



## Test Report

Product Name	Tablet PC MC-C5 / MC-F5
Model No	CFT-003
FCC ID.	Q3QIHW622ANH
Transmitter Module	Intel / 622ANHMW

Applicant	Motion Computing Incorporated.
Address	8601 Ranch Road 2222; Building #2 Austin, Texas 78730 USA

Date of Receipt	Jan. 20, 2010
Issue Date	April 26, 2010
Report No.	101358R-RFUSP42V01
Report Version	V1.0

The test results relate only to the samples tested.

The test report shall not be reproduced except in full without the written approval of QuieTek Corporation.  
This report must not be used to claim product endorsement by NVLAP any agency of the U.S. Government

# Test Report Certification

Issue Date: April 26, 2010  
Report No.: 101358R-RFUSP42V01



**Accredited by NIST (NVLAP)**  
NVLAP Lab Code: 200533-0

Product Name	Tablet PC MC-C5 / MC-F5
Applicant	Motion Computing Incorporated.
Address	8601 Ranch Road 2222; Building #2 Austin, Texas 78730 USA
Manufacturer	Motion Computing Incorporated.
Model No.	CFT-003
EUT Rated Voltage	AC 100-240V, 50-60Hz
EUT Test Voltage	AC 120V/60Hz
Trade Name	Motion Computing Incorporated.
Applicable Standard	FCC CFR Title 47 Part 15 Subpart C: 2009 ANSI C63.4: 2003
Test Result	Complied



The test results relate only to the samples tested.

The test report shall not be reproduced except in full without the written approval of QuieTek Corporation.

This report must not be used to claim product endorsement by NVLAP any agency of the U.S. Government

Documented By :

( Senior Adm. Specialist / Rita Huang )



Tested By :

( Engineer / Johnson Liao )



Testing Laboratory

0914

Approved By :

( Manager / Vincent Lin )

## TABLE OF CONTENTS

	Description	Page
<b>1. GENERAL INFORMATION .....</b>		<b>5</b>
1.1. EUT Description.....		5
1.2. Operational Description .....		7
1.3. Tested System Details.....		8
1.4. Configuration of Tested System .....		8
1.5. EUT Exercise Software .....		9
1.6. Test Facility .....		10
<b>2. Conducted Emission.....</b>		<b>11</b>
2.1. Test Equipment.....		11
2.2. Test Setup .....		11
2.3. Limits .....		12
2.4. Test Procedure .....		12
2.5. Uncertainty .....		12
2.6. Test Result of Conducted Emission.....		13
<b>3. Peak Power Output .....</b>		<b>17</b>
3.1. Test Equipment.....		17
3.2. Test Setup .....		17
3.3. Limits .....		17
3.4. Test Procedure .....		17
3.5. Uncertainty .....		17
3.6. Test Result of Peak Power Output.....		18
<b>4. Radiated Emission.....</b>		<b>25</b>
4.1. Test Equipment.....		25
4.2. Test Setup .....		26
4.3. Limits .....		27
4.4. Test Procedure .....		28
4.5. Uncertainty .....		28
4.6. Test Result of Radiated Emission.....		29
<b>5. RF antenna conducted test.....</b>		<b>56</b>
5.1. Test Equipment.....		56
5.2. Test Setup .....		56
5.3. Limits .....		56
5.4. Test Procedure .....		57
5.5. Uncertainty .....		57
5.6. Test Result of RF antenna conducted test.....		58
<b>6. Band Edge .....</b>		<b>72</b>
6.1. Test Equipment.....		72
6.2. Test Setup .....		73
6.3. Limits .....		73
6.4. Test Procedure .....		74
6.5. Uncertainty .....		74
6.6. Test Result of Band Edge .....		75

---

<b>7.</b>	<b>Occupied Bandwidth .....</b>	<b>91</b>
7.1.	Test Equipment.....	91
7.2.	Test Setup .....	91
7.3.	Limits .....	91
7.4.	Test Procedure .....	91
7.5.	Uncertainty .....	91
7.6.	Test Result of Occupied Bandwidth .....	92
<b>8.</b>	<b>Power Density .....</b>	<b>112</b>
8.1.	Test Equipment.....	112
8.2.	Test Setup .....	112
8.3.	Limits .....	112
8.4.	Test Procedure .....	113
8.5.	Uncertainty .....	113
8.6.	Test Result of Power Density .....	114
<b>9.</b>	<b>EMI Reduction Method During Compliance Testing .....</b>	<b>134</b>

Attachment 1: EUT Test Photographs

Attachment 2: EUT Detailed Photographs

## 1. GENERAL INFORMATION

### 1.1. EUT Description

Product Name	Tablet PC MC-C5 / MC-F5
Trade Name	Motion Computing Incorporated.
Model No.	CFT-003
FCC ID.	Q3QIHW622ANH
Frequency Range	2412-2462MHz, 5745-5825MHz
Number of Channels	802.11b/g/n-20MHz: 11, n-40MHz: 7 802.11a/n-20MHz: 5, n-40MHz: 2
Data Speed	802.11b: 1-11Mbps, 802.11a/g: 6-54Mbps, 802.11n: 6.5-300Mbps
Channel separation	802.11b/g/n-20MHz: 5 MHz, 802.11a/n-20MHz: 20MHz 802.11n-40MHz: 40MHz
Type of Modulation	802.11b:DSSS DBPSK, DQPSK, CCK 802.11a/g/n: OFDM BPSK, QPSK, 16QAM, 64QAM
Antenna Type	PIFA
Antenna Gain	Refer to the table "Antenna List"
Channel Control	Auto
Power Adapter	MFR: DELTA, M/N: SADP-65NB BB Input: AC 100-240V, 50-60Hz, 1.5A Output: DC 19V, 3.42A Cable out: Shielded, 1.8m, with one ferrite core bonded. Power Cord: Non-Shielded, 1.5m

#### Antenna List

No.	Manufacturer	Part No.	Peak Gain
1	YAEGO	CAN43130WWPE01441	-0.07dBi in 2.4GHz 1.85dBi in 5GHz

Note: The antenna of EUT is conform to FCC 15.203

## 802.11b/g/n-20MHz Center Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 01:	2412 MHz	Channel 02:	2417 MHz	Channel 03:	2422 MHz	Channel 04:	2427 MHz
Channel 05:	2432 MHz	Channel 06:	2437 MHz	Channel 07:	2442 MHz	Channel 08:	2447 MHz
Channel 09:	2452 MHz	Channel 10:	2457 MHz	Channel 11:	2462 MHz		

## 802.11a/n-20MHz Center Working Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 149:	5745 MHz	Channel 153:	5765 MHz	Channel 157:	5785 MHz	Channel 161:	5805 MHz
Channel 165:	5825 MHz						

## 802.11n-40MHz (2.4G Band) Center Working Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 1:	2422 MHz	Channel 2:	2427 MHz	Channel 3:	2432 MHz	Channel 4:	2437 MHz
Channel 5:	2442 MHz	Channel 6:	2447 MHz	Channel 7:	2452 MHz		

## 802.11n-40MHz (5G Band) Center Working Frequency of Each Channel:

Channel	Frequency	Channel	Frequency
Channel 151:	5755 MHz	Channel 159:	5795 MHz

## Note:

1. Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test.
2. Lowest and highest data rates are tested in each mode. Only worst case is shown in the report. (802.11b is 1Mbps, 802.11g is 6Mbps, 802.11n(20M-BW) is 13Mbps and 802.11n(40M-BW) is 27Mbps)
3. These tests are conducted on a sample for the purpose of demonstrating compliance of 802.11a/b/g/n transmitter with Part 15 Subpart C Paragraph 15.247 of spread spectrum devices
4. The radiation measurements are performed in X, Y, Z axis positioning. Only the worst case is shown in the report.
5. The device has included RFID module card and Bluetooth module. The module placement and antenna placement please review internal photo of this report. The Bluetooth antenna is separation > 5cm to RFID antenna and WLAN antenna. The RFID antenna distance to WLAN antenna is 12cm and no co-location requirement.

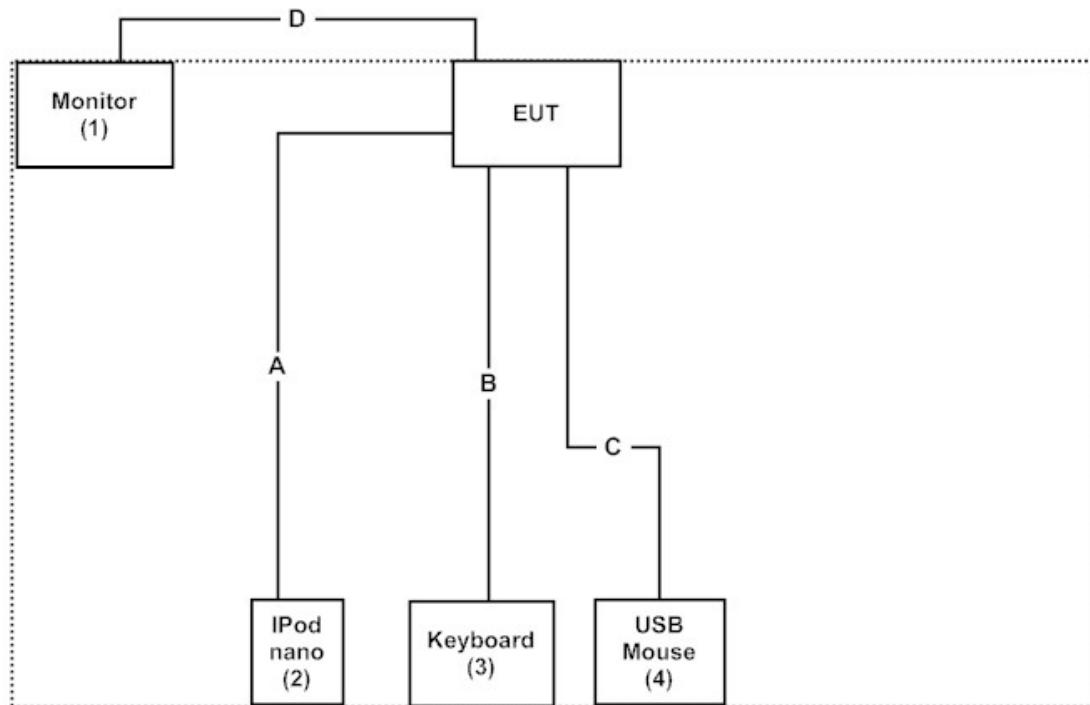
### 1.3. Tested System Details

The types for all equipment, plus descriptions of all cables used in the tested system (including inserted cards) are:

Product	Manufacturer	Model No.	Serial No.	Power Cord
(1) Monitor	Dell	2407WFPb	CN-0FC255-46633-638-1MDS	Non-Shielded, 1.8m
(2) IPod nano	Apple	A1199	5U72894NVQ5	N/A
(3) Keyboard	DELL	SK-8115	MY-0DJ325-71619-6A3-1914	N/A
(4) USB Mouse	DELL	M056U0A	F0Y01YEG	N/A

Signal Cable Type		Signal cable Description
A	USB Cable	Shielded, 1.2m
B	USB Cable	Shielded, 1.2m
C	USB Cable	Shielded, 1.8m
D	VGA Cable	Shielded, 1.8m, with two ferrite cores bonded.

### 1.4. Configuration of Tested System



## 1.5. EUT Exercise Software

- (1) Setup the EUT as shown in Section 1.4
- (2) Execute the CRTU program (Version 4.1.20.0000) on the EUT
- (3) Configure the test mode, the test channel, and the data rate.
- (4) Press “OK” to start the continuous Transmitter.
- (5) Verify that the EUT works properly.

## 1.6. Test Facility

Ambient conditions in the laboratory:

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	20-35
Humidity (%RH)	25-75	50-65
Barometric pressure (mbar)	860-1060	950-1000

The related certificate for our laboratories about the test site and management system can be downloaded from

QuieTek Corporation's Web Site : <http://tw.quietek.com/tw/emc/accreditations/accreditations.htm>

The address and introduction of QuieTek Corporation's laboratories can be founded in our Web site : <http://www.quietek.com/>

Site Description: File on

Federal Communications Commission  
FCC Engineering Laboratory  
7435 Oakland Mills Road  
Columbia, MD 21046  
Registration Number: 92195



Accreditation on NVLAP  
NVLAP Lab Code: 200533-0



Site Name: Quietek Corporation  
Site Address: No. 5-22, Ruei-Shu Valley, Ruei-Ping Tsuen,  
Lin-Kou Shiang, Taipei,  
Taiwan, R.O.C.  
TEL: 886-2-8601-3788 / FAX : 886-2-8601-3789  
E-Mail : [service@quietek.com](mailto:service@quietek.com)

FCC Accreditation Number: TW1014



## 2. Conducted Emission

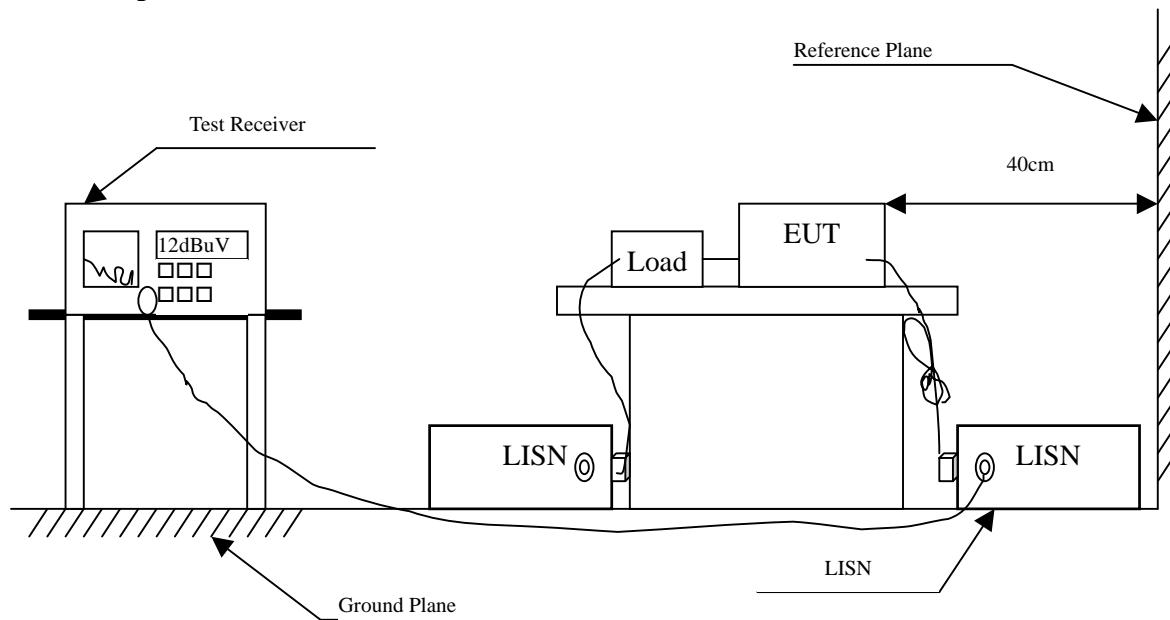
### 2.1. Test Equipment

The following test equipment are used during the conducted emission test:

Item	Instrument	Manufacturer	Type No./Serial No	Last Cal.	Remark
1	Test Receiver	R & S	ESCS 30/825442/17	May, 2009	
2	L.I.S.N.	R & S	ESH3-Z5/825016/6	May, 2009	EUT
3	L.I.S.N.	Kyoritsu	KNW-407/8-1420-3	May, 2009	Peripherals
4	Pulse Limiter	R & S	ESH3-Z2	May, 2009	
5	No.1 Shielded Room			N/A	

Note: All instruments are calibrated every one year.

