FCC Test Report

Report No.: AGC00119130304 FE03B

FCC ID	:	BRCPC7058ME
APPLICATION PURPOSE	:	Original Equipment
PRODUCT DESIGNATION	:	tablet PC
BRAND NAME	:	Titan, Kinwei
MODEL NAME	:	PC7058ME,PC70XXME (xx represents 00~99) PC7058B, PC70XXB (xx represents 00~99) PC7058, PC70XX (xx represents 00~99) KW-PC7058K,KW-PC70XXK (xx represents 00~99) KW-PC7058,KW-PC70XX (xx represents 00~99)
CLIENT	:	Kintech Co. Ltd
DATE OF ISSUE	:	Apr.15,2013
STANDARD(S)	:	FCC Part 15 Rules
REPORT VERSION	:	V1.0

Attestation of ***G***lobal ***C***ompliance (Shenzhen) Co., Ltd

Report Revise Record

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	Apr.15,2013	Valid	Original Report

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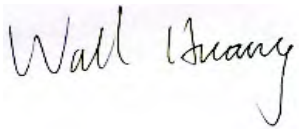
1. VERIFICATION OF COMPLIANCE

Applicant	Kintech Co., Ltd.
Address	1F-5F, Bldg 22, Chen Tian Industral Zone, Xi Xiang Bao An District, Shenzhe Guang Dong, China
Manufacturer	Kintech Co., Ltd.
Address	1F-5F, Bldg 22, Chen Tian Industral Zone, Xi Xiang Bao An District, Shenzhe Guang Dong, China
Product Designation	tablet PC
Brand Name	Titan, Kinwei
Test Model	PC7058ME
Series Model	PC70XXME (xx represents 00~99) PC7058B, PC70XXB (xx represents 00~99) PC7058, PC70XX (xx represents 00~99) KW-PC7058K,KW-PC70XXK (xx represents 00~99) KW-PC7058,KW-PC70XX (xx represents 00~99)
Difference description	All the same except for the model name and brand name.
Date of test	Apr.09, 2013 to Apr.13, 2013
Deviation	None
Condition of Test Sample	Normal
Report Template	AGCRT-US-BLE/RF (2013-03-01)

WE HEREBY CERTIFY THAT:

The above equipment was tested by Attestation of Global Compliance (Shenzhen) Co., Ltd. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.4 (2003) and the energy emitted by the sample EUT tested as described in this report is in compliance with requirement of FCC Part 15 Rules requirement.

Prepared By



Wall Huang Apr.15,2013

Checked By

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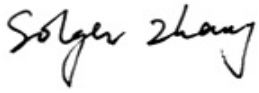
Authorized By



Solger Zhang Apr.15,2013

2.GENERAL INFORMATION

2.1PRODUCT DESCRIPTION

The EUT is a WCDMA mobile phone designed as a “Communication Device”. It is designed by way of utilizing the FHSS technology to achieve the system operation.

A major technical description of EUT is described as following

Operation Frequency	2.402 GHz to 2.480GHz
Bluetooth Version	V4.0
Modulation	GFSK
Number of channels	40 Channel(37 Hopping Channel,3 advertising Channel)
Antenna Designation	Integrated Antenna
Antenna Gain	2.0dBi
Hardware Version	G901-X733
Software Version	android4.0.4
Power Supply	DC3.7V by Built-in Li-ion Battery

2.2 RELATED SUBMITTAL(S)/GRANT(S)

This submittal(s) (test report) is intended for **FCC ID: BRCPC7058ME** filing to comply with Section 15.247of the FCC Part 15, Subpart C Rules.

2.3TEST METHODOLOGY

All measurements contained in this report were conducted with ANSI C63.4-2003, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz.
The equipment under test (EUT) was configured to measure its highest possible emission level. The test modes were adapted accordingly in reference to the Operating Instructions. The EUT was tested in all three orthogonal planes and the worse case was showed.

2.4 TEST FACILITY

All measurement facilities used to collect the measurement data are located at
Attestation of Global Compliance (Shenzhen) Co, Ltd

2/F., Building 2, No.1-No.4, Chaxi Sanwei Technical Industrial Park, Gushu, Xixiang, Bao'an District, Shenzhen, Guangdong, China.

FCC register No.: 259865

2.5 SPECIAL ACCESSORIES

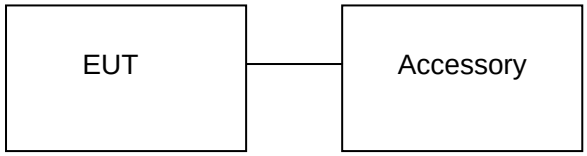
Refer to section 2.2.

2.6 EQUIPMENT MODIFICATIONS

Not available for this EUT intended for grant.

3. SYSTEM TEST CONFIGURATION

3.1 CONFIGURATION OF TESTED SYSTEM



3.2 EQUIPMENT USED IN TESTED SYSTEM

Item	Equipment	Model No.	ID or Specification	Note
1	tablet PC	PC7058ME	FCC ID: BRCPC7058ME	EUT
2	Adapter	JKY36-SP05015 00	DC5V/1.5A	Accessory
3	USB Cable	PC7058ME	N/A	Accessory

4. SUMMARY OF TEST RESULTS

FCC RULES	DESCRIPTION OF TEST	RESULT
§ 15.203	Antenna Requirement	Compliant
§15.209 §15.247(d)	Radiated Emission	Compliant
§15.247(d)	Band Edges	Compliant
§15.247	6 dB Bandwidth	Compliant
§15.247(b)	Conducted Power	Compliant
§15.247(e)	Maximum Conducted Output Power SPECTRAL Density	Compliant
§15.207	Line Conduction Emission	Compliant

5. DESCRIPTION OF TEST MODES

The EUT has been operated in three modulations: GFSK independently.

TEST MODE DESCRIPTION		
NO.	**TEST MODE DESCRIPTION**	**WORST**
1	Low channel TX	
2	Middle channel TX	
3	High channel TX	
4	Normal Operating (BT)	V

Note:
1. V means EMI worst mode.
2. All the test modes can be supply by Built-in Li-ion battery, only the result of the worst case was recorded in the report if no any records.
3. For Radiated Emission, 3axis were chosen for testing for each applicable mode.

6. ANTENNA REQUIREMENT

6.1. STANDARD APPLICABLE

According to FCC 15.203, An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of Sections 15.211, 15.213, 15.217, 15.219, or 15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with Section 15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this Part are not exceeded.

6.2. TEST RESULT

This product has a permanent antenna, fulfill the requirement of this section.

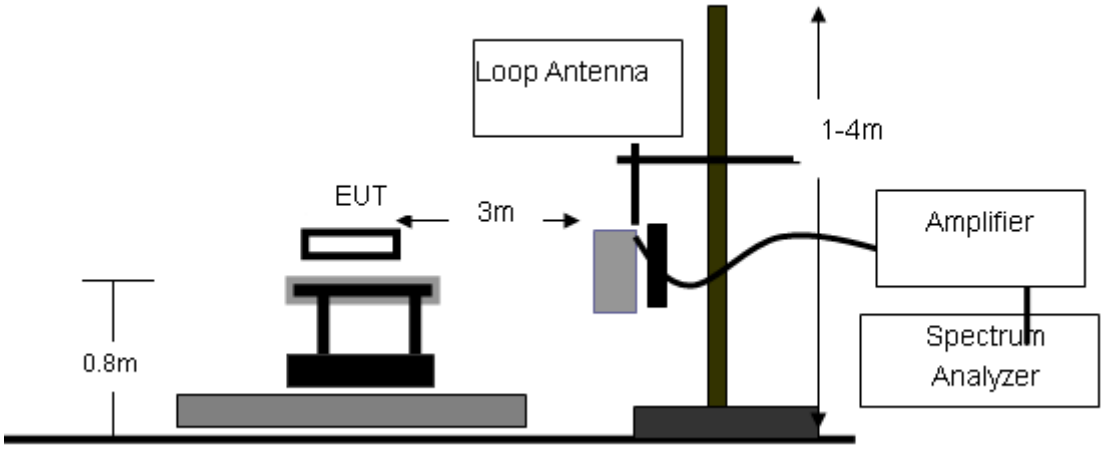
7. RADIATED EMISSION

7.1 MEASUREMENT PROCEDURE

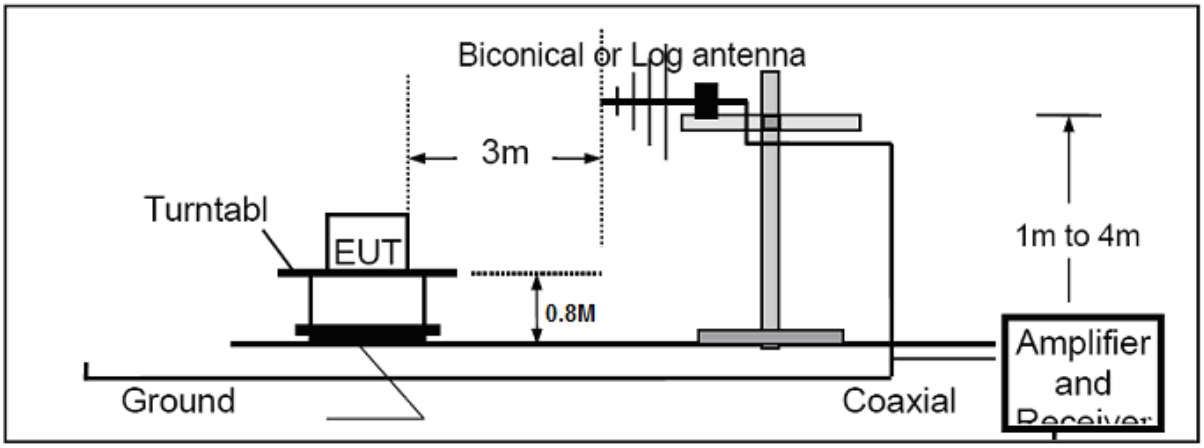
1. Configure the EUT according to ANSI C63.4. The EUT was placed on the top of the turntable 0.8 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
4. For each suspected emissions, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.
5. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
6. For emissions above 1GHz, use 1MHz VBW and RBW for peak reading. Then 1MHz RBW and 10Hz VBW for average reading in spectrum analyzer.
7. When the radiated emissions limits are expressed in terms of the average value of the emissions, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum values.
8. If the emissions level of the EUT in peak mode was 3 dB lower than the average limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method for below 1GHz.
9. For testing above 1GHz, the emissions level of the EUT in peak mode was lower than average limit (that means the emissions level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
10. In case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded data should be QP measured by receiver. High - Low scan is not required in this case.

7.2 TEST SETUP

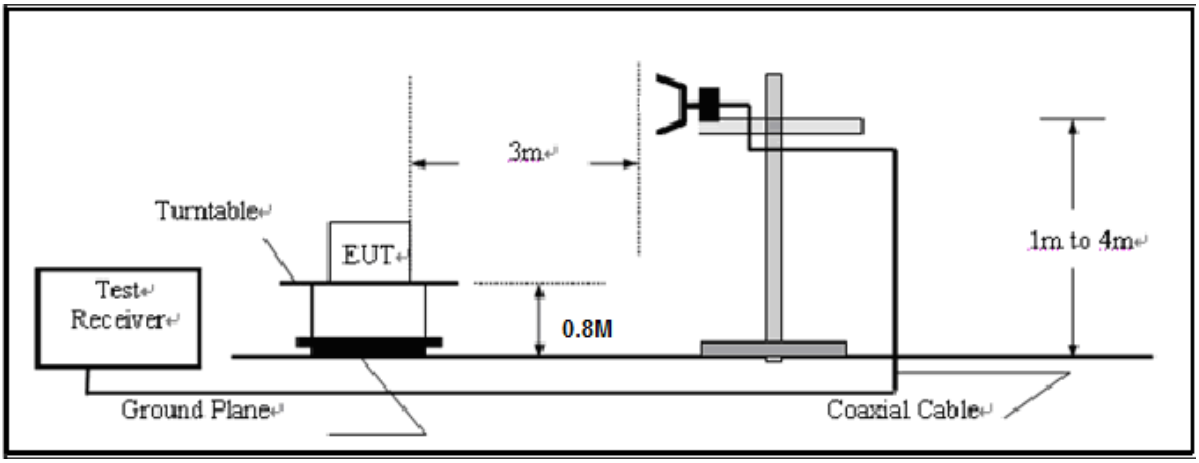
RADIATED EMISSION TEST SETUP BELOW 30MHz



RADIATED EMISSION TEST SETUP 30MHz-1000MHz



RADIATED EMISSION TEST SETUP ABOVE 1000MHz



7.3 LIMITS AND MEASUREMENT RESULT

15.209 Limit in the below table has to be followed

Frequencies (MHz)	Field Strength (micorvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

Note: All modes were tested For restricted band radiated emission,
the test records reported below are the worst result compared to other modes.

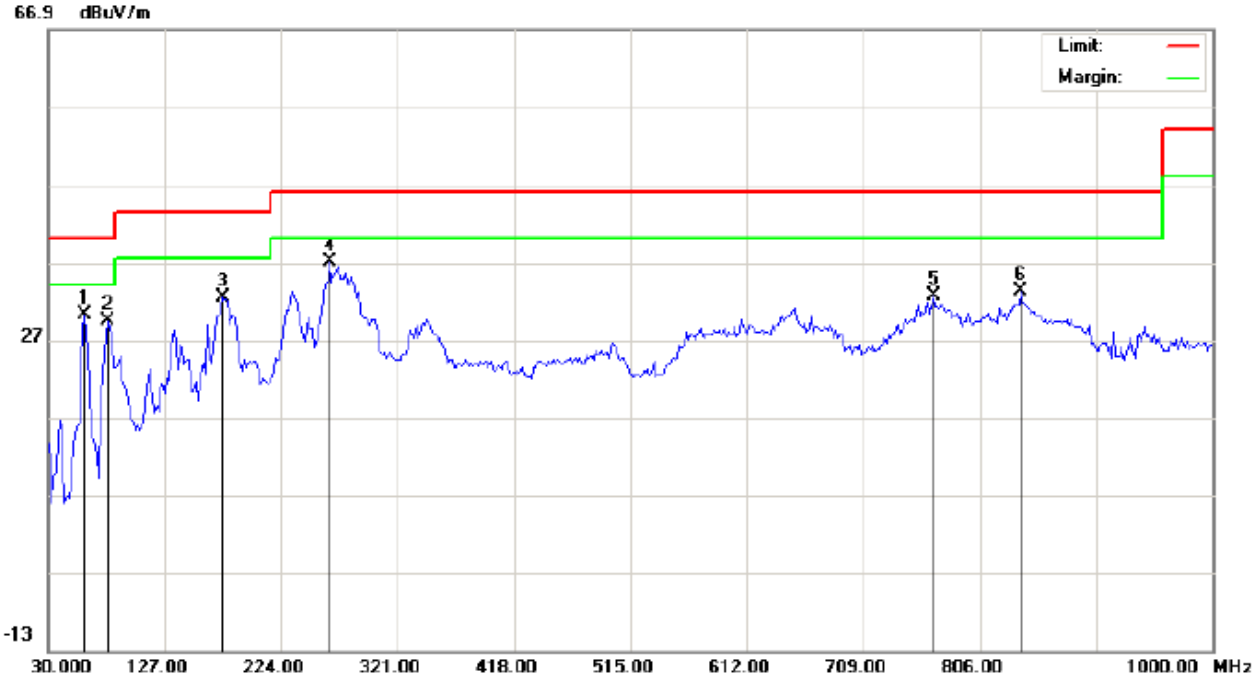
7.4 TEST RESULT

RADIATED EMISSION BELOW 30MHZ

No emission found between lowest internal used/generated frequencies to 30MHz.

