



# A Test Lab Techno Corp.

No.140-1, Chang-an St., Bade City, Tao-Yuan County 334, Taiwan (R.O.C.)  
Tel : +886-3-2710188 / Fax : +886-3-2710190

## Measurement Report



<b>Report No. :</b>	<b>0701FR11</b>
<b>Applicant :</b>	<b>Inventec Corporation</b>
<b>Manufacturer Name :</b>	<b>Inventec Corporation</b>
<b>Product Model :</b>	<b>Mercury 619</b>
<b>Product Type :</b>	<b>PDA PHONE</b>
<b>FCC ID :</b>	<b>DGIBC0153AAA000</b>
<b>Dates of Test :</b>	<b>Dec. 14, 2006 ~ Feb. 11,2006</b>
<b>Test Specification :</b>	<b>Part 15 Subpart B &amp; C (15.247)</b>
<b>Location of Test Lab. :</b>	<b>Changan</b>

1. The test operations have to be performed with cautious behavior, the test results are as attached.
2. The test results are under chamber environment of A Test Lab Techno Corp. A Test Lab Techno Corp. does not assume responsibility for any conclusions and generalizations drawn from the test results with regard to other specimens or samples.
3. The measurement report has to be written approval of A Test Lab Techno Corp. It may only be reproduced or published in full.

**Country Huang** 20070214  
**Measurement Center Manager**

**John Cheng** 20070214  
**Testing Engineer**




## CERTIFICATION

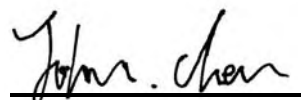
We here by verify that:

The test data, data evaluation, test procedures and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.4:2001. All test were conducted by *A Test Lab Techno Corp. No.140-1, Chang-an St., Bade City, Tao-Yuan County 334, Taiwan (R.O.C.)* Also, we attest to the accuracy of each.

We further submit that the energy emitted by the sample EUT tested as described in the report is in compliance with Class B radiated and conducted emission limit of FCC Rules Part 15 Subpart B & C (15.247).

EUT : PDA PHONE  
Applicant : Inventec Corporation  
NO.,66 Hou-Kang Street Shih-Lin District,  
Taipei 11170, Taiwan (R.O.C.)  
Manufacturer : Inventec Corporation  
NO.,66 Hou-Kang Street Shih-Lin District,  
Taipei 11170, Taiwan (R.O.C.)  
Model No : Mercury 619  
FCC ID : DGIBC0153AAA000

Approved by :   
Country Huang

Prepared by :   
John Cheng

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# Contents

<b>1. GENERAL</b>	<b>5</b>
1.1 Description of Equipment under Test (EUT)	5
1.2 Introduction	6
1.3 Summary of Tests	6
1.4 Description of Support Equipment	7
1.5 Configuration of System under Test	8
1.6 Test Procedure	9
1.7 General Test Condition	9
<b>2. Conducted Emissions Requirements</b>	<b>10</b>
2.1 General & Setup	10
2.2 Test Equipment List	10
2.3 Test Configuration	11
2.4 Test condition	12
2.5 Conducted Emissions Limits	12
2.6 Measurement Data Of Conducted Emissions	13
<b>3. Radiated Emissions Requirements</b>	<b>16</b>
3.1 Final radiation measurements were made on a three-meter	16
3.2 Test Equipment List	18
3.3 Test Configuration	19
3.4 Test condition	21
3.5 Radiated Emissions Limits	21
3.6 Measurement Data of Radiated Emissions	21
<b>4. Maximum Conducted Output Power Requirements</b>	<b>90</b>
4.1 Test Condition & Setup	90
4.2 Test Instruments Configuration	90
4.3 Test Equipment List	91
4.4 Test Result _ Bluetooth 2.0 Mode	91
4.5 Test Graphs _ Bluetooth 2.0 Mode	92
4.6 Test Result _ Bluetooth EDR Mode	94
4.7 Test Graphs _ Bluetooth EDR Mode	95
<b>5. Minimum 20dB RF Bandwidth Requirements</b>	<b>97</b>
5.1 Test Condition & Setup	97
5.2 Test Instruments Configuration	97
5.3 Test Equipment List	98
5.4 Test Result _ Bluetooth 2.0 Mode	98
5.5 Test Graphs _ Bluetooth 2.0 Mode	98
5.6 Test Result _ Bluetooth EDR Mode	100
5.7 Test Graphs _ Bluetooth EDR Mode	100
<b>6. Carrier Frequency Separation Requirements</b>	<b>102</b>
6.1 Test Condition & Setup	102
6.2 Test Instruments Configuration	102
6.3 Test Equipment List	103
6.4 Test Result	103



# Contents

<b>7. Number of Hopping Requirements.....</b>	<b>104</b>
7.1 Test Condition & Setup .....	104
7.2 Test Instruments Configuration.....	104
7.3 Test Equipment List .....	105
7.4 Test Result .....	105
7.5 Test Graphs .....	106
<b>8. Time of Occupancy (Dwell Time) Requirements.....</b>	<b>107</b>
8.1 Test Condition & Setup .....	107
8.2 Test Instruments Configuration .....	107
8.3 Test Equipment List.....	108
8.4 Test Result _ Bluetooth 2.0 Mode .....	108
8.5 Test Graphs _ Bluetooth 2.0 Mode .....	109
8.6 Test Result _ Bluetooth EDR Mode .....	111
8.7 Test Graphs _ Bluetooth EDR Mode.....	112
<b>9. Out of Band Conducted Emissions Requirement .....</b>	<b>114</b>
9.1 Test Condition & Setup .....	114
9.2 Test Instruments Configuration .....	114
9.3 Test Equipment List.....	115
9.4 Test Result .....	115
9.5 Test Graphs.....	116
9.6 Test Graphs _ Bluetooth EDR Mode.....	131
<b>10. Band Edges Requirements .....</b>	<b>146</b>
10.1 Test Condition & Setup .....	146
10.2 Test Instruments Configuration .....	146
10.3 Test Equipment List.....	147
10.4 Test Result _ Bluetooth 2.0 Mode .....	148
10.5 Test Result _ Bluetooth EDR Mode .....	153
<b>11. Antenna Requirements.....</b>	<b>158</b>
11.1 Standard Applicable .....	158
11.2 Antenna Connector Construction.....	158
<b>Appendix A – EUT Test SETUP(MEASUREMENT OF POWER LINE CONDUCTED RFI VOLTAGE) .....</b>	<b>159</b>
<b>Appendix B – EUT Test SETUP(MEASUREMENT OF RADIATED EMISSION) .....</b>	<b>160</b>



## 1. GENERAL

### 1.1 Description of Equipment under Test (EUT)

Applicant :

**Inventec Corporation**  
**NO.,66 Hou-Kang Street Shih-Lin District, Taipei 11170, Taiwan (R.O.C.)**

**Manufacturer Name** : Inventec Corporation  
**Product Model** : Mercury 619  
**Product Type** : PDA PHONE  
**FCC ID** : DGIBC0153AAA000  
**Battery Type** : Powered by Bettery (4.2V Li-ion Battery Pack)  
**Frequency of Channel** : See Table 1  
**Type of Modulation** : Frequency Hopping Spread Spectrum  
**Type of Antenna** : Internal Antenna Type Antenna

During testing the EUT was operated at Tx or Rx mode for each emission measured. This was done in order to ensure that maximum emission levels were attained.

CH No.	Freq.	CH No.	Freq.	CH No.	Freq.	CH No.	Freq.
0	2402.00	20	2422.00	40	2442.00	60	2462.00
1	2403.00	21	2423.00	41	2443.00	61	2463.00
2	2404.00	22	2424.00	42	2444.00	62	2464.00
3	2405.00	23	2425.00	43	2445.00	63	2465.00
4	2406.00	24	2426.00	44	2446.00	64	2466.00
5	2407.00	25	2427.00	45	2447.00	65	2467.00
6	2408.00	26	2428.00	46	2448.00	66	2468.00
7	2409.00	27	2429.00	47	2449.00	67	2469.00
8	2410.00	28	2430.00	48	2450.00	68	2470.00
9	2411.00	29	2431.00	49	2451.00	69	2471.00
10	2412.00	30	2432.00	50	2452.00	70	2472.00
11	2413.00	31	2433.00	51	2453.00	71	2473.00
12	2414.00	32	2434.00	52	2454.00	72	2474.00
13	2415.00	33	2435.00	53	2455.00	73	2475.00
14	2416.00	34	2436.00	54	2456.00	74	2476.00
15	2417.00	35	2437.00	55	2457.00	75	2477.00
16	2418.00	36	2438.00	56	2458.00	76	2478.00
17	2419.00	37	2439.00	57	2459.00	77	2479.00
18	2420.00	38	2440.00	58	2460.00	78	2480.00
19	2421.00	39	2441.00	59	2461.00		

Table 1. Bluetooth Frequency of Each Channel (Working Frequency)



## 1.2 Introduction

The following measurement report is submitted on behalf of **Inventec Corporation**. In support of a Class B Digital Device certification in accordance with Part2 Subpart J and Part 15 Subpart A And B&C of the Commission's and Regulations.

## 1.3 Summary of Tests

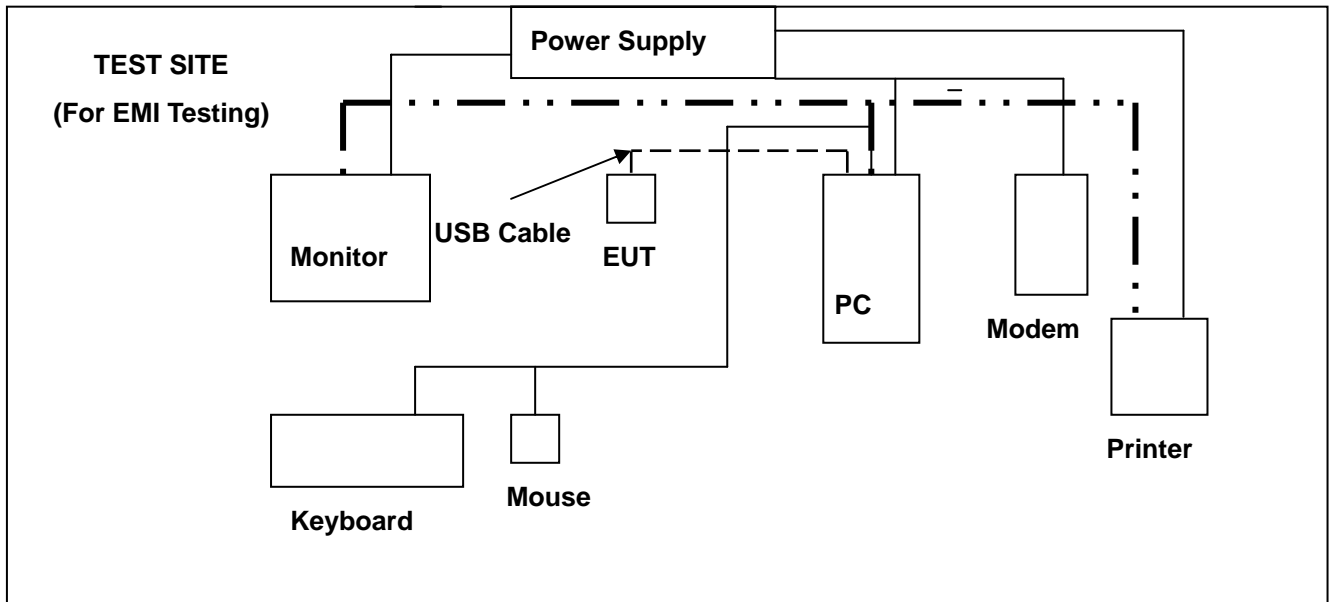
47 CFR Part 15 Subpart C			
Reference	Test	Results	Note
15.107	AC Power Conducted Emission	PASS	
15.247(c)	Transmitter Radiated Emissions	PASS	
15.247(b)	Max. Output Power	PASS	
15.247(a)(1)	20dB RF Bandwidth	PASS	
15.247(a)(1)(ii)	Carrier Frequency Separation	PASS	
15.247(a)(1)(i)	Number of Hopping	PASS	
15.247(a)(1)(i)	Time of Occupancy (Dwell Time)	PASS	
15.247(c)	Out of Band Conducted Spurious Emission	PASS	
15.247(c)	Band Edge Measurement	PASS	
15.203	Antenna Requirement	PASS	



#### 1.4 Description of Support Equipment

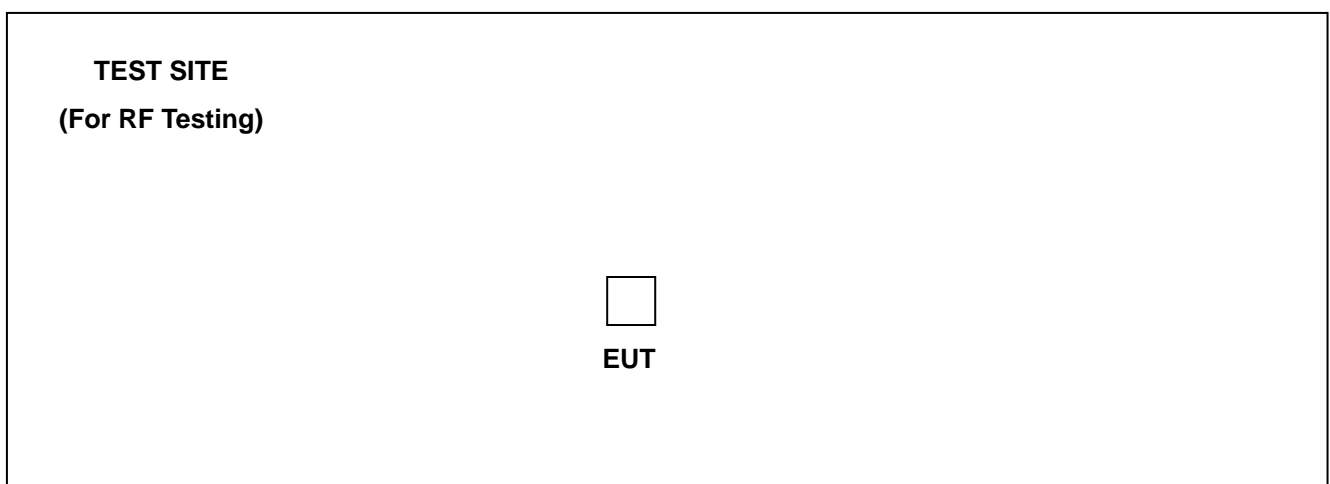
<b><u>Computer</u></b>	: IBM
<b>Model No.</b>	: 16W
<b>Serial No.</b>	: BNL345M
<b>FCC ID</b>	: FCC DOC
<b><u>Keyboard</u></b>	: IBM
<b>Model No.</b>	: KB-9930
<b>Serial No.</b>	: 09N5395
<b>FCC ID</b>	: FCC DOC
<b><u>Monitor</u></b>	: IBM
<b>Model No.</b>	: 10L6145 030
<b>Serial No.</b>	: 23-092079
<b>FCC ID</b>	: FCC DOC
<b><u>Mouse</u></b>	: IBM
<b>Model No.</b>	: 0180-05N
<b>Serial No.</b>	: 23-96142
<b>FCC ID</b>	: EMJMUJJ
<b><u>Printer</u></b>	: SII
<b>Model No.</b>	: DUP-414
<b>Serial No.</b>	: 730-029309-01
<b>FCC ID</b>	: FCC DOC

## 1.5 Configuration of System under Test



**Figure 1. Configuration of System Under Test**

During EMI testing (Charge Mode) the EUT (PDA Phone)'s USB port connected to the USB port of AE PC. A mouse was connected to the mouse port of IBM PC. And a keyboard was connected to the mouse port of IBM PC. And a printer was connected to the parallel port. An external modem connected the serial port and the external modem connected with two unterminated telephone cables on the line and phone jack.



**Figure 2. Configuration of System Under Test**

During RF testing (LINK Mode) the EUT (PDA Phone) was put on the center of turn table.





## **1.6 Test Procedure**

All measurements contained in this report were performed according to the techniques described in Measurement procedure ANSI C63.4-2001 "Measurement of un-Intentional Radiators."

## **1.7 General Test Condition**

The conditions under which the EUT operates were varied to determine their effect on the equipment's emission characteristics. The final configuration of the test system and the mode of operation used during these tests were chosen as that which produced the highest emission levels. However, only those conditions which the EUT was considered likely to encounter in normal use were investigated. The systems radiated and conducted emissions were investigated while the computer alternately transferred data to the EUT as well as to the monitor and printer. Using a test program which sent a continuous data and transferred data to and from the EUT was proven to worst case emissions. The system's physical layout and cabling was randomly arranged to ensure that maximum emission levels were attained.



## 2. Conducted Emissions Requirements

### 2.1 General & Setup:

The power line conducted emission measurements were performed in a shielded enclosure. The EUT was assembled on a wooden table which is 80 centimeters high, was placed 40 centimeters from the back wall and at least 1 meter from the sidewall.