### 2.2. Test Setup



### 2.3. Limits

FCC Part 15 Subpart C Paragraph 15.207 (dBuV) Limit		
Frequency MHz	Limits	
	QP	AVG
0.15 - 0.50	66-56	56-46
0.50-5.0	56	46
5.0 - 30	60	50

### 2.4. Test Procedure

The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm /50uH coupling impedance with 50ohm termination. (Please refers to the block diagram of the test setup and photographs.)

Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4: 2003 on conducted measurement.

Conducted emissions were invested over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

### 2.5. Uncertainty

± 2.26 dB

## 2.6. Test Result of Conducted Emission

Product : Tablet PC MC-C5 / MC-F5  
 Test Item : Conducted Emission Test  
 Power Line : Line 1  
 Test Mode : Mode 5: Transmitter - 802.11n-40BW\_27Mbps(2.4G Band) (2437MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
<b>Line 1</b>					
<b>Quasi-Peak</b>					
0.170	9.790	26.290	36.080	-29.349	65.429
0.189	9.790	37.150	46.940	-17.946	64.886
0.205	9.790	33.250	43.040	-21.389	64.429
0.263	9.790	26.330	36.120	-26.651	62.771
2.912	9.810	28.430	38.240	-17.760	56.000
25.404	10.140	30.270	40.410	-19.590	60.000
<b>Average</b>					
0.170	9.790	3.350	13.140	-42.289	55.429
0.189	9.790	23.440	33.230	-21.656	54.886
0.205	9.790	16.210	26.000	-28.429	54.429
0.263	9.790	15.490	25.280	-27.491	52.771
2.912	9.810	18.620	28.430	-17.570	46.000
25.404	10.140	24.840	34.980	-15.020	50.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. ““ means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product : Tablet PC MC-C5 / MC-F5  
 Test Item : Conducted Emission Test  
 Power Line : Line 2  
 Test Mode : Mode 5: Transmitter - 802.11n-40BW\_27Mbps(2.4G Band) (2437MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
<b>Line 2</b>					
<b>Quasi-Peak</b>					
0.181	9.780	28.250	38.030	-27.084	65.114
0.197	9.780	36.070	45.850	-18.807	64.657
0.252	9.780	27.590	37.370	-25.716	63.086
2.502	9.801	28.750	38.551	-17.449	56.000
8.138	9.880	22.050	31.930	-28.070	60.000
25.798	10.300	28.590	38.890	-21.110	60.000
<b>Average</b>					
0.181	9.780	1.960	11.740	-43.374	55.114
0.197	9.780	13.480	23.260	-31.397	54.657
0.252	9.780	7.030	16.810	-36.276	53.086
2.502	9.801	19.320	29.121	-16.879	46.000
8.138	9.880	16.630	26.510	-23.490	50.000
25.798	10.300	23.590	33.890	-16.110	50.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. “  “ means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product : Tablet PC MC-C5 / MC-F5  
 Test Item : Conducted Emission Test  
 Power Line : Line 1  
 Test Mode : Mode 7: Transmitter - 802.11n-40BW\_27Mbps(5G Band) (5755MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
<b>Line 1</b>					
<b>Quasi-Peak</b>					
0.166	9.790	34.890	44.680	-20.863	65.543
0.181	9.790	36.570	46.360	-18.754	65.114
0.201	9.790	32.490	42.280	-22.263	64.543
2.892	9.810	26.010	35.820	-20.180	56.000
8.513	9.865	20.610	30.475	-29.525	60.000
25.209	10.140	28.170	38.310	-21.690	60.000
<b>Average</b>					
0.166	9.790	8.250	18.040	-37.503	55.543
0.181	9.790	9.470	19.260	-35.854	55.114
0.201	9.790	3.950	13.740	-40.803	54.543
2.892	9.810	17.120	26.930	-19.070	46.000
8.513	9.865	14.160	24.025	-25.975	50.000
25.209	10.140	23.060	33.200	-16.800	50.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. “ ” means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product : Tablet PC MC-C5 / MC-F5  
 Test Item : Conducted Emission Test  
 Power Line : Line 2  
 Test Mode : Mode 7: Transmitter - 802.11n-40BW\_27Mbps(5G Band) (5755MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
<b>Line 2</b>					
<b>Quasi-Peak</b>					
0.154	9.782	35.930	45.712	-20.174	65.886
0.173	9.780	34.310	44.090	-21.253	65.343
0.193	9.780	35.390	45.170	-19.601	64.771
0.212	9.780	26.890	36.670	-27.559	64.229
3.209	9.810	23.850	33.660	-22.340	56.000
25.576	10.300	27.050	37.350	-22.650	60.000
<b>Average</b>					
0.154	9.782	26.150	35.932	-19.954	55.886
0.173	9.780	19.320	29.100	-26.243	55.343
0.193	9.780	24.640	34.420	-20.351	54.771
0.212	9.780	14.700	24.480	-29.749	54.229
3.209	9.810	18.220	28.030	-17.970	46.000
25.576	10.300	21.690	31.990	-18.010	50.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. “  “ means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

### 3. Peak Power Output

#### 3.1. Test Equipment

The following test equipments are used during the radiated emission tests:

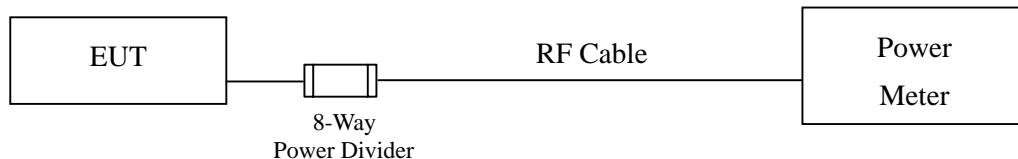
	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X	Power Meter	Anritsu	ML2495A/6K00003357	May, 2009
X	Power Sensor	Anritsu	MA2411B/0738448	Jun, 2009
X	8-WAY Power Divider	JFW	50PD-647 / 526770 0916	Apr., 2010

Note:

1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
2. The test instruments marked with “X” are used to measure the final test results.
3. The power combiner is used for measure 11n mode.

#### 3.2. Test Setup

Conducted Measurement



#### 3.3. Limits

The maximum peak power shall be less 1 Watt.

#### 3.4. Test Procedure

The EUT was tested according to DTS test procedure of Mar. 2005 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

#### 3.5. Uncertainty

± 1.27 dB

### 3.6. Test Result of Peak Power Output

Product : Tablet PC MC-C5 / MC-F5  
Test Item : Peak Power Output Data  
Test Site : No.3 OATS  
Test Mode : Mode 1: Transmit (802.11b 1Mbps)

Cable loss=0.5dB		Peak Power Output (dBm)				
Channel No.	Frequency (MHz)	Data Rate (Mbps)				Required Limit
		1	2	5.5	11	
1	2412.00	18.40	--	--	--	1Watt= 30 dBm
6	2437.00	18.44	18.35	18.21	18.01	1Watt= 30 dBm
11	2462.00	18.62	--	--	--	1Watt= 30 dBm

Note: Peak Power Output Value =Reading value on peak power meter + cable loss

Product : Tablet PC MC-C5 / MC-F5  
 Test Item : Peak Power Output Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit (802.11g 6Mbps)

Cable loss=0.5dB		Peak Power Output (dBm)								
Channel No.	Frequency (MHz)	Data Rate (Mbps)								Required Limit
		6	9	12	18	24	36	48	54	
1	2412.00	21.66	--	--	--	--	--	--	--	1Watt= 30 dBm
6	2437.00	21.60	21.25	21.05	21.55	21.33	20.95	21.04	21.22	1Watt= 30 dBm
11	2462.00	21.90	--	--	--	--	--	--	--	1Watt= 30 dBm

Note: Peak Power Output Value =Reading value on peak power meter + cable loss

Product : Tablet PC MC-C5 / MC-F5  
 Test Item : Peak Power Output Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmitter - 802.11a 6Mbps

Cable loss=1dB		Peak Power Output (dBm)								
Channel No.	Frequency (MHz)	Data Rate (Mbps)								Required Limit
		6	9	12	18	24	36	48	54	
149	5745.00	21.45	--	--	--	--	--	--	--	1Watt= 30 dBm
157	5785.00	21.77	21.55	21.32	21.46	21.55	21.6	21.63	21.54	1Watt= 30 dBm
165	5825.00	21.62	--	--	--	--	--	--	--	1Watt= 30 dBm

Note: Peak Power Output Value =Reading value on peak power meter + cable loss

Product : Tablet PC MC-C5 / MC-F5  
 Test Item : Peak Power Output Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 4: Transmitter - 802.11n-20BW\_13Mbps(2.4G Band)

Cable loss=0.5dB		Peak Power Output (dBm)								
Channel No.	Frequency (MHz)	Data Rate (Mbps)								Required Limit
		13	26	39	52	78	104	117	130	
1	2412.00	25.37	--	--	--	--	--	--	--	1Watt= 30 dBm
6	2437.00	24.88	24.41	24.65	24.05	24.12	24.65	24.66	24.58	1Watt= 30 dBm
11	2462.00	24.35	--	--	--	--	--	--	--	1Watt= 30 dBm

Note: Peak Power Output Value =Reading value on peak power meter + cable loss

Product : Tablet PC MC-C5 / MC-F5  
 Test Item : Peak Power Output Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 5: Transmitter - 802.11n-40BW\_27Mbps(2.4G Band)

Cable loss=0.5dB		Peak Power Output (dBm)							
Channel No.	Frequency (MHz)	Data Rate (Mbps)							Required Limit (dBm)
		27	54	81	108	162	216	243	
1	2422.00	22.44	--	--	--	--	--	--	1Watt= 30
4	2437.00	23.88	23.15	23.65	23.7	23.18	23.22	23.75	23.66
7	2452.00	22.70	--	--	--	--	--	--	1Watt= 30

Note: Peak Power Output Value =Reading value on peak power meter + cable loss

Product : Tablet PC MC-C5 / MC-F5  
 Test Item : Peak Power Output Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 6: Transmitter - 802.11n-20BW\_13Mbps(5G Band)

Cable loss=0.5dB		Peak Power Output (dBm)								Required Limit (dBm)
Channel No.	Frequency (MHz)	Data Rate (Mbps)								Required Limit (dBm)
		13	26	39	52	78	104	117	130	
149	5745	25.82	--	--	--	--	--	--	--	1Watt= 30
157	5785	25.80	25.22	25.35	25.3	25.44	25.45	25.18	25.37	1Watt= 30
165	5825	25.47	--	--	--	--	--	--	--	1Watt= 30

Note: Peak Power Output Value =Reading value on peak power meter + cable loss

Product : Tablet PC MC-C5 / MC-F5  
 Test Item : Peak Power Output Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 7: Transmitter - 802.11n-40BW\_27Mbps(5G Band)

Cable loss=0.5dB		Peak Power Output (dBm)								Required Limit (dBm)
Channel No.	Frequency (MHz)	Data Rate (Mbps)								Required Limit (dBm)
		27	54	81	108	162	216	243	270	
151	5755	25.5	25.15	24.87	25.11	25.05	24.99	24.97	25.15	1Watt= 30
159	5795	25.09	--	--	--	--	--	--	--	1Watt= 30

Note: Peak Power Output Value =Reading value on peak power meter + cable loss

## 4. Radiated Emission

### 4.1. Test Equipment

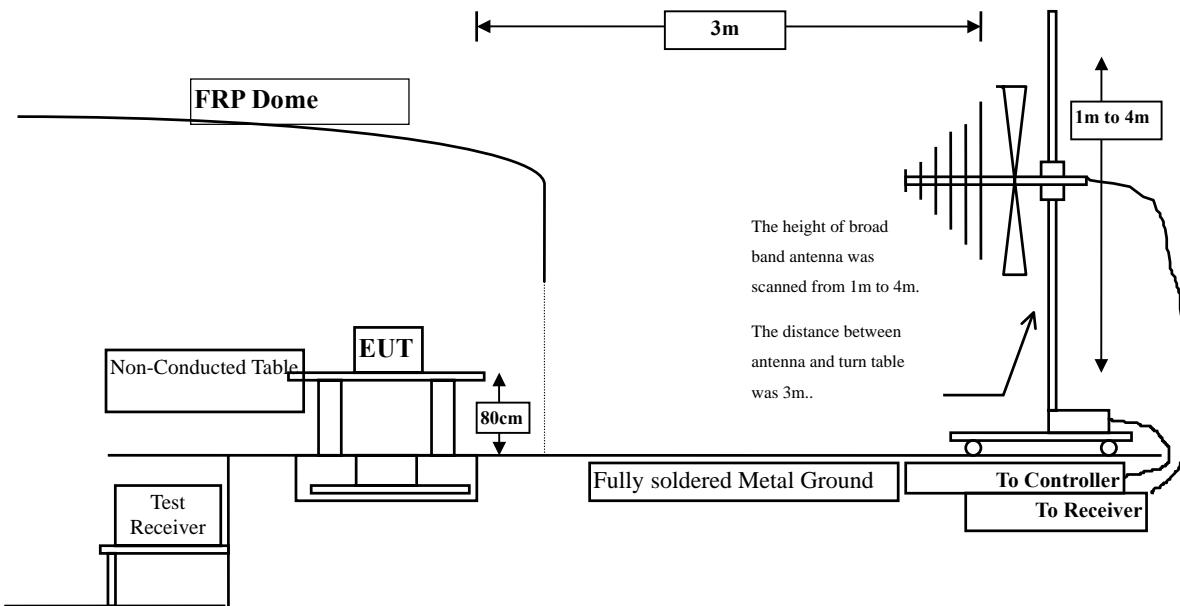
The following test equipment are used during the radiated emission test:

