is as follows:

$$FS = RA + AF + CL - AG$$

Where FS = Field Strength	CL = Cable Attenuation Factor (Cable Loss)
RA = Reading Amplitude	AG = Amplifier Gain
AF = Antenna Factor	

RADIATION LIMIT

For unintentional device, according to § 15.109(a), except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

Frequency (MHz)	Distance (Meters)	Radiated (dB μ V/m)	Radiated (μ V/m)
30-88	3	40.0	100
88-216	3	43.5	150
216-960	3	46.0	200
Above 960	3	54.0	500

For intentional device, according to § 15.209(a), the general requirement of field strength of radiated emissions from intentional radiators at a distance of 3 meters shall not exceed the above table.

TEST PROCEDURE

1. The EUT is placed on a turntable, which is 0.8m above ground plane.
2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emissions.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
6. Repeat above procedures until the measurements for all frequencies are complete.
7. Based on the Frequency Generator in the device include 26MHz. The test frequency range from 9KHz to 25GHz per FCC PART 15.33(a).

Note:

Three axes are chosen for pretest, the Y axis is the worst mode for final test.

For battery operated equipment, the equipment tests shall be performed using a new battery.

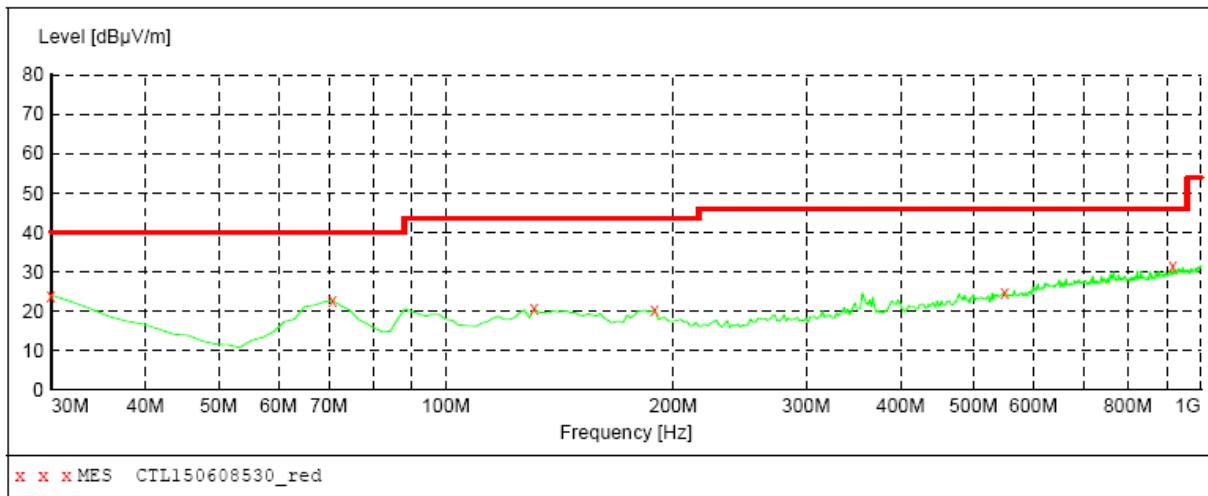
TEST RESULTS

All the test modes (TM1, TM2, TM3) completed for test. The worst case of Radiated Emission is TM3; the test data of this mode was reported.

Below 1GHz Test Results:

SWEET TABLE: "test (30M-1G)"

Short Description:		Field Strength		
Start	Stop	Detector	Meas.	IF
Frequency	Frequency		Time	Bandw.
30.0 MHz	1.0 GHz	MaxPeak	300.0 ms	120 kHz
				JB1



MEASUREMENT RESULT: "CTL150608530_red"