Power was fed to the EUT from the public utility power grid through a line filter and EMCO Model 3162/2 SH Line Impedance Stabilization Networks (LISN). The LISN housing, measuring instrumentation case, ground plane, etc., were electrically bonded together at the same RF potential. The Spectrum analyzer was connected to the AC line through an isolation transformer. The 50-ohm output of the LISN was connected to the spectrum analyzer directly. Conducted emission levels were in the CISPR quasi-peak detection mode. The analyzer's 6 dB bandwidth was set to 9 KHz. No post-detector video filter was used.

The spectrum was scanned from 150 KHz to 30 MHz. The physical arrangement of the test system and associated cabling was varied (within the scope of arrangements likely to be encountered in actual use) to determine the effect on the unit's emanations in amplitude and frequency. All spurious emission frequencies were observed. The highest emission amplitudes relative to the appropriate limit were measured and have been recorded in paragraph 2.6.

### 2.2 Test Equipment List:

Describe	Manufacturer	Model	Serial Number	Calibration	
				Cal. Date	Due Date
Spectrum Analyzer	Advantest	R3132	160300103	Mar. 24, 2006	Mar. 24, 2007
Test Receiver	AFJ	AFJ ER 55C	55090625309	Mar. 07, 2006	Mar. 07, 2007
LISN	EMCO	3816/2 SH	00060110	May. 03, 2006	May. 02, 2007
LISN	EMCO	3816/2 SH	00060110	May. 03, 2006	May. 02, 2007
Transient Limiter	ELECTRO-METRICS	EM-7600	777	Jun. 26, 2006	Jun. 26, 2007

### 2.3 Test Configuration:



Figure 3. Front View of the Test Configuration



Figure 4. Rear View of the Test Configuration



## 2.4 Test condition:

EUT tested in accordance with the specifications given by the Manufacturer, and exercised in the most unfavorable manner.

## 2.5 Conducted Emissions Limits:

Frequency range (MHz)	Limits (dBuV)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56	56 to 46
0.50 to 5.0	56	46
5.0 to 30	60	50



## 2.6 Measurement Data of Conducted Emissions:

### 2.6.1 Conducted Emissions (Subpart B)

The following table show a summary of the highest emissions of power line conducted emissions to the HOT and NATURAL conductor of the EUT power.

Applicant : Inventec Corporation  
Model No : Mercury 619  
EUT : PDA PHONE  
Test Mode : Charge Mode  
Test Date : 12/14/2006

Please refer to next pager of detail testing data.

Notes:

1. L1: One end & Ground L2: The other end & Ground
2. Height of table on which the EUT was placed: 0.8 m.
3. The Quasi-Peak Value have already met the Average Value Limit showed on above limits.
4. The above test results are obtained under the normal condition.

### Conducted Emission Measurement

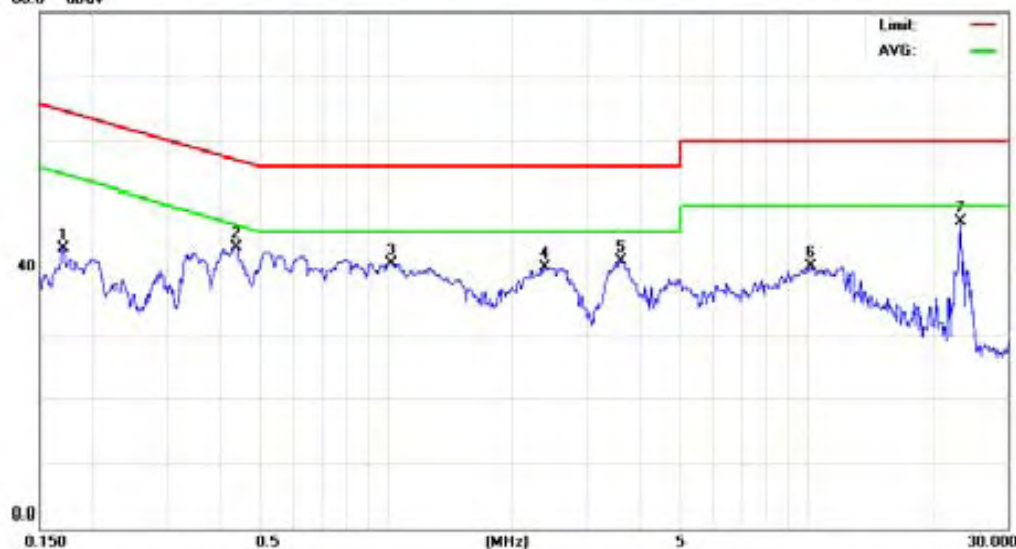
File :M619(12-14-2006)(BT&GPS

Data #5

Date: 2006/12/14

Time: 下午 02:20:40

80.0 dBuV



Site site #1

Phase: L1

Temperature: 26 °C

Limit: CISPR22 Class B Conduction(QP)

Power: AC 110V/50Hz

Humidity: 55 %

EUT:

Distance:

M/N:

Mode:

Note: MP3 play,BT Mode

No.	M.k.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Defector	Comment
1		0.1696	33.67	9.73	43.40	64.98	-21.58	peak	
2		0.4391	33.73	9.78	43.51	57.08	-13.57	peak	
3		1.0220	31.20	9.80	41.00	56.00	-15.00	peak	
4		2.3809	30.52	9.84	40.36	56.00	-15.64	peak	
5		3.5870	31.40	9.94	41.34	56.00	-14.66	peak	
6		10.2000	30.52	10.07	40.59	60.00	-19.41	peak	
7	*	23.1000	37.04	10.38	47.42	60.00	-12.58	peak	

\*:Maximum data x:Over limit !:over margin

●Reference Only

File :M619(12-14-2006)(BT&GPS)Data #5

Page: 1

Engineer Signature:



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# Conducted Emission Measurement

File #M619(12-14-2006)(BT@GPS

Data #6

Date: 2006/12/14

Time: 下午 02:22:12

80.0 dBuV



Site: site #1

Phase: L2

Temperature: 26 °C

Limit: CISPR22 Class B Conduction(QP)

Power: AC 110V/60Hz

Humidity: 55 %

EUT:

Distance:

M/N:

Mode:

Note: MP3 play,BT Mode

No.	MK.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Defect	Comment
1		0.1773	29.27	9.74	39.01	64.61	-25.60	peak	
2		0.4188	33.70	9.78	43.48	57.47	-13.99	peak	
3		1.0130	31.91	9.80	41.71	56.00	-14.29	peak	
4		2.4530	30.95	9.84	40.79	56.00	-15.21	peak	
5		3.6050	31.46	9.93	41.39	56.00	-14.61	peak	
6		12.1000	31.38	10.13	41.51	60.00	-18.49	peak	
7	*	23.1000	37.41	10.38	47.79	60.00	-12.21	peak	

\*:Maximum data x:Over limit !:over margin

●Reference Only

File #M619(12-14-2006)(BT@GPSData #6

Page: 1

Engineer Signature:



### **3. Radiated Emissions Requirements**

#### **3.1 Final radiation measurements were made on a three-meter:**

Final radiation measurements were made on a three-meter, Semi Anechoic Chamber. The EUT system was placed on a nonconductive turntable which is 0.8 meters height, top surface 1.0 x 1.5 meter. The spectrum was examined from 250 MHz to 2.5 GHz in order to cover the whole spectrum below 10th harmonic which could generate from the EUT. During the test, EUT was set to transmit continuously & Measurements spectrum range from 30 MHz to 26.5 GHz is investigated.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak. For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, and then the video bandwidth is set to 1 MHz for peak measurements and 10 Hz for average measurements.

A nonconductive material surrounded the EUT to supporting the EUT for standing on three orthogonal planes. At each condition, the EUT was rotated 360 degrees, and the antenna was raised and lowered from one to four meters to find the maximum emission levels. Measurements were taken using both horizontal and vertical antenna polarization.

SCHWARZBECK MESS-ELEKTRONIK Biconilog Antenna (model VULB9163) at 3 Meter and the SCHWARZBECK Double Ridged Guide Antenna (model BBHA9120D&9170) was used in frequencies 1 – 26.5 GHz at a distance of 1 meter. All test results were extrapolated to equivalent signal at 3 meters utilizing an inverse linear distance extrapolation Factor (20dB/decade).





For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission 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.

Appropriate preamplifiers were used for improving sensitivity and precautions were taken to avoid overloading or desensitizing the spectrum analyzer. No post – detector video filters were used in the test.

The spectrum analyzer's 6 dB bandwidth was set to 1 MHz, and the analyzer was operated in the peak detection mode, for frequencies both below and up 1 GHz. The average levels were obtained by subtracting the duty cycle correction factor from the peak readings.

The following procedures were used to convert the emission levels measured in decibels referenced to 1 microvolt (dBuV) into field intensity in micro volts per meter (uV/m).

The actual field intensity in decibels referenced to 1 microvolt in to field intensity in micro volts per meter (dBuV/m).

The actual field intensity in referenced to 1 microvolt per meter (dBuV/m) is determined by algebraically adding the measured reading in dBuV, the antenna factor (dB), and cable loss (dB) and Subtracting the gain of preamplifier (dB) is auto calculate in spectrum analyzer.

$$(1) \text{ Amplitude (dBuV/m) = FI (dBuV) + AF (dBuV) + CL (dBuV) - Gain (dB)}$$

FI= Reading of the field intensity.

AF= Antenna factor.

CL= Cable loss.

P.S Amplitude is auto calculate in spectrum analyzer.

$$(2) \text{ Actual Amplitude (dBuV/m) = Amplitude (dBuV) - Dis(dB)}$$

The FCC specified emission limits were calculated according the EUT operating frequency and by following linear interpolation equations:

(a) For fundamental frequency :

Transmitter Output < +30dBm

(b) For spurious frequency :

Spurious emission limits = fundamental emission limit /10



### 3.2 Test Equipment List:

Describe	Manufacturer	Model	Serial Number	Calibration	
				Cal. Date	Due Date
Spectrum Analyzer	Agilent	E4408B	MY45107753	Apr. 27, 2006	Apr. 26, 2007
Pre Amplifier	Agilent	8449B	3008A02237	May. 03, 2006	May. 02, 2007
Pre Amplifier	Agilent	8447D	2944A10961	Aug. 07, 2006	Aug. 07, 2007
Test Receiver	R&S	ESCI	100367	May. 03, 2006	May. 02, 2007
Biconilog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	9163-270	Jun. 26, 2006	Jun. 25, 2007
Horn Antenna	SCHWARZBECK MESS-ELEKTRONIK	BBHA9120D	9120D-550	Jun. 26, 2006	Jun. 25, 2007
Horn Antenna	SCHWARZBECK MESS-ELEKTRONIK	BBHA9170	9170-320	May. 02, 2006	May. 01, 2007
Horn Antenna	SCHWARZBECK MESS-ELEKTRONIK	BBHA9120E	0899	Jul. 29, 2006	Jul. 29, 2007

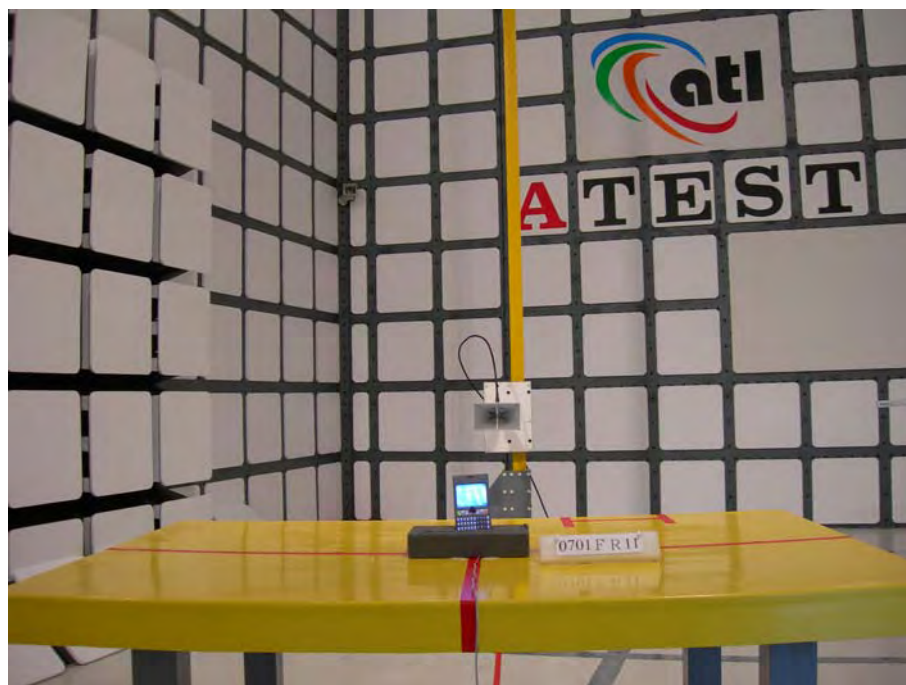
### 3.3 Test Configuration:



Figure 5. Front View of the Test Configuration



Figure 6. Rear View of the Test Configuration



**Figure 7. Front View of the Test Configuration**



**Figure 8. Rear View of the Test Configuration**



### 3.4 Test condition:

EUT tested in accordance with the specifications given by the manufacturer, and exercised in the most unfavorable manner.

### 3.5 Radiated Emissions Limits:

Frequency range (MHz)	Peak(dBuV)
30 to 88	40
88 to 216	43.5
216 to 960	46
Above 960	54



### 3.6 Measurement Data of Radiated Emissions:

#### 3.6.1 Open Field Radiated Emissions (Subpart B)

The highest peak values of radiated emissions from the EUT at various antenna heights, antenna polarization, EUT orientation, etc. are recorded on the following

Applicant : Inventec Corporation

Model No : Mercury 619

EUT : PDA PHONE

Test Mode : Charge Mode

Test Date : 12/21/2006

Please refer to next pager of detail testing data.

Notes:

1. Margin= Amplitude - Limits
2. Distance of Measurement: 3 Meter (30-1000MHz)
3. Height of table for EUT placed: 0.8 Meter.
4. ANT= Antenna height.
5. Amplitude= Reading Amplitude – Amplifier gain + Cable loss + Antenna factor  
(Auto calculate in spectrum analyzer)







### 3.6.2 Open Field Radiated Emissions (Subpart B&C) \_ Bluetooth 2.0 Mode

The highest peak values of radiated emissions from the EUT at various antenna heights, antenna polarization, EUT orientation, etc. are recorded on the following.

Applicant : Inventec Corporation  
Model No : Mercury 619  
EUT : PDA PHONE  
Test Mode : CH00 2402.000 (Local Frequency: 2402.000 MHz)  
Test Date : 12/21/2006

Please refer to next pager of detail testing data.

Notes:

1. Margin= Amplitude - Limits
2. Distance of Measurement: 3 Meter (30-1000MHz) & (1-10GHz), 1 Meter (10-26.5GHz)
3. Height of table for EUT placed: 0.8 Meter.
4. ANT= Antenna height.
5. Amplitude= Reading Amplitude – Amplifier gain + Cable loss + Antenna factor  
(Auto calculate in spectrum analyzer)
6. The EUT was worst case on X axis after pretest on X & Y & Z axis setting.
7. The testing data only show below 18GHz's data because measure data above 18GHz was only ambit noise.
8. All frequencies from 30MHz to 26.5GHz have been tested





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# Radiated Emission Measurement

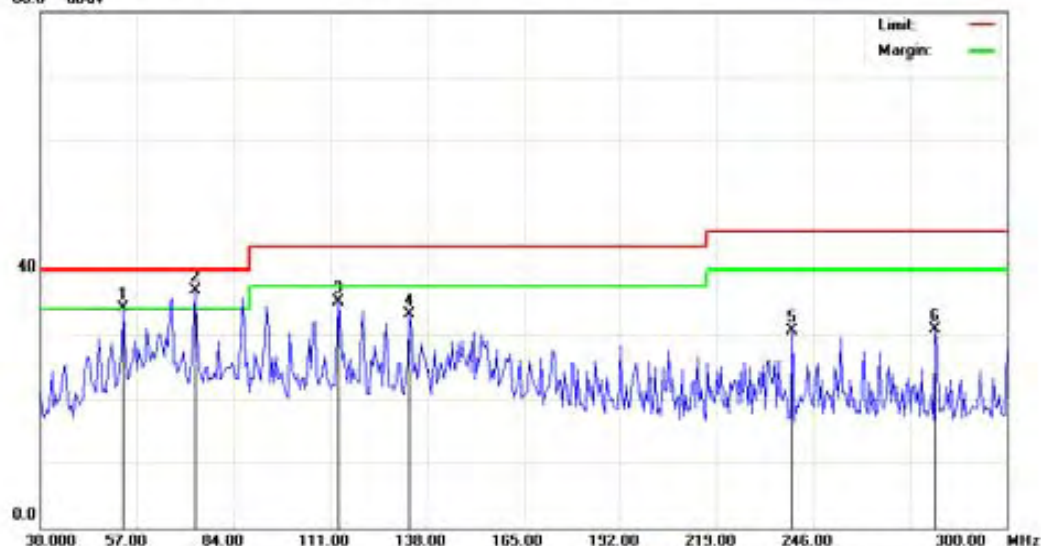
File :FCC part15C(12-21-2006)

Data :#45

Date :2006/12/21

Time :下午 12:03:31

80.0 dBuV



Site site #1

Polarization: *Vertical*

Temperature: 22°C

Limit: FCC Class B 3M Radiation

Power:

Humidity: 60%

EUT: PDA

Distance: 3m

MN: M519

Mode:

Note: CH:2402

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	!	53.2199	46.28	-12.19	34.09	40.00	-5.91	peak	
2	✓	73.2000	53.82	-16.95	36.87	40.00	-3.13	peak	
3		113.1599	48.22	-13.04	35.18	43.50	-8.32	peak	
4		133.1399	48.86	-15.85	33.01	43.50	-10.49	peak	
5		240.0600	41.96	-11.43	30.53	46.00	-15.47	peak	
6		280.0199	41.09	-10.41	30.68	46.00	-15.32	peak	

\*:Maximum data x:Over limit !over margin

■Reference Only

File :FCC part15C(12-21-2006)\Data :#45

Page: 1

Engineer Signature:



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NO.140-1,Changan Street,Bade City,Taoyuan Country 344,Taiwan.

