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FCC Test Report

Report No.: AGC00572130601FE08

FCC ID : C89-G7

APPLICATION PURPOSE : Original Equipment

PRODUCT DESIGNATION: Tablet PC

BRAND NAME : Ice Mobile

MODEL NAME : G7

CLIENT : Dynamics Hong Kong Limited

DATE OF ISSUE: June 20,2013

STANDARD(S) : FCC Part 15 Rules

REPORT VERSION : V1.0

Attestation of Global Compliance (Shenzhen) Co., Ltd

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Report Revise Record

Report Version	Revise Time	Issued Date	Valid Version	Notes		
V1.0	/	June 20,2013	Valid	Original Report		

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1. VERIFICATION OF COMPLIANCE

Applicant	Dynamics Hong Kong Limited
Address	Room F, 16/F, Block1, Golden Dragon Industrial Center, 152-160 Tai Lin Pai Road, Kwai Chung, N.T.
Manufacturer	Dynamics Hong Kong Limited
Address	Room F ,16/F,Block1,Golden Dragon Industrial Center,152-160 Tai Lin Pai Road,Kwai Chung,N.T.
Product Designation	Tablet PC
Brand Name	Ice Mobile
Test Model	G7
Date of test	June 8,2013 to June 18,2013
Deviation	None
Condition of Test Sample	Normal
Report Template	AGCRT-US-BLE/RF (2013-03-01)
Condition of Test Sample	Normal

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

June 20,2013

Checked By

Forrest Lei

June 20,2013

Authorized By

Solger Zhang

June 20,2013

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2.GENERAL INFORMATION

2.1PRODUCT DESCRIPTION

The EUT is a **Tablet PC** 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	1.2dBi
Hardware Version	M706_MB_V2.0
Software Version	N/A
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: C89-G7** 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,

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Guangdong, China.

FCC register No.: 259865

2.5 SPECIAL ACCESSORIES

Refer to section 2.2.

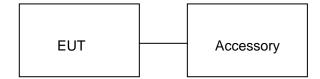
2.6 EQUIPMENT MODIFICATIONS

Not available for this EUT intended for grant.

3. SYSTEM TEST CONFIGURATION

3.1 CONFIGURATION OF TESTED SYSTEM

Configure:



3.2 EQUIPMENT USED IN TESTED SYSTEM

Item	Equipment	Equipment Model No. ID or Specification		Remark
1	Tablet PC	G7	FCC ID: C89-G7	EUT
2	Adapter	G7	DC5.0V / 1.5A	Accessory
3	Battery	G7	DC3.7V/ 2800 mAh	Accessory
4	Earphone	G7	N/A	Accessory
5	USB Cable	G7	N/A	Accessory

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4. SUMMARY OF TEST RESULTS

FCC RULES	DESCRIPTION OF TEST	RESULT		
§ 15.203	Antenna Requirement	Compliant		
§15.209	Radiated Emission	Compliant		
§15.247(d)	Radiated Effission	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							
Low channel TX							
Middle channel TX							
High channel TX							
Normal Operating (BT)							

Note:

^{1.} 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.

^{2.} For Radiated Emission, 3axis were chosen for testing for each applicable mode.

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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.

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7. RADIATED EMISSION

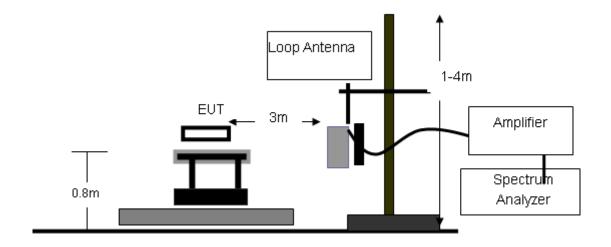
7.1 MEASUREMENT PROCEDURE

- 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.
- 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.

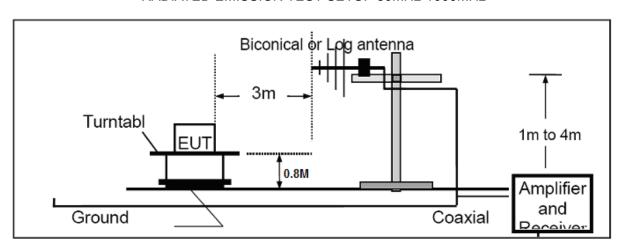
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7.2 TEST SETUP

RADIATED EMISSION TEST SETUP BELOW 30MHz

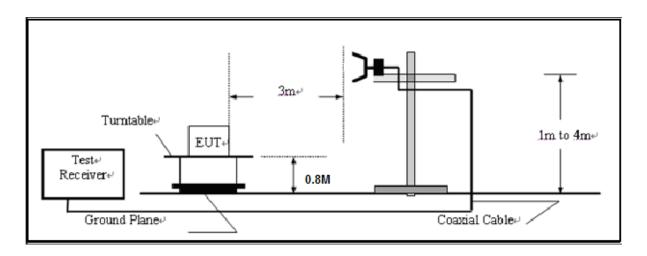


RADIATED EMISSION TEST SETUP 30MHz-1000MHz



RADIATED EMISSION TEST SETUP ABOVE 1000MHz

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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

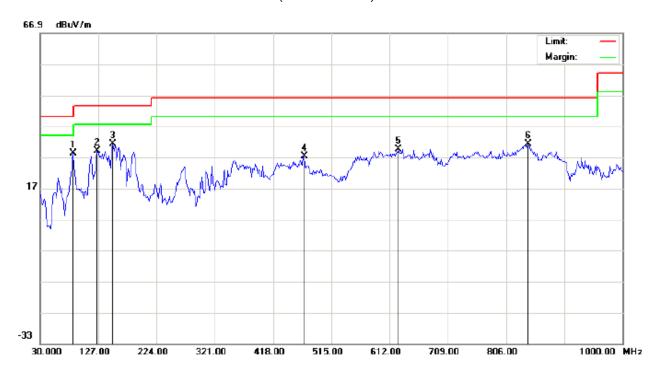
RADIATED EMISSION BELOW 30MHZ

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

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RADIATED EMISSION BELOW 1GHZ