Test Site	Equipment		Manufacturer	Model No./Serial No.	Last Cal.
☒Site # 3	X	Bilog Antenna	Schaffner Chase	CBL6112B/2673	Sep., 2009
	X	Horn Antenna	Schwarzbeck	BBHA9120D/D305	Sep., 2009
	X	Horn Antenna	Schwarzbeck	BBHA9170/208	Jul., 2009
	X	Pre-Amplifier	Agilent	8447D/2944A09549	Sep., 2009
	X	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2009
	X	Test Receiver	R & S	ESCS 30/ 825442/018	Sep., 2009
	X	Coaxial Cable	QuieTek	QTK-CABLE/ CAB5	Feb., 2010
	X	Controller	QuieTek	QTK-CONTROLLER/ CTRL3	N/A
	X	Coaxial Switch	Anritsu	MP59B/6200265729	N/A

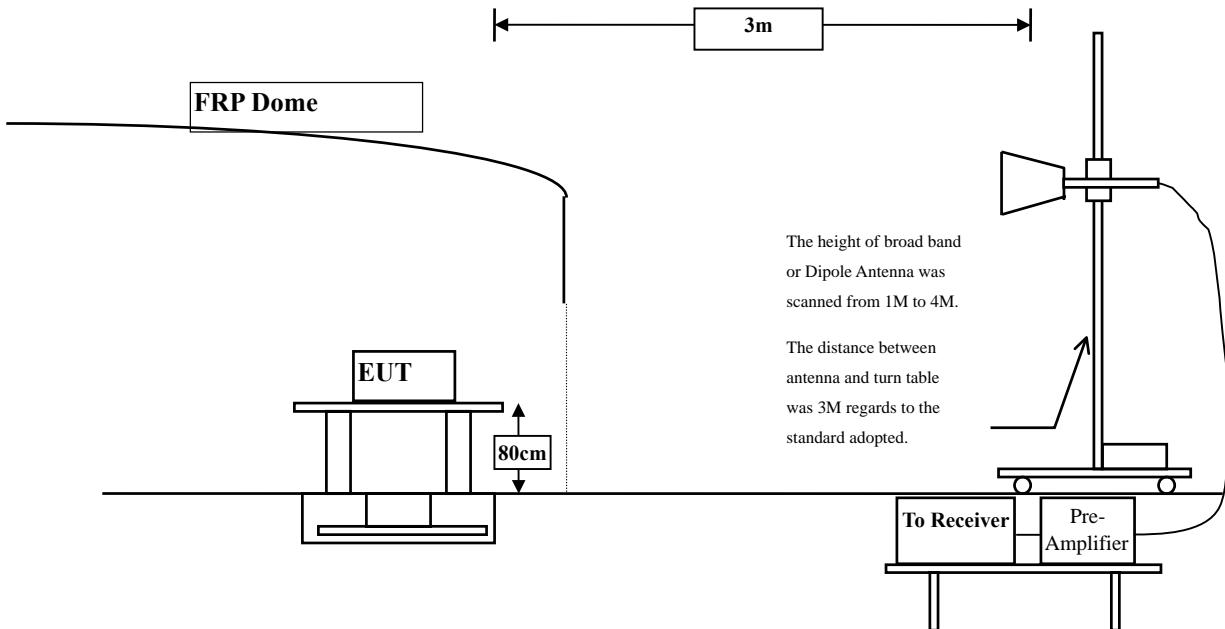
Note: 1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.  
2. The test instruments marked with "X" are used to measure the final test results.

## 4.2. Test Setup

### Radiated Emission Below 1GHz



### Radiated Emission Above 1GHz



#### 4.3. Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

<b>FCC Part 15 Subpart C Paragraph 15.209(a) Limits</b>		
Frequency MHz	uV/m @3m	dBuV/m@3m
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

Remarks: E field strength (dBuV/m) = 20 log E field strength (uV/m)

#### **4.4. Test Procedure**

The EUT was setup according to ANSI C63.4, 2003 and tested according to DTS test procedure of Mar. 2005 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

The EUT is placed on a turn table which is 0.8 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna is scanned between 1 meter and 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.4:2003 on radiated measurement.

The resolution bandwidth below 1GHz setting on the field strength meter is 120 kHz and above 1GHz is 1MHz.

Radiated emission measurements below 1GHz are made using broadband Bilog antenna and above 1GHz are made using Horn Antennas.

The measurement is divided into the Preliminary Measurement and the Final Measurement.

The suspected frequencies are searched for in Preliminary Measurement with the measurement antenna kept pointed at the source of the emission both in azimuth and elevation, with the polarization of the antenna oriented for maximum response. The antenna is pointed at an angle towards the source of the emission, and the EUT is rotated in both height and polarization to maximize the measured emission. The emission is kept within the illumination area of the 3 dB bandwidth of the antenna.

The worst radiated emission is measured in the Open Area Test Site on the Final Measurement.

The measurement frequency range from 30MHz - 10th Harmonic of fundamental was investigated.

#### **4.5. Uncertainty**

± 3.9 dB above 1GHz

± 3.8 dB below 1GHz

#### 4.6. Test Result of Radiated Emission

Product : Tablet PC MC-C5 / MC-F5  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2412MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

##### Horizontal

###### Peak Detector:

4824.000	2.628	42.010	44.638	-29.362	74.000
7236.000	8.176	34.720	42.896	-31.104	74.000
9648.000	10.742	36.500	47.242	-26.758	74.000

###### Average

###### Detector:

--

##### Vertical

###### Peak Detector:

4824.000	5.788	42.500	48.288	-25.712	74.000
7236.000	9.021	35.420	44.441	-29.559	74.000
9648.000	11.212	36.120	47.332	-26.668	74.000

###### Average

###### Detector:

--

##### Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “\*”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Tablet PC MC-C5 / MC-F5  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2437 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

### Horizontal

**Peak Detector:**

4874.000	2.379	40.840	43.218	-30.782	74.000
7311.000	9.021	34.670	43.690	-30.310	74.000
9748.000	10.013	35.900	45.913	-28.087	74.000

**Average**

**Detector:**

--

### Vertical

**Peak Detector:**

4874.000	5.153	41.290	46.442	-27.558	74.000
7311.000	9.856	34.740	44.596	-29.404	74.000
9748.000	10.504	36.040	46.544	-27.456	74.000

**Average**

**Detector:**

--

**Note:**

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “\*”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Tablet PC MC-C5 / MC-F5  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2462 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

### Horizontal

#### Peak Detector:

4924.000	2.184	39.050	41.233	-32.767	74.000
7386.000	9.065	34.900	43.966	-30.034	74.000
9848.000	9.915	35.750	45.666	-28.334	74.000

#### Average

#### Detector:

--

### Vertical

#### Peak Detector:

4924.000	4.847	39.350	44.196	-29.804	74.000
7386.000	10.192	34.710	44.902	-29.098	74.000
9848.000	10.430	35.920	46.350	-27.650	74.000

#### Average

#### Detector:

--

### Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Tablet PC MC-C5 / MC-F5  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2412MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

### Horizontal

**Peak Detector:**

4824.000	2.628	37.440	40.068	-33.932	74.000
7236.000	8.176	35.550	43.726	-30.274	74.000
9648.000	10.742	36.360	47.102	-26.898	74.000

**Average**

**Detector:**

--

### Vertical

**Peak Detector:**

4824.000	5.788	40.440	46.228	-27.772	74.000
7236.000	9.021	35.510	44.531	-29.469	74.000
9648.000	11.212	35.900	47.112	-26.888	74.000

**Average**

**Detector:**

--

**Note:**

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Tablet PC MC-C5 / MC-F5  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2437 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

### Horizontal

**Peak Detector:**

4874.000	2.379	37.480	39.858	-34.142	74.000
7311.000	9.021	34.440	43.460	-30.540	74.000
9748.000	10.013	35.450	45.463	-28.537	74.000

**Average**

**Detector:**

--

### Vertical

**Peak Detector:**

4874.000	5.153	37.440	42.592	-31.408	74.000
7311.000	9.856	34.980	44.836	-29.164	74.000
9748.000	10.504	36.320	46.824	-27.176	74.000

**Average**

**Detector:**

--

**Note:**

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “\*”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Tablet PC MC-C5 / MC-F5  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2462 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

### Horizontal

#### Peak Detector:

4924.000	2.184	37.210	39.393	-34.607	74.000
7386.000	9.065	34.700	43.766	-30.234	74.000
9848.000	9.915	36.470	46.386	-27.614	74.000

#### Average

#### Detector:

--

### Vertical

#### Peak Detector:

4924.000	4.847	37.280	42.126	-31.874	74.000
7386.000	10.192	34.970	45.162	-28.838	74.000
9848.000	10.430	35.930	46.360	-27.640	74.000

#### Average

#### Detector:

--

### Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Tablet PC MC-C5 / MC-F5  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmitter - 802.11a 6Mbps (5745 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

### Horizontal

#### Peak Detector:

11490.000	17.106	35.660	52.767	-21.233	74.000
-----------	--------	--------	--------	---------	--------

#### Average

#### Detector:

--

### Vertical

#### Peak Detector:

11490.000	18.034	34.520	52.555	-21.445	74.000
-----------	--------	--------	--------	---------	--------

#### Average

#### Detector:

--

#### Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Tablet PC MC-C5 / MC-F5  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmitter - 802.11a 6Mbps (5785 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

### Horizontal

#### Peak Detector:

11570.000	16.809	34.150	50.959	-23.041	74.000
-----------	--------	--------	--------	---------	--------

#### Average

#### Detector:

--

### Vertical

#### Peak Detector:

11570.000	17.698	35.070	52.768	-21.232	74.000
-----------	--------	--------	--------	---------	--------

#### Average

#### Detector:

--

#### Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Tablet PC MC-C5 / MC-F5  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmitter - 802.11a 6Mbps (5825 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

### Horizontal

#### Peak Detector:

11650.000	16.158	34.880	51.038	-22.962	74.000
-----------	--------	--------	--------	---------	--------

#### Average

#### Detector:

--

#### Vertical

#### Peak Detector:

11650.000	17.274	35.090	52.365	-21.635	74.000
-----------	--------	--------	--------	---------	--------

#### Average

#### Detector:

--

#### Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Tablet PC MC-C5 / MC-F5  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 4: Transmitter - 802.11n-20BW\_13Mbps(2.4G Band) (2412MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

### Horizontal

**Peak Detector:**

4824.000	2.628	38.510	41.138	-32.862	74.000
7236.000	8.176	35.350	43.526	-30.474	74.000
9648.000	10.742	36.710	47.452	-26.548	74.000

**Average**

**Detector:**

--

### Vertical

**Peak Detector:**

4824.000	5.788	37.980	43.768	-30.232	74.000
7236.000	9.021	36.110	45.131	-28.869	74.000
9648.000	11.212	36.030	47.242	-26.758	74.000

**Average**

**Detector:**

--

**Note:**

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Tablet PC MC-C5 / MC-F5  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 4: Transmitter - 802.11n-20BW\_13Mbps(2.4G Band) (2437 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

### Horizontal

**Peak Detector:**

4874.000	2.379	37.790	40.168	-33.832	74.000
7311.000	9.021	34.920	43.940	-30.060	74.000
9748.000	10.013	36.330	46.343	-27.657	74.000

**Average  
Detector:**

--

### Vertical

**Peak Detector:**

4874.000	5.153	36.450	41.602	-32.398	74.000
7311.000	9.856	34.660	44.516	-29.484	74.000
9748.000	10.504	35.830	46.334	-27.666	74.000

**Average  
Detector:**

--

**Note:**

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Tablet PC MC-C5 / MC-F5  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 4: Transmitter - 802.11n-20BW\_13Mbps(2.4G Band) (2462 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

### Horizontal

#### Peak Detector:

4924.000	2.184	37.720	39.903	-34.097	74.000
7386.000	9.065	34.820	43.886	-30.114	74.000
9848.000	9.915	33.250	43.166	-30.834	74.000

#### Average

#### Detector:

--

### Vertical

#### Peak Detector:

4924.000	4.847	36.580	41.426	-32.574	74.000
7386.000	10.192	34.050	44.242	-29.758	74.000
9848.000	10.430	36.060	46.490	-27.510	74.000

#### Average

#### Detector:

--

#### Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Tablet PC MC-C5 / MC-F5  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 5: Transmitter - 802.11n-40BW\_27Mbps(2.4G Band) (2422MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

### Horizontal

**Peak Detector:**

4844.000	2.527	42.340	44.867	-29.133	74.000
7266.000	8.573	35.470	44.043	-29.957	74.000
9688.000	10.355	36.220	46.576	-27.424	74.000

**Average**

**Detector:**

--

### Vertical

**Peak Detector:**

4844.000	5.534	36.660	42.194	-31.806	74.000
7266.000	9.393	35.410	44.803	-29.197	74.000
9688.000	10.898	35.970	46.869	-27.131	74.000

**Average**

**Detector:**

--

**Note:**

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Tablet PC MC-C5 / MC-F5  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 5: Transmitter - 802.11n-40BW\_27Mbps(2.4G Band) (2437 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

### Horizontal

**Peak Detector:**

4874.000	2.379	37.440	39.818	-34.182	74.000
7311.000	9.021	34.540	43.560	-30.440	74.000
9748.000	10.013	35.550	45.563	-28.437	74.000

**Average**

**Detector:**

--

### Vertical

**Peak Detector:**

4874.000	5.153	36.780	41.932	-32.068	74.000
7311.000	9.856	34.290	44.146	-29.854	74.000
9748.000	10.504	35.960	46.464	-27.536	74.000

**Average**

**Detector:**

--

**Note:**

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Tablet PC MC-C5 / MC-F5  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 5: Transmitter - 802.11n-40BW\_27Mbps(2.4G Band) (2452 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

### Horizontal

#### Peak Detector:

4904.000	2.379	37.720	40.098	-33.902	74.000
7356.000	9.021	34.760	43.780	-30.220	74.000
9808.000	10.013	34.720	44.733	-29.267	74.000