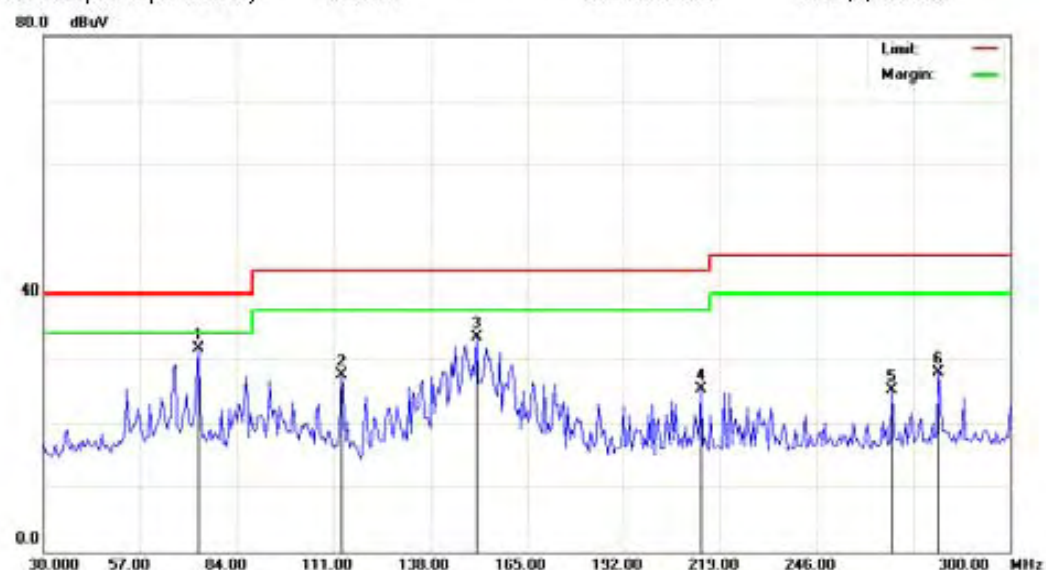
# Radiated Emission Measurement

File :FCC part15C(12-21-2006)

Data #47

Date: 2006/12/21

Time: 下午 12:12:02



Site site #1

Polarization: Horizontal

Temperature: 22℃

Limit: FCC Class B 3M Radiation

Power:

Humidity: 60 %

EUT: PDA

Distance: 3m

WN: M519

Mode:

Note: CH:2402

No.	MK.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	*	73.2000	48.42	-16.95	31.47	40.00	-8.53	peak	
2		113.1599	40.40	-13.04	27.36	43.50	-16.14	peak	
3		150.9600	49.29	-15.99	33.30	43.50	-10.20	peak	
4		213.5999	37.78	-12.73	25.05	43.50	-18.45	peak	
5		267.0600	35.81	-10.99	24.82	46.00	-21.18	peak	
6		280.0199	38.14	-10.41	27.73	46.00	-18.27	peak	

\*:Maximum data x:Over limit :over margin

■Reference Only

File :FCC part15C(12-21-2006)\Data :#47

Page: 1

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# Radiated Emission Measurement

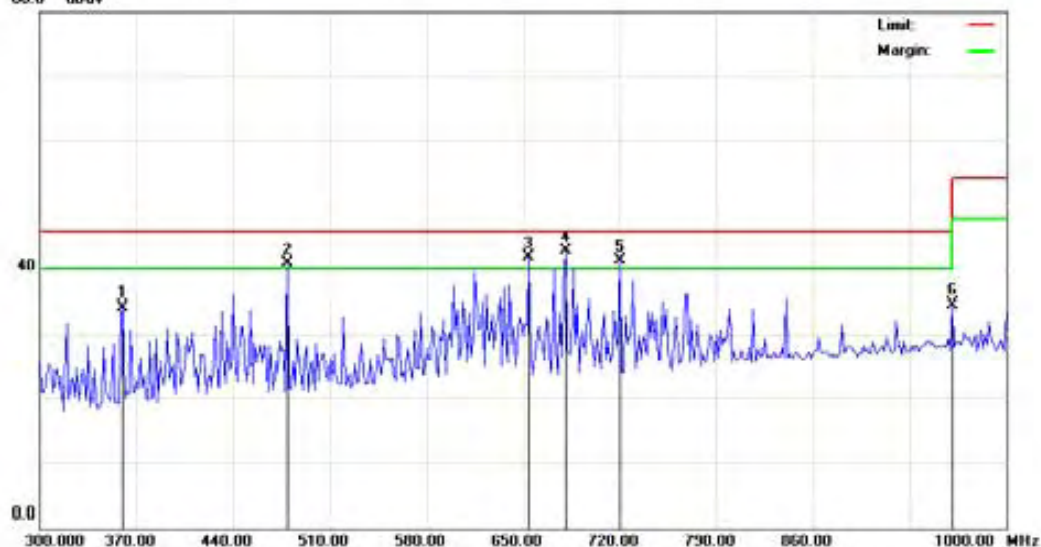
File: FCC part15C(12-21-2006)

Data #46

Date: 2006/12/21

Time: 下午 12:07:47

80.0 dBuV



Site site #1

Polarization: *Vertical*

Temperature: 22 °C

Limit: FCC Class B 3M Radiation

Power:

Humidity: 60 %

EUT: PDA

Distance: 3m

MN: M519

Mode:

Note: GH:2402

No.	MK.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Defector	Comment
1		360.1999	43.01	-8.97	34.04	46.00	-11.96	peak	
2	!	479.1999	48.59	-7.60	40.99	46.00	-5.01	peak	
3	!	654.2000	46.38	-4.43	41.95	46.00	-4.05	peak	
4	~	680.7999	46.91	-4.10	42.81	46.00	-3.19	peak	
5	!	720.0000	44.86	-3.55	41.31	46.00	-4.69	peak	
6		960.7999	34.11	0.47	34.58	54.00	-19.42	peak	

\*:Maximum data x:Over limit !:over margin

▲Reference Only

File: FCC part15C(12-21-2006)\Data #46

Page: 1

Engineer Signature:



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NO.140-1,Changan Street,Bade City,Taoyuan Country 344,Taiwan,

# Radiated Emission Measurement

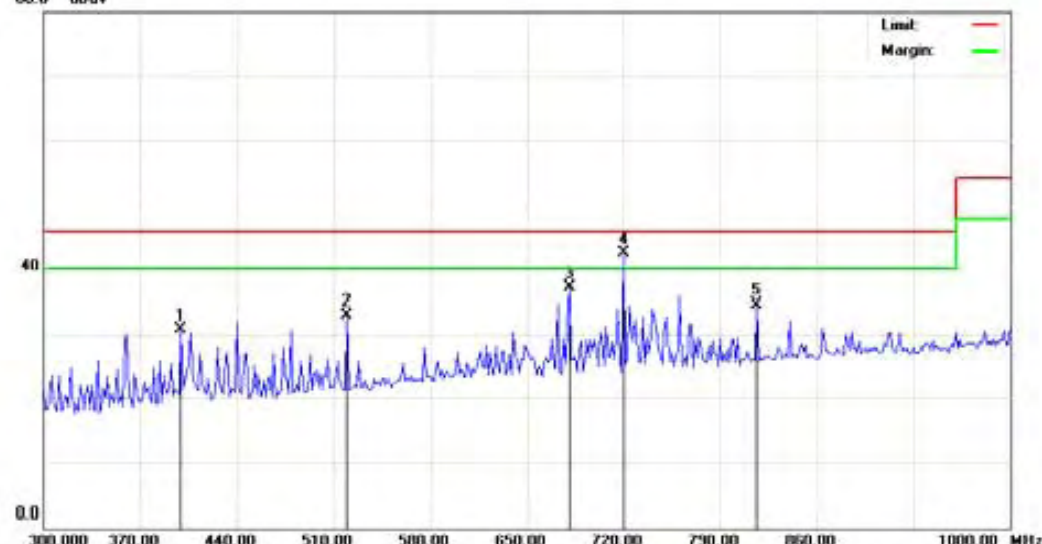
File :FCC part15C(12-21-2006)

Data #48

Date: 2006/12/21

Time: 下午 12:16:18

80.0 dBuV



Site site #1

Polarization: *Horizontal*

Temperature: 22 °C

Limit: FCC Class B 3M Radiation

Power:

Humidity: 60 %

EUT: PDA

Distance: 3m

WN: M619

Mode:

Note: CH:2402

No.	MK.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		399.4000	39.12	-8.35	30.77	46.00	-15.23	peak	
2		519.8000	39.55	-6.57	32.98	46.00	-13.02	peak	
3		680.8000	41.17	-4.10	37.07	46.00	-8.93	peak	
4	*	720.0000	45.99	-3.55	42.44	46.00	-3.56	peak	
5		816.6000	36.47	-1.98	34.49	46.00	-11.51	peak	

\*:Maximum data x:Over limit !:over margin

●Reference Only

File :FCC part15C(12-21-2006)\Data :#48

Page: 1

Engineer Signature:





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# Radiated Emission Measurement

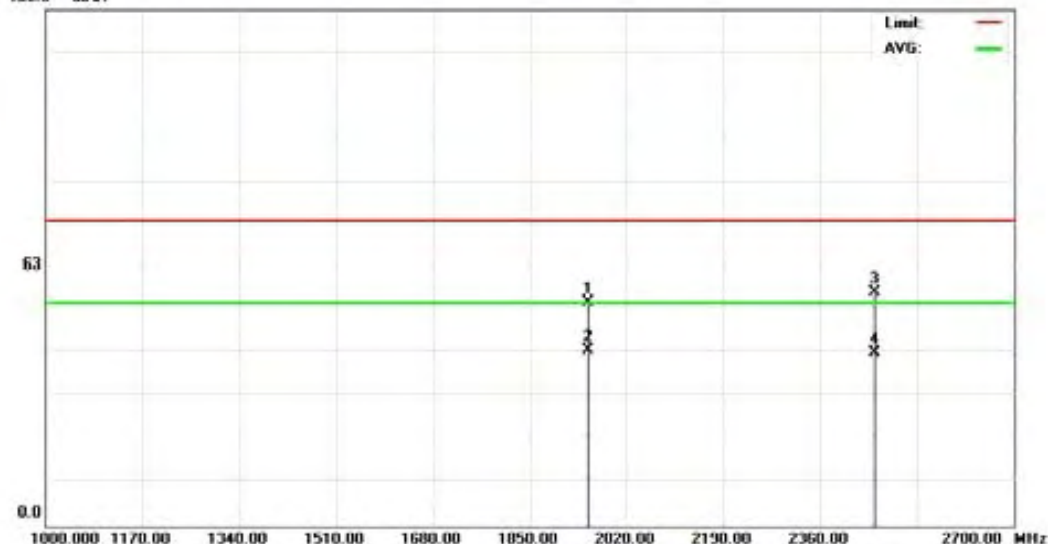
File :FCC part15C(12-21-2006)

Data :#9

Date: 2006/12/21

Time: 上午 09:19:35

125.0 dBuV



Site site #1

Polarization: *Vertical*

Temperature: 22 °C

Limit: FCC part 15 (PK)

Power:

Humidity: 60 %

EUT: PDA

Distance: 3m

MN: M519

Mode:

Note: CH:2402

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		1952.000	56.28	-1.97	54.31	74.00	-19.69	peak	
2	*	1952.000	44.38	-1.97	42.41	54.00	-11.59	AVG	
3		2455.200	56.63	0.14	56.77	74.00	-17.23	peak	
4		2455.200	41.49	0.14	41.63	54.00	-12.37	AVG	

\*:Maximum data x:Over limit |over margin

■Reference Only

File :FCC part15C(12-21-2006)\Data :#9

Page: 1

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# Radiated Emission Measurement

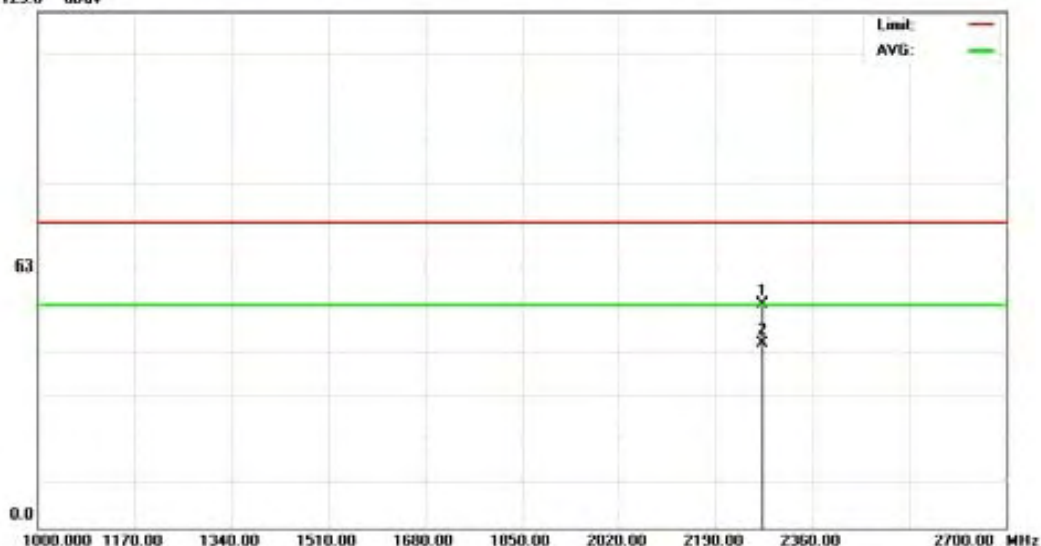
File :FCC part15C(12-21-2006)

Data #11

Date: 2006/12/21

Time: 上午 09:25:57

125.0 dBuV



Site site #1

Polarization: *Horizontal*

Temperature: 22 °C

Limit: FCC part 15 (PK)

Power:

Humidity: 60 %

EUT: PDA

Distance: 3m

MN: M619

Mode:

Note: CH:2402

No.	MK.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		2271.600	53.90	0.43	54.33	74.00	-19.67	peak	
2	*	2271.600	44.17	0.43	44.60	54.00	-9.40	AVG	

\*:Maximum data x:Over limit :over margin

■Reference Only

File :FCC part15C(12-21-2006)\Data :#11

Page: 1

Engineer Signature:



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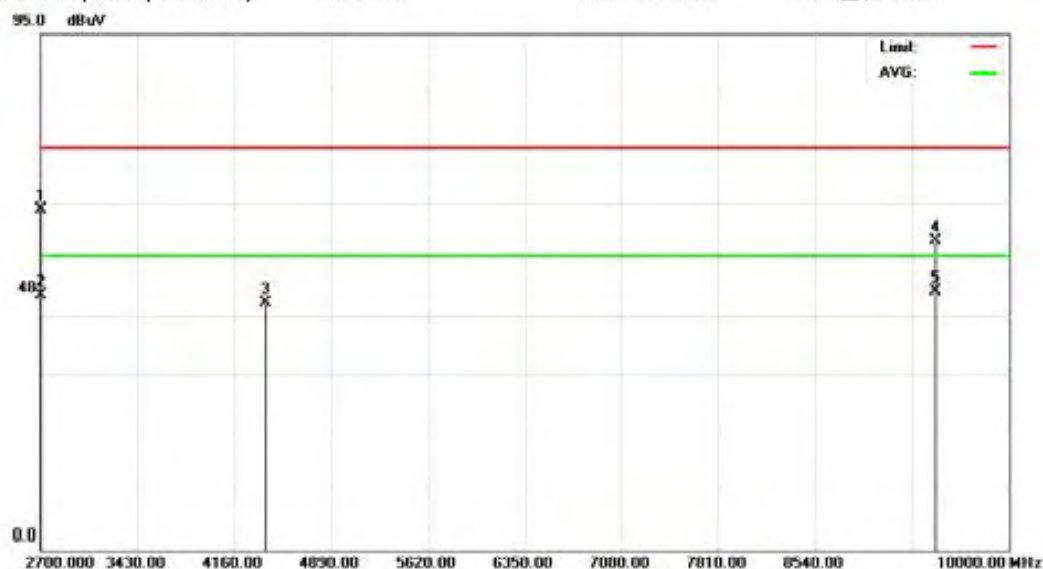
# Radiated Emission Measurement