RADIATED EMISSION BELOW 1GHZ

RADIATED EMISSION TEST (30MHZ-1GHZ)-LOW CHANNEL-HORIZONTAL



Site: site #1
Limit: FCC Class B 3M Radiation
EUT: tablet PC
M/N: PC7058ME
Mode: Low Channel TX
Note:

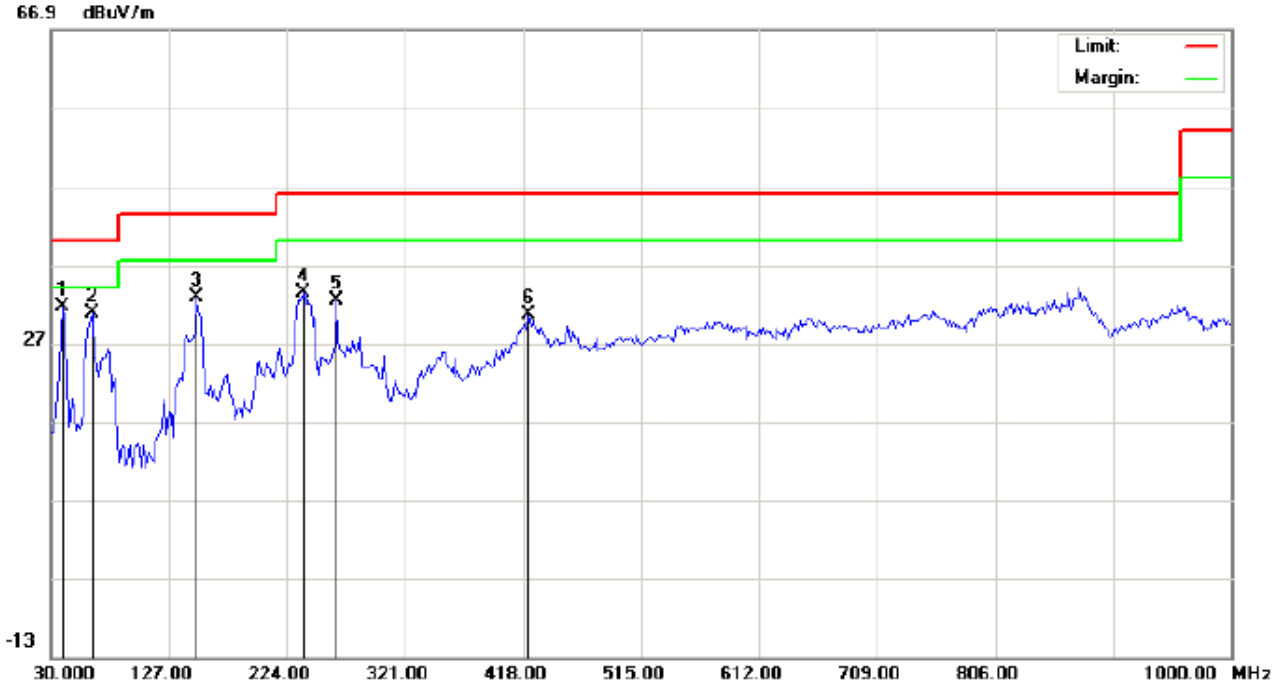
Polarization: *Horizontal*
Power:
Distance:

Temperature: 26
Humidity: 60 %

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1		60.7167	26.22	4.06	30.28	40.00	-9.72	peak			
2		80.1167	17.42	11.92	29.34	40.00	-10.66	peak			
3		175.5000	20.80	11.61	32.41	43.50	-11.09	peak			
4	*	264.4167	22.34	14.71	37.05	46.00	-8.95	peak			
5		767.2000	4.80	27.76	32.56	46.00	-13.44	peak			
6		839.9500	1.94	31.34	33.28	46.00	-12.72	peak			

RESULT: PASS

RADIATED EMISSION TEST (30MHZ-1GHZ)-LOW CHANNEL -VERTICAL



Site: site #1
Limit: FCC Class B 3M Radiation
EUT: tablet PC
M/N: PC7058ME
Mode: Low Channel TX
Note:

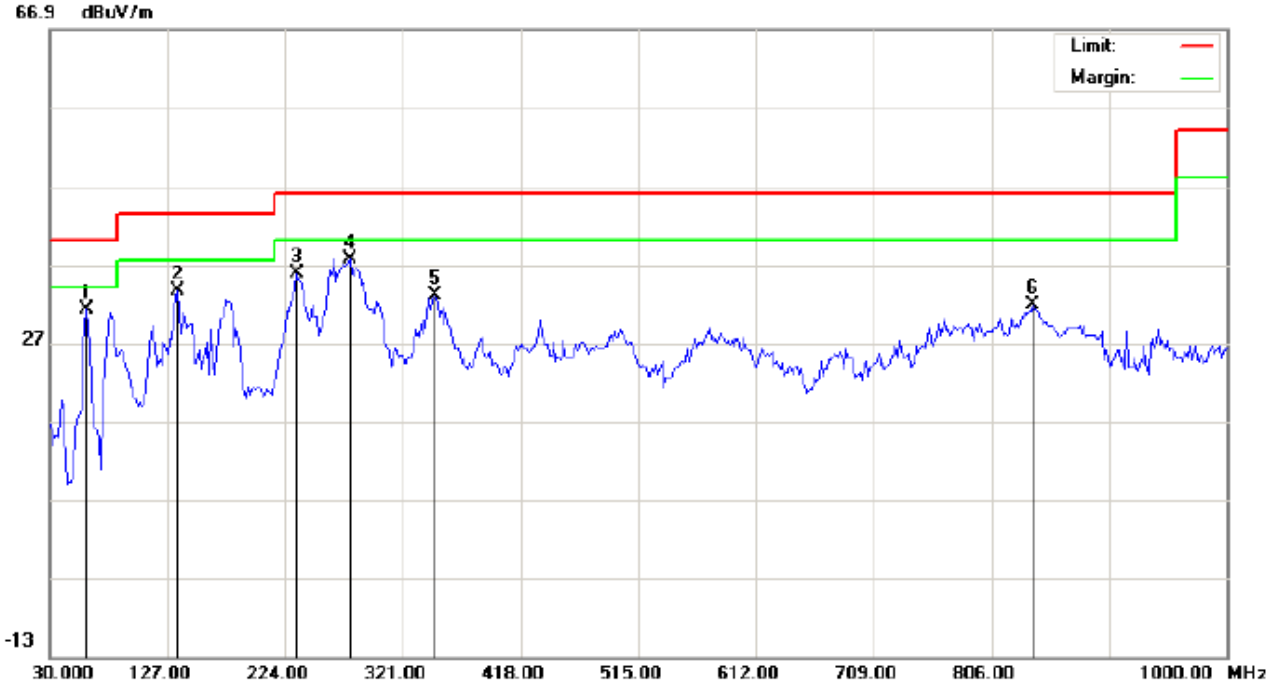
Polarization: *Vertical*
Power:
Distance:

Temperature: 26
Humidity: 60 %

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1	*	39.7000	23.82	7.76	31.58	40.00	-8.42	peak			
2		63.9500	28.47	2.25	30.72	40.00	-9.28	peak			
3		149.6333	18.60	14.15	32.75	43.50	-10.75	peak			
4		236.9333	20.87	12.51	33.38	46.00	-12.62	peak			
5		264.4167	17.70	14.67	32.37	46.00	-13.63	peak			
6		422.8500	9.15	21.45	30.60	46.00	-15.40	peak			

RESULT: PASS

RADIATED EMISSION TEST (30MHZ-1GHZ)-MIDDLE CHANNEL-HORIZONTAL



Site: site #1
Limit: FCC Class B 3M Radiation
EUT: tablet PC
M/N: PC7058ME
Mode: Middle Channel TX
Note:

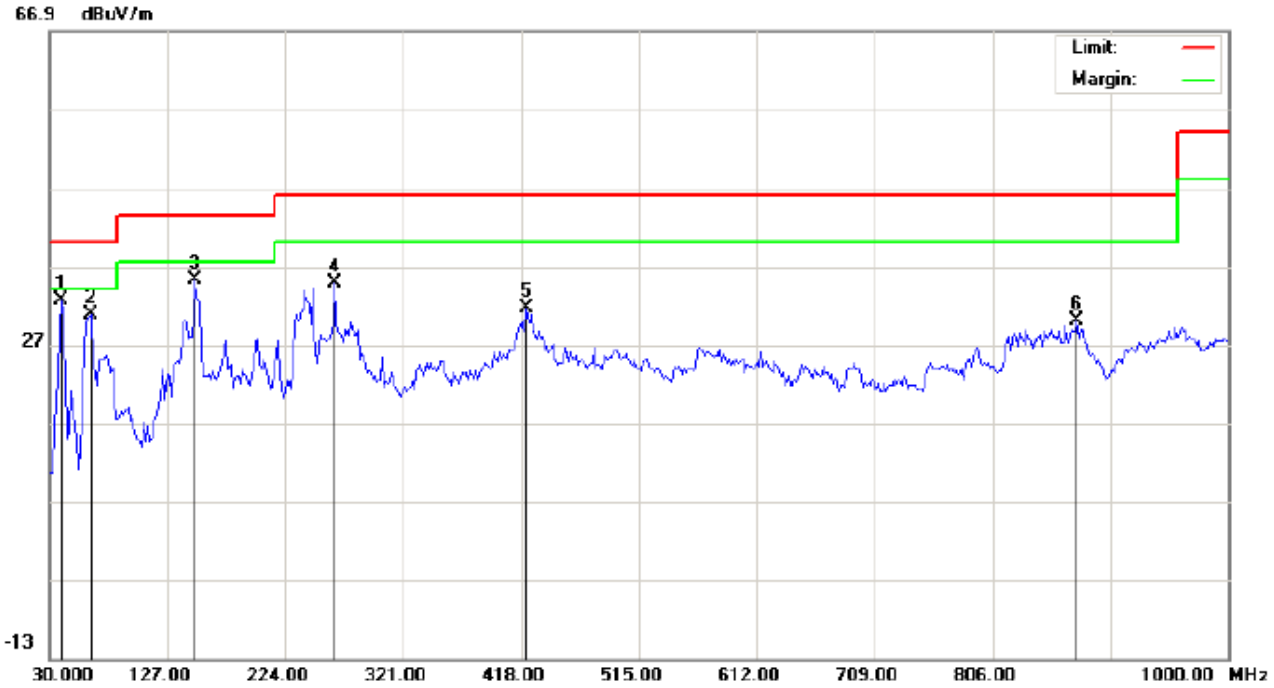
Polarization: *Horizontal*
Power:
Distance:

Temperature: 26
Humidity: 60 %

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1		60.7167	27.22	4.06	31.28	40.00	-8.72	peak			
2		135.0833	20.19	13.43	33.62	43.50	-9.88	peak			
3		233.7000	23.32	12.40	35.72	46.00	-10.28	peak			
4	*	277.3500	20.37	17.20	37.57	46.00	-8.43	peak			
5		346.8667	14.00	19.02	33.02	46.00	-12.98	peak			
6		839.9500	0.44	31.34	31.78	46.00	-14.22	peak			

RESULT: PASS

RADIATED EMISSION TEST (30MHZ-1GHZ)- MIDDLE CHANNEL -VERTICAL



Site: site #1
Limit: FCC Class B 3M Radiation
EUT: tablet PC
M/N: PC7058ME
Mode: Middle Channel TX
Note:

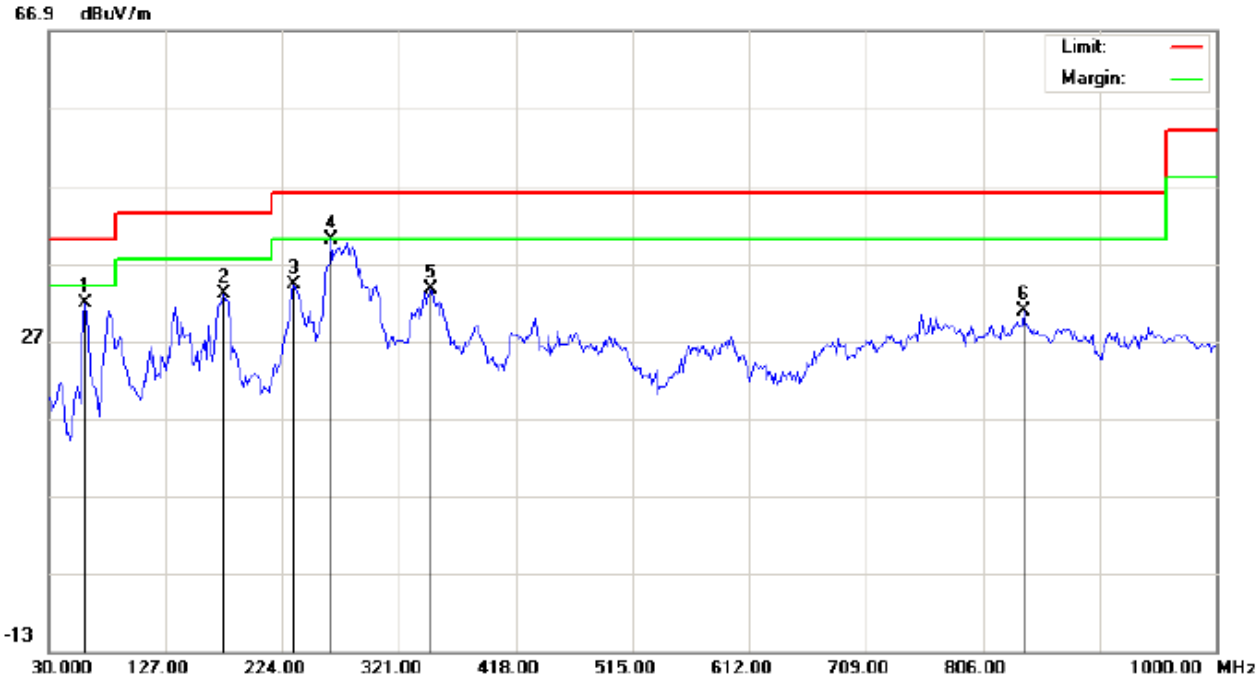
Polarization: *Vertical*
Power:
Distance:

Temperature: 26
Humidity: 60 %

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1	*	39.7000	24.82	7.76	32.58	40.00	-7.42	peak			
2		63.9500	28.47	2.25	30.72	40.00	-9.28	peak			
3		149.6333	21.10	14.15	35.25	43.50	-8.25	peak			
4		264.4167	20.20	14.67	34.87	46.00	-11.13	peak			
5		422.8500	10.15	21.45	31.60	46.00	-14.40	peak			
6		875.5167	-0.23	30.14	29.91	46.00	-16.09	peak			

RESULT: PASS

RADIATED EMISSION TEST (30MHZ-1GHZ)-HIGH CHANNEL-HORIZONTAL



Site: site #1
Limit: FCC Class B 3M Radiation
EUT: tablet PC
M/N: PC7058ME
Mode: High Channel TX
Note:

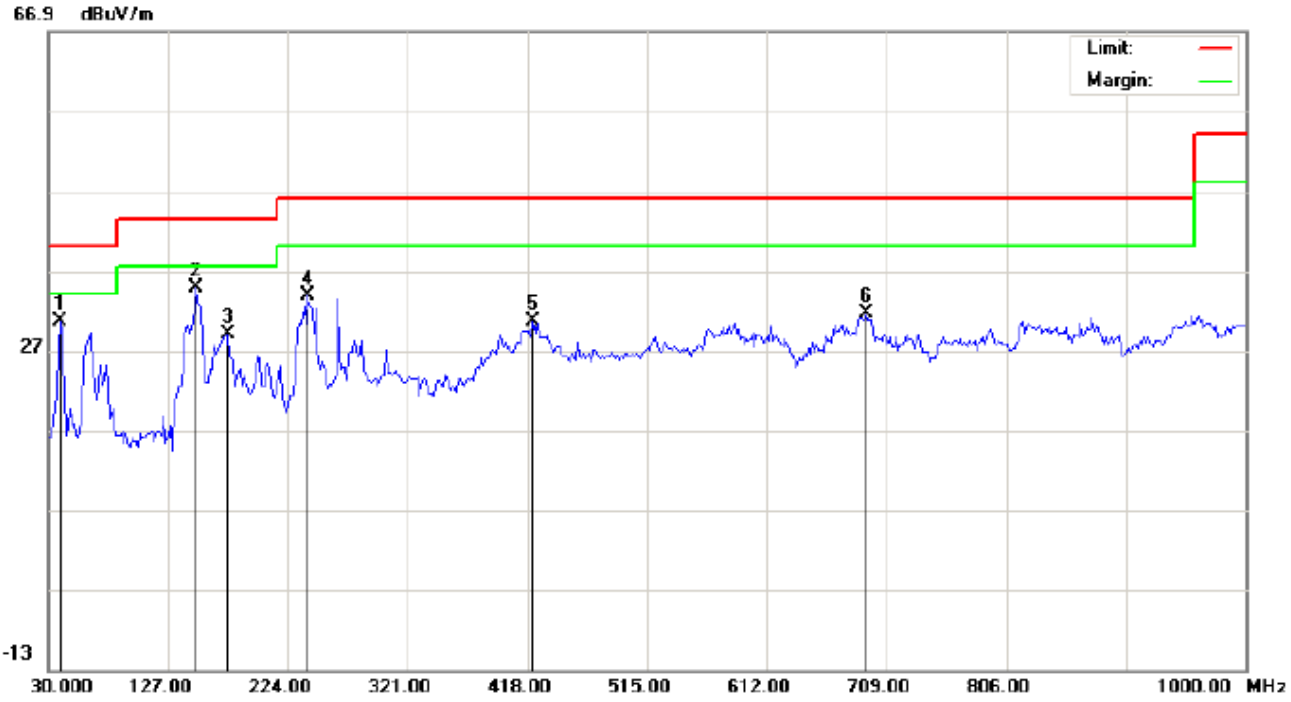
Polarization: *Horizontal*
Power:
Distance:

Temperature: 26
Humidity: 60 %

No.	Mk.	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1		60.7167	27.72	4.06	31.78	40.00	-8.22	peak			
2		175.5000	21.30	11.61	32.91	43.50	-10.59	peak			
3		233.7000	21.82	12.40	34.22	46.00	-11.78	peak			
4	*	264.4167	25.34	14.71	40.05	46.00	-5.95	peak			
5		346.8667	14.50	19.02	33.52	46.00	-12.48	peak			
6		839.9500	-0.56	31.34	30.78	46.00	-15.22	peak			

RESULT: PASS

RADIATED EMISSION TEST (30MHZ-1GHZ)-HIGH CHANNEL -VERTICAL



Site: site #1
Limit: FCC Class B 3M Radiation
EUT: tablet PC
M/N: PC7058ME
Mode: High Channel TX
Note:

Polarization: *Vertical*
Power:
Distance:

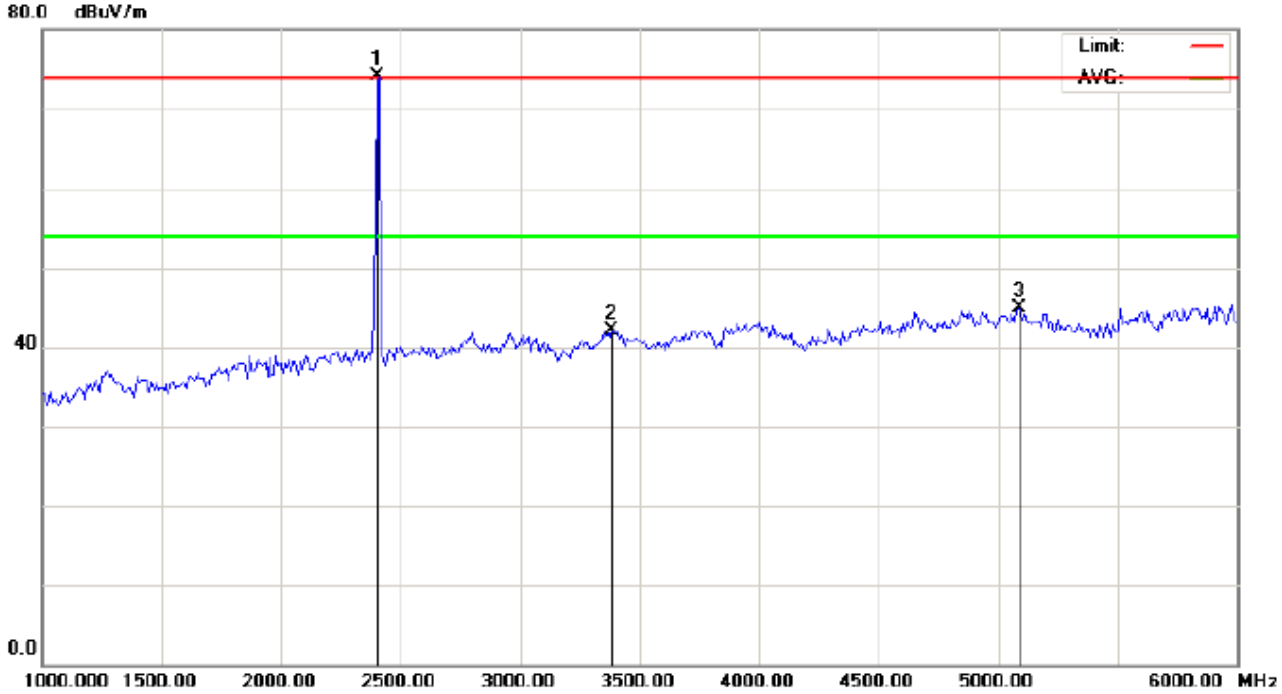
Temperature: 26
Humidity: 60 %

No.	Mk.	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1		39.7000	22.82	7.76	30.58	40.00	-9.42	peak			
2	*	149.6333	20.60	14.15	34.75	43.50	-8.75	peak			
3		175.5000	22.53	6.40	28.93	43.50	-14.57	peak			
4		240.1667	19.55	14.23	33.78	46.00	-12.22	peak			
5		422.8500	9.15	21.45	30.60	46.00	-15.40	peak			
6		692.8333	5.20	26.34	31.54	46.00	-14.46	peak			

RESULT: PASS

RADIATED EMISSION ABOVE 1GHZ

RADIATED EMISSION TEST (ABOVE 1GHZ)-LOW CHANNEL-HORIZONTAL



Site: site #1
Limit: FCC Class B 3M Radiation above 1GHZ(PK)
EUT: tablet PC
M/N: PC7058ME
Mode: Low Channel TX
Note:

Polarization: *Horizontal*
Power:
Distance: 3m

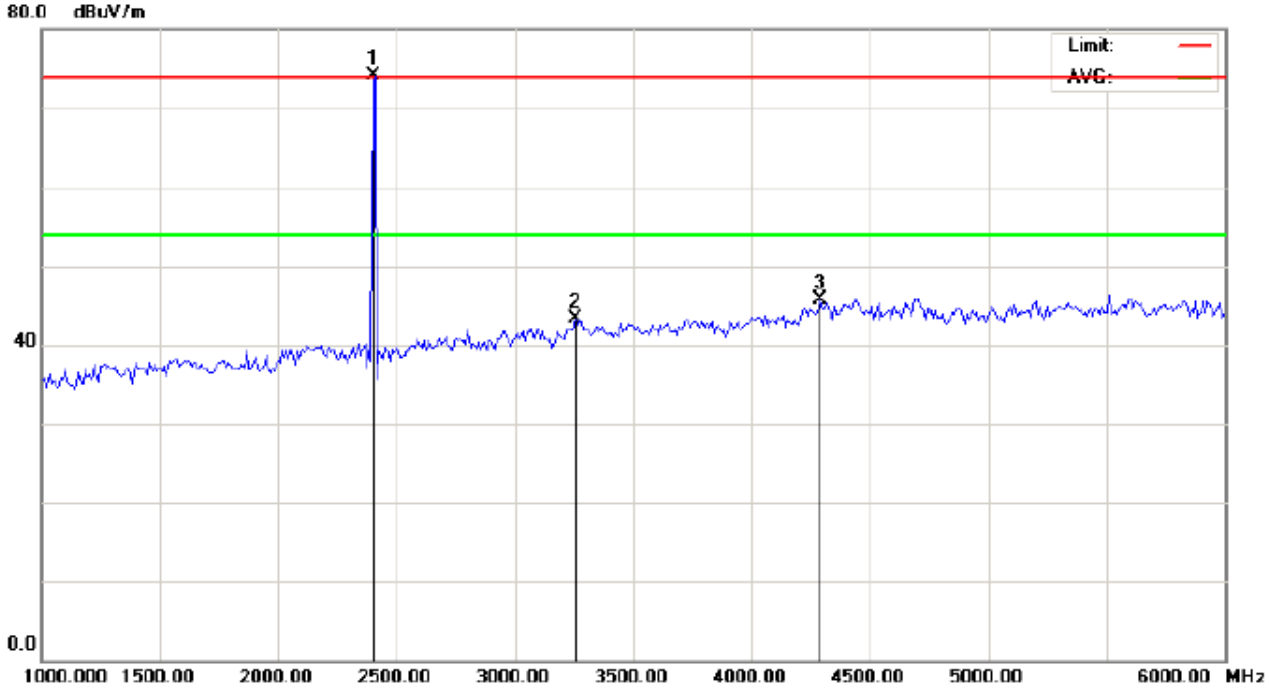
Temperature: 26
Humidity: 60 %

No.	Mk.	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1	*	2402.085	74.13	0.00	74.13	74.00	0.13	peak			
2		3383.333	42.02	0.00	42.02	74.00	-31.98	peak			
3		5091.667	44.99	0.00	44.99	74.00	-29.01	peak			

RESULT: PASS

Note：Marker2 is fundamental frequency and the Average result is 51.23dBuV/m.
6~25GHz at least have 20dB margin. No recording in the test report.

RADIATED EMISSION TEST(ABOVE 1GHZ)-LOW CHANNEL-VERTICAL



Site: site #1
Limit: FCC Class B 3M Radiation above 1GHZ(PK)
EUT: tablet PC
M/N: PC7058ME
Mode: Low Channel TX
Note:

Polarization: *Vertical*
Power:
Distance: 3m

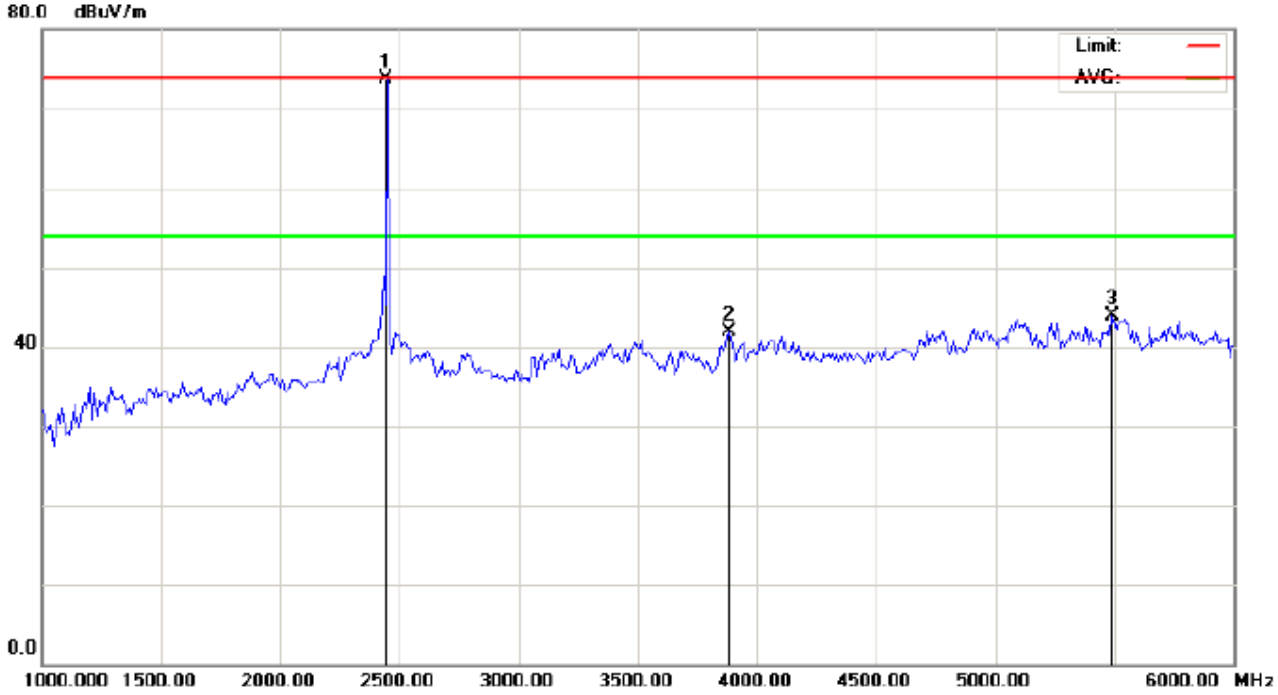
Temperature: 26
Humidity: 60 %

No.	Mk.	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1	*	2402.105	74.13	0.00	74.13	74.00	0.13	peak			
2		3258.333	43.29	0.00	43.29	74.00	-30.71	peak			
3		4291.667	45.78	0.00	45.78	74.00	-28.22	peak			

RESULT: PASS

Note：Marker 2 is fundamental frequency and the Average result is 50.62dBuV/m.
6~25GHz at least have 20dB margin. No recording in the test report.