#### Average

#### Detector:

--

### Vertical

#### Peak Detector:

4904.000	5.153	36.200	41.352	-32.648	74.000
7356.000	9.856	34.670	44.526	-29.474	74.000
9808.000	10.504	35.460	45.964	-28.036	74.000

#### Average

#### Detector:

--

#### Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Tablet PC MC-C5 / MC-F5  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 6: Transmitter - 802.11n-20BW\_13Mbps(5G Band) (5745MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

### Horizontal

**Peak Detector:**

11490.000	17.106	34.440	51.547	-22.453	74.000
-----------	--------	--------	--------	---------	--------

**Average**

**Detector:**

--

### Vertical

**Peak Detector:**

11490.000	18.034	35.020	53.055	-20.945	74.000
-----------	--------	--------	--------	---------	--------

**Average**

**Detector:**

--

**Note:**

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Tablet PC MC-C5 / MC-F5  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 6: Transmitter - 802.11n-20BW\_13Mbps(5G Band) (5785 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

**Horizontal**
**Peak Detector:**

11570.000	16.809	34.690	51.499	-22.501	74.000
-----------	--------	--------	--------	---------	--------

**Average**
**Detector:**

--

**Vertical**
**Peak Detector:**

11570.000	17.698	35.250	52.948	-21.052	74.000
-----------	--------	--------	--------	---------	--------

**Average**
**Detector:**

--

**Note:**

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Tablet PC MC-C5 / MC-F5  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 6: Transmitter - 802.11n-20BW\_13Mbps(5G Band) (5825 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

**Horizontal**
**Peak Detector:**

11650.000	16.158	34.990	51.148	-22.852	74.000
-----------	--------	--------	--------	---------	--------

**Average**
**Detector:**

--

**Vertical**
**Peak Detector:**

11650.000	17.274	36.010	53.285	-20.715	74.000
-----------	--------	--------	--------	---------	--------

**Average**
**Detector:**

--

**Note:**

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Tablet PC MC-C5 / MC-F5  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 7: Transmitter - 802.11n-40BW\_27Mbps(5G Band) (5755MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

### Horizontal

**Peak Detector:**

11510.000	17.124	34.550	51.674	-22.326	74.000
-----------	--------	--------	--------	---------	--------

**Average**

**Detector:**

--

### Vertical

**Peak Detector:**

11510.000	18.081	34.970	53.051	-20.949	74.000
-----------	--------	--------	--------	---------	--------

**Average**

**Detector:**

--

**Note:**

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Tablet PC MC-C5 / MC-F5  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 7: Transmitter - 802.11n-40BW\_27Mbps(5G Band) (5795 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m

### Horizontal

#### Peak Detector:

11590.000	16.701	35.050	51.750	-22.250	74.000
-----------	--------	--------	--------	---------	--------

### Average

#### Detector:

--

### Vertical

#### Peak Detector:

11590.000	17.567	35.550	53.116	-20.884	74.000
-----------	--------	--------	--------	---------	--------

### Average

#### Detector:

--

#### Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Tablet PC MC-C5 / MC-F5  
 Test Item : General Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2437 MHz)

Frequency MHz	Correct Factor	Reading Level dB	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
433.520	-2.438	41.035	38.596	-7.404	46.000
466.500	0.335	33.742	34.077	-11.923	46.000
500.450	-0.391	32.596	32.205	-13.795	46.000
533.430	1.489	30.789	32.278	-13.722	46.000
633.340	1.387	36.901	38.288	-7.712	46.000
900.090	5.088	29.250	34.338	-11.662	46.000
<b>Vertical</b>					
199.750	-8.391	39.897	31.506	-11.994	43.500
366.590	-2.853	32.253	29.400	-16.600	46.000
466.500	-5.245	34.197	28.952	-17.048	46.000
533.430	-1.111	30.103	28.992	-17.008	46.000
633.340	-4.413	35.888	31.475	-14.525	46.000
900.090	2.938	28.361	31.299	-14.701	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “\*”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Tablet PC MC-C5 / MC-F5  
 Test Item : General Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2437 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
<b>Horizontal</b>					
433.520	-2.438	40.785	38.346	-7.654	46.000
466.500	0.335	34.164	34.499	-11.501	46.000
500.450	-0.391	33.967	33.576	-12.424	46.000
566.410	1.128	27.566	28.694	-17.306	46.000
633.340	1.387	36.913	38.300	-7.700	46.000
900.090	5.088	27.882	32.970	-13.030	46.000
<b>Vertical</b>					
199.750	-8.391	41.045	32.654	-10.846	43.500
339.430	-4.356	30.764	26.408	-19.592	46.000
366.590	-2.853	31.903	29.050	-16.950	46.000
466.500	-5.245	34.671	29.426	-16.574	46.000
500.450	-1.271	33.468	32.197	-13.803	46.000
633.340	-4.413	36.281	31.868	-14.132	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Tablet PC MC-C5 / MC-F5  
 Test Item : General Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmitter - 802.11a 6Mbps (5785MHz)

Frequency MHz	Correct Factor	Reading Level dB	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
399.570	-2.791	35.213	32.422	-13.578	46.000
433.520	-2.438	40.469	38.030	-7.970	46.000
466.500	0.335	34.306	34.641	-11.359	46.000
533.430	1.489	30.744	32.233	-13.767	46.000
633.340	1.387	36.982	38.369	-7.631	46.000
900.090	5.088	28.047	33.135	-12.865	46.000
<b>Vertical</b>					
199.750	-8.391	39.742	31.351	-12.149	43.500
399.570	-5.391	36.004	30.613	-15.387	46.000
433.520	-9.548	40.457	30.908	-15.092	46.000
500.450	-1.271	33.057	31.786	-14.214	46.000
633.340	-4.413	36.425	32.012	-13.988	46.000
900.090	2.938	28.333	31.271	-14.729	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “\*”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Tablet PC MC-C5 / MC-F5  
 Test Item : General Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 4: Transmitter - 802.11n-20BW\_13Mbps(2.4G Band) (2437 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
<b>Horizontal</b>					
433.520	-2.438	41.084	38.645	-7.355	46.000
466.500	0.335	35.143	35.478	-10.522	46.000
500.450	-0.391	33.357	32.966	-13.034	46.000
533.430	1.489	31.089	32.578	-13.422	46.000
633.340	1.387	36.679	38.066	-7.934	46.000
900.090	5.088	28.739	33.827	-12.173	46.000
<b>Vertical</b>					
160.950	-6.873	38.083	31.210	-12.290	43.500
199.750	-8.391	40.215	31.824	-11.676	43.500
399.570	-5.391	35.158	29.767	-16.233	46.000
433.520	-9.548	41.044	31.495	-14.505	46.000
500.450	-1.271	32.978	31.707	-14.293	46.000
633.340	-4.413	36.700	32.287	-13.713	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Tablet PC MC-C5 / MC-F5  
 Test Item : General Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 5: Transmitter - 802.11n-40BW\_27Mbps(2.4G Band) (2437 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
					dBuV/m
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
<b>Horizontal</b>					
366.590	-1.763	32.117	30.354	-15.646	46.000
466.500	0.335	34.021	34.356	-11.644	46.000
500.450	-0.391	33.467	33.076	-12.924	46.000
533.430	1.489	29.027	30.516	-15.484	46.000
633.340	1.387	37.142	38.529	-7.471	46.000
900.090	5.088	28.766	33.854	-12.146	46.000
<b>Vertical</b>					
199.750	-8.391	39.353	30.962	-12.538	43.500
366.590	-2.853	30.220	27.367	-18.633	46.000
433.520	-9.548	41.102	31.553	-14.447	46.000
500.450	-1.271	33.825	32.554	-13.446	46.000
633.340	-4.413	37.129	32.716	-13.284	46.000
900.090	2.938	27.496	30.434	-15.566	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “\*”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Tablet PC MC-C5 / MC-F5  
 Test Item : General Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 6: Transmitter - 802.11n-20BW\_13Mbps(5G Band) (5785 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
<b>Horizontal</b>					
166.770	-11.406	40.462	29.055	-14.445	43.500
433.520	-2.438	40.592	38.153	-7.847	46.000
466.500	0.335	34.474	34.809	-11.191	46.000
500.450	-0.391	32.345	31.954	-14.046	46.000
633.340	1.387	36.210	37.597	-8.403	46.000
900.090	5.088	28.401	33.489	-12.511	46.000
<b>Vertical</b>					
199.750	-8.391	39.897	31.506	-11.994	43.500
399.570	-5.391	35.200	29.809	-16.191	46.000
433.520	-9.548	40.224	30.675	-15.325	46.000
500.450	-1.271	32.555	31.284	-14.716	46.000
633.340	-4.413	36.592	32.179	-13.821	46.000
900.090	2.938	28.090	31.028	-14.972	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Tablet PC MC-C5 / MC-F5  
 Test Item : General Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 7: Transmitter - 802.11n-40BW\_27Mbps(5G Band) (5755MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
<b>Horizontal</b>					
126.030	-10.292	40.338	30.046	-13.454	43.500
433.520	-2.438	40.595	38.156	-7.844	46.000
466.500	0.335	34.397	34.732	-11.268	46.000
533.430	1.489	30.489	31.978	-14.022	46.000
633.340	1.387	36.530	37.917	-8.083	46.000
900.090	5.088	28.100	33.188	-12.812	46.000
<b>Vertical</b>					
199.750	-8.391	39.440	31.049	-12.451	43.500
399.570	-5.391	35.470	30.079	-15.921	46.000
433.520	-9.548	40.381	30.832	-15.168	46.000
500.450	-1.271	33.194	31.923	-14.077	46.000
633.340	-4.413	36.640	32.227	-13.773	46.000
900.090	2.938	28.366	31.304	-14.696	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

## 5. RF antenna conducted test

### 5.1. Test Equipment

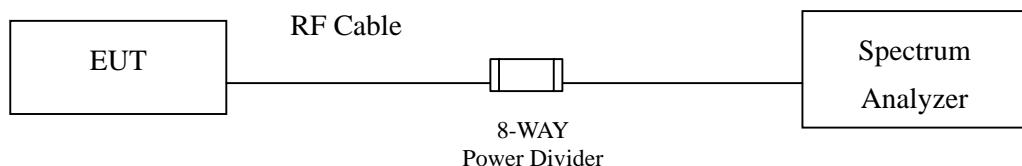
The following test equipments are used during the radiated emission tests:

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X	Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2009
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2009
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2010
X	8-WAY Power Divider	JFW	50PD-647 / 526770 0916	Apr., 2010

Note: 1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.  
2. The test instruments marked with "X" are used to measure the final test results.  
3. The power combiner is used for measure 11n mode.

### 5.2. Test Setup

#### RF antenna Conducted Measurement:



### 5.3. Limits

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

#### **5.4. Test Procedure**

The EUT was tested according to DTS test procedure of Mar. 2005 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

Set RBW = 100 kHz, Set VBW > RBW, scan up through 10th harmonic.

#### **5.5. Uncertainty**

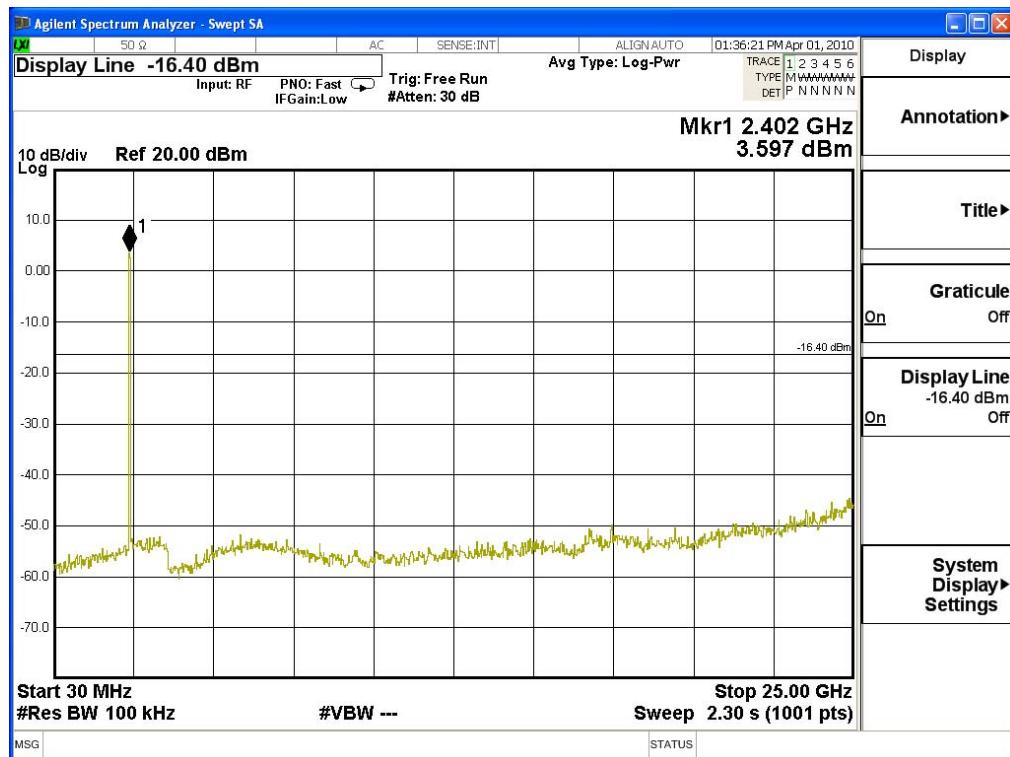
The measurement uncertainty

Conducted is defined as  $\pm 1.27\text{dB}$

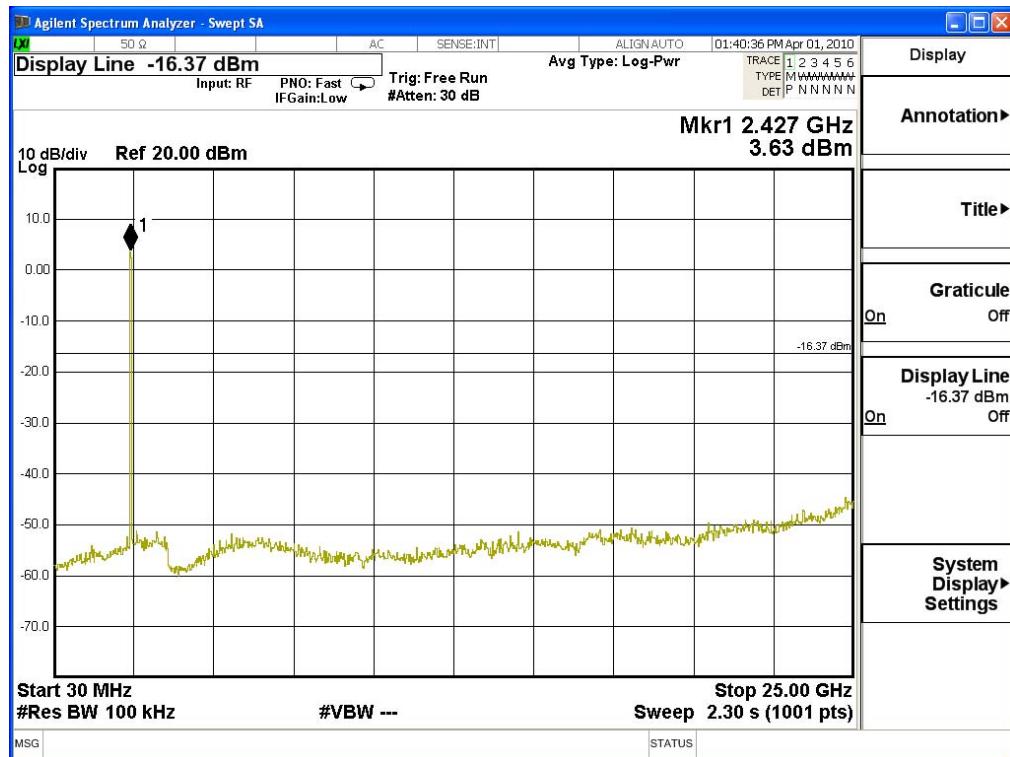
## 5.6. Test Result of RF antenna conducted test