File : FCC part15C(12-21-2006)

Data : #29

Date : 2006/12/21

Time : 上午 10:24:10



Site site #1

Polarization: *Vertical*

Temperature: 22 °C

Limit: FCC part 15 (PK)

Power:

Humidity: 60 %

EUT: PDA

Distance: 3m

MN: M519

Mode:

Note: CH:2402

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		2700.000	39.88	22.58	62.46	74.00	-11.54	peak	
2		2700.000	24.13	22.58	46.71	54.00	-7.29	AVG	
3		4397.250	39.34	5.80	45.14	74.00	-28.86	peak	
4		9452.500	39.98	17.00	56.98	74.00	-17.02	peak	
5	*	9452.500	30.33	17.00	47.33	54.00	-6.67	AVG	

\*:Maximum data x:Over limit !:over margin

■Reference Only

File : FCC part15C(12-21-2006)\Data #29

Page: 1

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# Radiated Emission Measurement

File :FCC part15C(12-21-2006)

Data #31

Date: 2006/12/21

Time: 上午 10:28:03



Site site #1

Polarization: *Horizontal*

Temperature: 22 °C

Limit: FCC part 15 (PK)

Power:

Humidity: 60 %

EUT: PDA

Distance: 3m

WN: M619

Mode:

Note: CH:2402

No.	MK.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		2700.000	39.31	22.58	61.89	74.00	-12.11	peak	
2		2700.000	19.08	22.58	41.66	54.00	-12.34	AVG	
3		8722.500	39.14	15.96	55.10	74.00	-18.90	peak	
4	*	8722.500	30.27	15.96	46.23	54.00	-7.77	AVG	

\*:Maximum data x:Over limit !:over margin

■Reference Only

File :FCC part15C(12-21-2006)\Data :#31

Page: 1

Engineer Signature:





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# Radiated Emission Measurement

File :FCC part15C(12-21-2006)

Data :#33

Date :2006/12/21

Time :上午 10:35:26



Site site #1

Polarization: *Vertical*

Temperature: 22℃

Limit: FCC part 15 (PK)

Power:

Humidity: 60 %

EUT: PDA

Distance: 1m

MN: M519

Mode:

Note: CH:2402

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		14400.00	39.18	17.94	57.12	74.00	-16.88	peak	
2		14400.00	30.66	17.94	48.60	54.00	-5.40	AVG	
3		18000.00	37.63	25.57	63.20	74.00	-10.80	peak	
4 *		18000.00	23.54	25.57	49.11	54.00	-4.89	AVG	

\*:Maximum data x:Over limit lower margin

Reference Only

File :FCC part15C(12-21-2006)\Data :#33

Page: 1

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# Radiated Emission Measurement

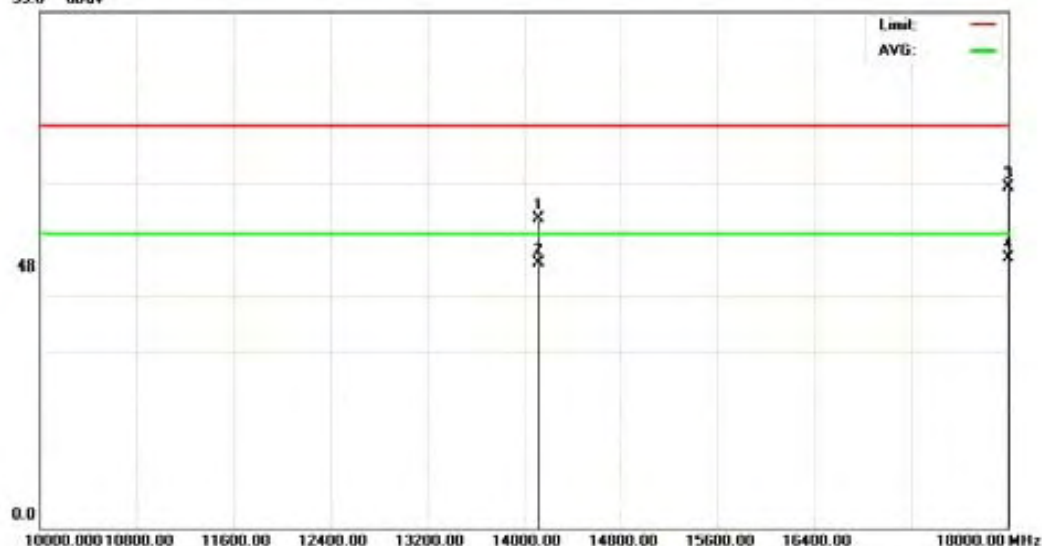
File :FCC part15C(12-21-2006)

Data #35

Date: 2006/12/21

Time: 上午 10:39:24

95.0 dBuV



Site site #1

Polarization: *Horizontal*

Temperature: 22 °C

Limit: FCC part 15 (PK)

Power:

Humidity: 60 %

EUT: PDA

Distance: 1m

WN: M519

Mode:

Note: CH:2402

No.	MK.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		14120.00	37.90	18.87	56.77	74.00	-17.23	peak	
2		14120.00	29.73	18.87	48.60	54.00	-5.40	AVG	
3		18000.00	37.21	25.57	62.78	74.00	-11.22	peak	
4	*	18000.00	23.88	25.57	49.55	54.00	-4.45	AVG	

\*:Maximum data x:Over limit :over margin

■Reference Only

File :FCC part15C(12-21-2006)\Data :#35

Page: 1

Engineer Signature:



### 3.6.3 Open Field Radiated Emissions (Subpart B&C) \_ Bluetooth 2.0 Mode

The highest peak values of radiated emissions from the EUT at various antenna heights, antenna polarization, EUT orientation, etc. are recorded on the following

Applicant : Inventec Corporation  
Model No : Mercury 619  
EUT : PDA PHONE  
Test Mode : CH39 2441.000 (Local Frequency: 2441.000 MHz)  
Test Date : 12/21/2006

Please refer to next pager of detail testing data.

Notes:

1. Margin= Amplitude - Limits
2. Distance of Measurement: 3 Meter (30-1000MHz) & (1-10GHz), 1 Meter (10-26.5GHz)
3. Height of table for EUT placed: 0.8 Meter.
4. ANT= Antenna height.
5. Amplitude= Reading Amplitude – Amplifier gain + Cable loss + Antenna factor  
(Auto calculate in spectrum analyzer)
6. The EUT was worst case on X axis after pretest on X & Y & Z axis setting.
7. The testing data only show below 18GHz's data because measure data above 18GHz was only ambit noise.
8. All frequencies from 30MHz to 26.5GHz have been tested



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# Radiated Emission Measurement

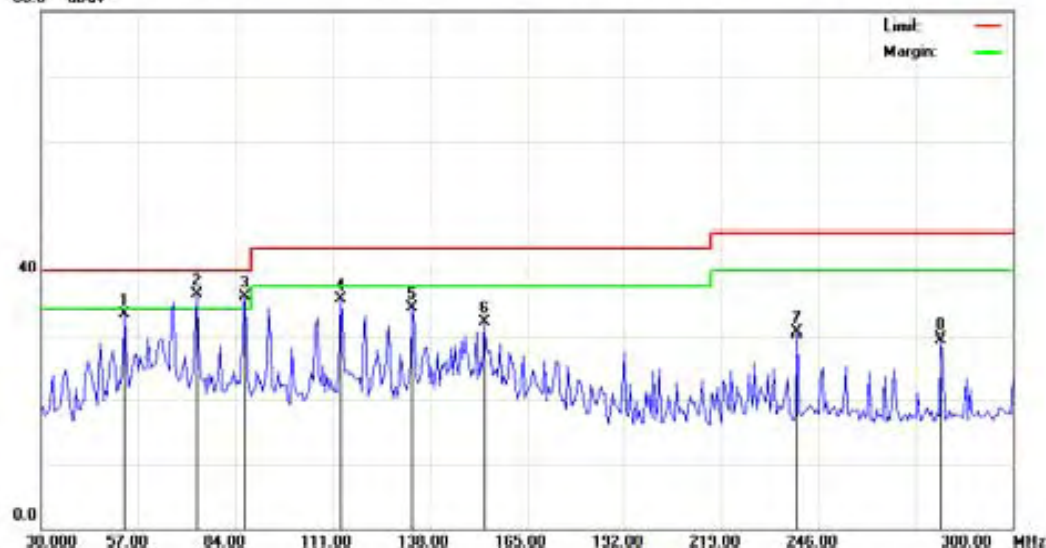
File : FCC part15C(12-21-2006)

Data #49

Date : 2006/12/21

Time: 下午 12:27:56

80.0 dBuV



Site site #1

Limit: FCC Class B 3M Radiation

EUT: PDA

MN: M519

Mode:

Note: CH:2441

Polarization: *Vertical*

Temperature: 22 °C

Power:

Humidity: 60 %

Distance: 3m

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Defector	Comment
1		53.2199	45.29	-12.19	33.10	40.00	-6.90	peak	
2	*	73.2000	53.23	-16.95	36.28	40.00	-3.72	peak	
3	!	86.7000	50.04	-14.20	35.84	40.00	-4.16	peak	
4		113.1598	48.64	-13.04	35.60	43.50	-7.90	peak	
5		133.1399	49.96	-15.85	34.11	43.50	-9.39	peak	
6		153.1200	47.85	-15.94	31.91	43.50	-11.59	peak	
7		240.0600	41.79	-11.43	30.36	46.00	-15.64	peak	
8		280.0199	39.73	-10.41	29.32	46.00	-16.68	peak	

\*:Maximum data x:Over limit !:over margin

●Reference Only

File : FCC part15C(12-21-2006)\Data #49

Page: 1

Engineer Signature:

### Radiated Emission Measurement

File: FCC part15C(12-21-2006)

Data #51

Date: 2006/12/21

Time: 12:36:27

80.0 dBuV



Site: site #1

Polarization: *Horizontal*

Temperature: 22°C

Limit: FCC Class B 3M Radiation

Power:

Humidity: 60%

EUT: PDA

Distance: 3m

MVN: M619

Mode:

Note: GH:2441

No.	Mk	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	*	73.2000	47.42	-16.95	30.47	40.00	-9.53	peak	
2		113.1599	40.50	-13.04	27.46	43.50	-16.04	peak	
3		143.9399	47.86	-16.22	31.64	43.50	-11.86	peak	
4		213.5999	36.13	-12.73	23.40	43.50	-20.10	peak	
5		230.3400	35.84	-11.86	23.98	46.00	-22.02	peak	
6		280.0199	35.94	-10.41	25.53	46.00	-20.47	peak	

\*:Maximum data x:Over limit !:over margin

•Reference Only

File: FCC part15C(12-21-2006)\Data #51

Page: 1

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# Radiated Emission Measurement

File : FCC part15C(12-21-2006)

Data #50

Date : 2006/12/21

Time: 下午 12:32:11



Site site #1

Limit: FCC Class B 3M Radiation

EUT: PDA

MN: M519

Mode:

Note: CH:2441

Polarization: *Vertical*

Power:

Distance: 3m

Temperature: 22 °C

Humidity: 60 %

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		358.8000	43.05	-8.95	34.10	46.00	-11.90	peak	
2		479.1999	46.19	-7.60	38.59	46.00	-7.41	peak	
3		599.6000	39.90	-4.91	34.99	46.00	-11.01	peak	
4		672.3999	40.69	-4.28	36.41	46.00	-9.59	peak	
5	*	680.7999	46.46	-4.10	42.36	46.00	-3.64	peak	
6	!	720.0000	43.75	-3.55	40.20	46.00	-5.80	peak	
7		840.3999	34.92	-1.41	33.51	46.00	-12.49	peak	
8		960.7999	32.14	0.47	32.61	54.00	-21.39	peak	

\*:Maximum data x:Over limit !:over margin

●Reference Only

File : FCC part15C(12-21-2006)\Data #50

Page: 1

Engineer Signature:

### Radiated Emission Measurement

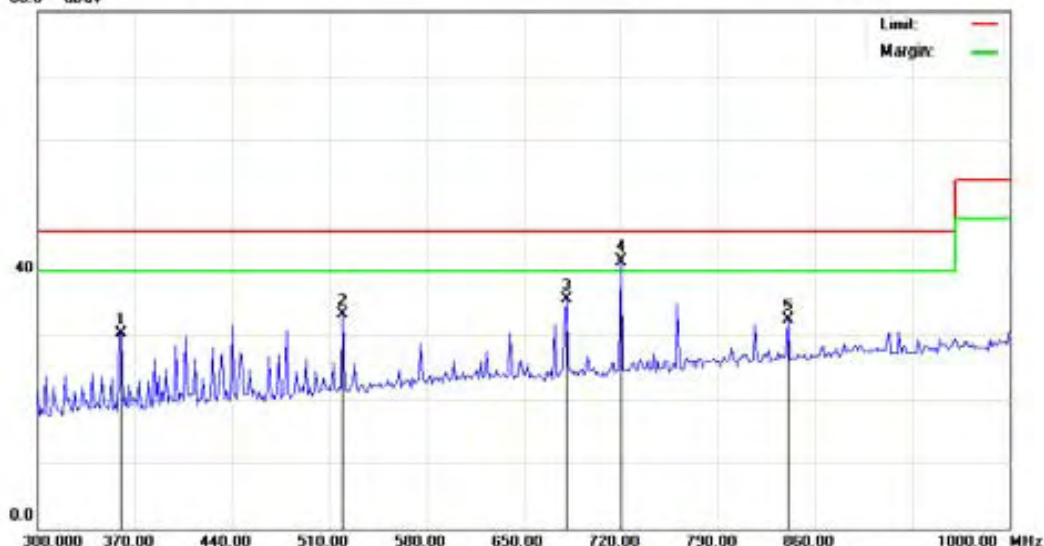
File: FCC part15C(12-21-2006)

Data #52

Date: 2006/12/21

Time: 12:40:42

80.0 dBuV



Site: site #1

Polarization: *Horizontal*

Temperature: 22 °C

Limit: FCC Class B 3M Radiation

Power:

Humidity: 60 %

EUT: PDA

Distance: 3m

MVN: M519

Mode:

Note: GH:2441

No.	Mk	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		360.1999	39.14	-8.97	30.17	46.00	-15.83	peak	
2		519.7999	39.65	-6.57	33.08	46.00	-12.92	peak	
3		680.7999	39.52	-4.10	35.42	46.00	-10.58	peak	
4	*	720.0000	44.88	-3.55	41.33	46.00	-4.67	peak	
5		840.3999	33.69	-1.41	32.28	46.00	-13.72	peak	

\*:Maximum data    x:Over limit    !:over margin

•Reference Only

File: FCC part15C(12-21-2006)\Data #52

Page: 1

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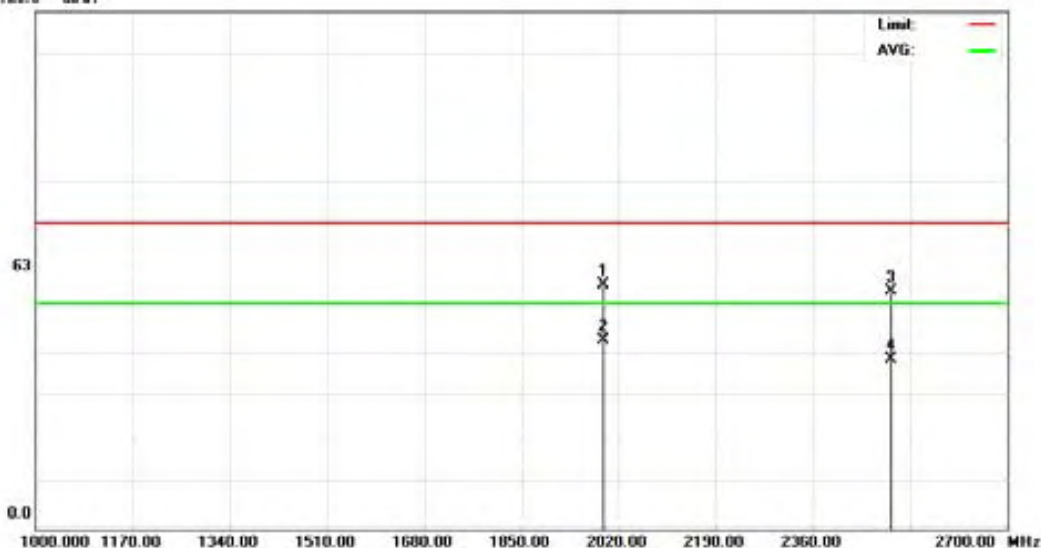
# Radiated Emission Measurement

File: FCC part15C(12-21-2006)  
125.0 dBuV

Data #13

Date: 2006/12/21

Time: 上午 09:32:20



Site site #1

Polarization: **Vertical**

Temperature: 22 °C

Limit: FCC part 15 (PK)