RADIATED EMISSION TEST(ABOVE 1GHZ)-MIDDLE CHANNEL-HORIZONTAL



Site: site #1
Limit: FCC Class B 3M Radiation above 1GHZ(PK)
EUT:tablet PC
M/N: PC7058ME
Mode: Middle Channel TX
Note:

Polarization: *Horizontal*
Power:
Distance: 3m

Temperature: 26
Humidity: 60 %

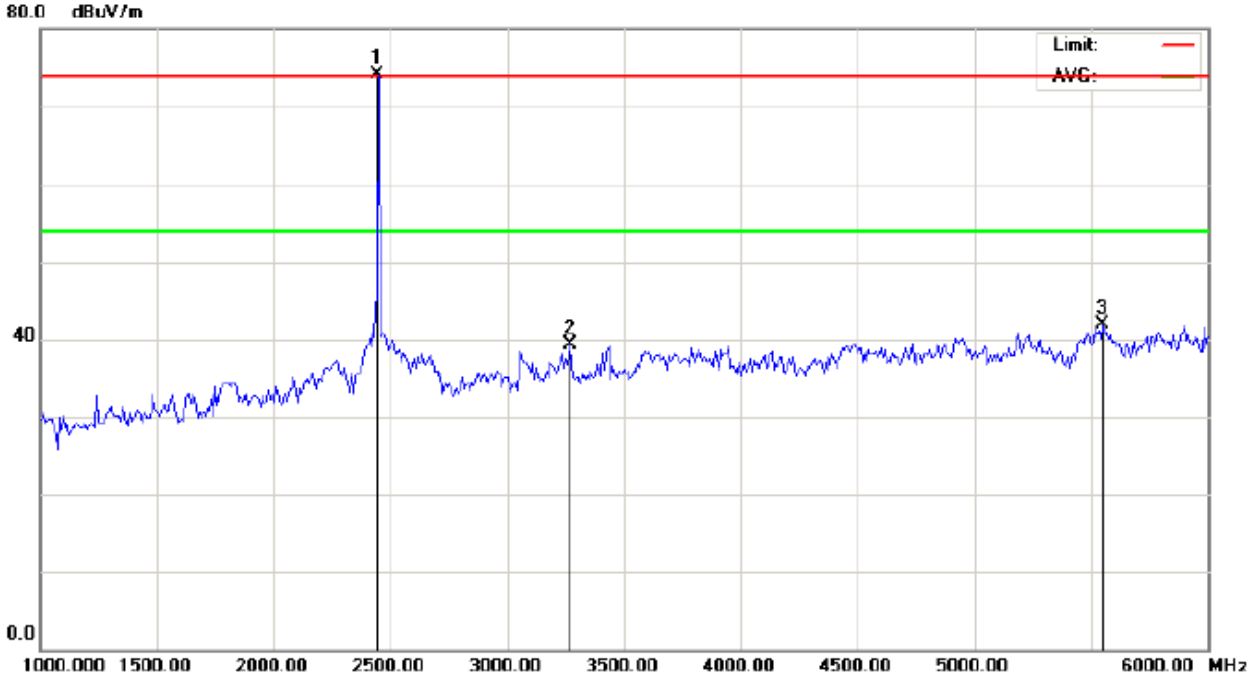
No.	Mk.	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1	*	2442.107	73.80	0.00	73.80	74.00	-0.20	peak			
2		3883.333	41.86	0.00	41.86	74.00	-32.14	peak			
3		5491.667	43.95	0.00	43.95	74.00	-30.05	peak			

RESULT: PASS

Note: Marker 2 fundamental frequency and the Average result is 50.85dBuV/m.

6~25GHz at least have 20dB margin. No recording in the test report.

RADIATED EMISSION TEST(ABOVE 1GHZ)-MIDDLE CHANNEL-VERTICAL



Site: site #1
Limit: FCC Class B 3M Radiation above 1GHZ(PK)
EUT:tablet PC
M/N: PC7058ME
Mode: Middle Channel TX
Note:

Polarization: *Vertical*
Power:
Distance: 3m

Temperature: 26
Humidity: 60 %

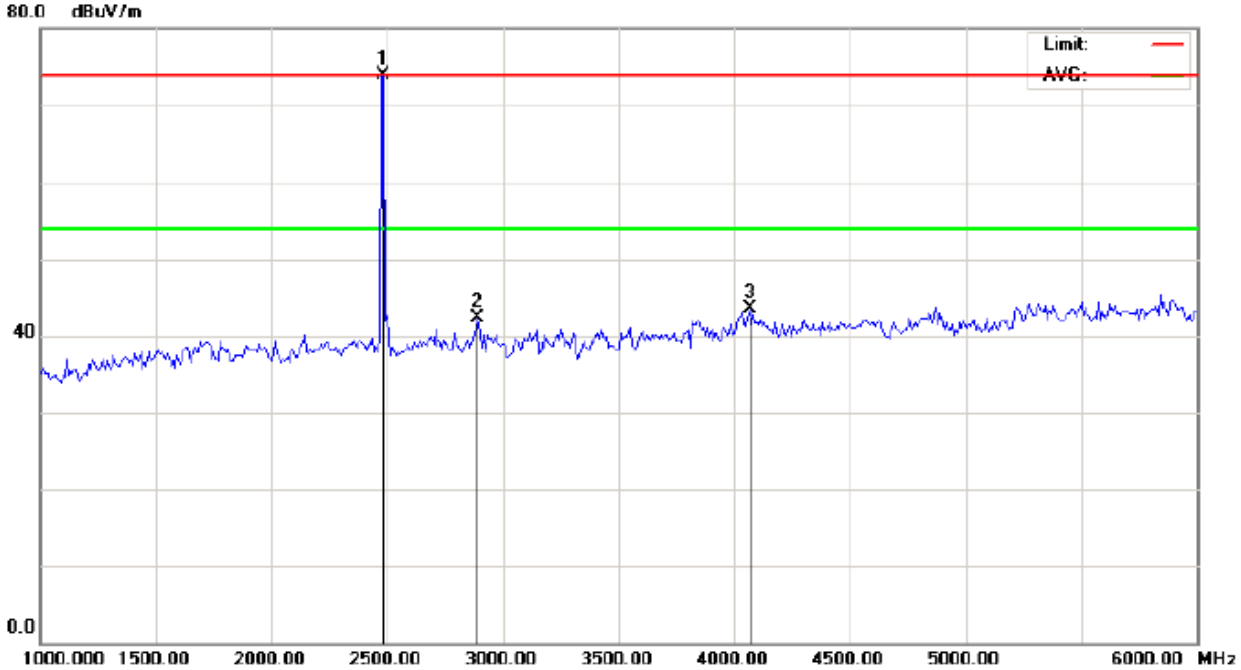
No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	.	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1	*	2442.086	74.08	0.00	74.08	74.00	0.08	peak			
2		3266.667	39.24	0.00	39.24	74.00	-34.76	peak			
3		5550.000	41.96	0.00	41.96	74.00	-32.04	peak			

RESULT: PASS

Note: Marker 2 is the fundamental frequency and the Average result is 49.95dBuV/m.

6~25GHz at least have 20dB margin. No recording in the test report.

RADIATED EMISSION TEST(ABOVE 1GHZ)-HIGH CHANNEL-HORIZONTAL



Site: site #1
Limit: FCC Class B 3M Radiation above 1GHZ(PK)
EUT: tablet PC
M/N: PC7058ME
Mode: High Channel TX
Note:

Polarization: *Horizontal*
Power:
Distance: 3m

Temperature: 26
Humidity: 60 %

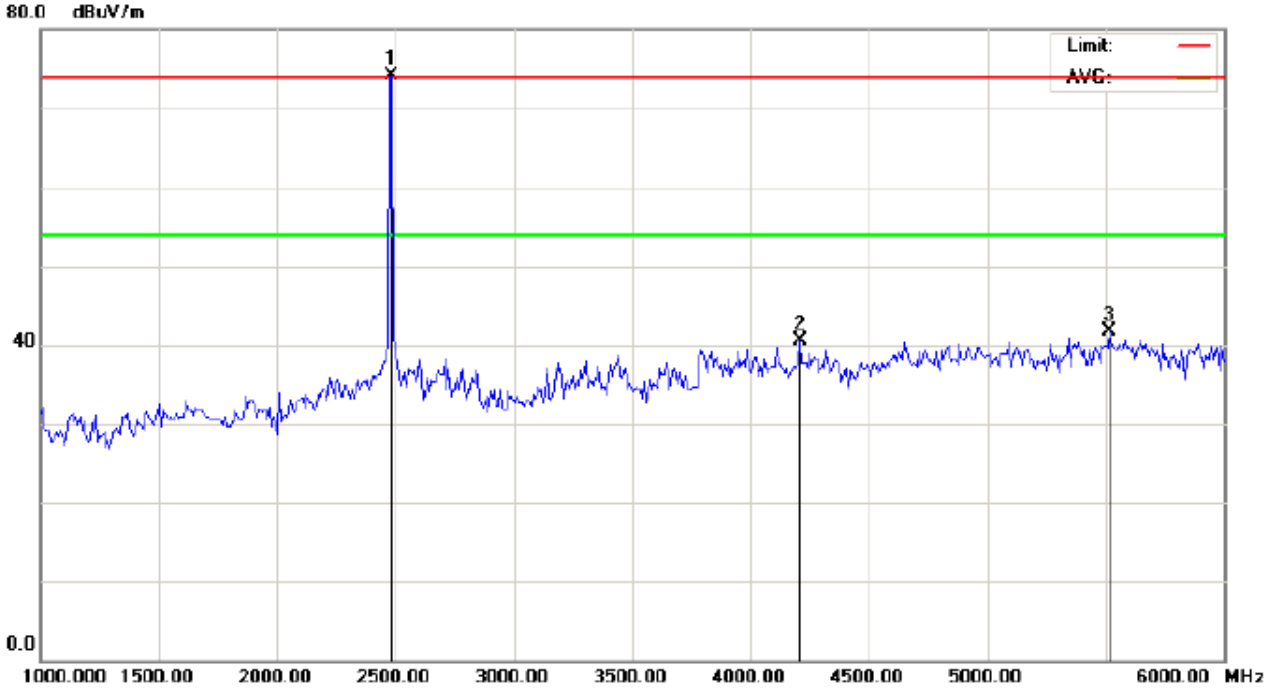
No.	Mk.	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1	*	2480.067	73.98	0.00	73.98	74.00	-0.02	peak			
2		2891.667	42.33	0.00	42.33	74.00	-31.67	peak			
3		4066.667	43.49	0.00	43.49	74.00	-30.51	peak			

RESULT: PASS

Note: Marker 2 is the fundamental frequency and the Average result is 52.14dBuV/m.

6~25GHz at least have 20dB margin. No recording in the test report.

RADIATED EMISSION TEST(ABOVE 1GHZ)-HIGH CHANNEL-VERTICAL



Site: site #1
Limit: FCC Class B 3M Radiation above 1GHZ(PK)
EUT:tablet PC
M/N: PC7058ME
Mode: High Channel TX
Note:

Polarization: *Vertical*
Power:
Distance: 3m

Temperature: 26
Humidity: 60 %

No.	Mk.	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1	*	2480.074	74.05	0.00	74.05	74.00	0.05	peak			
2		4208.333	40.41	0.00	40.41	74.00	-33.59	peak			
3		5516.667	41.75	0.00	41.75	74.00	-32.25	peak			

RESULT: PASS

Note: Marker 2 is the fundamental frequency and the Average result is 51.77dBuV/m.

6~25GHz at least have 20dB margin. No recording in the test report.

8. BAND EDGE EMISSION

8.1. MEASUREMENT PROCEDURE

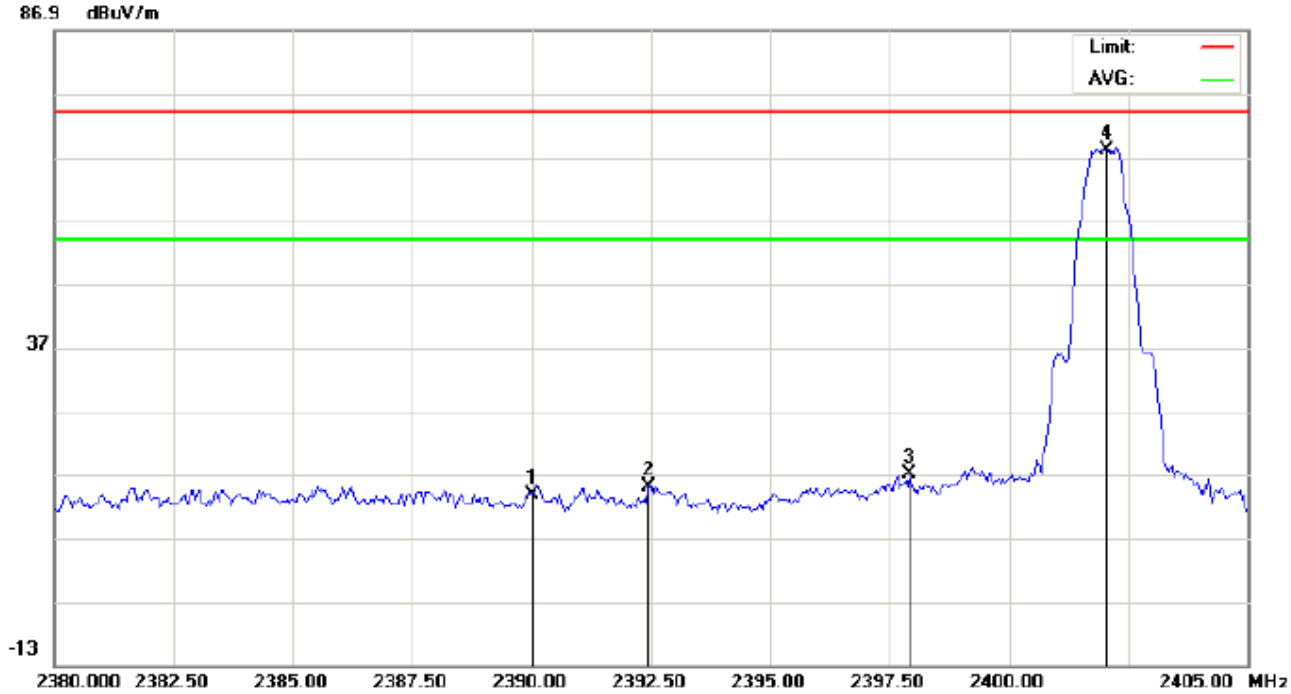
1. Set the EUT Work on the top, the bottom operation frequency individually.
2. Set SPA Start or Stop Frequency = Operation Frequency, RBW>=1%span, VBW>=RBW
3. The band edges was measured and recorded.

8.2. TEST SET-UP

Radiated same as 7.2

8.3. TEST RESULT

TEST PLOT OF BAND EDGE FOR LOW CHANNEL -Horizontal



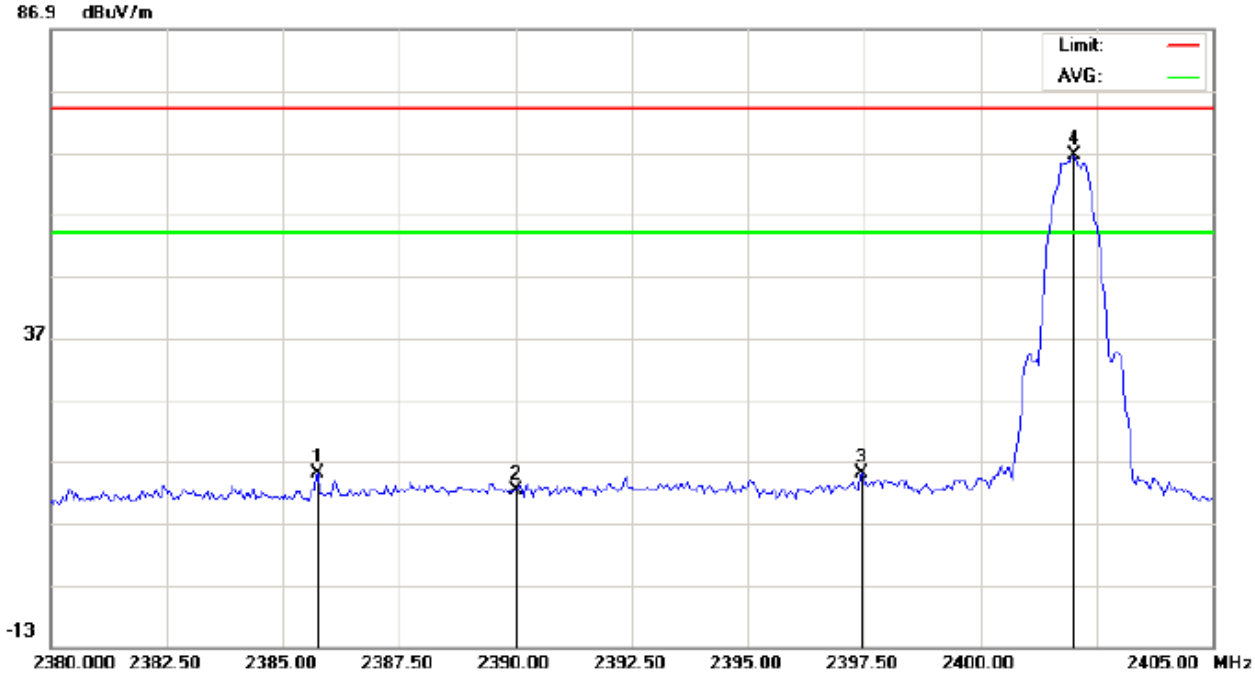
Site: site #1
Limit: FCC Class B 3M Radiation above 1GHZ(PK)
EUT: tablet PC
M/N: PC7058ME
Mode: Low channel TX
Note:

Polarization: *Horizontal*
Power:
Distance: 3m

Temperature: 26
Humidity: 60 %

No.	Mk.	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1		2390.000	23.37	-9.69	13.68	74.00	-60.32	peak			
2		2392.458	24.72	-9.69	15.03	74.00	-58.97	peak			
3		2397.917	26.75	-9.68	17.07	74.00	-56.93	peak			
4	*	2402.042	77.64	-9.68	67.96	74.00	-6.04	peak			

TEST PLOT OF BAND EDGE FOR LOW CHANNEL - Vertical



Site: site #1
Limit: FCC Class B 3M Radiation above 1GHZ(PK)
EUT: tablet PC
M/N: PC7058ME
Mode: Low channel TX
Note:

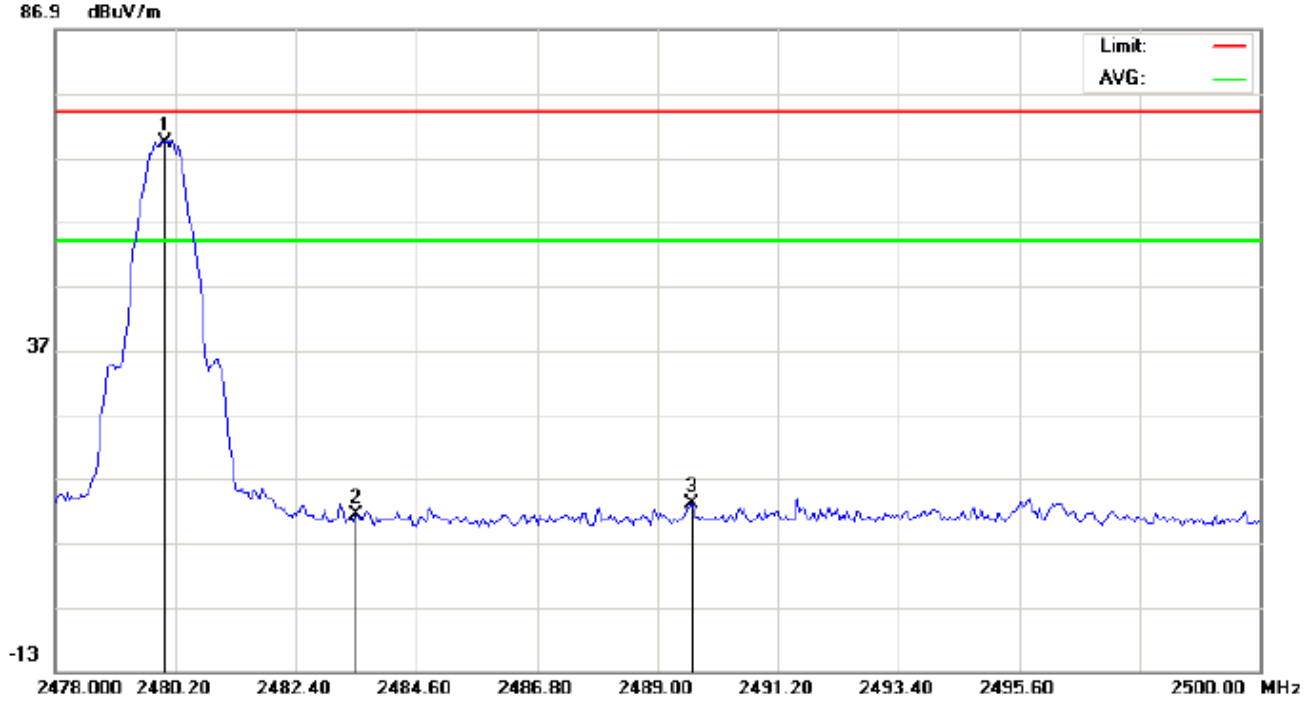
Polarization: *Vertical*
Power:
Distance: 3m

Temperature: 26
Humidity: 60 %

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1		2385.750	24.69	-9.70	14.99	74.00	-59.01	peak			
2		2390.000	22.02	-9.69	12.33	74.00	-61.67	peak			
3		2397.458	24.76	-9.68	15.08	74.00	-58.92	peak			
4	*	2402.000	76.23	-9.68	66.55	74.00	-7.45	peak			

RESULT: PASS

TEST PLOT OF BAND EDGE FOR HIGH CHANNEL –Horizontal



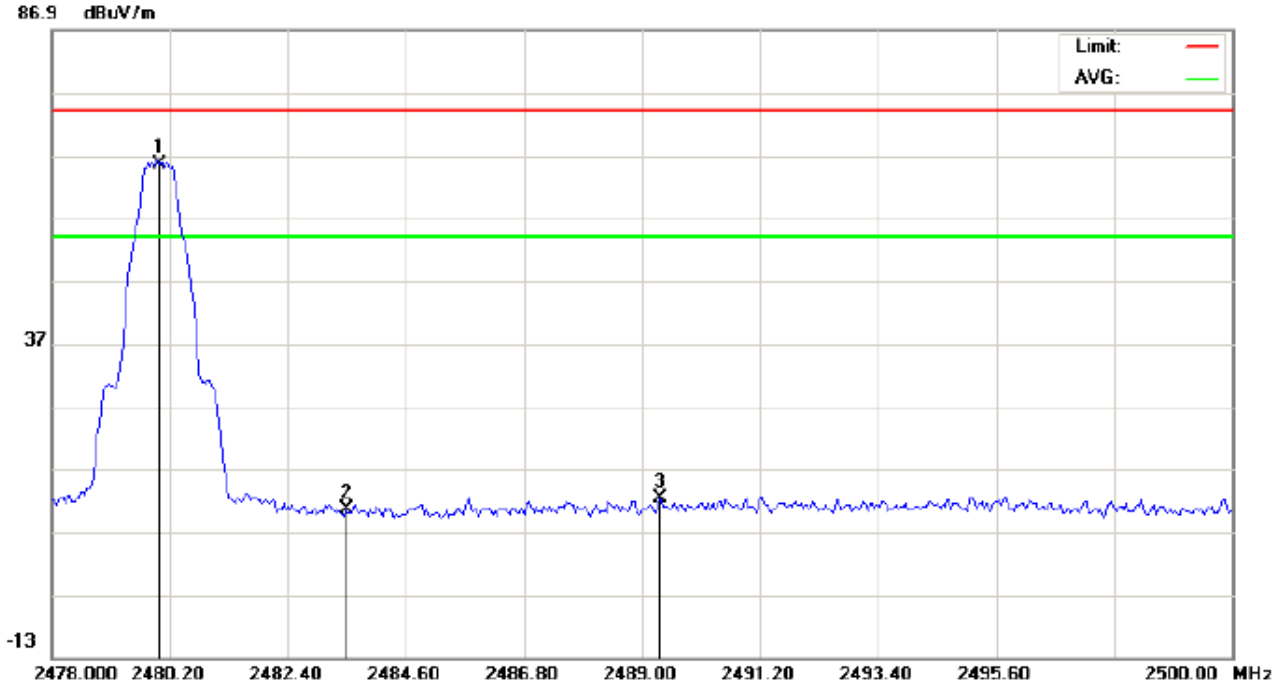
Site: site #1
Limit: FCC Class B 3M Radiation above 1GHZ(PK)
EUT: tablet PC
M/N: PC7058ME
Mode: High channel TX
Note:

Polarization: *Horizontal*
Power:
Distance: 3m

Temperature: 26
Humidity: 60 %

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1	*	2480.000	78.85	-9.59	69.26	74.00	-4.74	peak			
2		2483.500	20.97	-9.59	11.38	74.00	-62.62	peak			
3		2489.623	22.72	-9.58	13.14	74.00	-60.86	peak			

TEST PLOT OF BAND EDGE FOR HIGH CHANNEL -Vertical



Site: site #1
Limit: FCC Class B 3M Radiation above 1GHZ(PK)
EUT: tablet PC
M/N: PC7058ME
Mode: High channel TX
Note:

Polarization: *Vertical*
Power:
Distance: 3m

Temperature: 26
Humidity: 60 %

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1	*	2480.000	75.17	-9.59	65.58	74.00	-8.42	peak			
2		2483.500	20.18	-9.59	10.59	74.00	-63.41	peak			
3		2489.330	21.82	-9.58	12.24	74.00	-61.76	peak			

RESULT: PASS

9. 6DB BANDWIDTH

9.1. TEST EQUIPMENT LIST AND DETAILS

Equipment	Manufacturer	Model	S/N	Cal. Date	Cal. Due
PSA SERIES SPECTRUM ANALYZER	AGILENT	E4440A	US41421290	07/18/2012	07/17/2013
RECEIVER ANTENNA	ETS	2175	57337	07/18/2012	07/17/2013

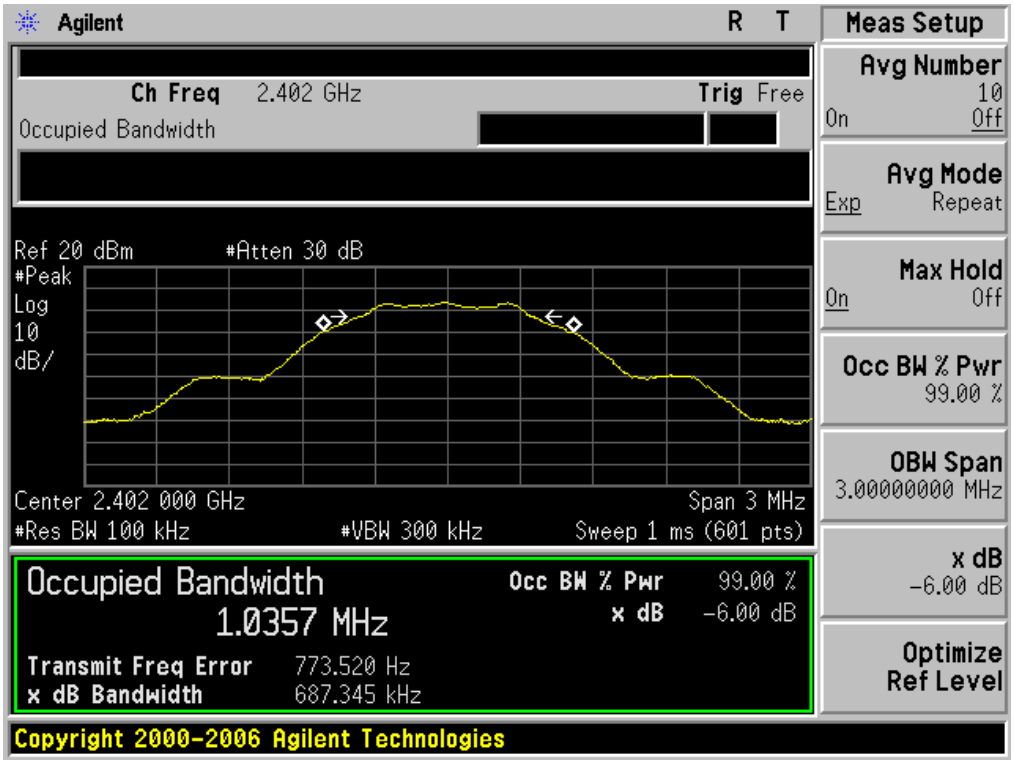
9.2. TEST PROCEDURE

1. The EUT was placed on a table which is 0.8m above ground plane.
2. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
3. Set the EUT Work on the top, the middle and the bottom operation frequency individually.
3. Set SPA Centre Frequency = Operation Frequency, RBW= 100 KHz, VBW≥RBW.
4. Set SPA Trace 1 Max hold, then View.

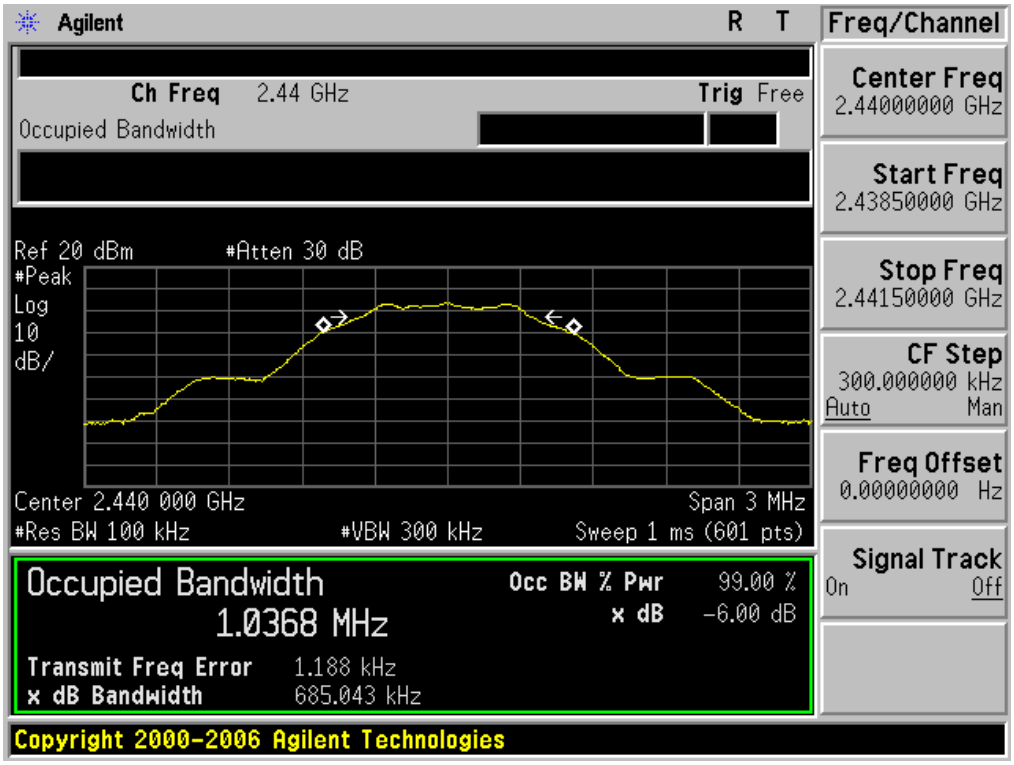
9.3. SUMMARY OF TEST RESULTS/PLOTS

Channel	6dB Bandwidth (KHz)	Minimum Limit (KHz)	Pass/Fail
Low	687.345	500KHz	Pass
Middle	685.043		Pass
High	668.682		Pass