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



Site: site #1 Polarization: Horizontal Temperature: 26
Limit: FCC Class B 3M Radiation Power: Humidity: 60 %

EUT: Tablet PC Distance: 3m

M/N: G7

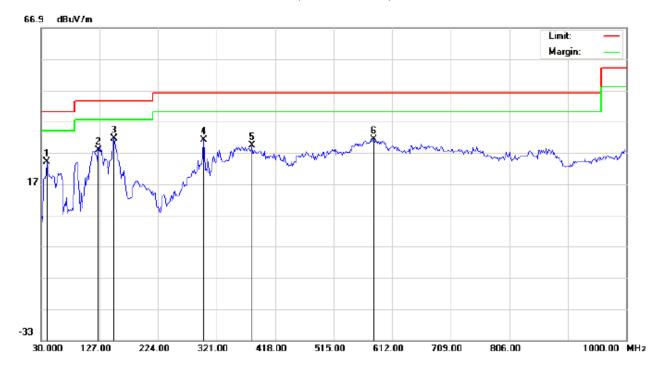
Mode: Low Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m	dBu∀/m	dBu∀/m	dB		cm	degree	
1	*	84.9667	16.29	12.10	28.39	40.00	-11.61	peak			
2		125.3833	24.71	4.36	29.07	43.50	-14.43	peak			
3		151.2500	24.59	6.78	31.37	43.50	-12.13	peak			
4		469.7333	5.70	21.64	27.34	46.00	-18.66	peak			
5		626.5500	3.87	25.76	29.63	46.00	-16.37	peak			
6		843.1833	-0.97	32.28	31.31	46.00	-14.69	peak			

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



Site: site #1 Polarization: Vertical Temperature: 26
Limit: FCC Class B 3M Radiation Power: Humidity: 60 %

EUT: Tablet PC Distance: 3m

M/N: G7

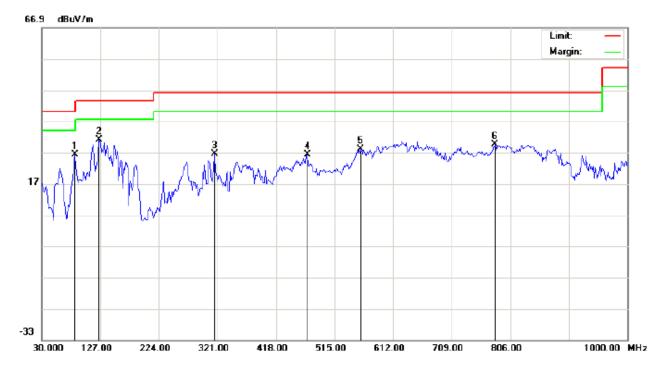
Mode: Low Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m	dBu∀/m	dBu∀/m	dB		cm	degree	
1		39.7000	16.37	7.64	24.01	40.00	-15.99	peak			
2		125.3833	28.52	-0.82	27.70	43.50	-15.80	peak			
3	*	151.2500	24.58	7.04	31.62	43.50	-11.88	peak			
4		299.9833	13.22	17.70	30.92	46.00	-15.08	peak			
5		379.2000	9.65	19.67	29.32	46.00	-16.68	peak			
6		581.2833	6.77	24.58	31.35	46.00	-14.65	peak			

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



Site: site #1 Limit: FCC Class B 3M Radiation

EUT: Tablet PC

M/N: G7

Mode: Middle Channel TX

Note:

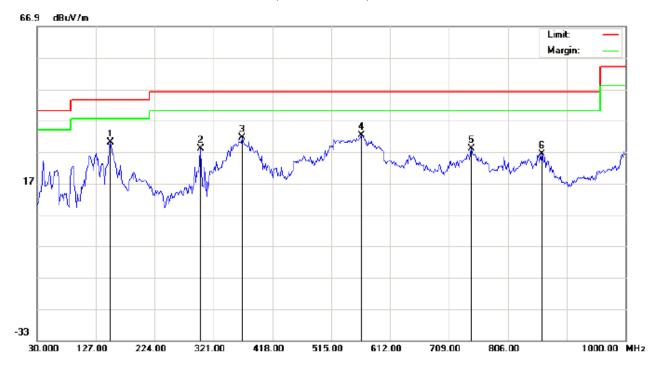
Polarization: Horizontal Temperature: 26
Power: Humidity: 60 %

Distance: 3m

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m	dBu∀/m	dBu√/m	dB		cm	degree	
1		84.9667	14.29	12.10	26.39	40.00	-13.61	peak			
2	*	125.3833	26.71	4.36	31.07	43.50	-12.43	peak			
3		316.1500	7.58	18.92	26.50	46.00	-19.50	peak			
4		469.7333	4.70	21.64	26.34	46.00	-19.66	peak			
5		558.6500	4.43	23.54	27.97	46.00	-18.03	peak			
6		780.1333	0.55	28.93	29.48	46.00	-16.52	peak			