Power:

Humidity: 60 %

EUT: PDA

Distance: 3m

WN: M619

Mode:

Note: GH:2441

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		1992.800	60.35	-1.77	58.58	74.00	-15.42	peak	
2	*	1992.800	47.18	-1.77	45.41	54.00	-8.59	AVG	
3		2496.000	55.65	0.25	55.90	74.00	-17.10	peak	
4		2496.000	40.55	0.25	40.80	54.00	-13.20	AVG	

\*:Maximum data x:Over limit !:over margin

▲Reference Only

File: FCC part15C(12-21-2006)\Data #13

Page: 1

Engineer Signature:





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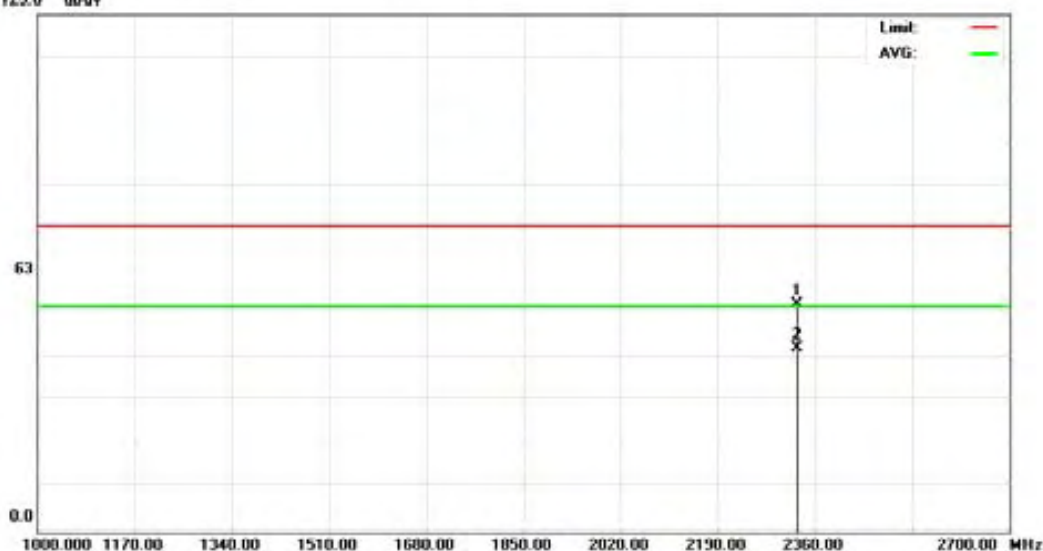
# Radiated Emission Measurement

File: FCC part15C(12-21-2006)  
125.0 dBuV

Data #15

Date: 2006/12/21

Time: 上午 09:35:44



Site: site #1

Polarization: *Horizontal*

Temperature: 22 °C

Limit: FCC part 15 (PK)

Power:

Humidity: 60 %

EUT: PDA

Distance: 3m

MN: M619

Mode:

Note: GH2441

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		2329.400	54.21	0.29	54.50	74.00	-19.50	peak	
2	*	2329.400	43.90	0.29	44.19	54.00	-9.81	AVG	

\*: Maximum data x: Over limit !: over margin

▲ Reference Only

File: FCC part15C(12-21-2006)\Data #15

Page: 1

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NO.140-1,Changan Street,Bade City,Taoyuan Country 344,Taiwan,

# Radiated Emission Measurement

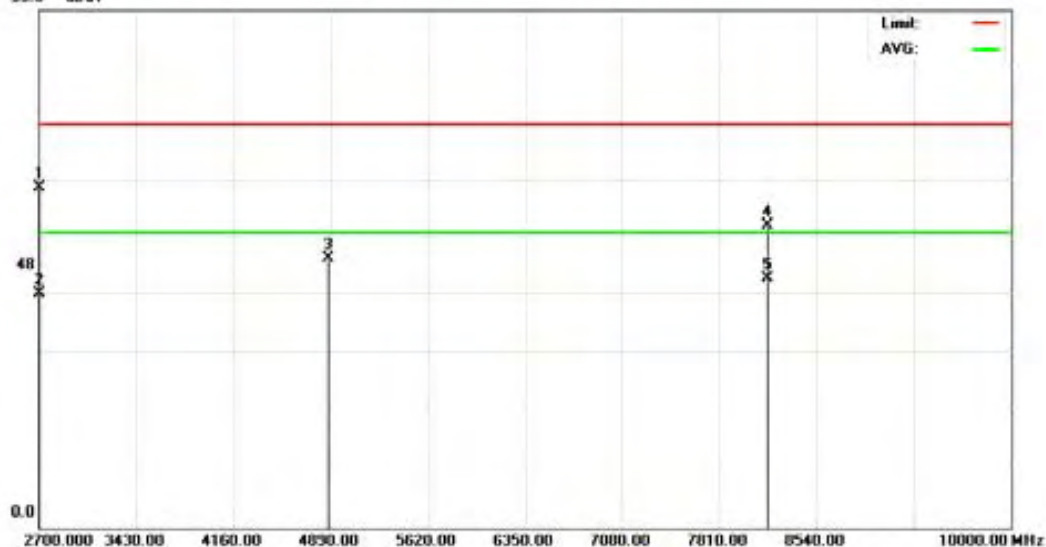
File : FCC part15C(12-21-2006)

Data : #25

Date : 2006/12/21

Time : 上午 10:14:28

95.0 dBuV



Site site #1

Polarization: *Vertical*

Temperature: 22 °C

Limit: FCC part 15 (PK)

Power:

Humidity: 60 %

EUT: PDA

Distance: 3m

MN: M519

Mode:

Note: CH:2441

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Defector	Comment
1		2700.000	39.58	22.58	62.16	74.00	-11.84	peak	
2		2700.000	20.08	22.58	42.66	54.00	-11.34	AVG	
3		4871.750	41.53	7.72	49.25	74.00	-24.75	peak	
4		8175.000	40.10	15.45	55.55	74.00	-18.45	peak	
5	v	8175.000	30.06	15.45	45.51	54.00	-8.49	AVG	

\*:Maximum data x:Over limit !:over margin

●Reference Only

File : FCC part15C(12-21-2006)\Data : #25

Page: 1

Engineer Signature:



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# Radiated Emission Measurement

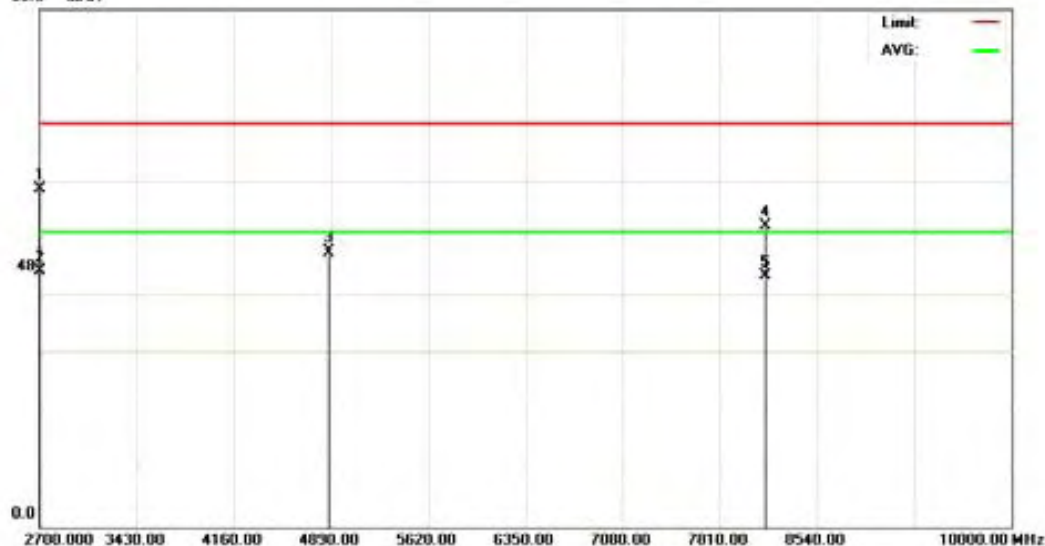
File: FCC part15C(12-21-2006)

Data #27

Date: 2006/12/21

Time: 上午 10:19:29

95.0 dBuV



Site: site #1

Polarization: *Horizontal*

Temperature: 22 °C

Limit: FCC part 15 (PK)

Power:

Humidity: 60 %

EUT: PDA

Distance: 3m

MN: M619

Mode:

Note: CH2441

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		2700.000	39.42	22.58	62.00	74.00	-12.00	peak	
2	*	2700.000	24.52	22.58	47.10	54.00	-6.90	AVG	
3		4871.750	42.81	7.72	50.53	74.00	-23.47	peak	
4		8156.750	39.68	15.57	55.25	74.00	-18.75	peak	
5		8156.750	30.62	15.57	46.19	54.00	-7.81	AVG	

\*:Maximum data x:Over limit !:over margin

•Reference Only

File: FCC part15C(12-21-2006)\Data #27

Page: 1

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NO.140-1,Changan Street,Bade City,Taoyuan Country 344,Taiwan,

# Radiated Emission Measurement

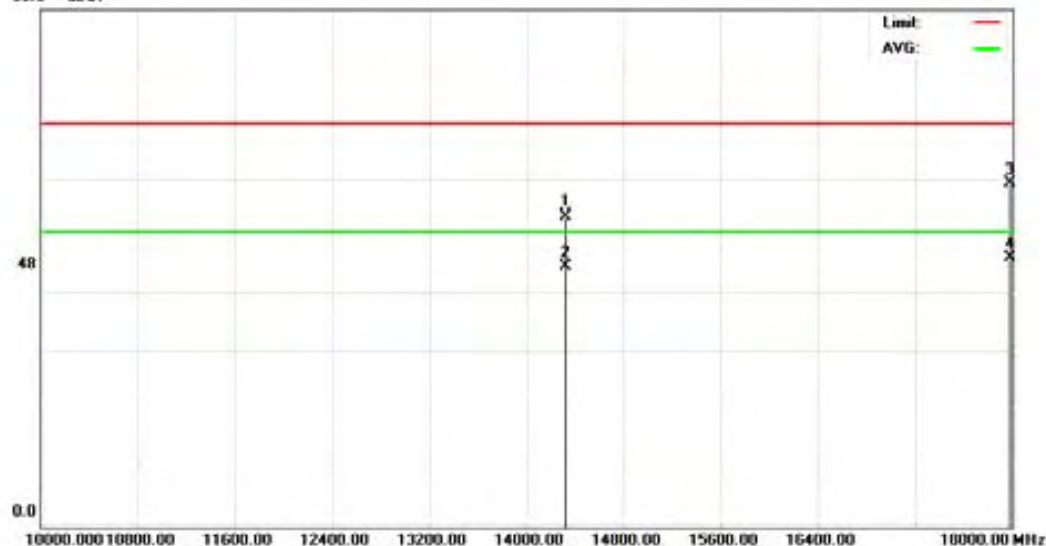
File: FCC part15C(12-21-2006)

Data #37

Date: 2006/12/21

Time: 上午 10:46:00

95.0 dBuV



Site site #1

Polarization: *Vertical*

Temperature: 22 °C

Limit: FCC part 15 (PK)

Power:

Humidity: 60 %

EUT: PDA

Distance: 1m

WN: M619

Mode:

Note: GH:2441

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		14320.00	38.40	18.57	56.97	74.00	-17.03	peak	
2		14320.00	28.96	18.57	47.53	54.00	-6.47	AVG	
3		17980.00	37.68	25.20	62.88	74.00	-11.12	peak	
4	*	17980.00	23.97	25.20	49.17	54.00	-4.83	AVG	

\*:Maximum data x:Over limit !:over margin

▲Reference Only

File: FCC part15C(12-21-2006)\Data #37

Page: 1

Engineer Signature:



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# Radiated Emission Measurement

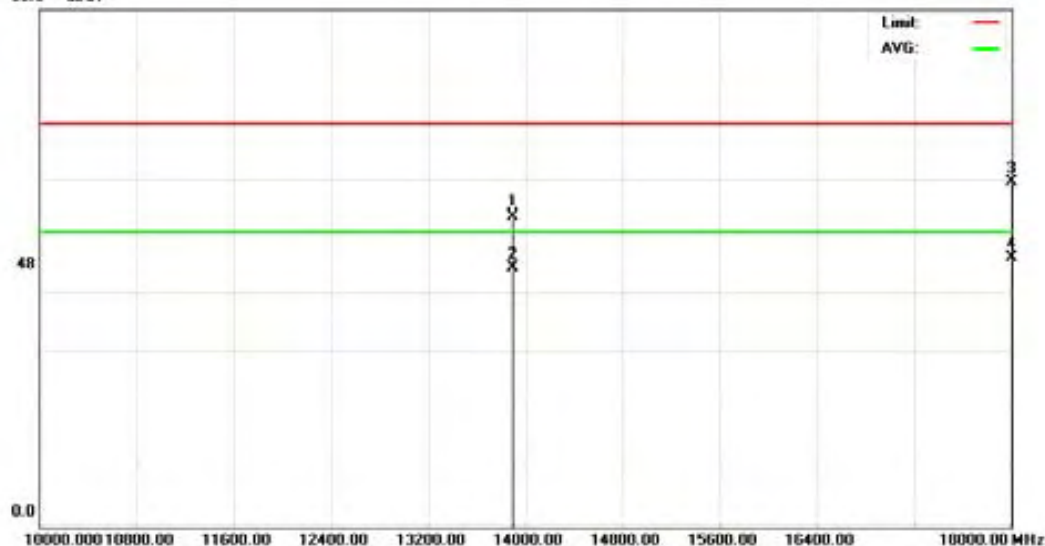
File: FCC part15C(12-21-2006)

Data #39

Date: 2006/12/21

Time: 上午 10:49:41

95.0 dBuV



Site: site #1

Polarization: *Horizontal*

Temperature: 22 °C

Limit: FCC part 15 (PK)

Power:

Humidity: 60 %

EUT: PDA

Distance: 1m

MN: M619

Mode:

Note: CH2441

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		13900.00	38.46	18.53	56.99	74.00	-17.01	peak	
2		13900.00	28.91	18.53	47.44	54.00	-6.56	AVG	
3		18000.00	37.54	25.57	63.11	74.00	-10.89	peak	
4	*	18000.00	23.79	25.57	49.36	54.00	-4.64	AVG	

\*: Maximum data x: Over limit !: over margin

▲ Reference Only

File: FCC part15C(12-21-2006)\Data #39

Page: 1

Engineer Signature:



### 3.6.4 Open Field Radiated Emissions (Subpart B&C) \_ Bluetooth 2.0 Mode

The highest peak values of radiated emissions from the EUT at various antenna heights, antenna polarization, EUT orientation, etc. are recorded on the following.

Applicant : Inventec Corporation  
Model No : Mercury 619  
EUT : PDA PHONE  
Test Mode : CH78 2480.000 (Local Frequency: 2480.000 MHz)  
Test Date : 12/21/2006

Please refer to next pager of detail testing data.