Product : Tablet PC MC-C5 / MC-F5  
 Test Item : RF antenna conducted test  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit (802.11b 1Mbps)

### Channel 01 (2412MHz) 30MHz-25GHz



**Channel 06 (2437MHz) 30MHz -25GHz**

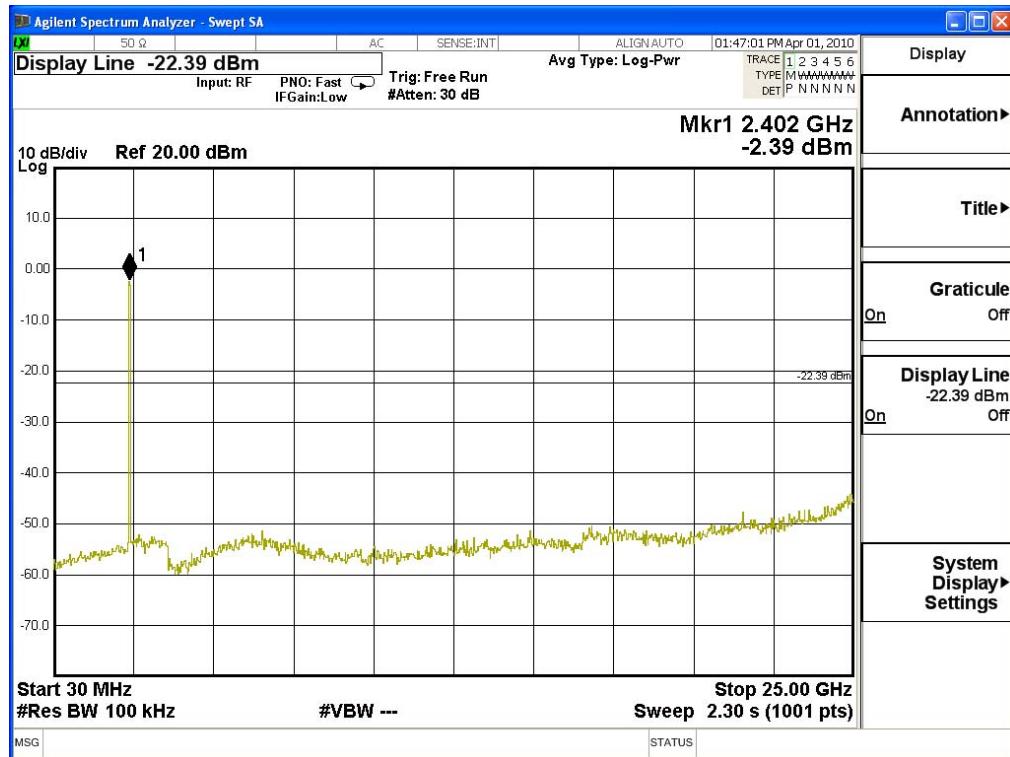


**Channel 11 (2462MHz) 30MHz -25GHz**



Product : Tablet PC MC-C5 / MC-F5  
 Test Item : RF Antenna Conducted Spurious  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit (802.11g 6Mbps)

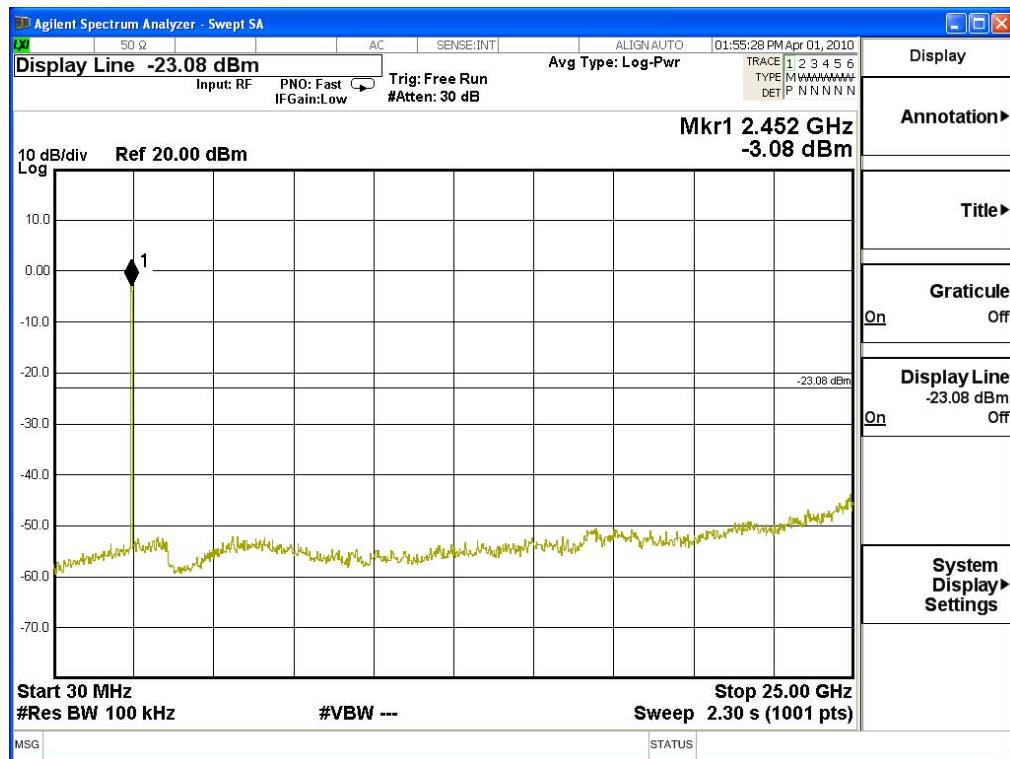
**Channel 01 (2412MHz) 30MHz -25GHz**



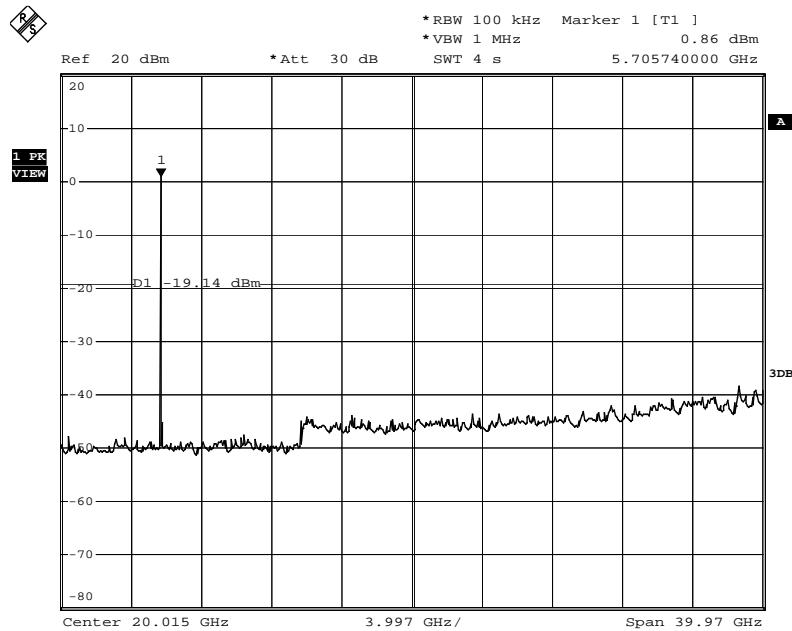
**Channel 06 (2437MHz) 30MHz -25GHz**



**Channel 11 (2462MHz) 30MHz -25GHz**

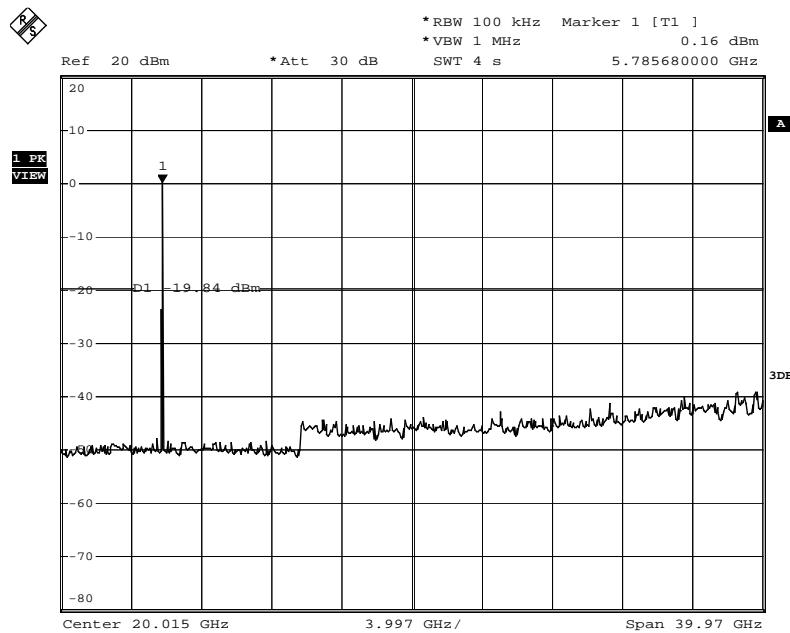


Product : Tablet PC MC-C5 / MC-F5  
Test Item : RF Antenna Conducted Spurious  
Test Site : No.3 OATS  
Test Mode : Mode 3: Transmitter - 802.11a 6Mbps