6/8/2015 5:38PM

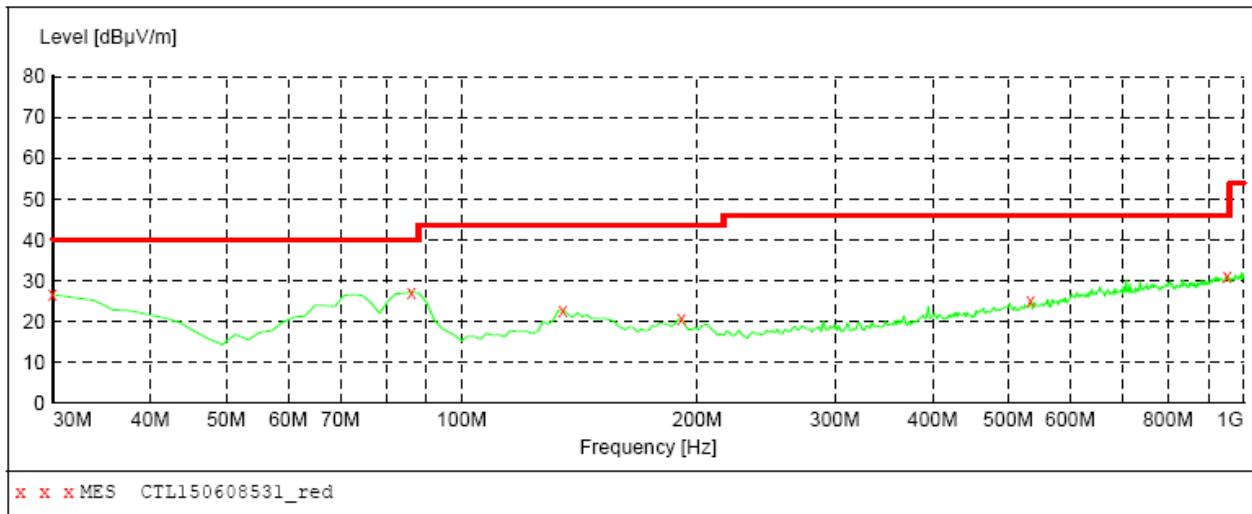
Frequency MHz	Level dB μ V/m	Transd dB	Limit dB μ V/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
30.000000	24.00	21.1	40.0	16.0	---	0.0	0.00	HORIZONTAL
70.740000	22.60	8.4	40.0	17.4	---	0.0	0.00	HORIZONTAL
130.880000	20.50	14.9	43.5	23.0	---	0.0	0.00	HORIZONTAL
189.080000	20.30	13.4	43.5	23.2	---	0.0	0.00	HORIZONTAL
549.920000	24.80	21.1	46.0	21.2	---	0.0	0.00	HORIZONTAL
918.520000	31.30	26.3	46.0	14.7	---	0.0	0.00	HORIZONTAL

Remark:

- (1) Measuring frequencies from 9 KHz to the 1 GHz, Radiated emission test from 9KHz to 30MHz was verified, and no any emission was found except system noise floor.
- (2) * denotes emission frequency which appearing within the Restricted Bands specified in provision of 15.205, then the general radiated emission limits in 15.209 apply.
- (3) The IF bandwidth of EMI Test Receiver between 30MHz to 1GHz was 120KHz, 1 MHz for measuring above 1 GHz, below 30MHz was 10KHz.

SWEET TABLE: "test (30M-1G)"

Short Description:		Field Strength		
Start Frequency	Stop Frequency	Detector	Meas.	IF
30.0 MHz	1.0 GHz	MaxPeak	300.0 ms	120 kHz
				JB1

***MEASUREMENT RESULT: "CTL150608531_red"***

6/8/2015 5:40PM

Frequency MHz	Level dB μ V/m	Transd dB	Limit dB μ V/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
30.000000	26.50	21.1	40.0	13.5	---	0.0	0.00	VERTICAL
86.260000	27.20	9.3	40.0	12.8	---	0.0	0.00	VERTICAL
134.760000	22.70	14.8	43.5	20.8	---	0.0	0.00	VERTICAL
191.020000	20.50	13.4	43.5	23.0	---	0.0	0.00	VERTICAL
534.400000	25.00	20.6	46.0	21.0	---	0.0	0.00	VERTICAL
953.440000	31.00	26.7	46.0	15.0	---	0.0	0.00	VERTICAL

Remark:

- (1) Measuring frequencies from 9 KHz to the 1 GHz, Radiated emission test from 9KHz to 30MHz was verified, and no any emission was found except system noise floor.
- (2) * denotes emission frequency which appearing within the Restricted Bands specified in provision of 15.205, then the general radiated emission limits in 15.209 apply.
- (3) The IF bandwidth of EMI Test Receiver between 30MHz to 1GHz was 120KHz, 1 MHz for measuring above 1 GHz, below 30MHz was 10KHz.

Above 1 GHz Test Results:

Freq. (MHz)	Ant.Pol. H/V	DetectorMode (PK/AV)	Reading (dBuV)	Ant./CL/ Amp. CF(dB)	Actual FS (dBuV/m)	Limit3m (dBuV/m)	Safe Margin (dB)	Note
2480	V	Peak	74.69	-3.30	71.39	113.98	-42.59	F
2480	H	Peak	69.42	-3.30	66.12	113.98	-47.86	F
4960	V	Peak	48.16	3.90	52.06	74.00	-21.94	H
4960	H	Peak	42.81	3.90	46.71	74.00	-27.29	H
7440	V		---					H
7440	H		---					H
Others			---					

Freq. (MHz)	Ant.Pol. H/V	DetectorMode (PK/AV)	Reading (dBuV)	Ant./CL/ Amp. CF(dB)	Actual FS (dBuV/m)	Limit3m (dBuV/m)	Safe Margin (dB)	Note
2440	V	Peak	75.36	-3.40	71.96	113.98	-42.02	F
2440	H	Peak	69.78	-3.40	66.38	113.98	-47.60	F
4880	V	Peak	48.29	3.70	51.99	74.00	-22.01	H
4880	H	Peak	43.43	3.70	47.13	74.00	-26.87	H
7320	V		---					H
7320	H		---					H
Others			---					

Freq. (MHz)	Ant.Pol. H/V	DetectorMode (PK/AV)	Reading (dBuV)	Ant./CL/ Amp. CF(dB)	Actual FS (dBuV/m)	Limit3m (dBuV/m)	Safe Margin (dB)	Note
2402	V	Peak	75.32	-3.30	72.02	113.98	-41.96	F
2402	H	Peak	69.61	-3.30	66.31	113.98	-47.67	F
4804	V	Peak	48.53	3.50	52.03	74.00	-21.97	H
4804	H	Peak	43.37	3.50	46.87	74.00	-27.13	H
7206	V		---					H
7206	H		---					H
Others			---					

Remark:

- (1) Measuring frequencies from 1 GHz to the 25 GHz.
- (2) "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency.
- (3) * denotes emission frequency which appearing within the Restricted Bands specified in provision of 15.205, then the general radiated emission limits in 15.209 apply.
- (4) 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.
- (5) The IF bandwidth of EMI Test Receiver between 30MHz to 1GHz was 120KHz, 1 MHz for measuring above 1 GHz, below 30MHz was 10KHz.
- (6) When the test results of Peak Detected below the limits of Average Detected, the Average Detected is not need completed. For example: Top Channel at Fundamental 72.15dBuV/m(PK Value) <93.98(AV Limit), at harmonic 52.34 dBuV/m(PK Value) <54 dBuV/m(AV Limit), the Average Detected not need to completed.

4.3. Band Edge Measurement

TEST CONFIGURATION

Same as Section 4.2

TEST PROCEDURE

The band edge compliance of RF radiated emission should be measured by following the guidance in ANSI C63.4 with respect to maximizing the emission by rotating the EUT, measuring the emission while the EUT is situated in three orthogonal planes (if appropriate), adjusting the measurement antenna height and polarization etc. Set RBW to 1 MHz and VBM to 3MHz to measure the peak field strength and set RBW to 1MHz and VBW to 10Hz to measure the average radiated field strength.

LIMIT

FCC PART 15.249(d) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in §15.209, whichever is the lesser attenuation.

TEST RESULTS

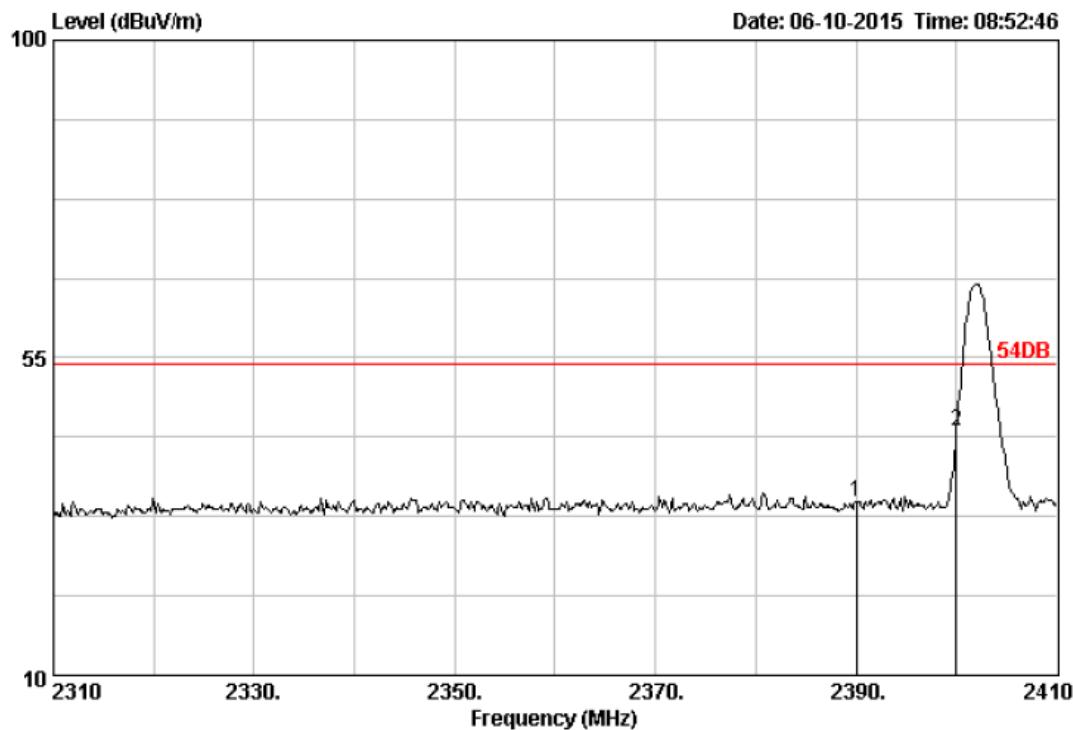
See the next page.



Radiated Test:

Operation Mode: TX on Bot Channel

Polarity: Hor.



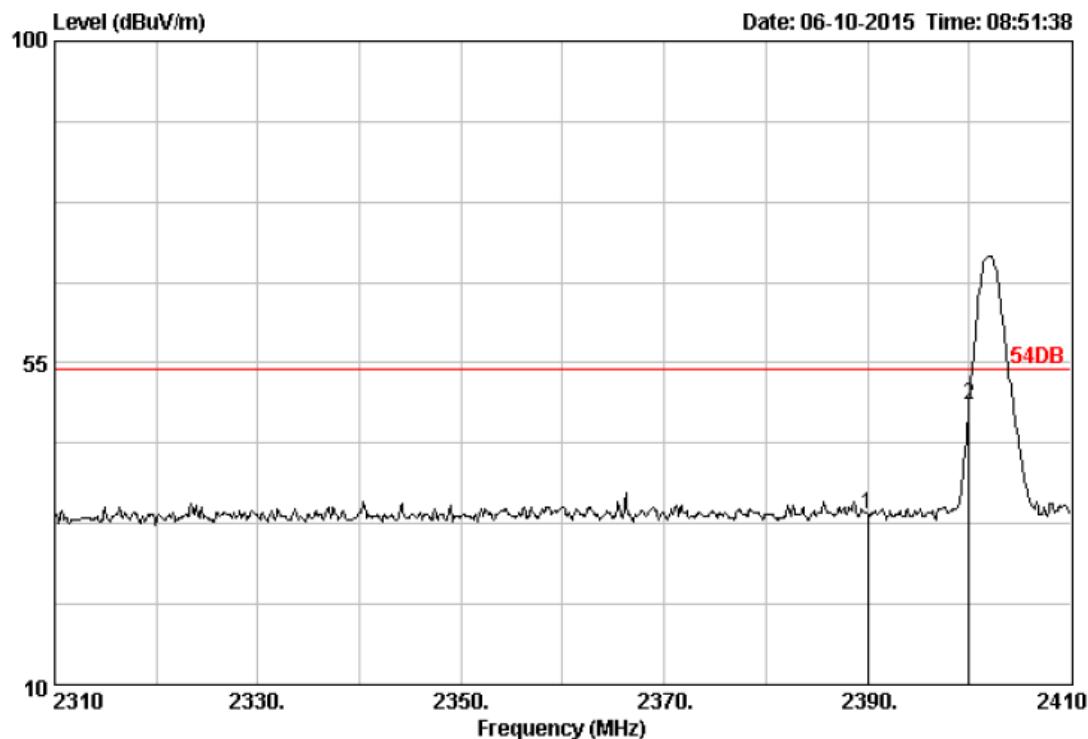
Site no. : 3m Chamber Data no. : 1415
 Dis. / Ant. : 3m DRH-118 Ant. pol. : HORIZONTAL
 Limit : 54DB
 Env. / Ins. : 23°C/54%
 Engineer :
 EUT :
 Power :
 M/N :
 Test Mode :

Freq. (MHz)	Ant. (dB/m)	Cable (dB)	Amp (dB)	Emission					
				Factor	Loss	Factor	Reading	Level	Limits
1 2390.00	28.78	4.61	35.36	36.57	34.60	54.00	19.40	Peak	
2 2400.00	28.78	4.61	35.36	46.54	44.57	54.00	9.43	Peak	

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

Operation Mode: TX on Bot Channel

Polarity: Ver.



Site no. : 3m Chamber Data no. : 1414
 Dis. / Ant. : 3m DRH-118 Ant. pol. : VERTICAL
 Limit : 54DB
 Env. / Ins. : 23*C/54%
 Engineer :
 EUT :
 Power :
 M/N :
 Test Mode :

	Ant.	Cable	Amp	Emission				
Freq.	Factor	Loss	Factor	Reading	Level	Limits	Margin	Remark
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	2390.00	28.78	4.61	35.36	35.85	33.88	54.00	20.12 Peak
2	2400.00	28.78	4.61	35.36	51.02	49.05	54.00	4.95 Peak

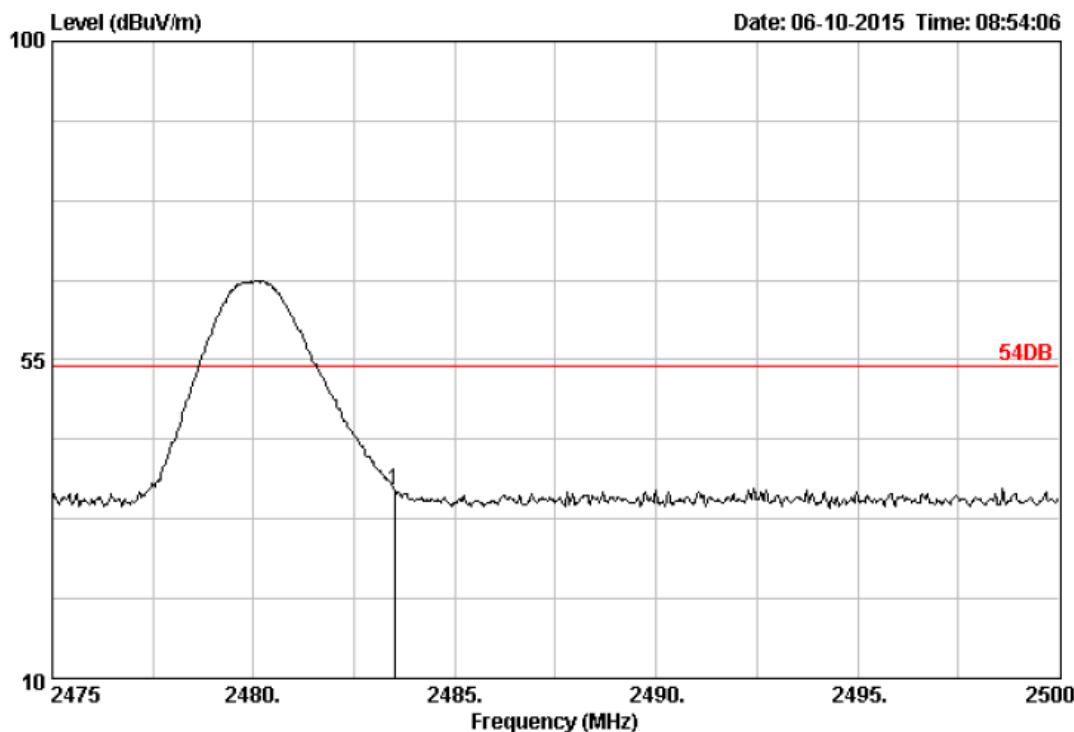
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Note:

1. The field strength of any emissions which appear outside of this band shall not exceed the general radiated emission limits in Section 15.209.
2. The average measurement was not performed when the peak measured data under the limit of average detection.

Operation Mode: TX on Top Channel

Polarity: Hor.



Site no. : 3m Chamber
 Dis. / Ant. : 3m DRH-118
 Limit : 54DB
 Env. / Ins. : 23*C/54%
 Engineer :
 EUT :
 Power :
 M/N :
 Test Mode :

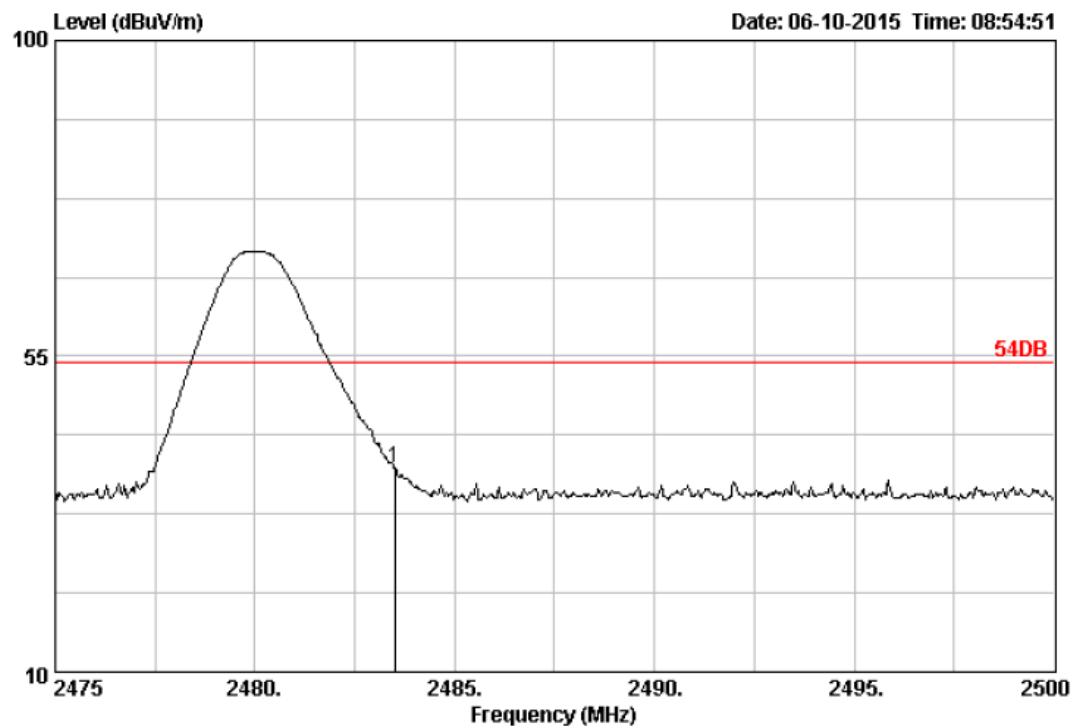
Data no. : 1416
 Ant. pol. : HORIZONTAL

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission			
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)
1 2483.50	28.93	4.70	35.38	38.43	36.68	54.00	17.32 Peak

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

Operation Mode: TX on Top Channel

Polarity: Ver.



Site no. : 3m Chamber Data no. : 1417
 Dis. / Ant. : 3m DRH-118 Ant. pol. : VERTICAL
 Limit : 54DB
 Env. / Ins. : 23°C/54%
 Engineer :
 EUT :
 Power :
 M/N :
 Test Mode :

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission				Remark
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	
1 2483.50	28.93	4.70	35.38	40.72	38.97	54.00	15.03	Peak

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

Note:

1. The field strength of any emissions which appear outside of this band shall not exceed the general radiated emission limits in Section 15.209.
2. The average measurement was not performed when the peak measured data under the limit of average detection.

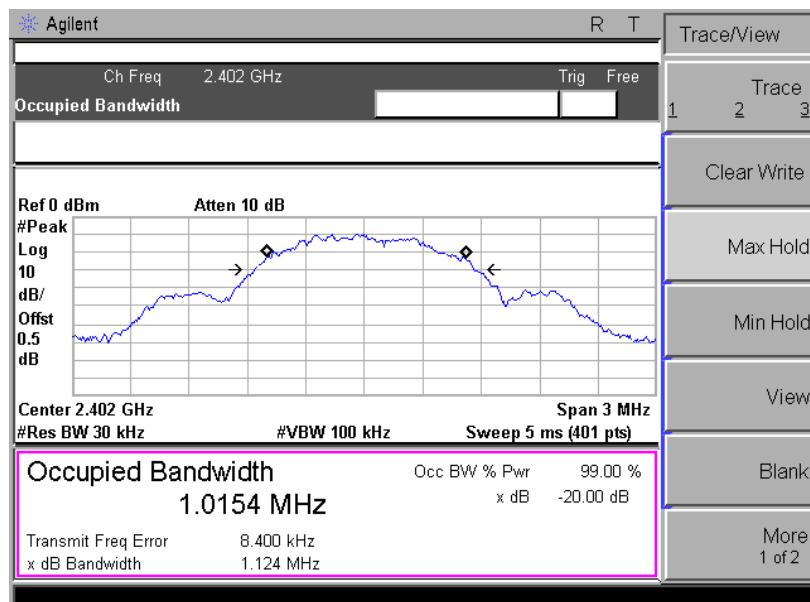
4.4. Occupied Bandwidth Measurement

Measurement Procedure

1. Set EUT as keeping TX.
2. RBW $\geq 1\%$ of the 20 dB bandwidth, VBW \geq RBW.
3. The useful radiated emission from the EUT was detected by the spectrum analyser with peak detector.

Measurement Results

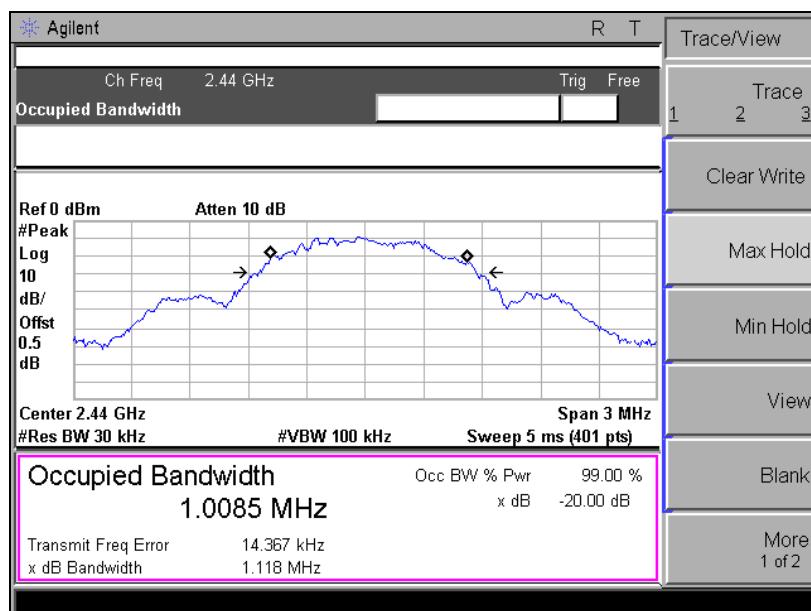
2402MHz



20dB Bandwidth: 1124.00 KHz

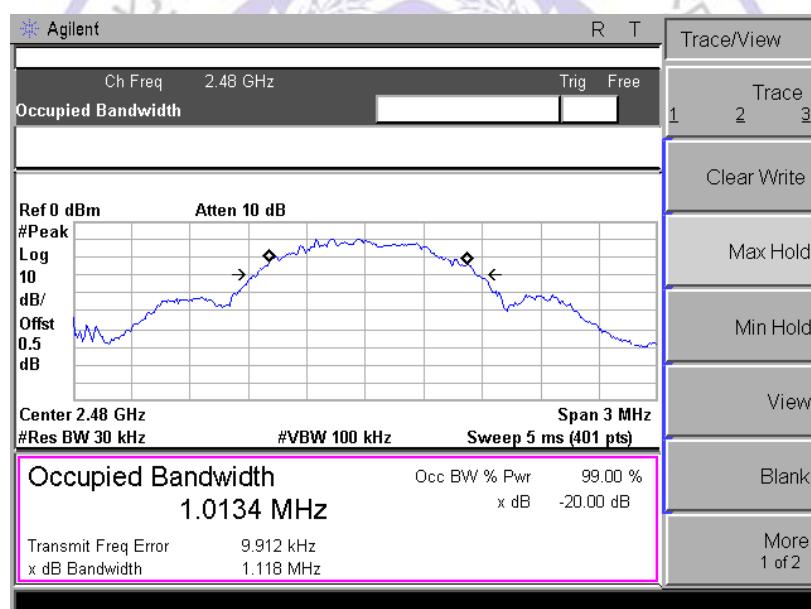


2440MHz



20dB Bandwidth: 1118.00 KHz

2480MHz



20dB Bandwidth: 1118.00 KHz

5. Antenna Requirement

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 (c), 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.

Refer to statement below for compliance.

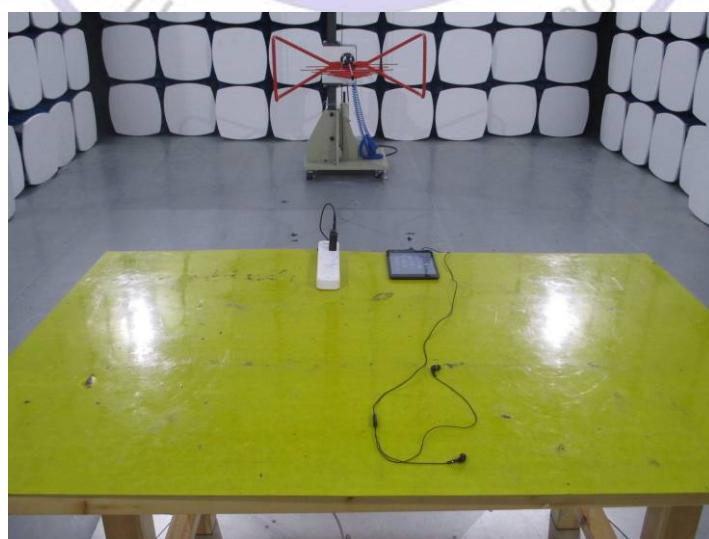
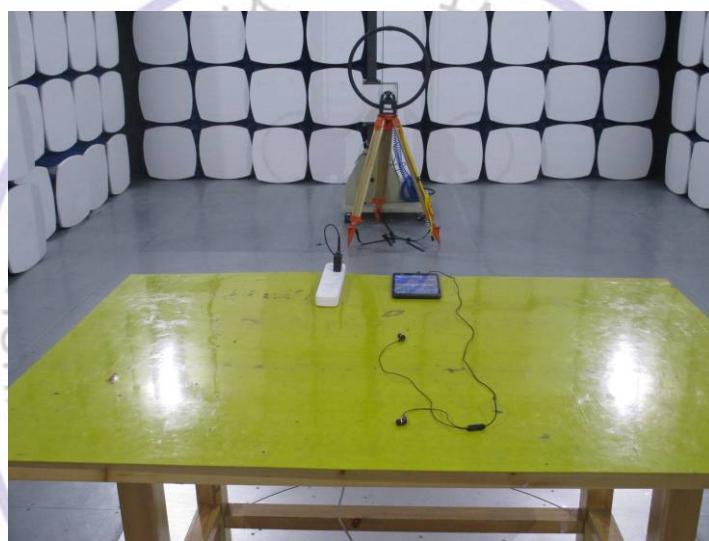
The manufacturer may design the unit so that the user can replace a broken antenna, but the use of a standard antenna jack or electrical connector is prohibited. Further, this requirement does not apply to intentional radiators that must be professionally installed.

Antenna Connected Construction

The antenna used in this product is an internal Antenna, The directional gains of antenna used for transmitting is 0.5 dBi.



6. Test Setup Photos of the EUT





7. External and Internal Photos of the EUT

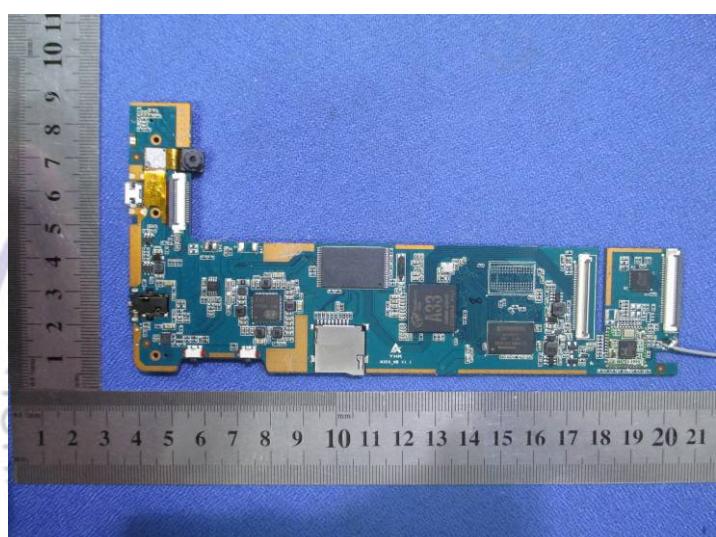
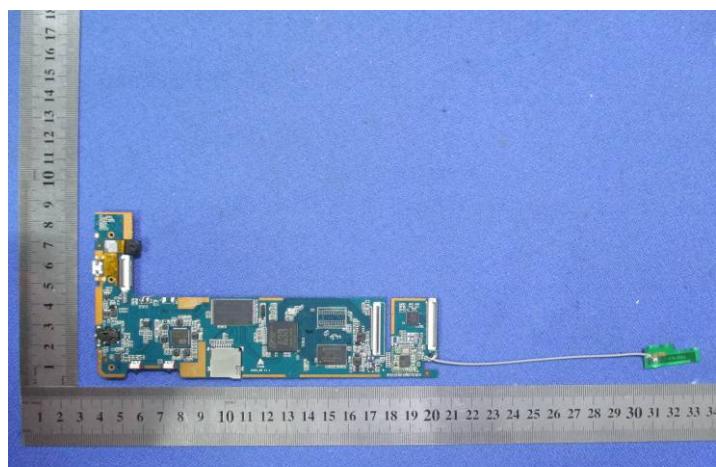
External Photos of EUT

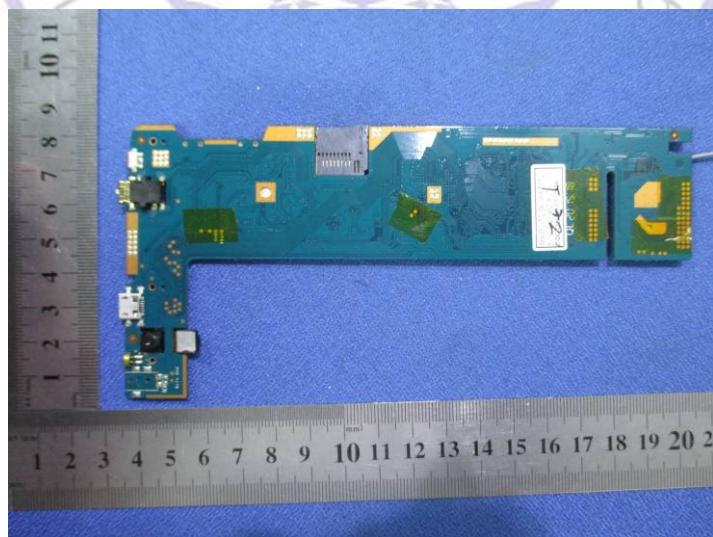
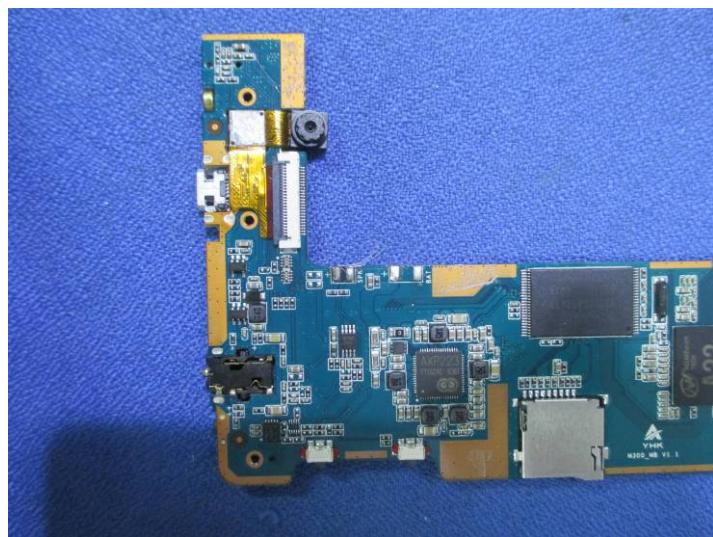


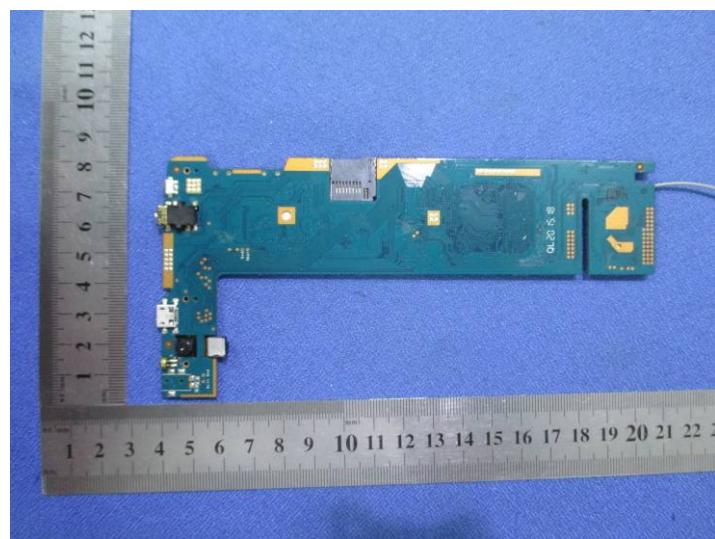




Internal Photos of EUT







.....End of Report.....