Notes:

1. Margin= Amplitude - Limits
2. Distance of Measurement: 3 Meter (30-1000MHz) & (1-10GHz), 1 Meter (10-26.5GHz)
3. Height of table for EUT placed: 0.8 Meter.
4. ANT= Antenna height.
5. Amplitude= Reading Amplitude – Amplifier gain + Cable loss + Antenna factor  
(Auto calculate in spectrum analyzer)
6. The EUT was worst case on X axis after pretest on X & Y & Z axis setting.
7. The testing data only show below 18GHz's data because measure data above 18GHz was only ambit noise.
8. All frequencies from 30MHz to 26.5GHz have been tested



### Radiated Emission Measurement

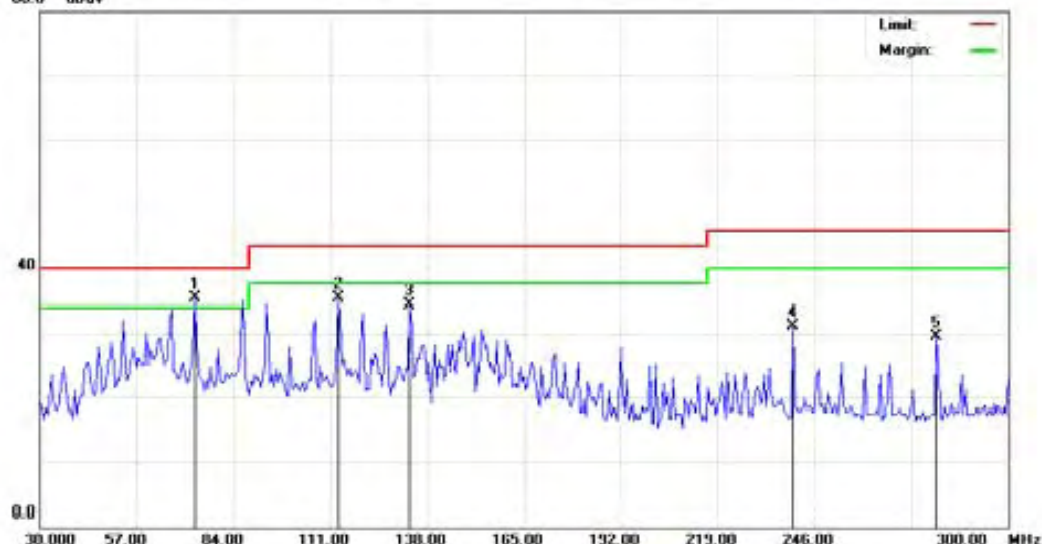
File :FCC part15C(12-21-2006)

Data #53

Date: 2006/12/21

Time: 下午 12:45:19

80.0 dBuV



Site site #1

Polarization: **Vertical**

Temperature: 22 °C

Limit: FCC Class B 3M Radiation

Power:

Humidity: 60 %

EUT: PDA

Distance: 3m

MN: M519

Mode:

Note: CH:2480

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Defector	Comment
1	*	73.2000	52.21	-16.95	35.26	40.00	-4.74	peak	
2		113.1599	48.41	-13.04	35.37	43.50	-8.13	peak	
3		133.1399	50.15	-15.85	34.30	43.50	-9.20	peak	
4		240.0600	42.56	-11.43	31.13	46.00	-14.87	peak	
5		280.0199	39.93	-10.41	29.52	46.00	-16.48	peak	

\*:Maximum data x:Over limit :over margin

■Reference Only

File :FCC part15C(12-21-2006)\Data :#53

Page: 1

Engineer Signature:

### Radiated Emission Measurement

File :FCC part15C(12-21-2006)

Data :#54

Date : 2006/12/21

Time : 下午 12:50:34

80.0 dBuV



Site site #1

Polarization: **Vertical**

Temperature: 22 °C

Limit: FCC Class B 3M Radiation

Power:

Humidity: 60 %

EUT: PDA

Distance: 3m

M/N: M519

Mode:

Note: CH:2480

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Defector	Comment
1		360.1999	43.19	-8.97	34.22	46.00	-11.78	peak	
2		479.1999	45.41	-7.60	37.81	46.00	-8.19	peak	
3	*	680.7999	46.93	-4.10	42.83	46.00	-3.17	peak	
4	!	720.0000	43.98	-3.55	40.43	46.00	-5.57	peak	
5		840.3999	34.82	-1.41	33.41	46.00	-12.59	peak	
6		960.7999	32.07	0.47	32.54	54.00	-21.46	peak	

\*:Maximum data x:Over limit !:over margin

●Reference Only

File :FCC part15C(12-21-2006)\Data :#54

Page: 1

Engineer Signature:

# Radiated Emission Measurement

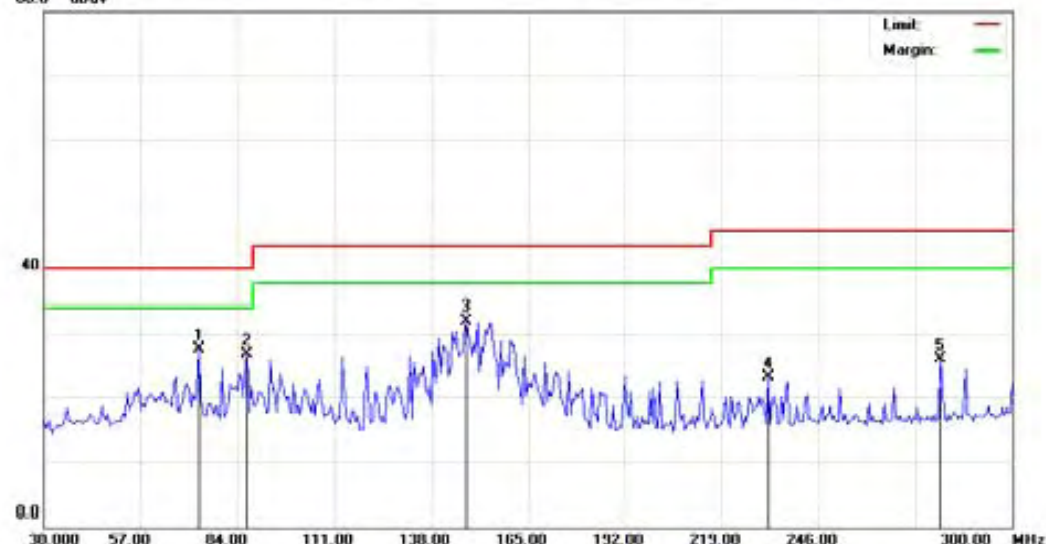
File :FCC part15C(12-21-2006)

Data #55

Date: 2006/12/21

Time: 下午 12:54:50

80.0 dBuV



Site site #1

Polarization: *Horizontal*

Temperature: 22 °C

Limit: FCC Class B 3M Radiation

Power:

Humidity: 60 %

EUT: PDA

Distance: 3m

WN: M519

Mode:

Note: CH:2480

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Defector	Comment
1		73.2000	44.50	-16.95	27.55	40.00	-12.45	peak	
2		86.7000	40.99	-14.20	26.79	40.00	-13.21	peak	
3	*	147.7199	48.00	-16.09	31.91	43.50	-11.59	peak	
4		231.9600	34.96	-11.82	23.14	46.00	-22.86	peak	
5		280.0199	36.37	-10.41	25.96	46.00	-20.04	peak	

\*:Maximum data x:Over limit :over margin

■Reference Only

File :FCC part15C(12-21-2006)\Data :#55

Page: 1

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# Radiated Emission Measurement

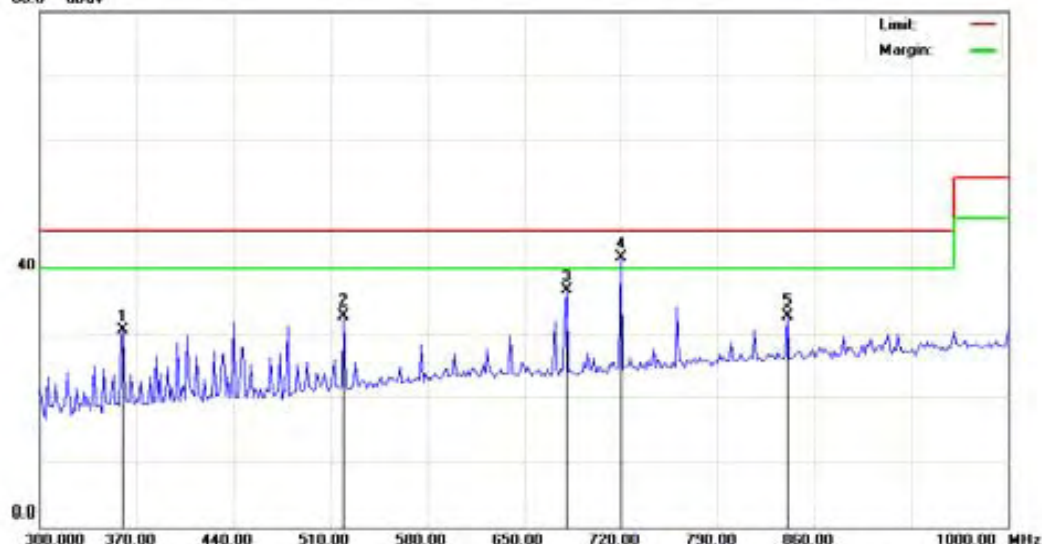
File :FCC part15C(12-21-2006)

Data :#56

Date : 2006/12/21

Time : 下午 12:59:06

80.0 dBuV



Site site #1

Polarization: *Horizontal*

Temperature: 22 °C

Limit: FCC Class B 3M Radiation

Power:

Humidity: 60 %

EUT: PDA

Distance: 3m

M/N: M519

Mode:

Note: CH:2480

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Defector	Comment
1		360.1999	39.55	-8.97	30.58	46.00	-15.42	peak	
2		519.7999	39.30	-6.57	32.73	46.00	-13.27	peak	
3		680.7999	40.70	-4.10	36.60	46.00	-9.40	peak	
4	*	720.0000	45.21	-3.55	41.66	46.00	-4.34	peak	
5		840.3999	34.13	-1.41	32.72	46.00	-13.28	peak	

\*:Maximum data x:Over limit !:over margin

●Reference Only

File :FCC part15C(12-21-2006)\Data :#56

Page: 1

Engineer Signature:



### Radiated Emission Measurement

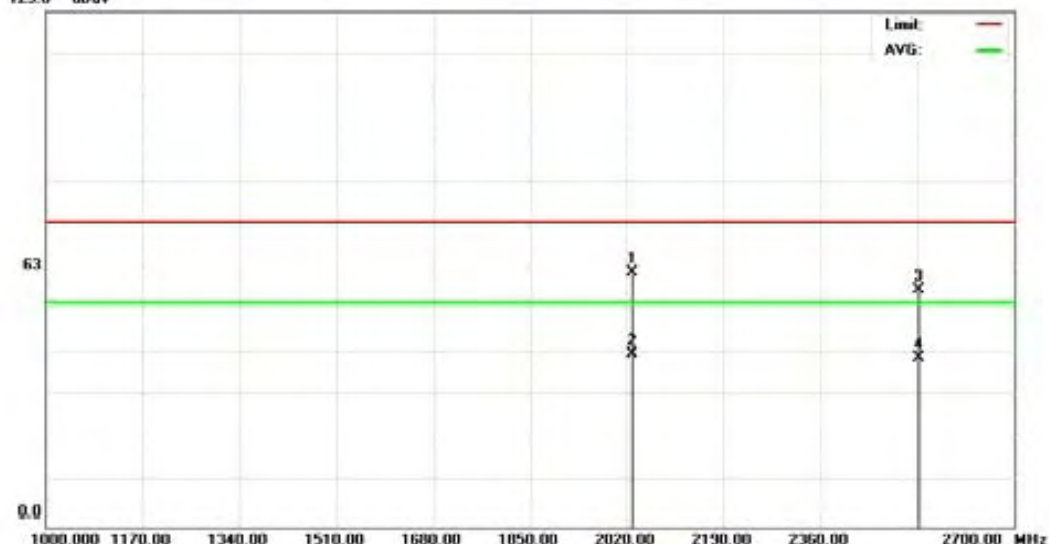
File :FCC part15C(12-21-2006)

Data #17

Date: 2006/12/21

Time: 上午 09:45:52

125.0 dBuV



Site site #1

Polarization: **Vertical**

Temperature: 22 °C

Limit: FCC part 15 (PK)

Power:

Humidity: 60 %

EUT: PDA

Distance: 3m

MN: M519

Mode:

Note: GH:2480

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Defector	Comment
1		2030.200	63.03	-1.47	61.56	74.00	-12.44	peak	
2	*	2030.200	43.05	-1.47	41.58	54.00	-12.42	AVG	
3		2533.400	56.70	0.46	57.16	74.00	-16.84	peak	
4		2533.400	40.20	0.46	40.66	54.00	-13.34	AVG	

\*:Maximum data    x:Over limit    !:over margin

■Reference Only

File :FCC part15C(12-21-2006)\Data :#17

Page: 1

Engineer Signature:



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# Radiated Emission Measurement

File :FCC part15C(12-21-2006)

Data :#19

Date : 2006/12/21

Time : 上午 09:49:43

125.0 dBuV



Site site #1

Polarization: *Horizontal*

Temperature: 22 °C

Limit: FCC part 15 (PK)

Power:

Humidity: 60 %

EUT: PDA

Distance: 3m

M/N: M519

Mode:

Note: GH:2480

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		2302.200	54.16	0.51	54.67	74.00	-19.33	peak	
2	*	2302.200	44.05	0.51	44.56	54.00	-9.44	AVG	

\*:Maximum data x:Over limit !:over margin

●Reference Only

File :FCC part15C(12-21-2006)Data :#19

Page: 1

Engineer Signature:





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NO.140-1,Changan Street,Bade City,Taoyuan Country 344,Taiwan,

# Radiated Emission Measurement

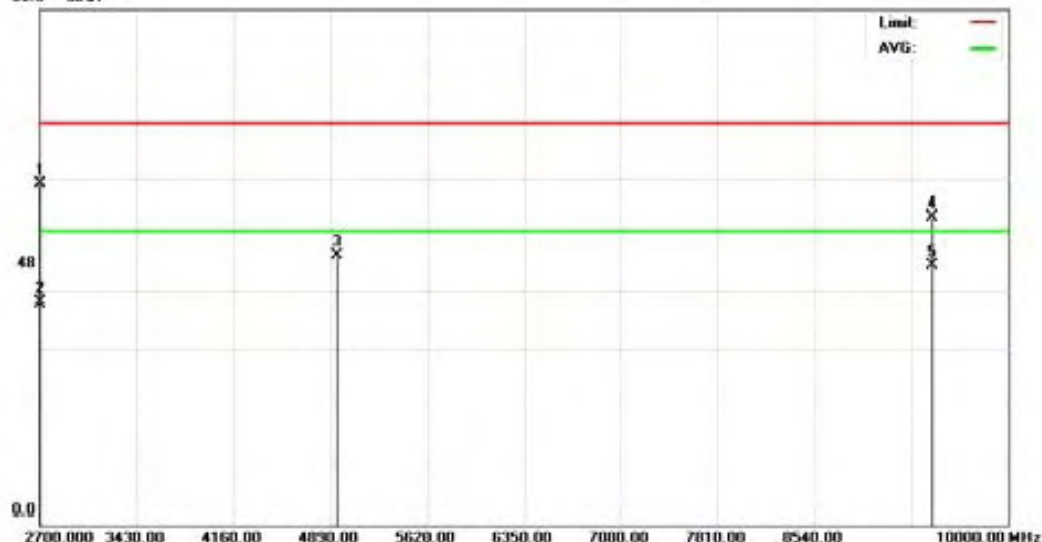
File :FCC part15C(12-21-2006)

Data #21

Date: 2006/12/21

Time: 上午 09:57:20

95.0 dBuV



Site site #1

Polarization: **Vertical**

Temperature: 22 °C

Limit: FCC part 15 (PK)

Power:

Humidity: 60 %

EUT: PDA

Distance: 3m

MN: M519

Mode:

Note: CH:2480

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Defector	Comment
1		2700.000	40.05	22.58	62.63	74.00	-11.37	peak	
2		2700.000	18.08	22.58	40.66	54.00	-13.34	AVG	
3		4944.750	41.79	7.72	49.51	74.00	-24.49	peak	
4		9434.250	39.49	17.04	56.53	74.00	-17.47	peak	
5	*	9434.250	30.64	17.04	47.68	54.00	-6.32	AVG	

\*:Maximum data x:Over limit :over margin

■Reference Only

File :FCC part15C(12-21-2006)\Data :#21

Page: 1

Engineer Signature:

### Radiated Emission Measurement

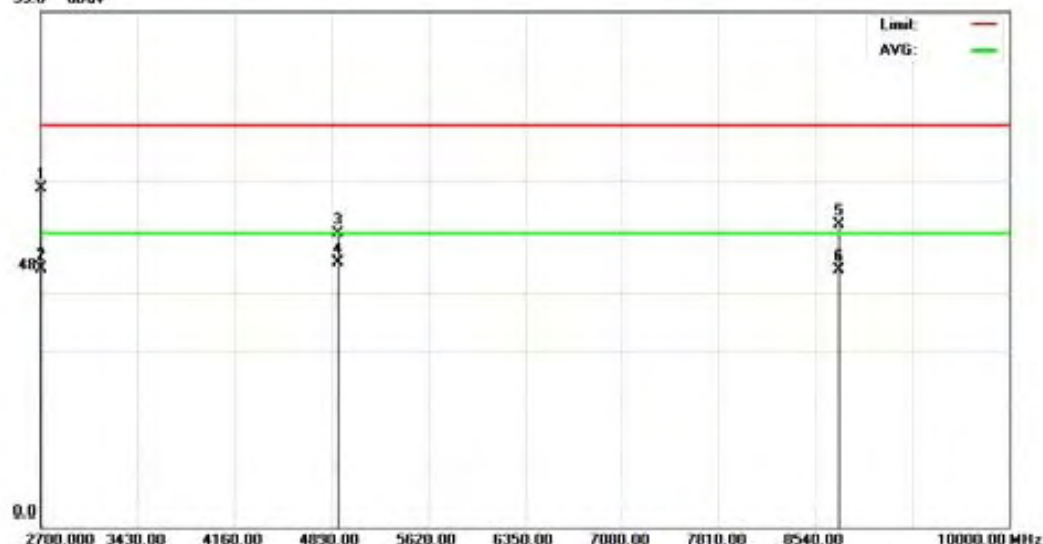
File: FCC part15C(12-21-2006)

Data: #23

Date: 2006/12/21

Time: 上午 10:01:25

95.0 dBuV



Site: site #1

Polarization: *Horizontal*

Temperature: 22 °C

Limit: FCC part 15 (PK)

Power:

Humidity: 60 %

EUT: PDA

Distance: 3m

M/N: M519

Mode:

Note: CH:2480

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		2700.000	39.44	22.58	62.02	74.00	-11.98	peak	
2		2700.000	24.74	22.58	47.32	54.00	-6.68	AVG	
3		4944.750	46.36	7.72	54.08	74.00	-19.92	peak	
4	*	4944.750	40.79	7.72	48.51	54.00	-5.49	AVG	
5		8722.500	39.76	15.96	55.72	74.00	-18.28	peak	
6		8722.500	31.20	15.96	47.16	54.00	-6.84	AVG	

\*: Maximum data x: Over limit !: over margin

• Reference Only

File: FCC part15C(12-21-2006)Data: #23

Page: 1

Engineer Signature:



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# Radiated Emission Measurement

File :FCC part15C(12-21-2006)

Data #41

Date: 2006/12/21

Time: 上午 11:22:42

95.0 dBuV



Site site #1

Polarization: **Vertical**

Temperature: 22 °C

Limit: FCC part 15 (PK)

Power:

Humidity: 60 %

EUT: PDA

Distance: 1m

WN: M519

Mode:

Note: ch:2480

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Defector	Comment
1		14280.00	38.50	18.63	57.13	74.00	-16.87	peak	
2		14280.00	28.92	18.63	47.55	54.00	-6.45	AVG	
3		18000.00	37.84	25.57	63.41	74.00	-10.59	peak	
4		18000.00	22.94	25.57	48.51	54.00	-5.49	AVG	

\*:Maximum data x:Over limit :over margin

■Reference Only

File :FCC part15C(12-21-2006)\Data :#41

Page: 1

Engineer Signature:



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NO.140-1,Changan Street,Bade City,Taoyuan Country 344,Taiwan.