**Channel 149 (5745MHz) 30MHz -40GHz**

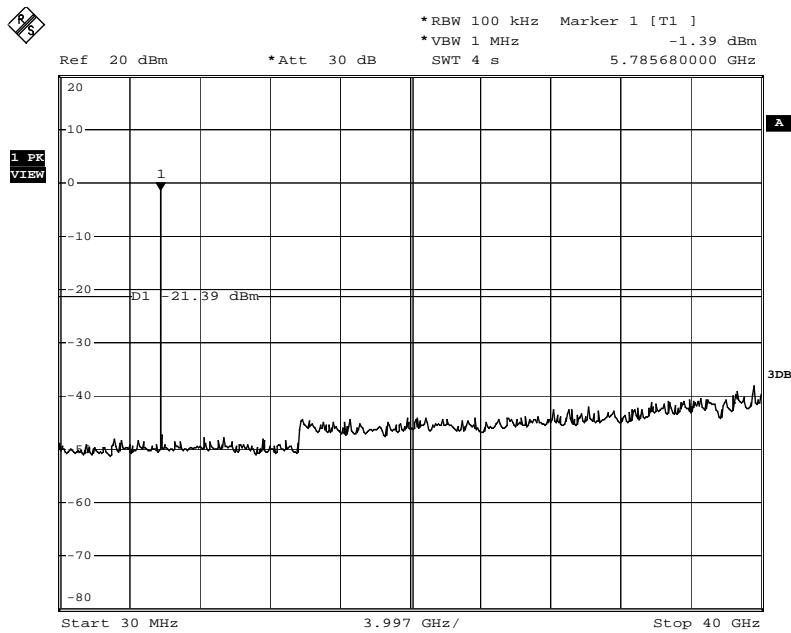
Date: 26.APR.2010 03:28:03

**Channel 157 (5785MHz) 30MHz -40GHz**



Date: 26.APR.2010 03:29:04

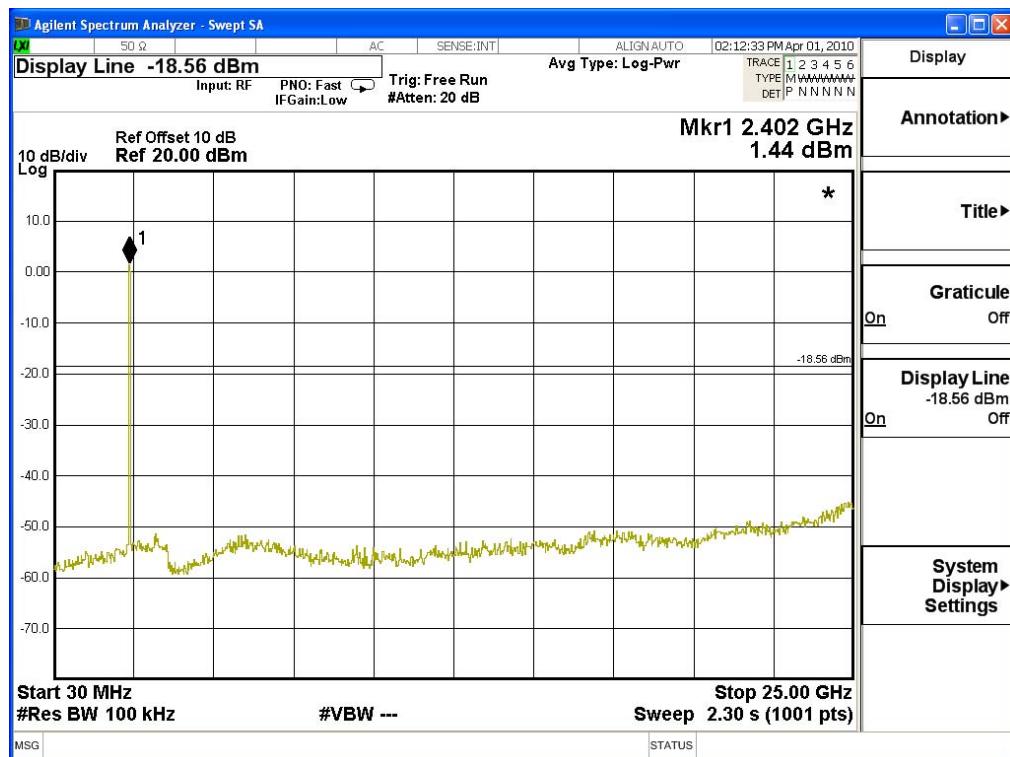
**Channel 165 (5825MHz) 30MHz -40GHz**



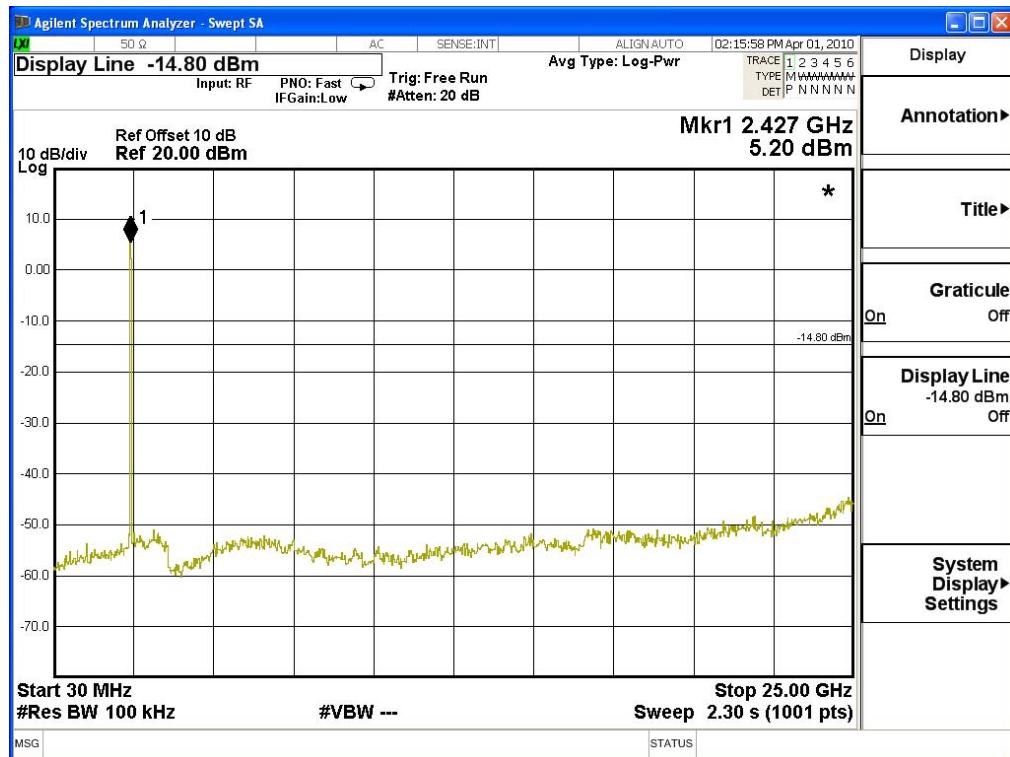
Date: 26.APR.2010 03:29:45

Product : Tablet PC MC-C5 / MC-F5  
 Test Item : RF Antenna Conducted Spurious  
 Test Site : No.3 OATS  
 Test Mode : Mode 4: Transmitter - 802.11n-20BW\_13Mbps(2.4G Band)

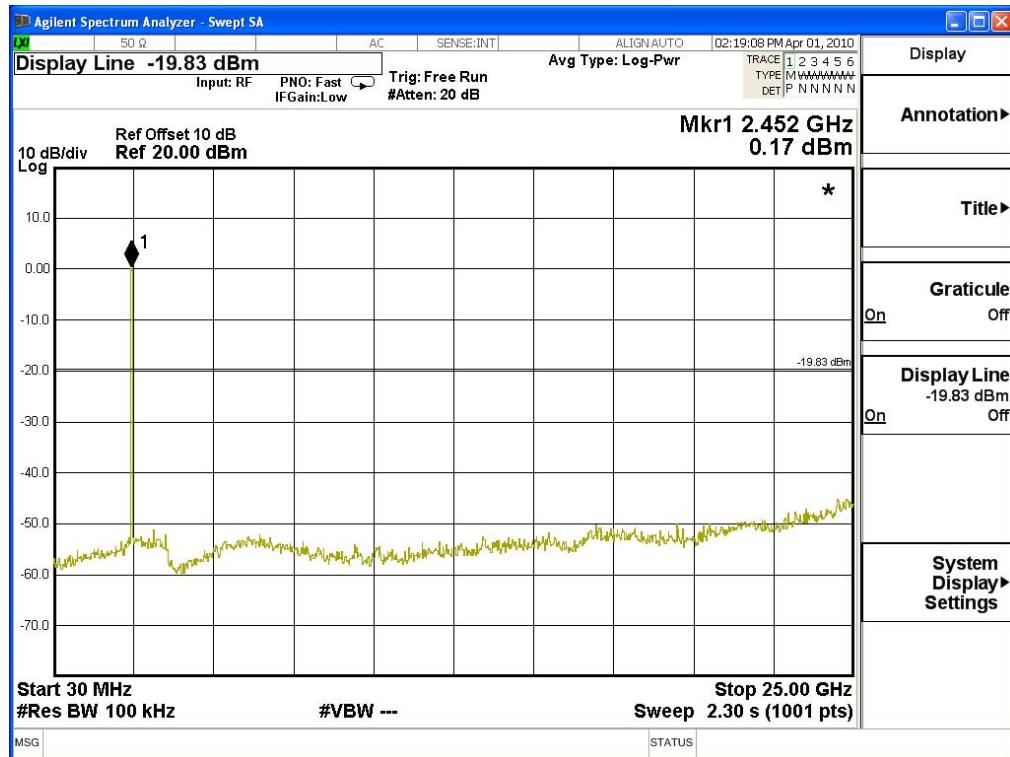
### Channel 01 (2412MHz) 30MHz -25GHz



**Channel 06 (2437MHz) 30MHz -25GHz**

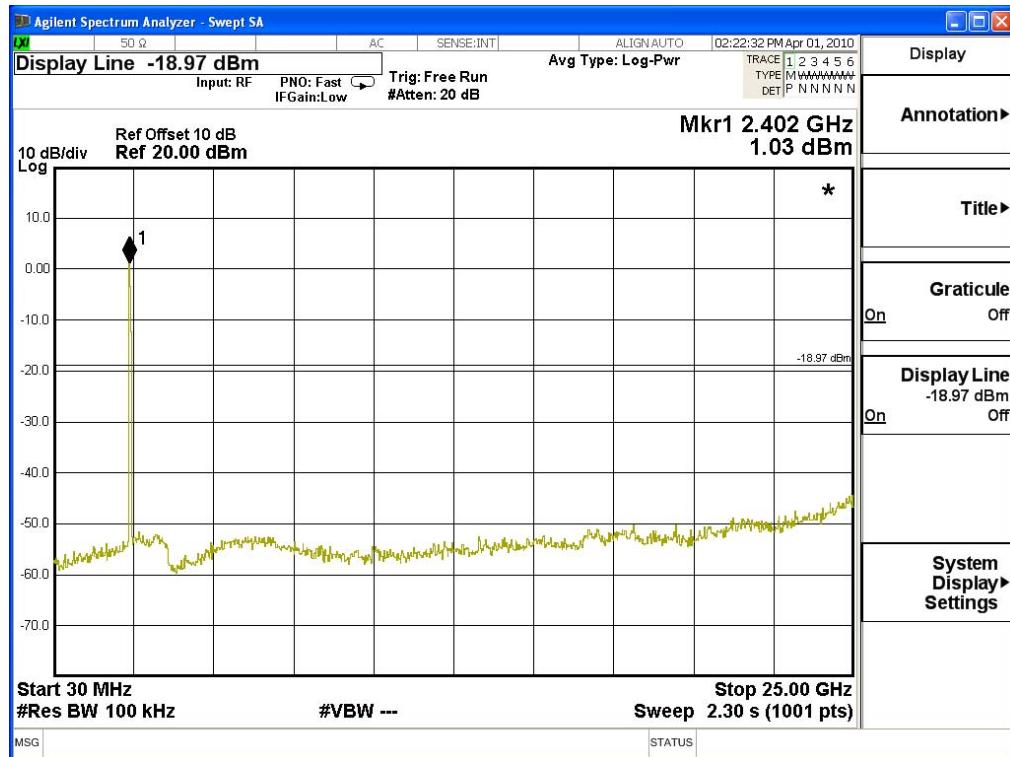


**Channel 11 (2462MHz) 30MHz -25GHz**

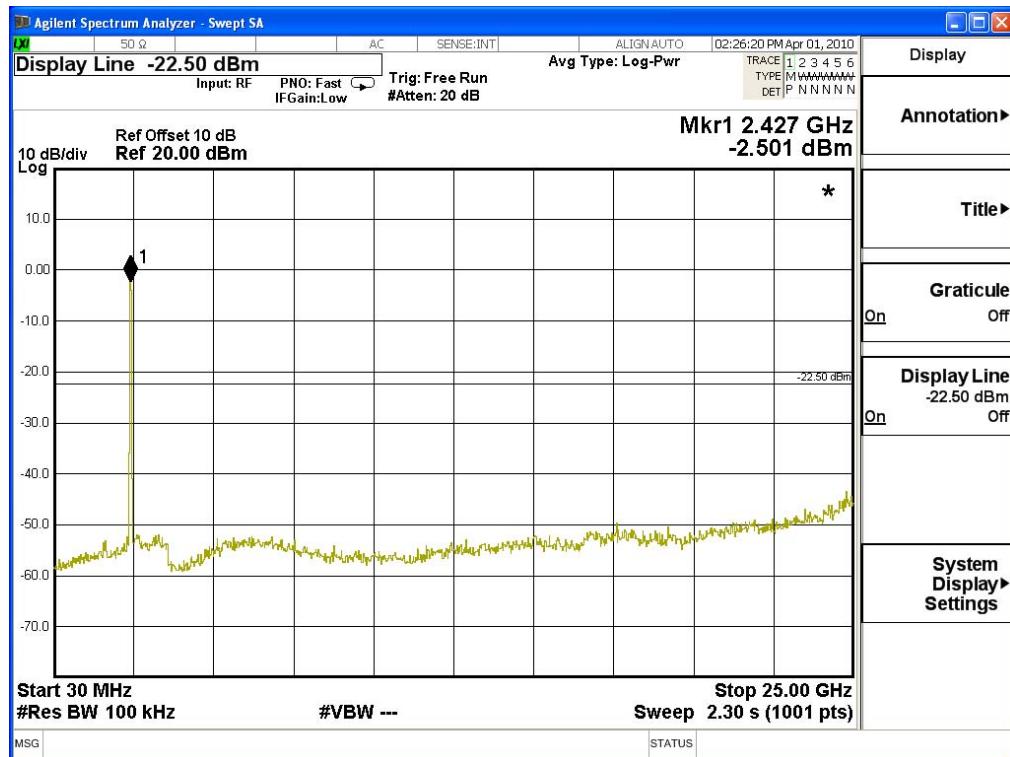


Product : Tablet PC MC-C5 / MC-F5  
 Test Item : RF Antenna Conducted Spurious  
 Test Site : No.3 OATS  
 Test Mode : Mode 5: Transmitter - 802.11n-40BW\_27Mbps(2.4G Band)

### Channel 01 (2422MHz) 30MHz -25GHz



**Channel 04 (2437MHz) 30MHz -25GHz**

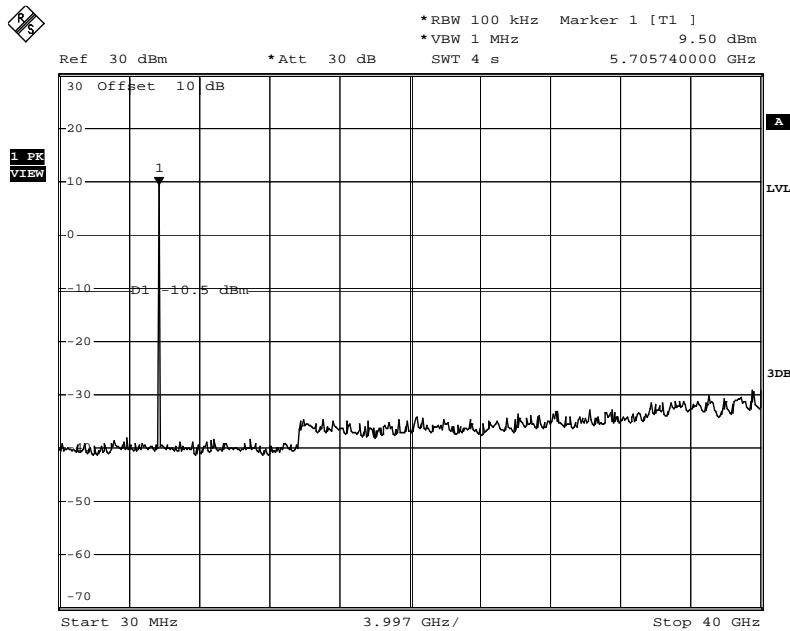


**Channel 07 (2452MHz) 30MHz -25GHz**



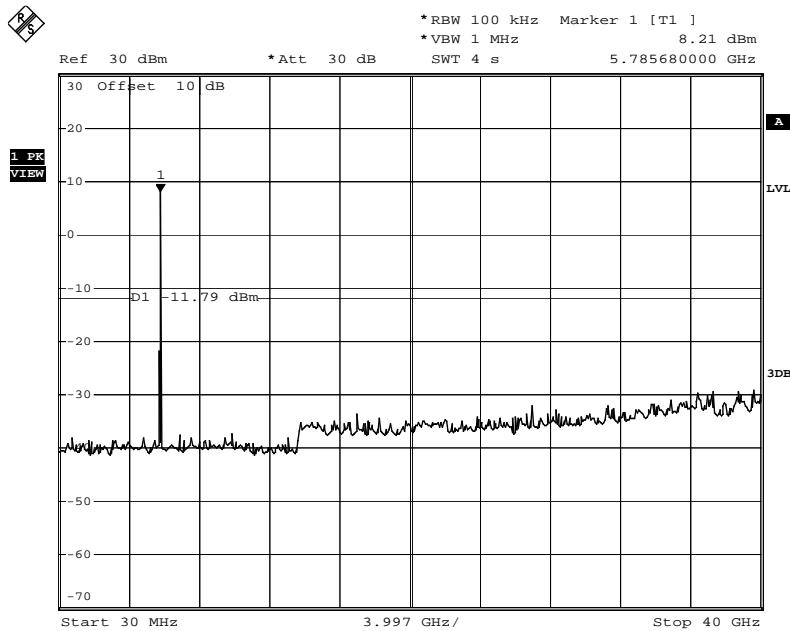
Product : Tablet PC MC-C5 / MC-F5  
 Test Item : RF Antenna Conducted Spurious  
 Test Site : No.3 OATS  
 Test Mode : Mode 6: Transmitter - 802.11n-20BW\_13Mbps(5G Band)