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



Site: site #1 Limit: FCC Class B 3M Radiation

EUT: Tablet PC

M/N: G7

Mode: Middle Channel TX

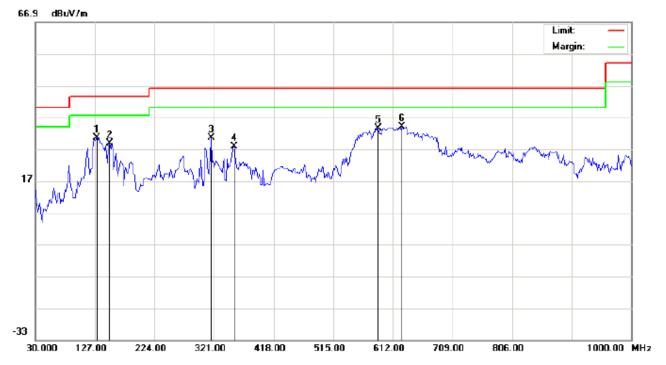
Note:

Polarization: Vertical	Temperature: 26
Power:	Humidity: 60 %
Distance: 3m	

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m	dBu∀/m	dBu∀/m	dB		cm	degree	
1	*	151.2500	23.08	7.04	30.12	43.50	-13.38	peak			
2		299.9833	10.22	17.70	27.92	46.00	-18.08	peak			
3		367.8833	11.49	20.11	31.60	46.00	-14.40	peak			
4		565.1167	8.33	24.00	32.33	46.00	-13.67	peak			
5		746.1833	-0.90	28.97	28.07	46.00	-17.93	peak			
6		862.5833	-3.70	30.07	26.37	46.00	-19.63	peak			

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



Site: site #1 Polarization: Horizontal Temperature: 26
Limit: FCC Class B 3M Radiation Power: Humidity: 60 %

EUT: Tablet PC Distance: 3m

M/N: G7

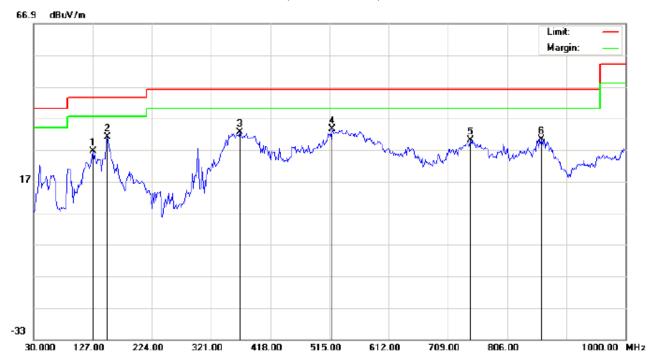
Mode: High Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height		Comment
	-	MHz	dBu∀	dB/m	dBu∀/m	dBu∀/m	dB		cm	degree	
1		130.2333	24.69	5.96	30.65	43.50	-12.85	peak			
2		151.2500	22.09	6.78	28.87	43.50	-14.63	peak			
3		316.1500	11.58	18.92	30.50	46.00	-15.50	peak			
4		353.3333	7.43	20.37	27.80	46.00	-18.20	peak			
5		587.7500	8.74	24.70	33.44	46.00	-12.56	peak			
6	*	626.5500	8.37	25.76	34.13	46.00	-11.87	peak			

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



Site: site #1 Polarization: Vertical Temperature: 26
Limit: FCC Class B 3M Radiation Power: Humidity: 60 %

EUT: Tablet PC Distance: 3m

M/N: G7

Mode: High Channel TX

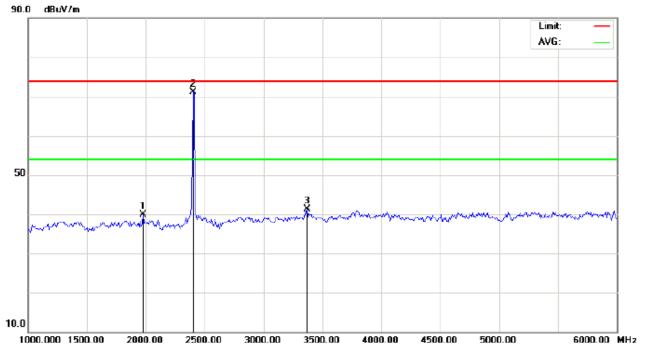
Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m	dBuV/m	dBu∀/m	dB		cm	degree	
1		127.0000	26.60	-0.13	26.47	43.50	-17.03	peak			
2	*	151.2500	24.08	7.04	31.12	43.50	-12.38	peak			
3		367.8833	12.49	20.11	32.60	46.00	-13.40	peak			
4		519.8500	10.49	23.09	33.58	46.00	-12.42	peak			
5		746.1833	1.10	28.97	30.07	46.00	-15.93	peak			
6		862.5833	0.30	30.07	30.37	46.00	-15.63	peak			

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RADIATED EMISSION ABOVE 1GHZ

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



Site: site #1 Polarization: Horizontal Temperature: 26
Limit: FCC Class B 3M Radiation above 1GHZ(PK) Power: Humidity: 60 %

EUT: Tablet PC Distance: 3m

M/N: G7

Mode: Low Channel TX

Note:

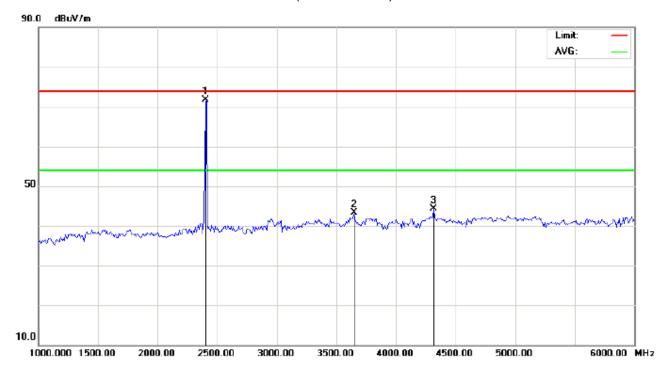
No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m	dBu\//m	dBu∀/m	dB		cm	degree	
1		1975.000	39.87	0.00	39.87	74.00	-34.13	peak			
2	*	2402.022	71.13	0.00	71.13	74.00	-2.87	peak			
3		3366.667	41.28	0.00	41.28	74.00	-32.72	peak			

RESULT: PASS

Note: Marker 2 is fundamental frequency.

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



Site: site #1 Polarization: Vertical Temperature: 26
Limit: FCC Class B 3M Radiation above 1GHZ(PK) Power: Humidity: 60 %

EUT: Tablet PC Distance: 3m

M/N: G7

Mode: Low Channel TX

Note:

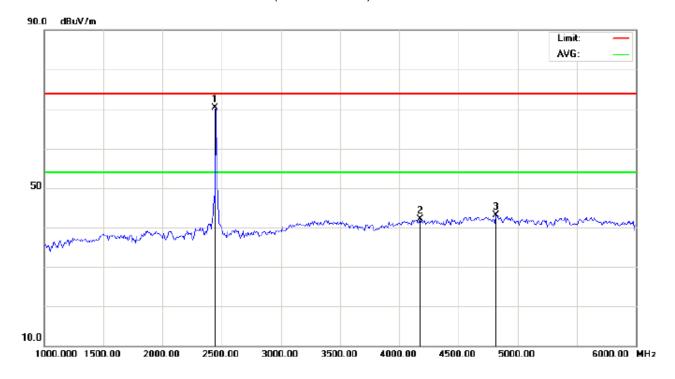
No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m	dBuV/m	dBu∀/m	dB		cm	degree	
1	*	2402.018	71.63	0.00	71.63	74.00	-2.37	peak			
2		3650.000	43.26	0.00	43.26	74.00	-30.74	peak			
3		4316.667	44.26	0.00	44.26	74.00	-29.74	peak			

RESULT: PASS

Note: Marker 1 is fundamental frequency.

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



Site: site #1 Polarization: Horizontal Temperature: 26
Limit: FCC Class B 3M Radiation above 1GHZ(PK) Power: Humidity: 60 %

EUT: Tablet PC Distance: 3m

M/N: G7

Mode: Middle Channel TX

Note:

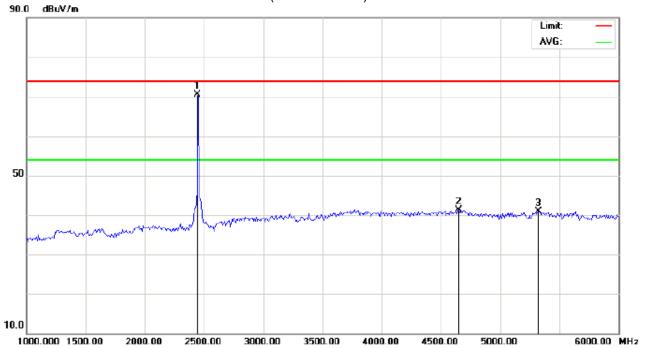
No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m	dBu∀/m	dBu∀/m	dB		cm	degree	
1	*	2442.033	70.30	0.00	70.30	74.00	-3.70	peak			
2		4175.000	42.02	0.00	42.02	74.00	-31.98	peak			
3		4816.667	43.18	0.00	43.18	74.00	-30.82	peak			

RESULT: PASS

Note: Marker 1 is fundamental frequency.

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



Site: site #1 Polarization: Vertical Temperature: 26
Limit: FCC Class B 3M Radiation above 1GHZ(PK) Power: Humidity: 60 %

EUT: Tablet PC Distance: 3m

M/N: G7

Mode: Middle Channel TX

Note:

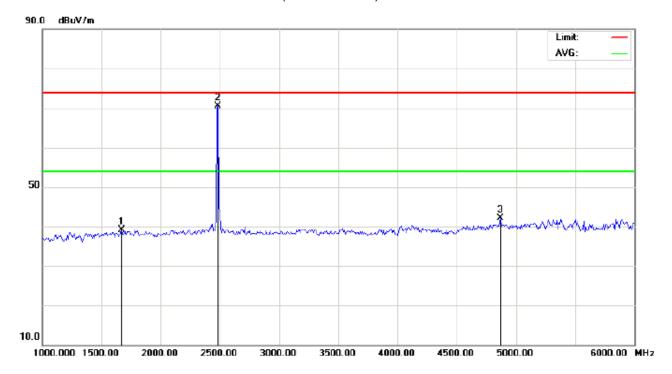
No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBu∀	dB/m	dBu∀/m	dBu√/m	dB		cm	degree	
1	*	2442.051	70.58	0.00	70.58	74.00	-3.42	peak			
2		4650.000	41.27	0.00	41.27	74.00	-32.73	peak			
3		5325.000	40.92	0.00	40.92	74.00	-33.08	peak			

RESULT: PASS

Note: Marker 1 is the fundamental frequency.

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



Site: site #1 Polarization: Horizontal Temperature: 26
Limit: FCC Class B 3M Radiation above 1GHZ(PK) Power: Humidity: 60 %

EUT: Tablet PC Distance: 3m

M/N: G7

Mode: High Channel TX

Note:

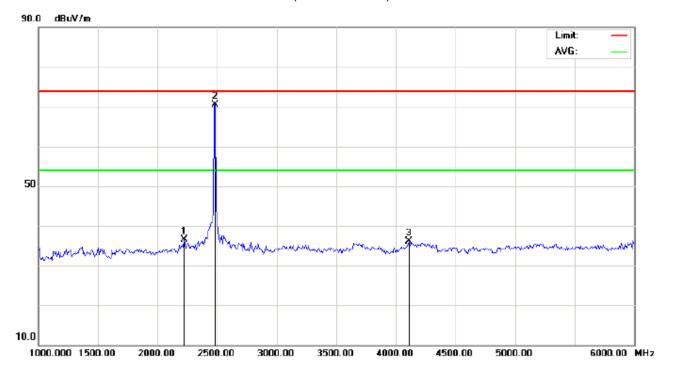
No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m	dBu∀/m	dBu∀/m	dB		cm	degree	
1		1666.667	39.05	0.00	39.05	74.00	-34.95	peak			
2	*	2480.360	70.48	0.00	70.48	74.00	-3.52	peak			
3		4866.667	42.13	0.00	42.13	74.00	-31.87	peak			

RESULT: PASS

Note: Marker 2 is the fundamental frequency.

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



Site: site #1 Polarization: Vertical Temperature: 26
Limit: FCC Class B 3M Radiation above 1GHZ(PK) Power: Humidity: 60 %

EUT: Tablet PC Distance: 3m

M/N: G7

Mode: High Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m	dBu∀/m	dBu∀/m	dB		cm	degree	
1		2225.000	36.48	0.00	36.48	74.00	-37.52	peak			
2	*	2480.074	70.55	0.00	70.55	74.00	-3.45	peak			
3		4108.333	36.10	0.00	36.10	74.00	-37.90	peak			

RESULT: PASS

Note: Marker 2 is the fundamental frequency.

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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.

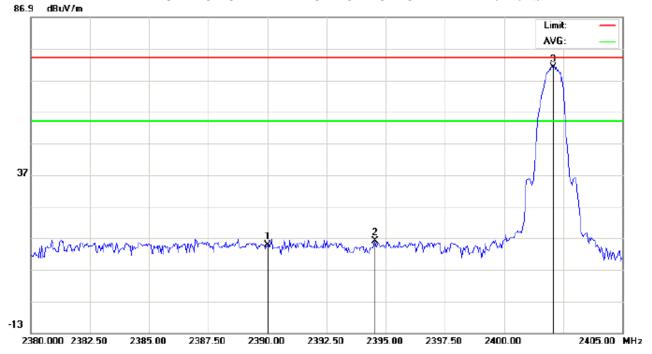
8.2. TEST SET-UP

Radiated same as 6.2

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8.3. TEST RESULT

TEST PLOT OF BAND EDGE FOR LOW CHANNEL -Horizontal



Site: site #1 Polarization: Horizontal Temperature: 26
Limit: FCC Class B 3M Radiation above 1GHZ(PK) Power: Humidity: 60 %

EUT: Tablet PC Distance:

M/N: G7

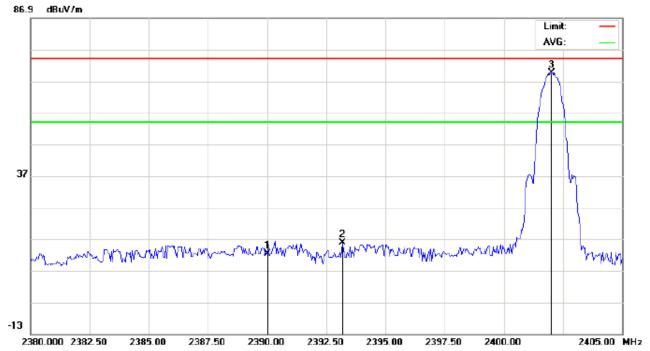
Mode: Low Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m	dBu∀/m	dBu∀/m	dB		cm	degree	
1		2390.000	24.37	-9.69	14.68	74.00	-59.32	peak			
2		2394.542	25.71	-9.69	16.02	74.00	-57.98	peak			
3	*	2402.077	80.81	-9.68	71.13	74.00	-2.87	peak			

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TEST PLOT OF BAND EDGE FOR LOW CHANNEL - Vertical



Site: site #1 Polarization: Vertical Temperature: 26

Limit: FCC Class B 3M Radiation above 1GHZ(PK) Power: Humidity: 60 %

EUT: Tablet PC Distance:

M/N: G7

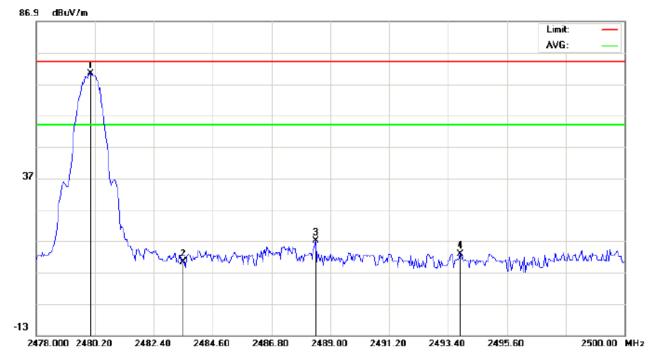
Mode: Low Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBu∀	dB/m	dBu∀/m	dBu∀/m	dB		cm	degree	
1		2390.000	22.01	-9.69	12.32	74.00	-61.68	peak			
2		2393.167	25.52	-9.69	15.83	74.00	-58.17	peak			
3	*	2402.015	79.14	-9.68	69.46	74.00	-4.54	peak			

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TEST PLOT OF BAND EDGE FOR HIGH CHANNEL -Horizontal



Site: site #1 Polarization: Horizontal Temperature: 26
Limit: FCC Class B 3M Radiation above 1GHZ(PK) Power: Humidity: 60 %

EUT: Tablet PC Distance:

M/N: G7

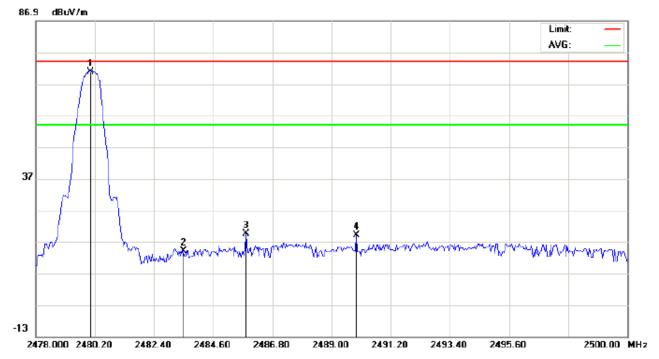
Mode: High Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m dBu√/m dBu√/m dB		cm	degree				
1	*	2480.034	79.80	-9.59	70.21	74.00	-3.79	peak			
2		2483.500	19.97	-9.59	10.38	74.00	-63.62	peak			
3		2488.450	26.62	-9.58	17.04	74.00	-56.96	peak			
4		2493.840	22.36	-9.58	12.78	74.00	-61.22	peak			

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TEST PLOT OF BAND EDGE FOR HIGH CHANNEL -Vertical



Site: site #1 Polarization: Vertical Temperature: 26
Limit: FCC Class B 3M Radiation above 1GHZ(PK) Power: Humidity: 60 %

EUT: Tablet PC Distance:

M/N: G7

Mode: High Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m	dBuV/m	dBu√/m	dB		cm	degree	
1	*	2480.025	80.31	-9.59	70.72	74.00	-3.28	peak			
2		2483.500	23.68	-9.59	14.09	74.00	-59.91	peak			
3		2485.810	29.15	-9.59	19.56	74.00	-54.44	peak			
4		2489.917	28.62	-9.58	19.04	74.00	-54.96	peak			

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9. 6DB BANDWIDTH

9.1. TEST EQUIPMENT LIST AND DETAILS

Equipment	Manufacturer	Model	S/N	Cal. Date	Cal. Due	
PSA SERIES	AGILENT	E4440A	US41421290	07/18/2012	07/17/2013	
SPECTRUM ANALYZER	AGILENT	E4440A	0341421290	07/10/2012	01/11/2013	
RECEIVER ANTENNA	ETS	2175	57337	07/18/2012	07/17/2013	

9.2. TEST PROCEDURE

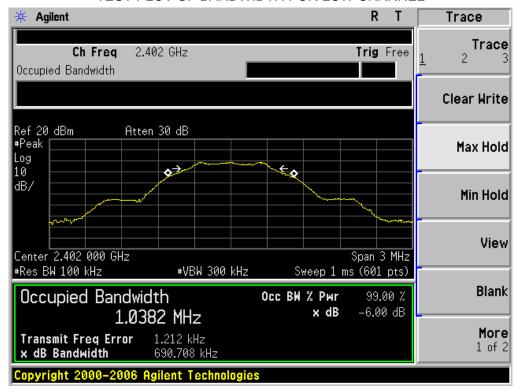
- 1. The EUT was placed on a table which is 0.8m above ground plane.
- 2. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
- 3. Set the EUT Work on the top, the middle and the bottom operation frequency individually.
- 3. Set SPA Centre Frequency = Operation Frequency, RBW= 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	690.708		Pass
Middle	679.321	500KHz	Pass
High	686.043		Pass

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TEST PLOT OF BANDWIDTH FOR LOW CHANNEL

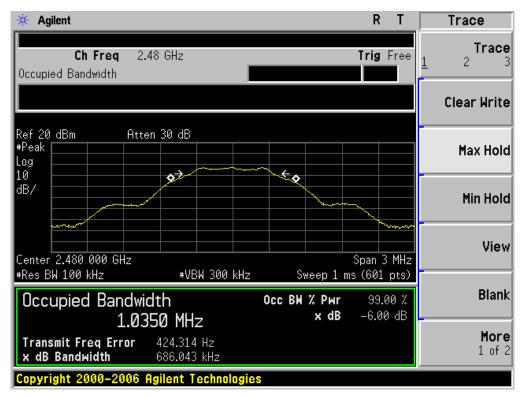


TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL



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TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL



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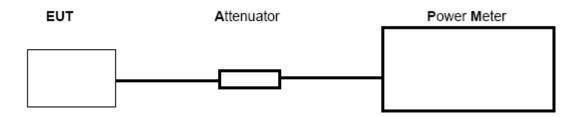
10. CONDUCTED OUTPUT POWER

10.1. 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.

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



10.3. LIMITS AND MEASUREMENT RESULT

Channel	Peak Power (dBm)	Applicable Limits (dBm)	Pass/Fail
Low Channel	4.16	20	Pass
Middle Channel	3.87	20	Pass
High Channel	3.26	20	Pass

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11. MAXIMUM CONDUCTED OUTPUT POWER SPECTRAL DENSITY

11.1 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.

11.2 TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)

Refer To Section 8.2

11.3 MEASUREMENT EQUIPMENT USED

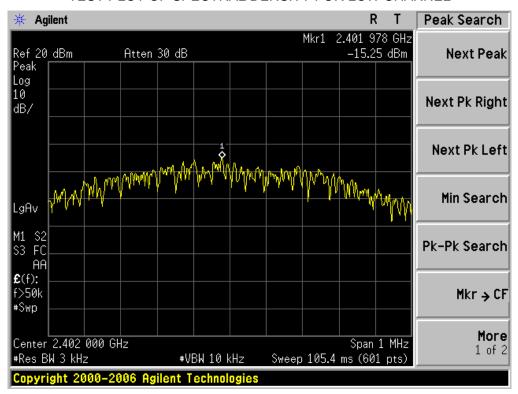
Refer To Section 6.

11.4 LIMITS AND MEASUREMENT RESULT

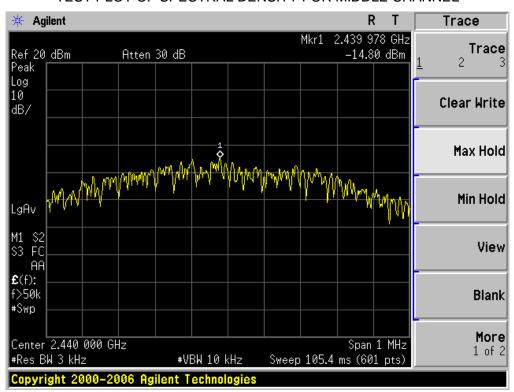
Channel No.	PSD (dBm)	Limit (dBm)	Result
Low Channel	-15.25	8	Pass
Middle Channel	-14.80	8	Pass
High Channel	-16.99	8	Pass

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TEST PLOT OF SPECTRAL DENSITY FOR LOW CHANNEL

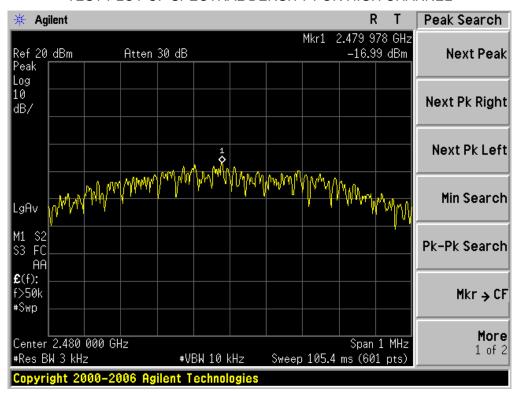


TEST PLOT OF SPECTRAL DENSITY FOR MIDDLE CHANNEL



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TEST PLOT OF SPECTRAL DENSITY FOR HIGH CHANNEL



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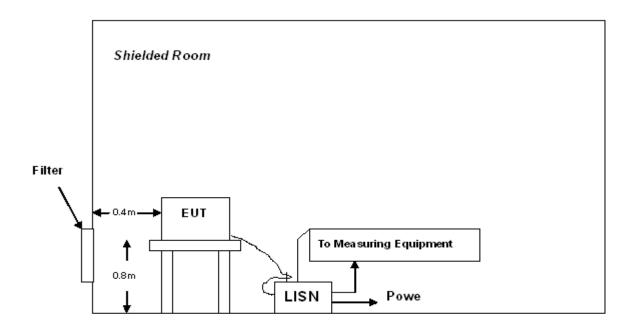
12. FCC LINE CONDUCTED EMISSION TEST

12.1 LIMITS

Fraguanay	Maximum RF	Maximum RF Line Voltage							
Frequency	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.

12.2 TEST SETUP



A: Powered through filter

^{2.} The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz

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12.3 PRELIMINARY PROCEDURE

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.

12.4 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.

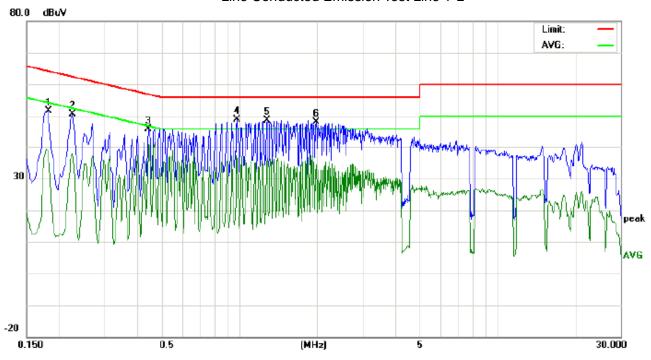
Temperature: 26

Humidity: 60 %

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12.5 TEST RESULT OF POWER LINE

Line Conducted Emission Test Line 1-L



Phase:

Power:

L1

Site: Conduction

Limit: FCC Class B Conduction(QP)

EUT: Table PC M/N: G7

Mode: Normal Operating(BT)

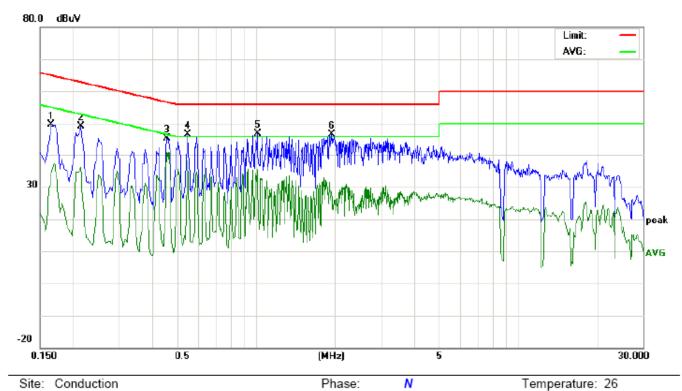
Note:

No.	Freq.	Reading_Leve (dBuV)								Limit (dBuV)		Margin (dB)		P/F	Comment
	(MHz)	Peak	QP	AVG	dB	Peak	QP	AVG	QP	AVG	QP	AVG			
1	0.1819	41.35		28.31	10.20	51.55		38.51	64.39	54.39	-12.84	-15.88	Р		
2	0.2260	40.39		27.62	10.24	50.63		37.86	62.59	52.59	-11.96	-14.73	Р		
3	0.4460	35.64		30.63	10.36	46.00		40.99	56.95	46.95	-10.95	-5.96	Р		
4	0.9818	38.61		25.51	10.38	48.99		35.89	56.00	46.00	-7.01	-10.11	Р		
5	1.2780	38.34		26.08	10.38	48.72		36.46	56.00	46.00	-7.28	-9.54	Р		
6	1.9818	38.00		24.12	10.23	48.23		34.35	56.00	46.00	-7.77	-11.65	Р		

Humidity: 60 %

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Line Conducted Emission Test Line 1-N



Site: Conduction Phase: Power:

Limit: FCC Class B Conduction(QP)

EUT: Table PC M/N: G7

Mode: Normal Operating(BT)

Note:

No.	Freq.		ding_L (dBuV)		Correct Factor		asuren (dBuV)		ı	nit uV)	Mai (d	rgin IB)	P/F	Comment
	(MHz)	Peak	QP	AVG	dB	Peak	QP	AVG	QP	AVG	QP	AVG		
1	0.1650	39.34		23.43	10.18	49.52		33.61	65.20	55.20	-15.68	-21.59	Р	
2	0.2139	38.89		26.02	10.23	49.12		36.25	63.05	53.05	-13.93	-16.80	Р	
3	0.4580	34.96		30.39	10.37	45.33		40.76	56.73	46.73	-11.40	-5.97	Р	
4	0.5500	36.30		27.78	10.35	46.65		38.13	56.00	46.00	-9.35	-7.87	Р	
5	1.0140	36.62		24.99	10.37	46.99		35.36	56.00	46.00	-9.01	-10.64	Р	
6	1.9416	36.44		18.41	10.24	46.68		28.65	56.00	46.00	-9.32	-17.35	Р	

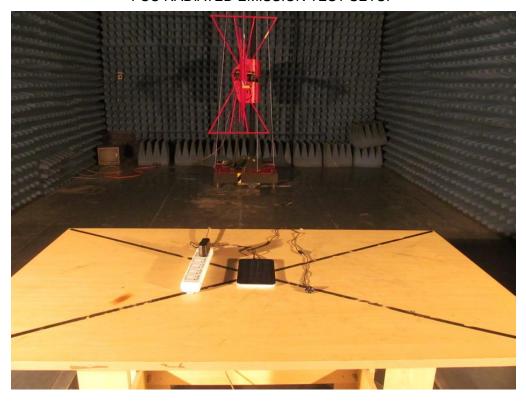
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APPENDIX A: PHOTOGRAPHS OF TEST SETUP

FCC LINE CONDUCTED EMISSION TEST SETUP



FCC RADIATED EMISSION TEST SETUP



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APPENDIX B: PHOTOGRAPHS OF EUT

TOTAL VIEW OF EUT



TOP VIEW OF EUT



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BOTTOM VIEW OF EUT



FRONT VIEW OF EUT



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BACK VIEW OF EUT



LEFT VIEW OF EUT

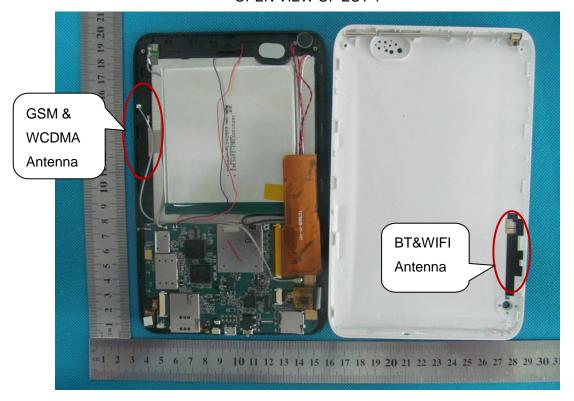


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RIGHT VIEW OF EUT

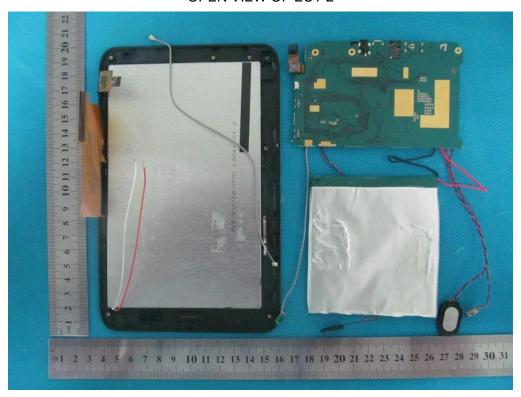


OPEN VIEW OF EUT-1

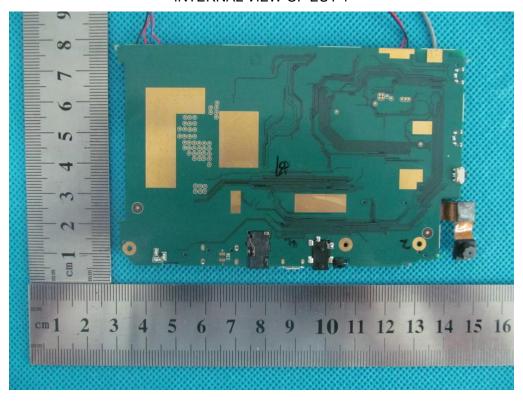


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OPEN VIEW OF EUT-2

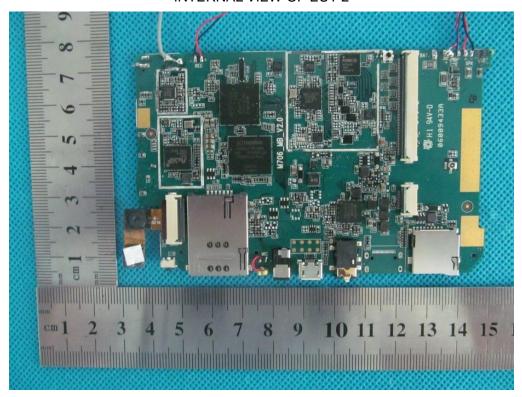


INTERNAL VIEW OF EUT-1



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INTERNAL VIEW OF EUT-2



----END OF REPORT----