# Radiated Emission Measurement

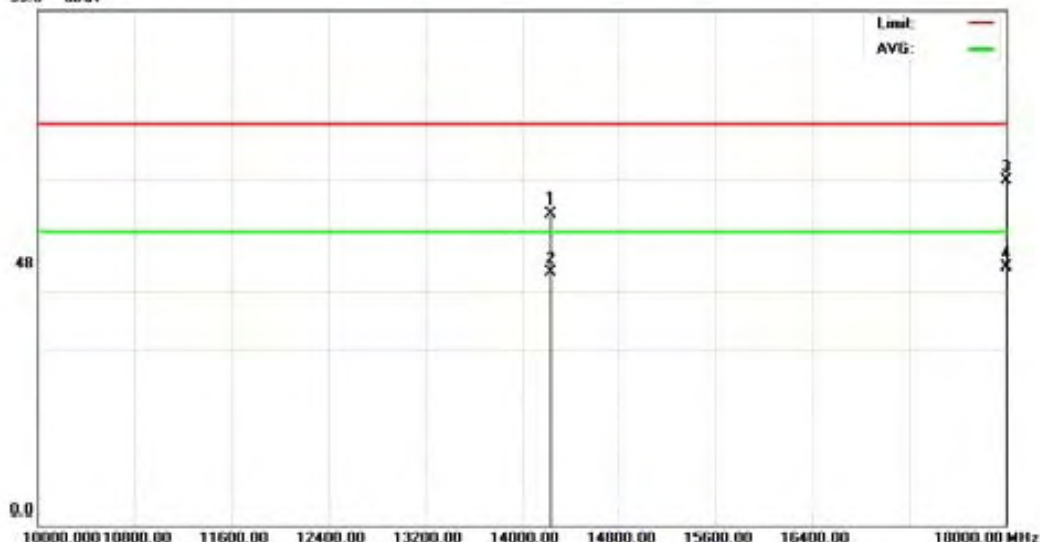
File :FCC part15C(12-21-2006)

Data :#57

Date : 2006/12/21

Time : 上午 11:27:17

95.0 dBuV



Site site #1

Polarization: *Horizontal*

Temperature: 22 °C

Limit: FCC part 15 (PK)

Power:

Humidity: 60 %

EUT: PDA

Distance: 1m

M/N: M519

Mode:

Note: CH:2480

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		14240.00	29.13	28.25	57.38	74.00	-16.62	peak	
2		14240.00	18.26	28.25	46.51	54.00	-7.49	AVG	
3		18000.00	28.13	35.11	63.24	74.00	-10.76	peak	
4		18000.00	12.19	35.11	47.30	54.00	-6.70	AVG	

\*:Maximum data x:Over limit !:over margin

●Reference Only

File :FCC part15C(12-21-2006)\Data :#57

Page: 1

Engineer Signature:



### 3.6.5 Open Field Radiated Emissions (Subpart B&C) \_ Bluetooth EDR Mode

The highest peak values of radiated emissions from the EUT at various antenna heights, antenna polarization, EUT orientation, etc. are recorded on the following.

Applicant : Inventec Corporation  
Model No : Mercury 619  
EUT : PDA PHONE  
Test Mode : CH00 2402.000 (Local Frequency: 2402.000 MHz)  
Test Date : 02/11/2007

Please refer to next pager of detail testing data.

Notes:

1. Margin= Amplitude - Limits
2. Distance of Measurement: 3 Meter (30-1000MHz) & (1-10GHz), 1 Meter (10-26.5GHz)
3. Height of table for EUT placed: 0.8 Meter.
4. ANT= Antenna height.
5. Amplitude= Reading Amplitude – Amplifier gain + Cable loss + Antenna factor  
(Auto calculate in spectrum analyzer)
6. The EUT was worst case on X axis after pretest on X & Y & Z axis setting.
7. The testing data only show below 18GHz's data because measure data above 18GHz was only ambit noise.
8. All frequencies from 30MHz to 26.5GHz have been tested





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### Radiated Emission Measurement

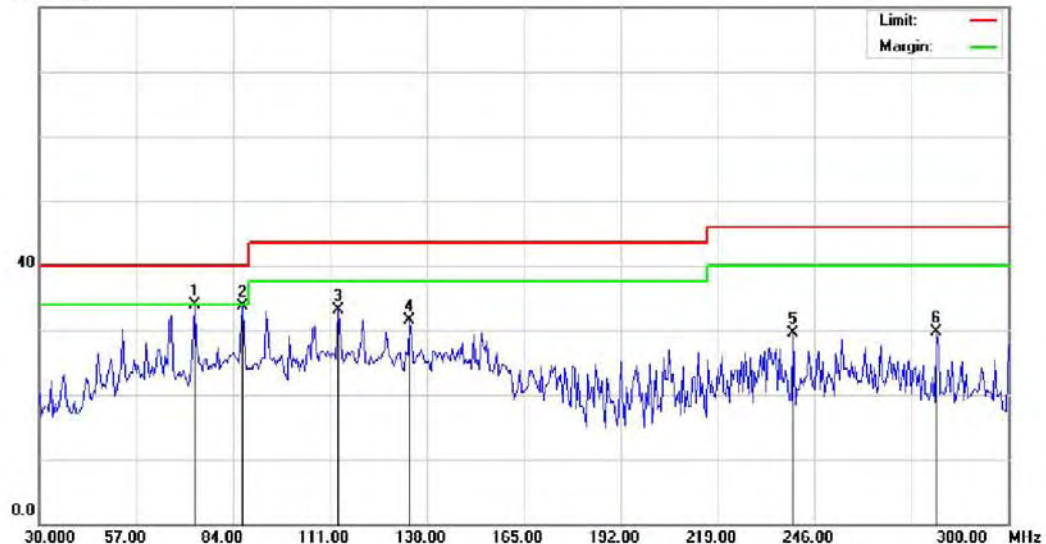
File :M619 (1G以下)(02-11-2007

Data :#1

Date: 2007/02/11

Time: 下午 17:22:13

80.0 dBuV



Site 966半電波暗室

Limit: FCC Class B 3M Radiation

EUT: PDA

M/N: M619

Mode: BT EDR

Note: CH:2402

Polarization: **Vertical**

Power:

Distance: 3m

Temperature: 22 °C

Humidity: 60 %

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	*	73.2000	50.82	-16.95	33.87	40.00	-6.13	peak	
2		86.7000	47.96	-14.20	33.76	40.00	-6.24	peak	
3		113.1598	46.22	-13.04	33.18	43.50	-10.32	peak	
4		133.1399	47.36	-15.85	31.51	43.50	-11.99	peak	
5		240.0600	40.96	-11.43	29.53	46.00	-16.47	peak	
6		280.0199	40.09	-10.41	29.68	46.00	-16.32	peak	

\*:Maximum data x:Over limit !:over margin

●Reference Only

File :M619 (1G以下)(02-11-2007>Data :#1

Page: 1

Engineer Signature:





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Tel: +886-3-271-0188 Fax: +886-3-271-0190  
NO.140-1,Changan Street,Bade City,Taoyuan Country 344,Taiwan,

### Radiated Emission Measurement

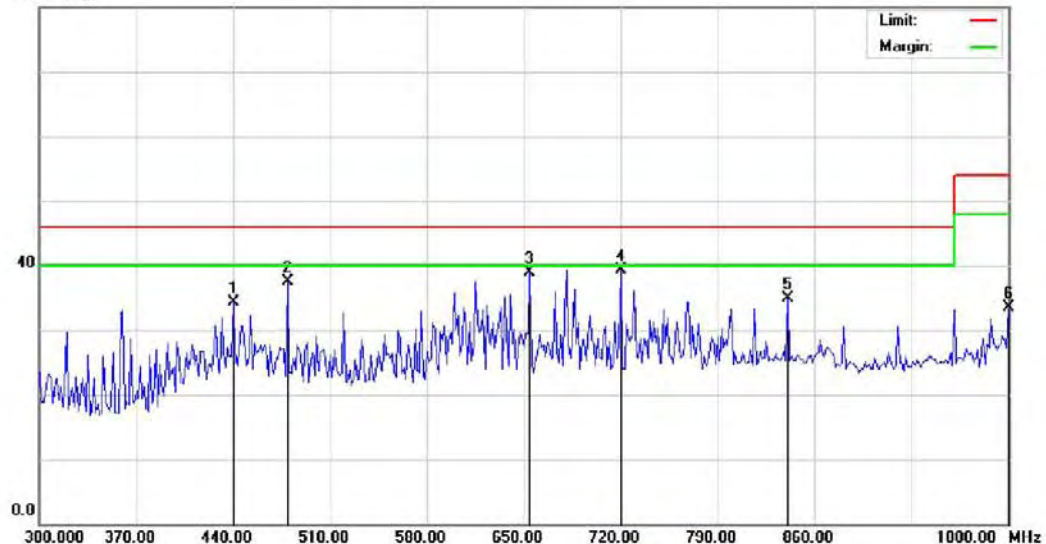
File :M619 (1G以下)(02-11-2007

Data :#2

Date: 2007/02/11

Time: 下午 17:23:45

80.0 dBuV



Site 966半電波暗室

Limit: FCC Class B 3M Radiation

EUT: PDA

M/N: M619

Mode: BT EDR

Note: CH:2402

Polarization: **Vertical**

Power:

Distance: 3m

Temperature: 22 °C

Humidity: 60 %

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		440.0000	42.37	-8.00	34.37	46.00	-11.63	peak	
2		479.1999	45.09	-7.60	37.49	46.00	-8.51	peak	
3		654.2000	43.38	-4.43	38.95	46.00	-7.05	peak	
4	*	720.0000	42.86	-3.55	39.31	46.00	-6.69	peak	
5		840.3999	36.26	-1.41	34.85	46.00	-11.15	peak	
6		1000.000	32.85	0.62	33.47	54.00	-20.53	peak	

\*:Maximum data x:Over limit !:over margin

●:Reference Only

File :M619 (1G以下)(02-11-2007>Data :#2

Page: 1

Engineer Signature:



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NO.140-1, Changan Street, Bade City, Taoyuan Country 344, Taiwan,

### Radiated Emission Measurement

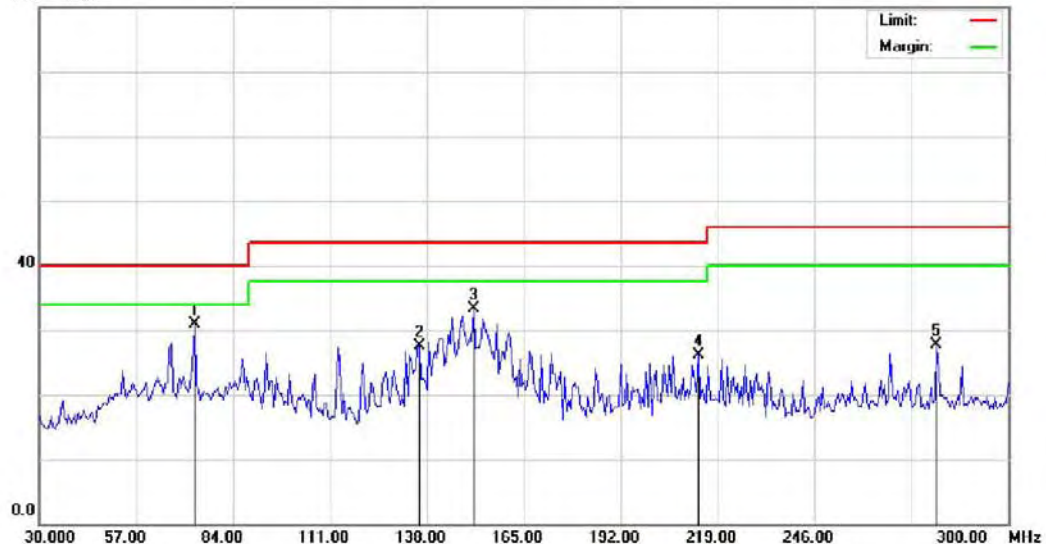
File : M619 (1G以下)(02-11-2007

Data : #3

Date: 2007/02/11

Time: 下午 17:26:02

80.0 dBuV



Site 966半電波暗室

Limit: FCC Class B 3M Radiation

EUT: PDA

M/N: M619

Mode: BT EDR

Note: CH:2402

Polarization: **Horizontal**

Power:

Distance: 3m

Temperature: 22 °C

Humidity: 60 %

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	*	73.2000	47.92	-16.95	30.97	40.00	-9.03	peak	
2		135.8400	43.53	-16.03	27.50	43.50	-16.00	peak	
3		150.9600	49.29	-15.99	33.30	43.50	-10.20	peak	
4		213.5997	38.78	-12.73	26.05	43.50	-17.45	peak	
5		280.0199	38.14	-10.41	27.73	46.00	-18.27	peak	

\*:Maximum data x:Over limit !:over margin

●:Reference Only

File : M619 (1G以下)(02-11-2007)Data : #3

Page: 1

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### Radiated Emission Measurement

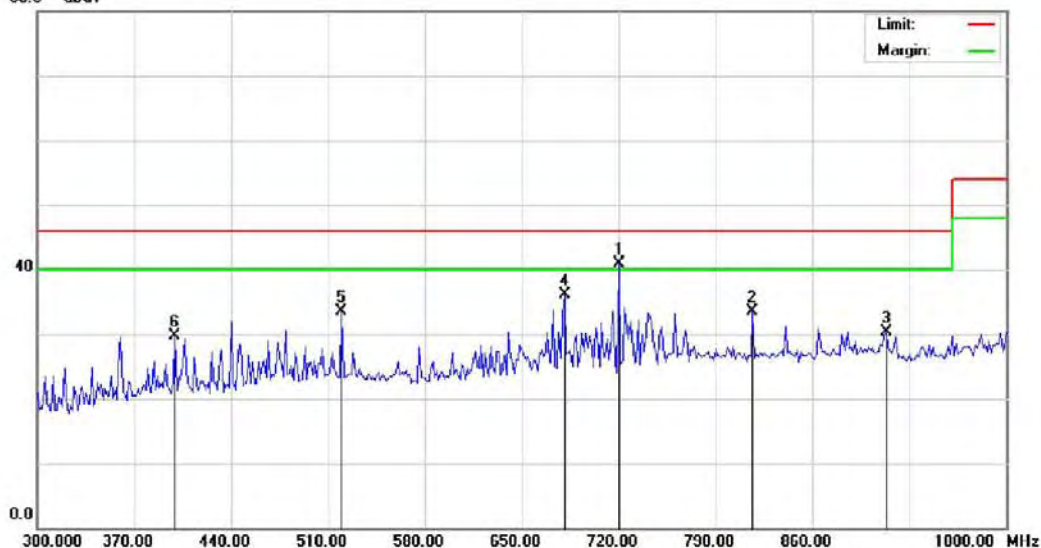
File :M619 (1G以下)(02-11-2007

Data :#4

Date: 2007/02/11

Time: 下午 17:31:15

80.0 dBuV



Site 966半電波暗室

Limit: FCC Class B 3M Radiation

EUT: PDA

M/N: M619

Mode: BT EDR

Note: CH:2402

Polarization: **Horizontal**

Power:

Distance: 3m

Temperature: 22 °C

Humidity: 60 %

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	*	720.0000	44.49	-3.55	40.94	46.00	-5.06	peak	
2		816.6000	35.47	-1.98	33.49	46.00	-12.51	peak	
3		913.2000	30.51	-0.19	30.32	46.00	-15.68	peak	
4		680.7998	40.17	-4.10	36.07	46.00	-9.93	peak	
5		519.7998	40.05	-6.57	33.48	46.00	-12.52	peak	
6		399.3999	38.12	-8.35	29.77	46.00	-16.23	peak	