**Channel 49 (5745MHz) 30MHz -40GHz**



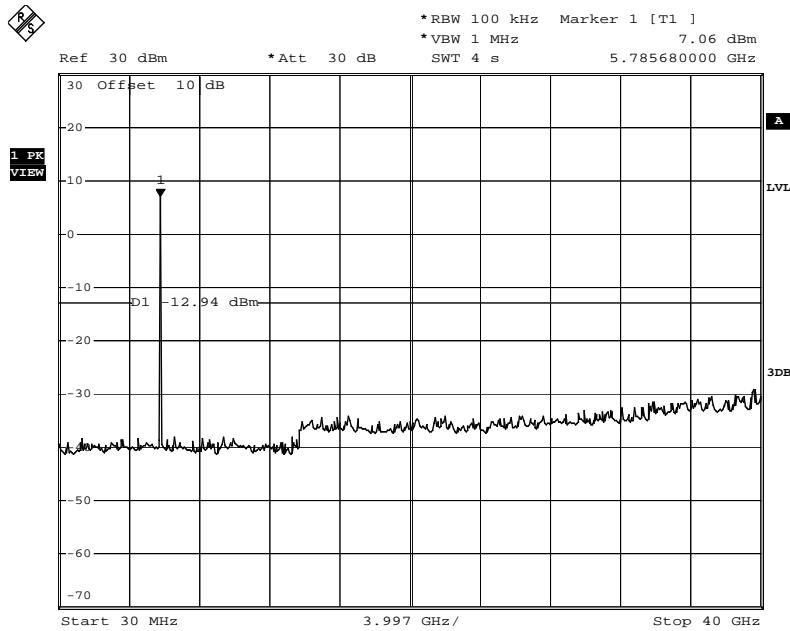
Date: 26.APR.2010 03:30:31

**Channel 157 (5785MHz) 30MHz -40GHz**



Date: 26.APR.2010 03:31:11

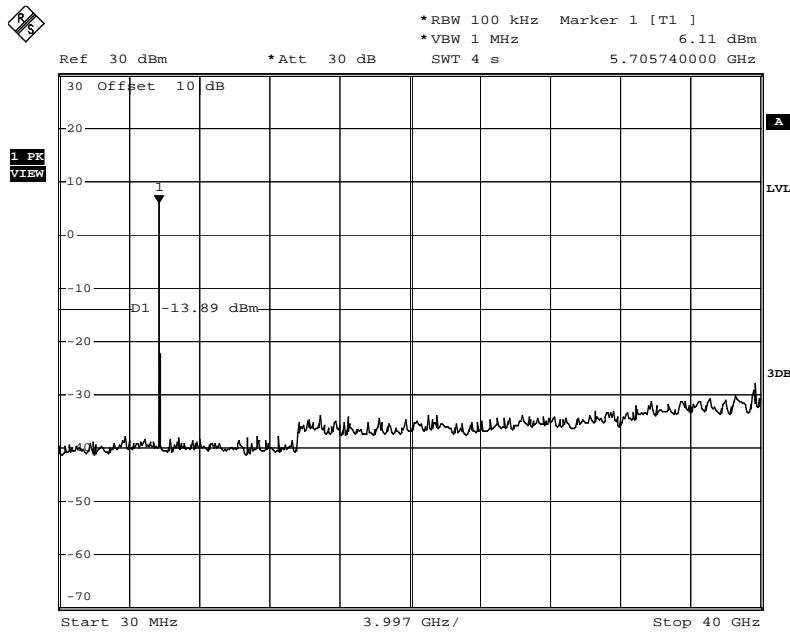
**Channel 165 (5825MHz) 30MHz -40GHz**



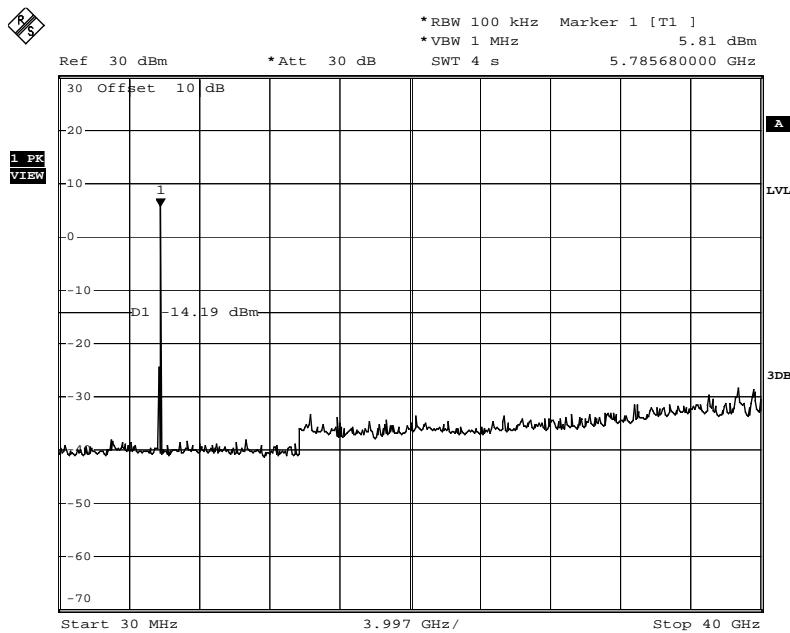
Date: 26.APR.2010 03:31:45

Product : Tablet PC MC-C5 / MC-F5  
 Test Item : RF Antenna Conducted Spurious  
 Test Site : No.3 OATS  
 Test Mode : Mode 7: Transmitter - 802.11n-40BW\_27Mbps(5G Band)

**Channel 151 (5755MHz) 30MHz -40GHz**



Date: 26.APR.2010 03:32:21

**Channel 159 (5795MHz) 30MHz -40GHz**

Date: 26.APR.2010 03:32:53

## 6. Band Edge

### 6.1. Test Equipment

#### RF Conducted Measurement

The following test equipments are used during the band edge tests:

Equipment	Manufacturer	Model No./Serial No.	Last Cal.
Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2009
Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2009
X Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2010
X 8-WAY Power Divider	JFW	50PD-647 / 526770 0916	Apr., 2010

Note:

1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
2. The test instruments marked with “X” are used to measure the final test results.
3. The power combiner is used for measure 11n mode.

#### RF Radiated Measurement:

The following test equipments are used during the band edge tests:

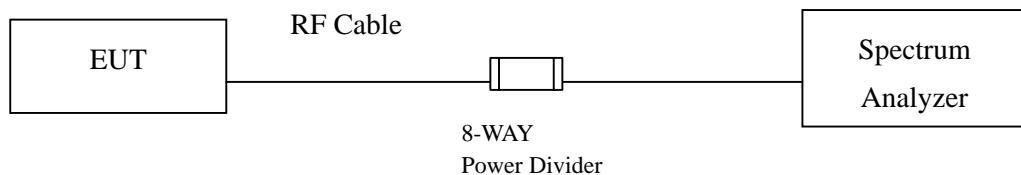
Test Site	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
☒Site # 3	Bilog Antenna	Schaffner Chase	CBL6112B/2673	Sep., 2009
	X Horn Antenna	Schwarzbeck	BBHA9120D/D305	Sep., 2009
	Horn Antenna	Schwarzbeck	BBHA9170/208	Jul., 2009
	X Pre-Amplifier	Agilent	8447D/2944A09549	Sep., 2009
	X Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2009
	Test Receiver	R & S	ESCS 30/ 825442/018	Sep., 2009
	X Coaxial Cable	QuieTek	QTK-CABLE/ CAB5	Feb., 2010
	X Controller	QuieTek	QTK-CONTROLLER/ CTRL3	N/A
	X Coaxial Switch	Anritsu	MP59B/6200265729	N/A

Note:

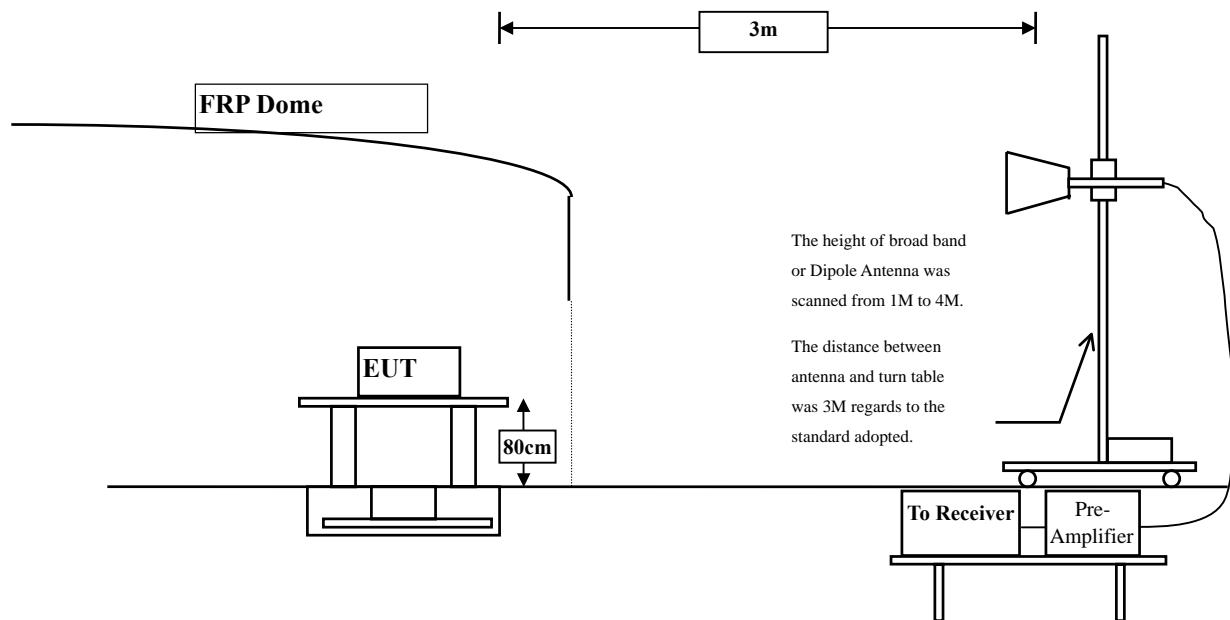
1. All instruments are calibrated every one year.
2. The test instruments marked by “X” are used to measure the final test results.

## 6.2. Test Setup

### RF Conducted Measurement



### RF Radiated Measurement:



## 6.3. Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

#### **6.4. Test Procedure**

The EUT was setup according to ANSI C63.4, 2003 and tested according to DTS test procedure of Mar. 2005 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

The EUT is placed on a turn table which is 0.8 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.4:2003 on radiated measurement.

#### **6.5. Uncertainty**

± 3.9 dB above 1GHz

± 3.8 dB below 1GHz

## 6.6. Test Result of Band Edge

Product : Tablet PC MC-C5 / MC-F5  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit (802.11b 1Mbps)

### Fundamental Filed Strength

Antenna Pole	Frequency [MHz]	Correction Factor [dB/m]	Reading Level [dBuV]	Emission Level [dBuV/m]	Detector
Horizontal	2412	31.771	72.89	104.662	Peak
Horizontal	2412	31.771	68.74	100.512	Average
Vertical	2412	30.248	73.04	103.289	Peak
Vertical	2412	30.248	68.87	99.119	Average

Note: 1:Spectrum Analyzer setting:

Peak detector: RBW=1MHz, VBW=1MHz

Average detector: RBW=1MHz, VBW=10Hz

### Band Edge Test Data

Antenna Pole	Test Frequency (MHz)	Fundamental (dBuV/m)	$\Delta$ (dB)	Band Edge Field Strength (dBuV/m)	Detector
Horizontal	2386	104.662	50.86	53.802	Peak
Horizontal	2386.1	100.512	57.37	43.142	Average
Vertical	2386	103.289	50.86	52.429	Peak
Vertical	2386.1	99.119	57.37	41.749	Average

Note:

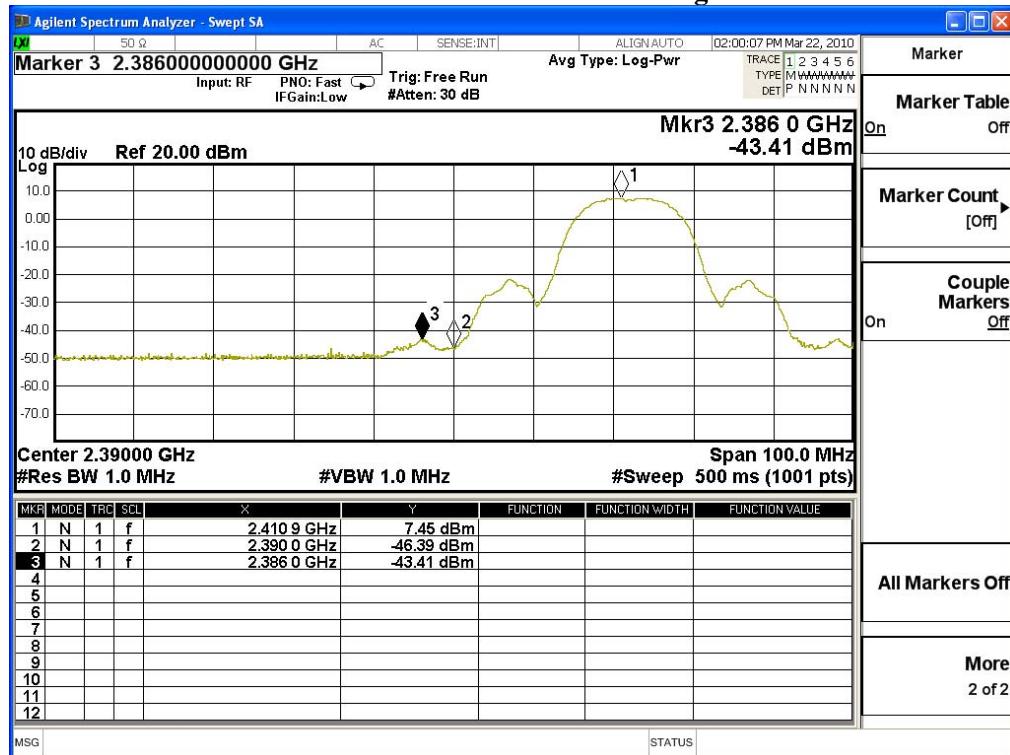
The Band Edge Field Strength was calculated using the Fundamental and Conducted Band Edge measurements per the Marker-Delta Method with the following formula:

Band Edge field Strength = F -  $\Delta$

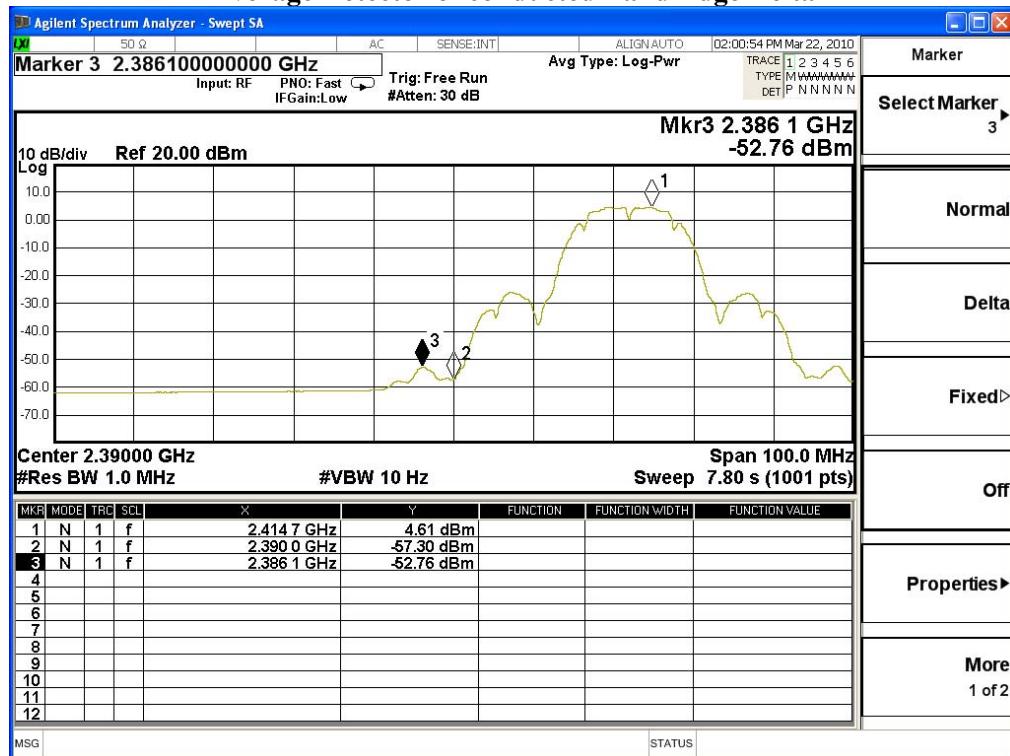
F = Fundamental field Strength (Peak or Average)

$\Delta$  = Conducted Band Edge Delta (Peak or Average)

### Peak Detector of conducted Band Edge Delta



### Average Detector of conducted Band Edge Delta



Product : Tablet PC MC-C5 / MC-F5  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit (802.11b 1Mbps)

#### Fundamental Filed Strength

Antenna Pole	Frequency [MHz]	Correction Factor [dB/m]	Reading Level [dBuV]	Emission Level [dBuV/m]	Detector
Horizontal	2462	31.892	72.36	104.252	Peak
Horizontal	2462	31.892	68.18	100.072	Average
Vertical	2462	30.48	70.03	100.51	Peak
Vertical	2462	30.48	66.49	96.97	Average

Note: 1:Spectrum Analyzer setting:

Peak detector: RBW=1MHz, VBW=1MHz

Average detector: RBW=1MHz, VBW=10Hz

#### Band Edge Test Data

Antenna Pole	Test Frequency (MHz)	Fundamental (dBuV/m)	$\Delta$ (dB)	Band Edge Field Strength (dBuV/m)	Detector
Horizontal	2483.5	104.252	52.04	52.212	Peak
Horizontal	2483.5	100.072	59.36	40.712	Average
Vertical	2483.5	100.51	52.04	48.47	Peak
Vertical	2483.5	96.97	59.36	37.61	Average

Note:

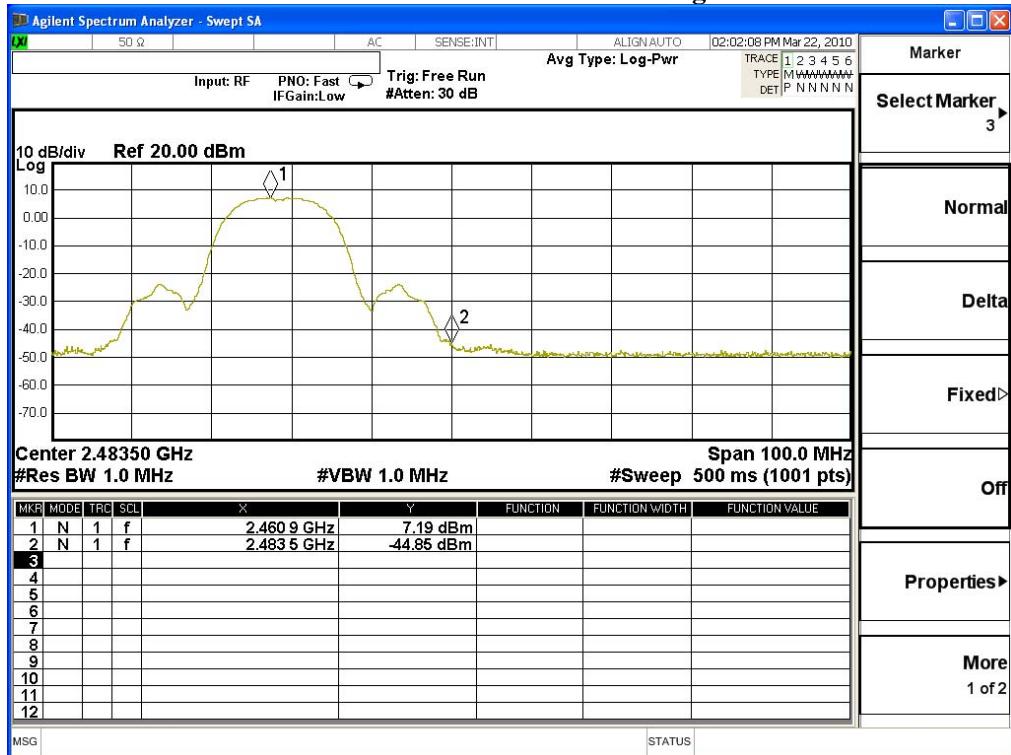
The Band Edge Field Strength was calculated using the Fundamental and Conducted Band Edge measurements per the Marker-Delta Method with the following formula:

Band Edge field Strength = F -  $\Delta$

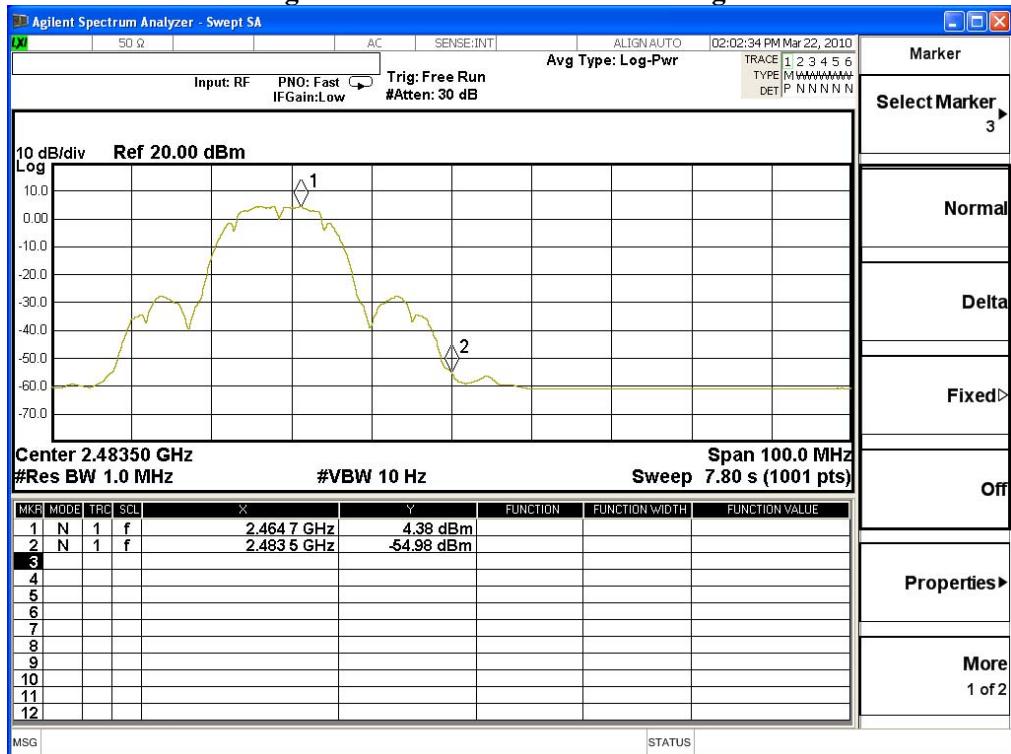
F = Fundamental field Strength (Peak or Average)

$\Delta$  = Conducted Band Edge Delta (Peak or Average)

**Peak Detector of conducted Band Edge Delta**



**Average Detector of conducted Band Edge Delta**



Product : Tablet PC MC-C5 / MC-F5  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit (802.11g 6Mbps)

#### Fundamental Filed Strength

Antenna Pole	Frequency [MHz]	Correction Factor [dB/m]	Reading Level [dBuV]	Emission Level [dBuV/m]	Detector
Horizontal	2412	31.771	72.7	104.472	Peak
Horizontal	2412	31.771	62.32	94.092	Average
Vertical	2412	30.248	72.41	102.659	Peak
Vertical	2412	30.248	62.34	92.589	Average

Note: 1:Spectrum Analyzer setting:

Peak detector: RBW=1MHz, VBW=1MHz

Average detector: RBW=1MHz, VBW=10Hz

#### Band Edge Test Data

Antenna Pole	Test Frequency (MHz)	Fundamental (dBuV/m)	$\Delta$ (dB)	Band Edge Field Strength (dBuV/m)	Detector
Horizontal	2390	104.472	41.25	63.222	Peak
Horizontal	2390	94.092	53.07	41.022	Average
Vertical	2390	102.659	41.25	61.409	Peak
Vertical	2390	92.589	53.07	39.519	Average

#### Note:

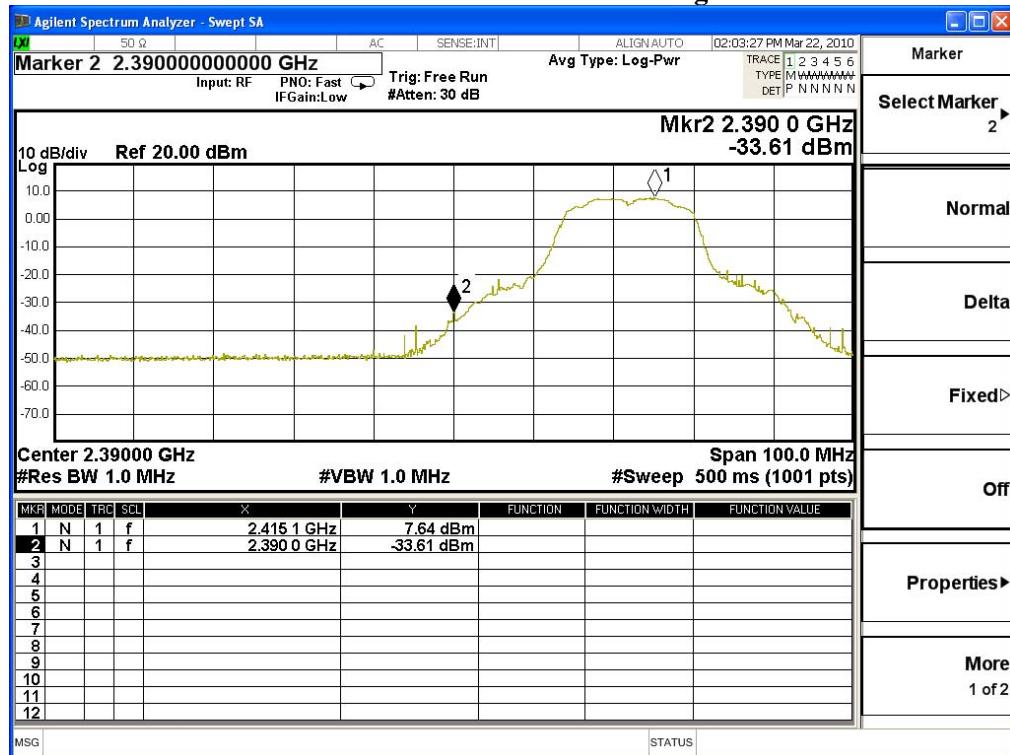
The Band Edge Field Strength was calculated using the Fundamental and Conducted Band Edge measurements per the Marker-Delta Method with the following formula:

Band Edge field Strength = F -  $\Delta$

F = Fundamental field Strength (Peak or Average)

$\Delta$  = Conducted Band Edge Delta (Peak or Average)

**Peak Detector of conducted Band Edge Delta**



**Average Detector of conducted Band Edge Delta**