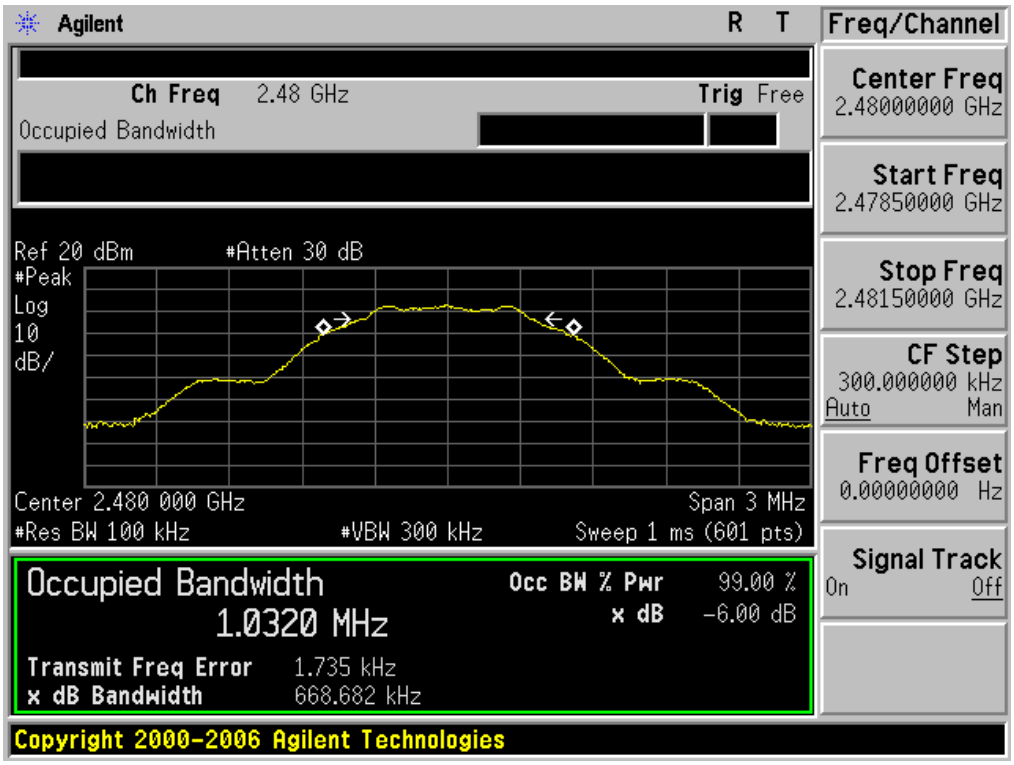
TEST PLOT OF BANDWIDTH FOR LOW CHANNEL



TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL



TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL



10. CONDUCTED SPURIOUS EMISSION

10.1. MEASUREMENT PROCEDURE

1. The EUT was placed on a turn table which is 0.8m above ground plane.
2. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
3. Set the EUT Work on the top, the Middle and the bottom operation frequency individually.
4. Set the Span = wide enough to capture the peak level of the in-band emission and all spurious emissions from the lowest frequency generated in the EUT up through the 10th harmonic.
   RBW = 100 kHz; VBW ≥ RBW; Sweep = auto; Detector function = peak.
5. Set SPA Trace 1 Max hold, then View.

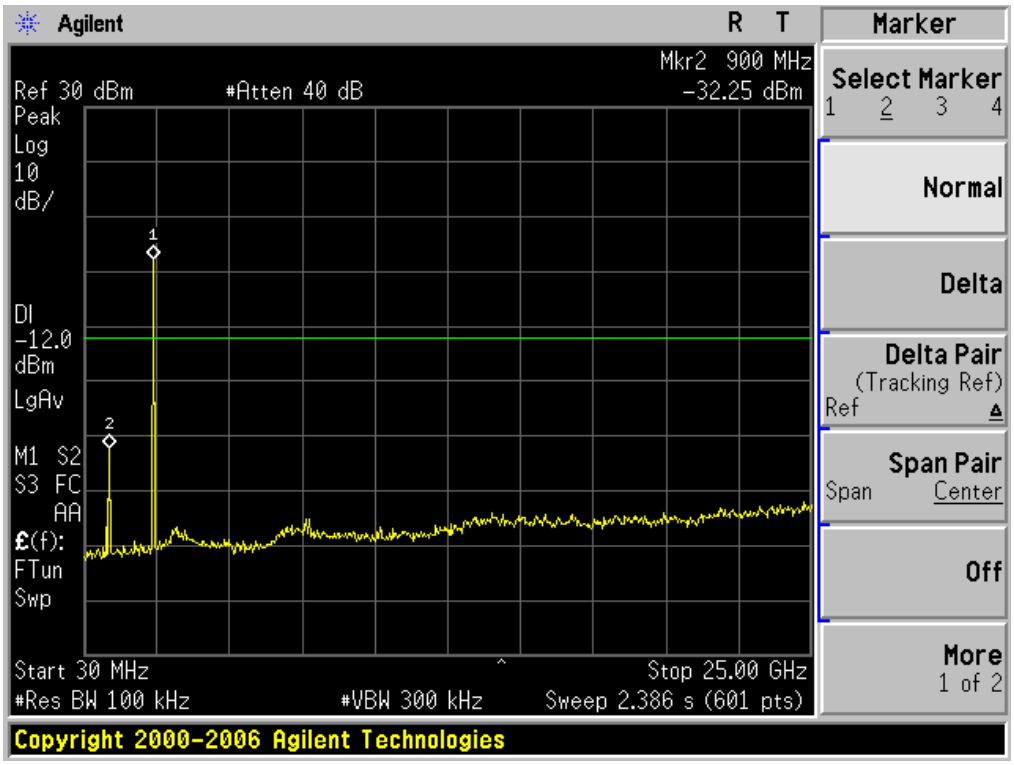
10.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)

The same as described in section 11.2

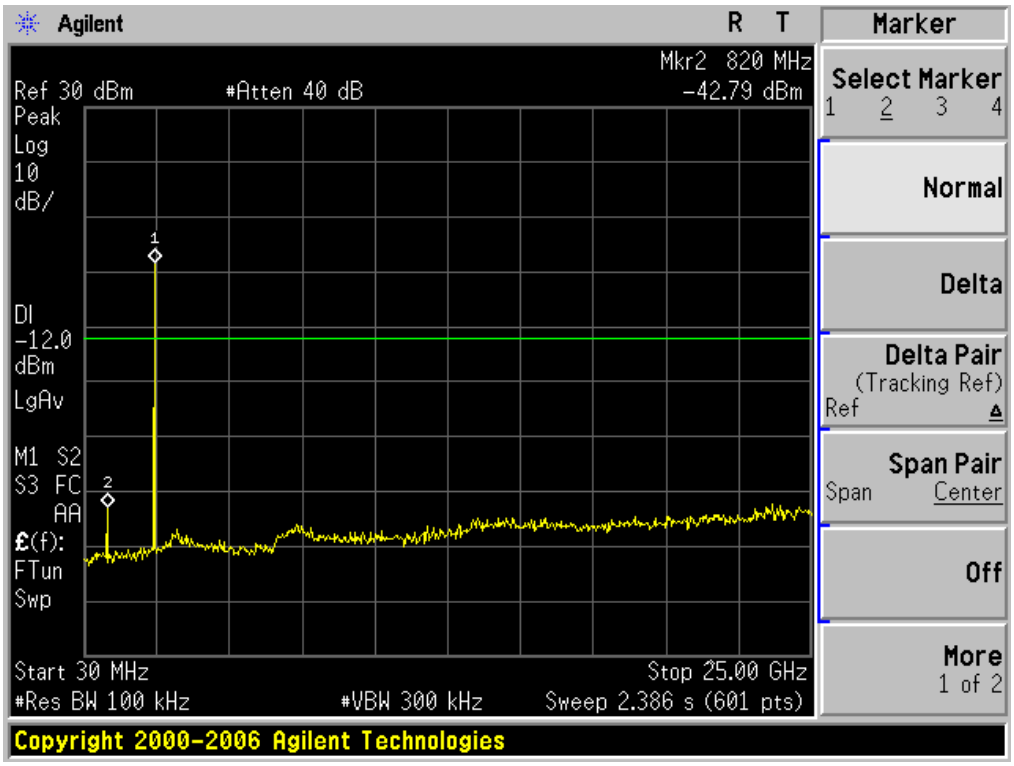
10.4. LIMITS AND MEASUREMENT RESULT

LIMITS AND MEASUREMENT RESULT		
Applicable Limits	**Measurement Result**	
	Test Data	**Criteria**
In any 100 KHz Bandwidth Outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produce by the intentional radiator shall be at least 20 dB below that in 100KHz bandwidth within the band that contains the highest level of the desired power. In addition, radiation emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in§15.209(a))	At least -20dBc than the limit Specified on the BOTTOM Channel	PASS
	At least -20dBc than the limit Specified on the TOP Channel	PASS

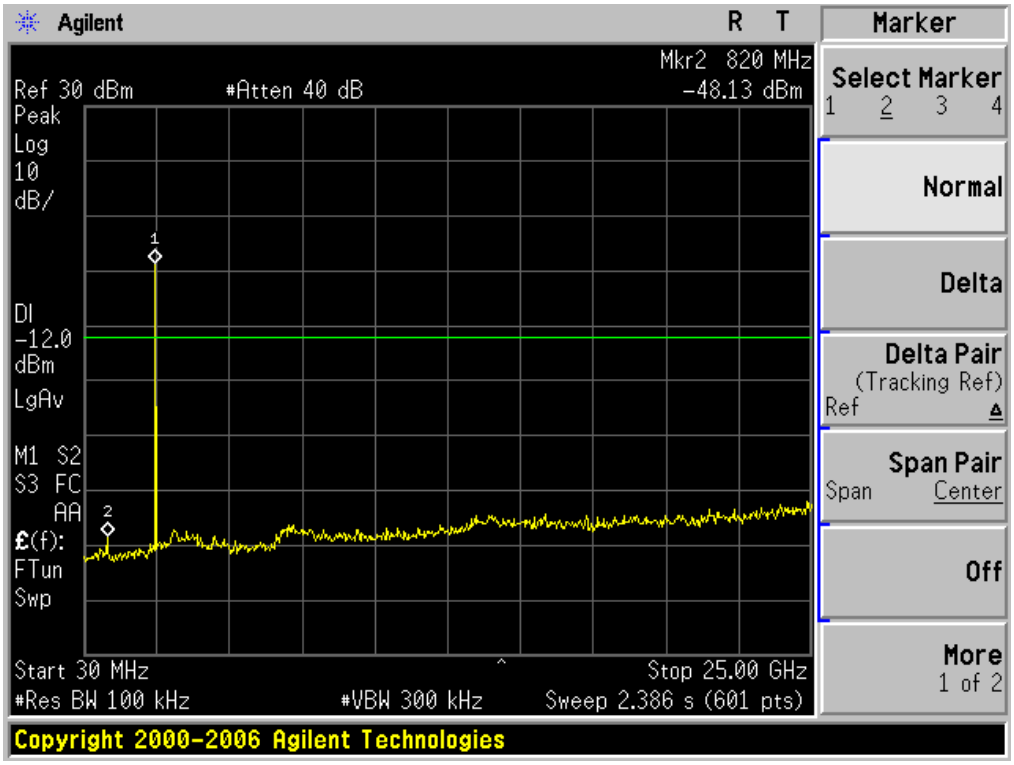
TEST PLOT OF OUT OF BAND EMISSIONS WITH THE WORST CASE
OF GFSK MODULATION IN LOW CHANNEL



TEST PLOT OF OUT OF BAND EMISSIONS
OF GFSK MODULATION IN MIDDLE CHANNEL



TEST PLOT OF OUT OF BAND EMISSIONS
OF GFSK MODULATION IN HIGH CHANNEL



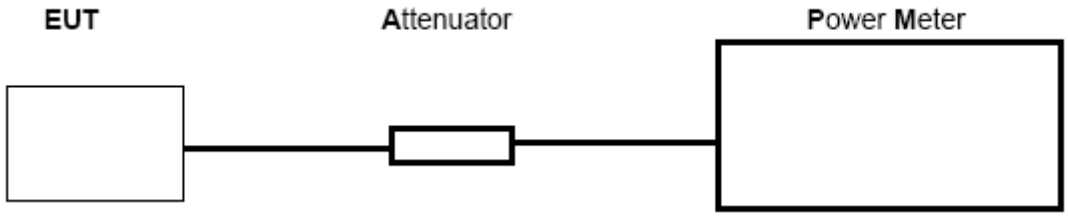
11. CONDUCTED OUTPUT POWER

11.1. MEASUREMENT PROCEDURE

1. The EUT was placed on a table which is 0.8m above ground plane.
2. Connect EUT RF output port to power meter through an RF attenuator
3. Set the EUT Work on the top, the middle and the bottom operation frequency individually.
4. Set the RBW greater than 6DB bandwidth of emission.
5. Record the maximum power from the power meter.
6. The maximum peak power shall be less 1 Watt (30dBm).

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

11.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)



11.3. LIMITS AND MEASUREMENT RESULT

Channel	Peak Power (dBm)	Applicable Limits (dBm)	Pass/Fail
Low Channel	3.35	20	Pass
Middle Channel	3.03	20	Pass
High Channel	2.95	20	Pass

12. MAXIMUM CONDUCTED OUTPUT POWER SPECTRAL DENSITY

12.1 MEASUREMENT PROCEDURE

(1). The EUT was placed on a turn table which is 0.8m above ground plane.
(2). Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
(3). Set the EUT Work on the top, the middle and the bottom operation frequency individually.
(4). Set SPA Trace 1 Max hold, then View.
Note: The EUT was tested according to KDB 558074 for compliance to FCC 47CFR 15.247 requirements.

12.2 TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)

Refer To Section 8.2

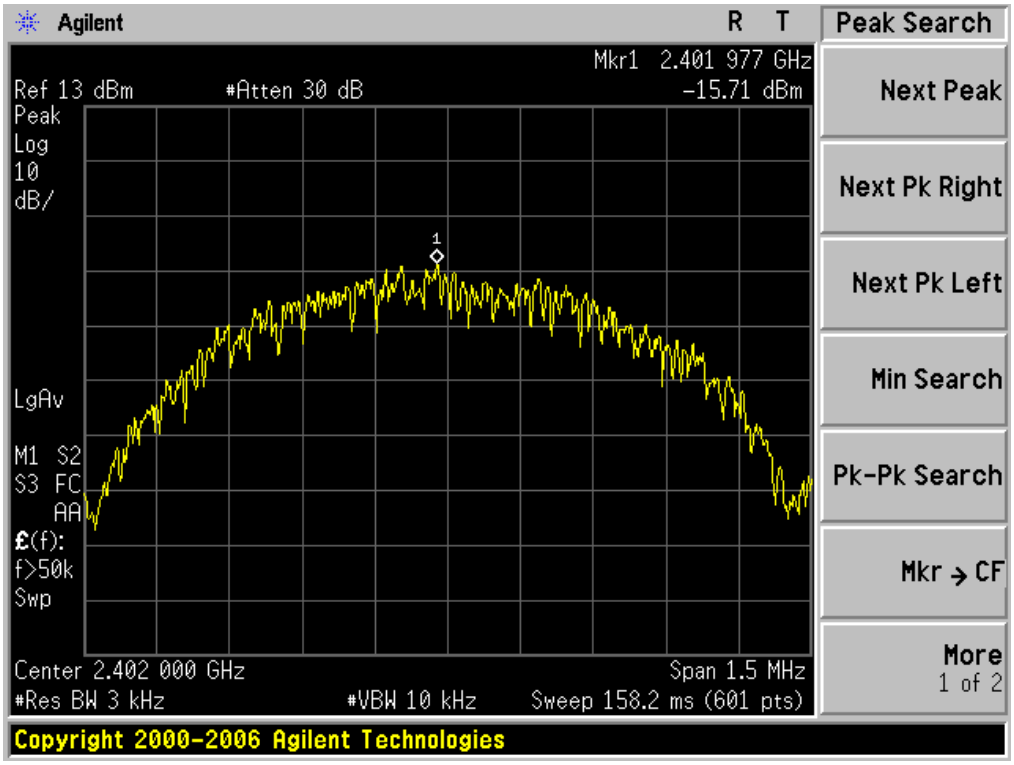
12.3 MEASUREMENT EQUIPMENT USED

Refer To Section 6.

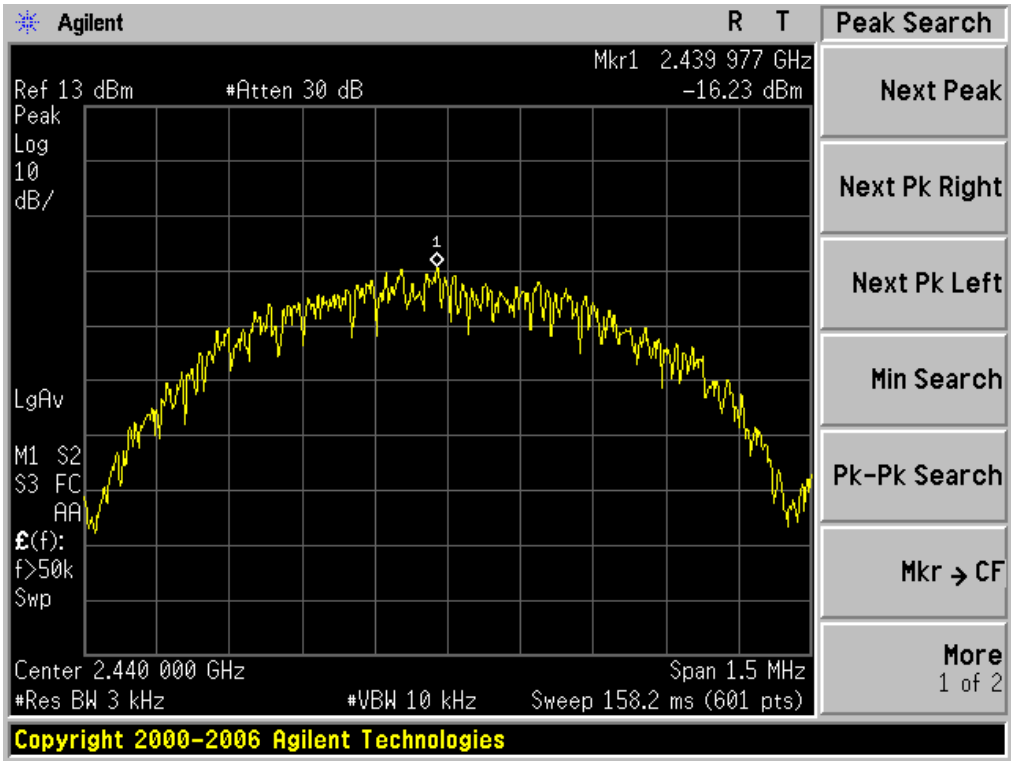
12.4 LIMITS AND MEASUREMENT RESULT

Channel No.	PSD (dBm)	Limit (dBm)	Result
Low Channel	-15.71	8	Pass
Middle Channel	-16.23	8	Pass
High Channel	-16.07	8	Pass

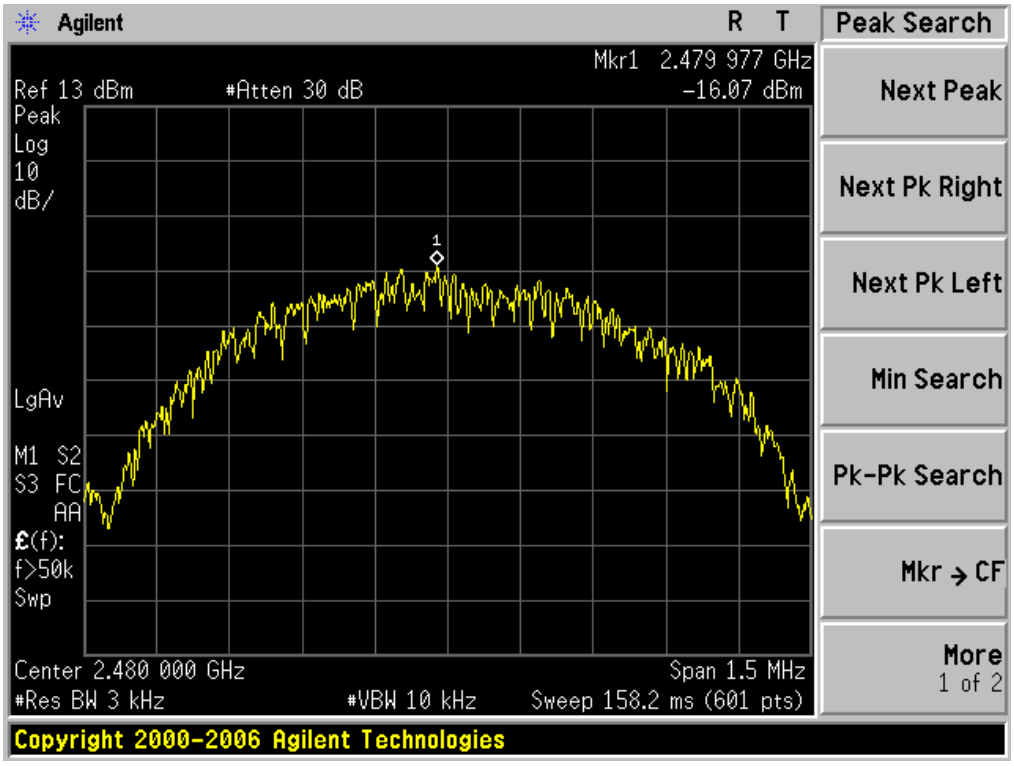
TEST PLOT OF SPECTRAL DENSITY FOR LOW CHANNEL



TEST PLOT OF SPECTRAL DENSITY FOR MIDDLE CHANNEL



TEST PLOT OF SPECTRAL DENSITY FOR HIGH CHANNEL



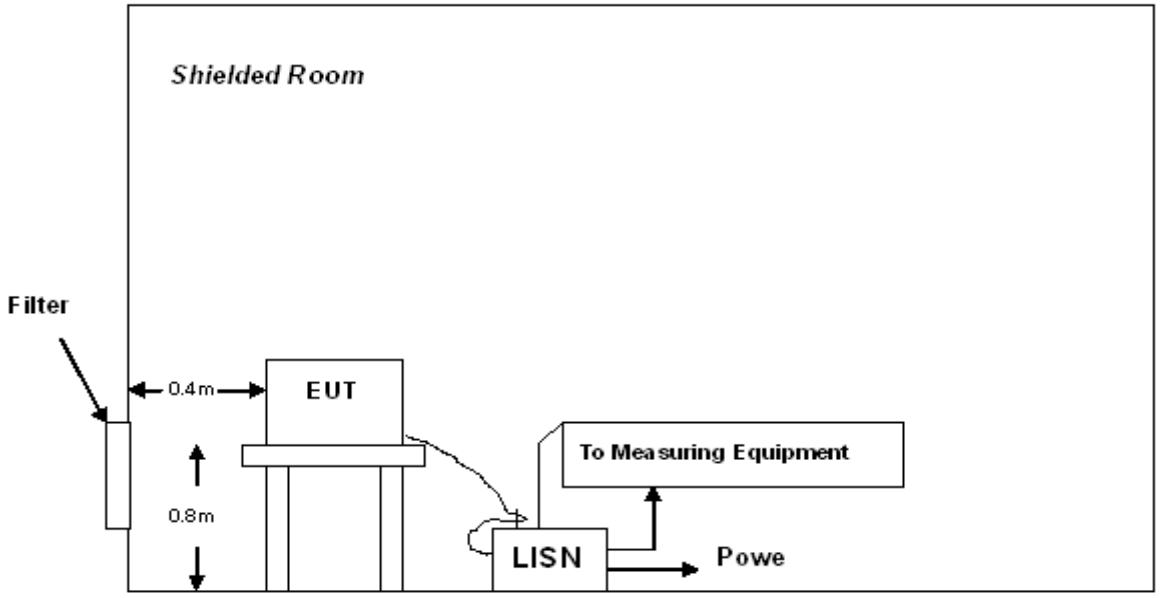
13. FCC LINE CONDUCTED EMISSION TEST

13.1 LIMITS

Frequency	Maximum RF Line Voltage	
	Q.P.(dBuV)	Average(dBuV)
150kHz~500kHz	66-56	56-46
500kHz~5MHz	56	46
5MHz~30MHz	60	50

***Note:** 1. The lower limit shall apply at the transition frequency.*
2. The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz

13.2 TEST SETUP



A: Powered through filter

13.3 PRELIMINARY PROCEDURE

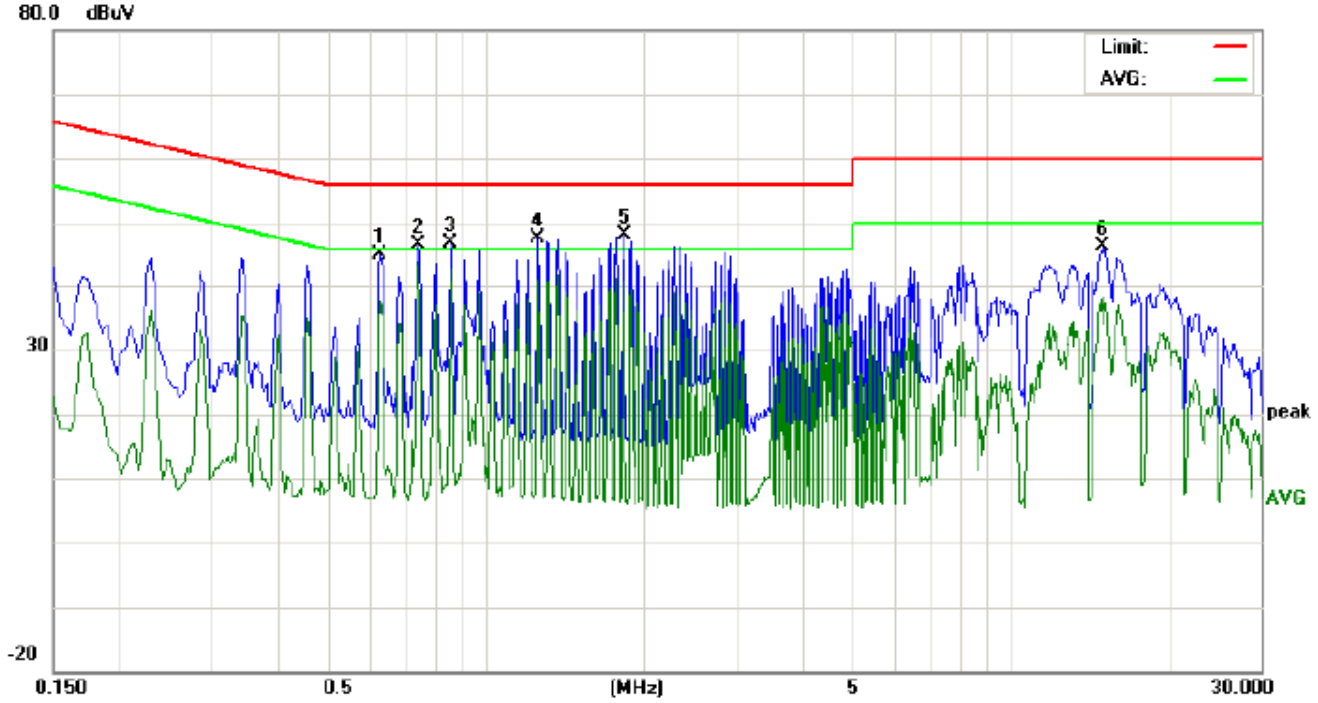
1) The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. When the EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.4 (see Test Facility for the dimensions of the ground plane used). When the EUT is a floor-standing equipment, it is placed on the ground plane which has a 3-12 mm non-conductive covering to insulate the EUT from the ground plane.
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) All support equipments received AC120V/60Hz power from a LISN, if any.
5) The EUT received power by adapter which received power by a LISN.
6) The 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.
9) The following test mode(s) were scanned during the preliminary test.
   Then, the EUT configuration and cable configuration of the above highest emission level were recorded for reference of final testing.

13.4 FINAL TEST PROCEDURE

10) EUT and support equipment was set up on the test bench as per step 2 of the preliminary test.
11) 2) A scan was taken on both power lines, Line 1 and Line 2, recording at least the six highest emissions. Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit. If EUT emission level was less –2dB to the A.V. limit in Peak mode, then the emission signal was re-checked using Q.P and Average detector.
12) 3) The test data of the worst case condition(s) was reported on the Summary Data page.

13.5 TEST RESULT OF POWER LINE

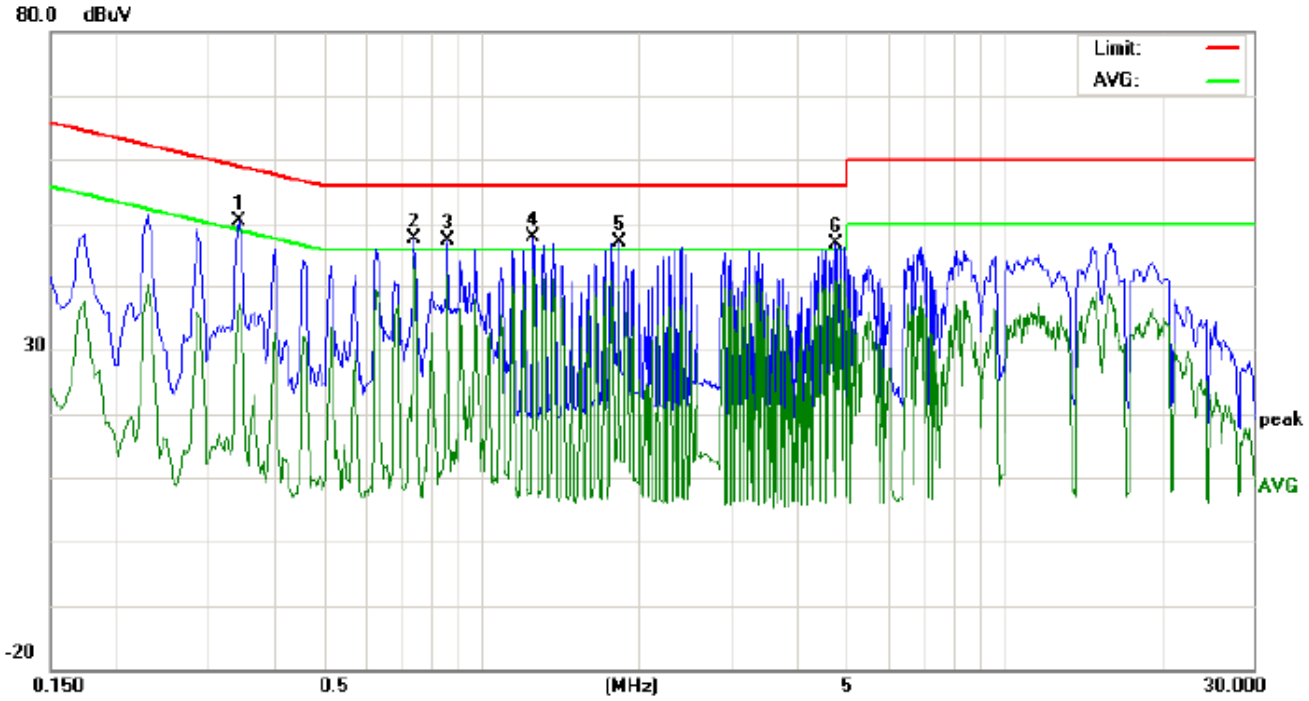
Line Conducted Emission Test Line 1-L



Site: Conduction
Phase: *L1*
Temperature: 26
Limit: FCC Class B Conduction(QP)
Power: AC 230V/50Hz
Humidity: 60 %
EUT: tablet PC
M/N: PC7058ME
Mode: Normal Operating (BT)
Note:

No.	Freq. (MHz)	Reading_Level (dBuV)			Correct Factor	Measurement (dBuV)			Limit (dBuV)		Margin (dB)		P/F	Comment
		Peak	QP	AVG	dB	Peak	QP	AVG	QP	AVG	QP	AVG		
1	0.6300	34.71		27.29	10.32	45.03		37.61	56.00	46.00	-10.97	-8.39	P	
2	0.7459	36.18		32.57	10.32	46.50		42.89	56.00	46.00	-9.50	-3.11	P	
3	0.8578	36.47		32.14	10.36	46.83		42.50	56.00	46.00	-9.17	-3.50	P	
4	1.2579	37.21		30.55	10.37	47.58		40.92	56.00	46.00	-8.42	-5.08	P	
5	1.8300	37.75		30.41	10.27	48.02		40.68	56.00	46.00	-7.98	-5.32	P	
6	14.9939	36.17		28.00	10.12	46.29		38.12	60.00	50.00	-13.71	-11.88	P	

Line Conducted Emission Test Line 1-N



Site: Conduction
Limit: FCC Class B Conduction(QP)
EUT: tablet PC
M/N: PC7058ME
Mode: Normal Operating (BT)
Note:

Phase: *N*
Power: AC 230V/50Hz

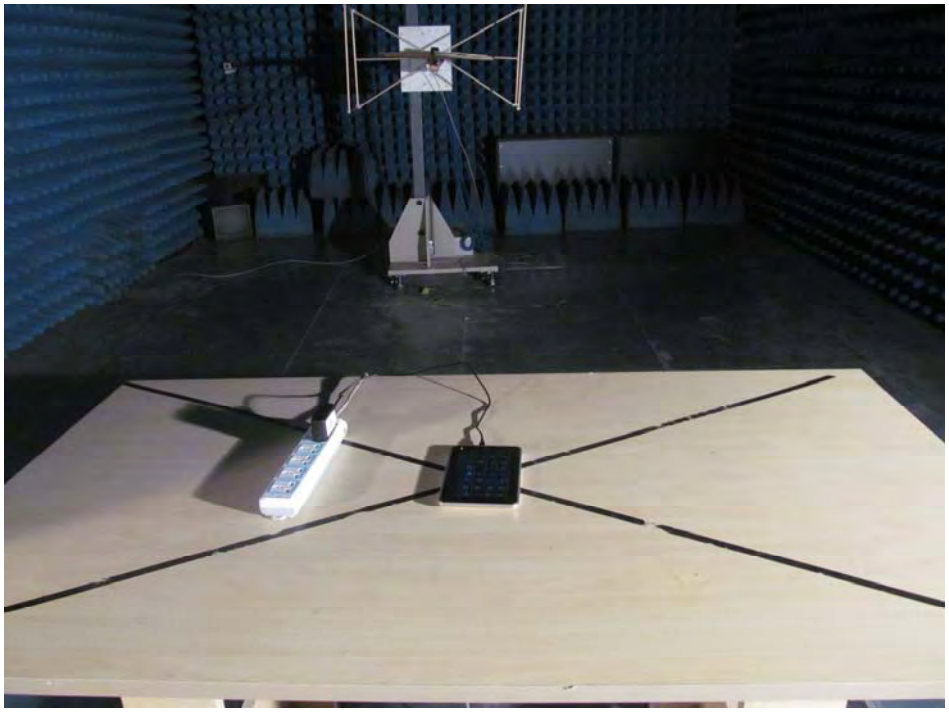
Temperature: 26
Humidity: 60 %

No.	Freq. (MHz)	Reading_Level (dBuV)			Correct Factor	Measurement (dBuV)			Limit (dBuV)		Margin (dB)		P/F	Comment
		Peak	QP	AVG	dB	Peak	QP	AVG	QP	AVG	QP	AVG		
1	0.3457	40.01		26.81	10.31	50.32		37.12	59.06	49.06	-8.74	-11.94	P	
2	0.7459	37.19		32.35	10.32	47.51		42.67	56.00	46.00	-8.49	-3.33	P	
3	0.8618	37.07		31.87	10.36	47.43		42.23	56.00	46.00	-8.57	-3.77	P	
4	1.2620	37.37		32.13	10.38	47.75		42.51	56.00	46.00	-8.25	-3.49	P	
5	1.8340	36.81		29.55	10.27	47.08		39.82	56.00	46.00	-8.92	-6.18	P	
6	4.7618	36.64		30.71	10.23	46.87		40.94	56.00	46.00	-9.13	-5.06	P	

APPENDIX A: PHOTOGRAPHS OF TEST SETUP

FCC LINE CONDUCTED EMISSION TEST SETUP

FCC RADIATED EMISSION TEST SETUP

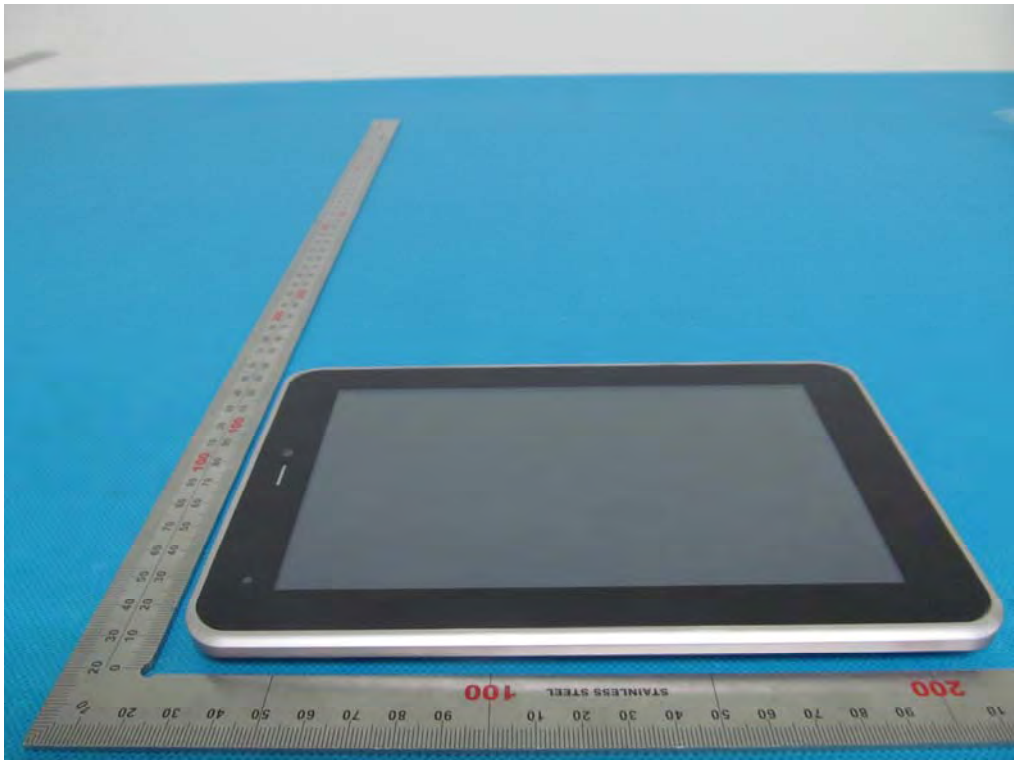


APPENDIX B: PHOTOGRAPHS OF EUT

T TOTAL VIEW OF EUT

TOP VIEW OF EUT

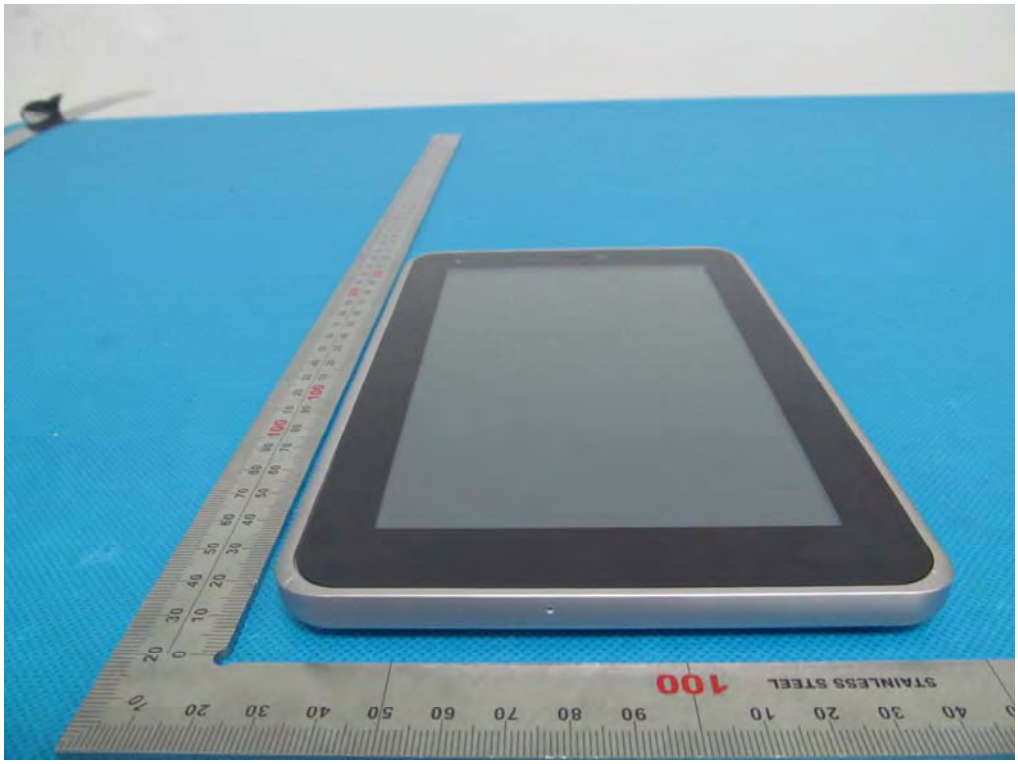
BOTTOM VIEW OF EUT



FRONT VIEW OF EUT

BACK VIEW OF EUT

LEFT VIEW OF EUT

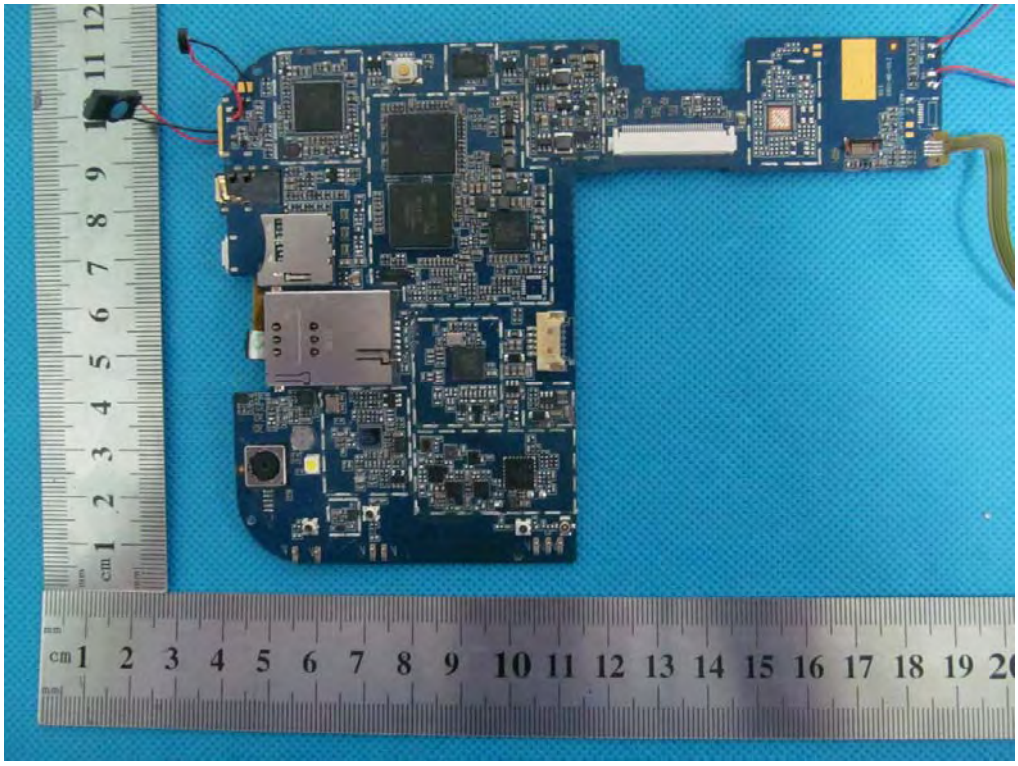


RIGHT VIEW OF EUT

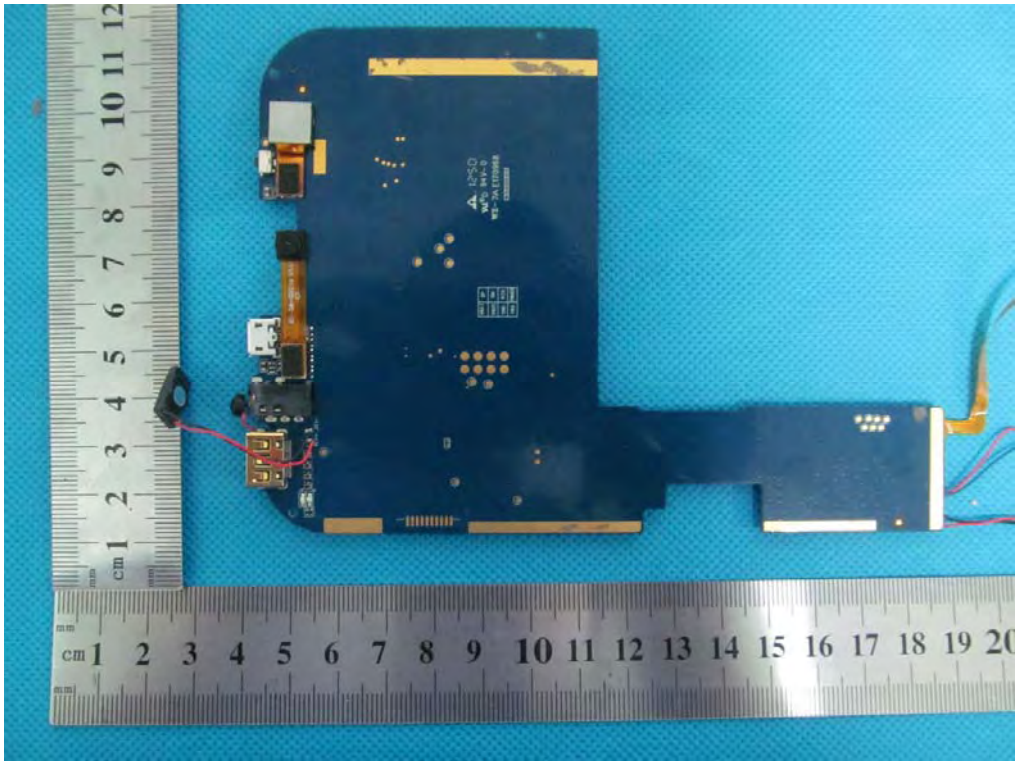
OPEN VIEW OF EUT-1

OPEN VIEW OF EUT-2

INTERNAL VIEW OF EUT-1



INTERNAL VIEW OF EUT-2



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