\*:Maximum data x:Over limit !:over margin

●Reference Only

File :M619 (1G以下)(02-11-2007>Data :#4

Page: 1

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### Radiated Emission Measurement

File :M619 (2402)(02-11-2007)E

Data :#1

Date: 2007/02/11

Time: 15:19:54

117.0 dBuV



Site 966半電波暗室

Limit: FCC part 15 (PK)

EUT: PDA

M/N: M619

Mode: BT EDR

Note: 2402MHz

Polarization: **Vertical**

Power: AC 110V/60Hz

Distance: 3m

Temperature: 22 °C

Humidity: 60 %

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		2326.000	45.54	0.28	45.82	74.00	-28.18	peak	
2	*	2683.000	46.13	1.01	47.14	74.00	-26.86	peak	

\*:Maximum data x:Over limit !:over margin

●Reference Only

File :M619 (2402)(02-11-2007)EData :#1

Page: 1

Engineer Signature:





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### Radiated Emission Measurement

File :M619 (2402)(02-11-2007)E

Data :#3

Date: 2007/02/11

Time: 15:30:58

117.0 dBuV



Site 966半電波暗室

Limit: FCC part 15 (PK)

EUT: PDA

M/N: M619

Mode: BT EDR

Note: 2402MHz

Polarization: Horizontal

Temperature: 22 °C

Power: AC 110V/60Hz

Humidity: 60 %

Distance: 3m

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		2220.600	47.18	0.34	47.52	74.00	-26.48	peak	
2	*	2689.800	46.83	1.03	47.86	74.00	-26.14	peak	

\*:Maximum data x:Over limit !:over margin

●Reference Only

File :M619 (2402)(02-11-2007)EData :#3

Page: 1

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NO.140-1,Changan Street,Bade City,Taoyuan Country 344,Taiwan,

### Radiated Emission Measurement

File :M619 (2402)(02-11-2007)E

Data :#5

Date: 2007/02/11

Time: 15:43:38



Site 966半電波暗室

Limit: FCC part 15 (PK)

EUT: PDA

M/N: M619

Mode: BT EDR

Note: 2402MHz

2.7G-10G PK Scan Att:0 ; REF:95 ; Range:95(EUT Power Lever:255)

Polarization: **Vertical**

Power: AC 110V/60Hz

Distance: 3m

Temperature: 22 °C

Humidity: 60 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Detector	Comment
		MHz	dBuV	dB	dBuV	dBuV	dB		
1		2700.000	39.85	22.58	62.43	74.00	-11.57	peak	
2	*	2700.000	21.63	22.58	44.21	54.00	-9.79	AVG	
3		4068.750	40.29	5.13	45.42	74.00	-28.58	peak	
4		9744.500	38.22	17.68	55.90	74.00	-18.10	peak	
5		9744.500	24.07	17.68	41.75	54.00	-12.25	AVG	

\*:Maximum data x:Over limit !:over margin

●:Reference Only

File :M619 (2402)(02-11-2007)EData :#5

Page: 1

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### Radiated Emission Measurement

File :M619 (2402)(02-11-2007)E

Data :#7

Date: 2007/02/11

Time: 15:53:58

95.0 dBuV



Site 966半電波暗室

Limit: FCC part 15 (PK)

EUT: PDA

M/N: M619

Mode: BT EDR

Note: 2402MHz

2.7G-10G PK Scan Att:0 ; REF:95 ; Range:95(EUT Power Lever:255)

Polarization: **Horizontal**

Power: AC 110V/60Hz

Distance: 3m

Temperature: 22 °C

Humidity: 60 %

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		2700.000	39.37	22.58	61.95	74.00	-12.05	peak	
2	*	2700.000	19.67	22.58	42.25	54.00	-11.75	AVG	
3		9580.250	39.14	17.31	56.45	74.00	-17.55	peak	
4		9580.250	24.67	17.31	41.98	54.00	-12.02	AVG	

\*:Maximum data x:Over limit !:over margin

●Reference Only

File :M619 (2402)(02-11-2007)EData :#7

Page: 1

Engineer Signature:



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### Radiated Emission Measurement

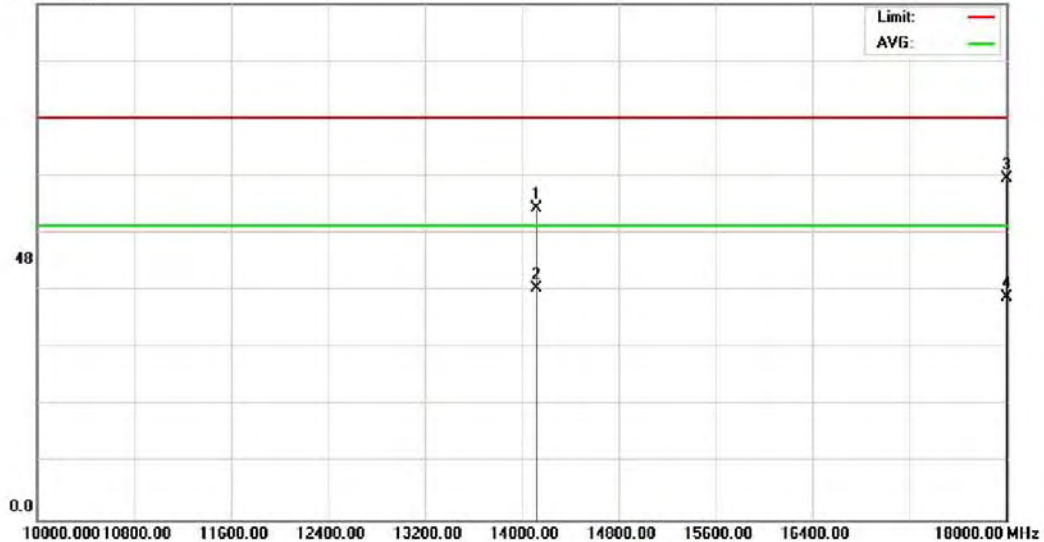
File :M619 (2402)(02-11-2007)E

Data :#9

Date: 2007/02/11

Time: 16:02:25

95.0 dBuV



Site 966半電波暗室

Limit: FCC part 15 (PK)

EUT: PDA

M/N: M619

Mode: BT EDR

Note: 2402MHz

Polarization: **Vertical**

Power: AC 110V/60Hz

Distance: 1m

Temperature: 22 °C

Humidity: 60 %

10G - 18G PK Scan Att:0 ; REF:95 ; Range:95(EUT Power Lever:255)

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		14120.00	38.43	18.87	57.30	74.00	-16.70	peak	
2		14120.00	23.68	18.87	42.55	54.00	-11.45	AVG	
3	*	18000.00	37.27	25.57	62.84	74.00	-11.16	peak	
4		18000.00	15.36	25.57	40.93	54.00	-13.07	AVG	

\*:Maximum data x:Over limit !:over margin

●Reference Only

File :M619 (2402)(02-11-2007)EData :#9

Page: 1

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NO.140-1,Changan Street,Bade City,Taoyuan Country 344,Taiwan,

### Radiated Emission Measurement

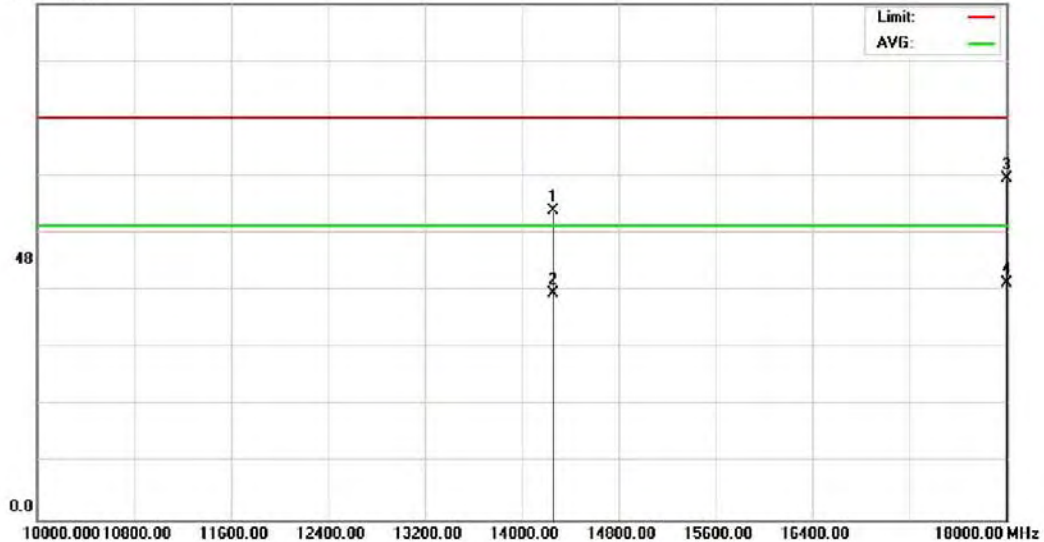
File :M619 (2402)(02-11-2007)E

Data :#11

Date: 2007/02/11

Time: 16:04:14

95.0 dBuV



Site 966半電波暗室

Limit: FCC part 15 (PK)

EUT: PDA

M/N: M619

Mode: BT EDR

Note: 2402MHz

Polarization: **Horizontal**

Power: AC 110V/60Hz

Distance: 1m

Temperature: 22 °C

Humidity: 60 %

10G - 18G PK Scan Att:0 ; REF:95 ; Range:95(EUT Power Lever:255)

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		14260.00	38.29	18.66	56.95	74.00	-17.05	peak	
2		14260.00	23.10	18.66	41.76	54.00	-12.24	AVG	
3		18000.00	37.33	25.57	62.90	74.00	-11.10	peak	
4	*	18000.00	17.98	25.57	43.55	54.00	-10.45	AVG	

\*:Maximum data x:Over limit !:over margin

●Reference Only

File :M619 (2402)(02-11-2007)EData :#11

Page: 1

Engineer Signature:



### 3.6.6 Open Field Radiated Emissions (Subpart B&C) \_ Bluetooth EDR Mode

The highest peak values of radiated emissions from the EUT at various antenna heights, antenna polarization, EUT orientation, etc. are recorded on the following

Applicant : Inventec Corporation  
Model No : Mercury 619  
EUT : PDA PHONE  
Test Mode : CH39 2441.000 (Local Frequency: 2441.000 MHz)  
Test Date : 02/11/2007

Please refer to next pager of detail testing data.

Notes:

1. Margin= Amplitude - Limits
2. Distance of Measurement: 3 Meter (30-1000MHz) & (1-10GHz), 1 Meter (10-26.5GHz)
3. Height of table for EUT placed: 0.8 Meter.
4. ANT= Antenna height.
5. Amplitude= Reading Amplitude – Amplifier gain + Cable loss + Antenna factor  
(Auto calculate in spectrum analyzer)
6. The EUT was worst case on X axis after pretest on X & Y & Z axis setting.
7. The testing data only show below 18GHz's data because measure data above 18GHz was only ambit noise.
8. All frequencies from 30MHz to 26.5GHz have been tested



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### Radiated Emission Measurement

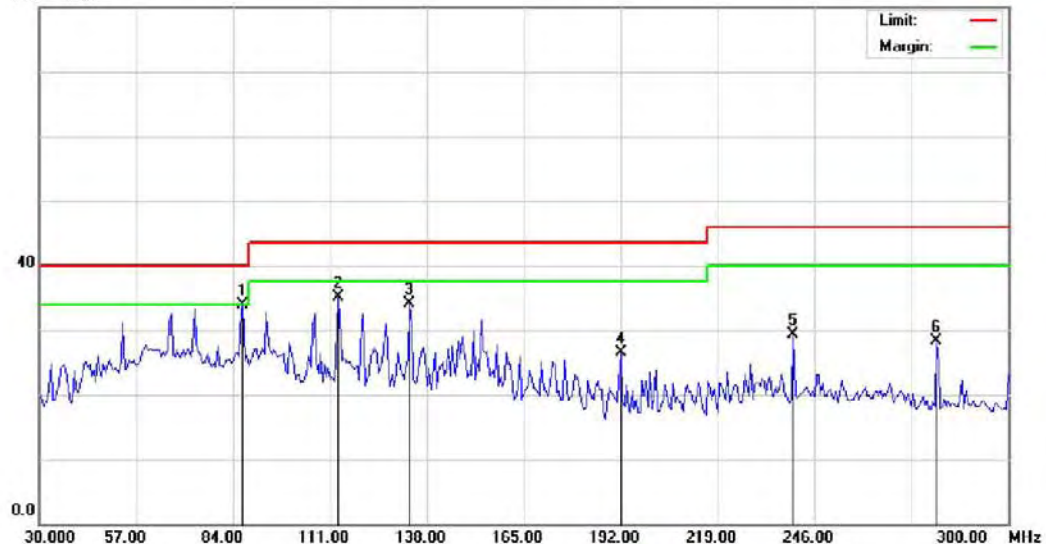
File : M619 (1G以下)(02-11-2007

Data : #5

Date: 2007/02/11

Time: 下午 17:33:43

80.0 dBuV



Site 966半電波暗室

Limit: FCC Class B 3M Radiation

EUT: PDA

M/N: M619

Mode: BT EDR

Note: CH:2441

Polarization: **Vertical**

Power:

Distance: 3m

Temperature: 22 °C

Humidity: 60 %

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	*	86.7000	48.04	-14.20	33.84	40.00	-6.16	peak	
2		113.1598	48.14	-13.04	35.10	43.50	-8.40	peak	
3		133.1399	49.96	-15.85	34.11	43.50	-9.39	peak	
4		192.0000	39.81	-13.26	26.55	43.50	-16.95	peak	
5		240.0600	40.79	-11.43	29.36	46.00	-16.64	peak	
6		280.0199	38.73	-10.41	28.32	46.00	-17.68	peak	

\*: Maximum data    x: Over limit    !: over margin

●: Reference Only

File : M619 (1G以下)(02-11-2007)Data : #5

Page: 1

Engineer Signature:





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NO.140-1,Changan Street,Bade City,Taoyuan Country 344,Taiwan,

### Radiated Emission Measurement

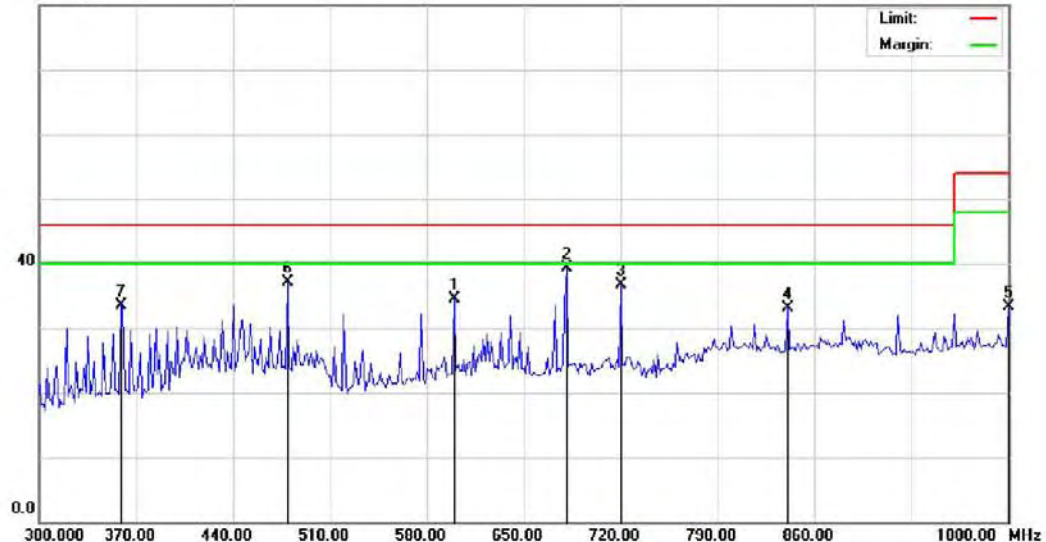
File :M619 (1G以下)(02-11-2007

Data :#6

Date: 2007/02/11

Time: 下午 17:37:12

80.0 dBuV



Site 966半電波暗室

Limit: FCC Class B 3M Radiation

EUT: PDA

M/N: M619

Mode: BT EDR

Note: CH:2441

Polarization: **Vertical**

Power:

Distance: 3m

Temperature: 22 °C

Humidity: 60 %

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		599.6000	39.40	-4.91	34.49	46.00	-11.51	peak	
2	*	680.7998	43.46	-4.10	39.36	46.00	-6.64	peak	
3		720.0000	40.25	-3.55	36.70	46.00	-9.30	peak	
4		840.3999	34.42	-1.41	33.01	46.00	-12.99	peak	
5		1000.000	32.59	0.62	33.21	54.00	-20.79	peak	
6		479.1999	44.69	-7.60	37.09	46.00	-8.91	peak	
7		358.8000	42.55	-8.95	33.60	46.00	-12.40	peak	

\*:Maximum data x:Over limit !:over margin

●Reference Only

File :M619 (1G以下)(02-11-2007)Data :#6

Page: 1

Engineer Signature: