



BEST TESTING LAB.&Neutron Engineering Inc.
132-1,Lane 329,Sec. 2,Palian Rd.,Sjijr 221,Taipei,Taiwan, R.O.C
Tel: 02-2646-5426 Fax: 02-2646-6815

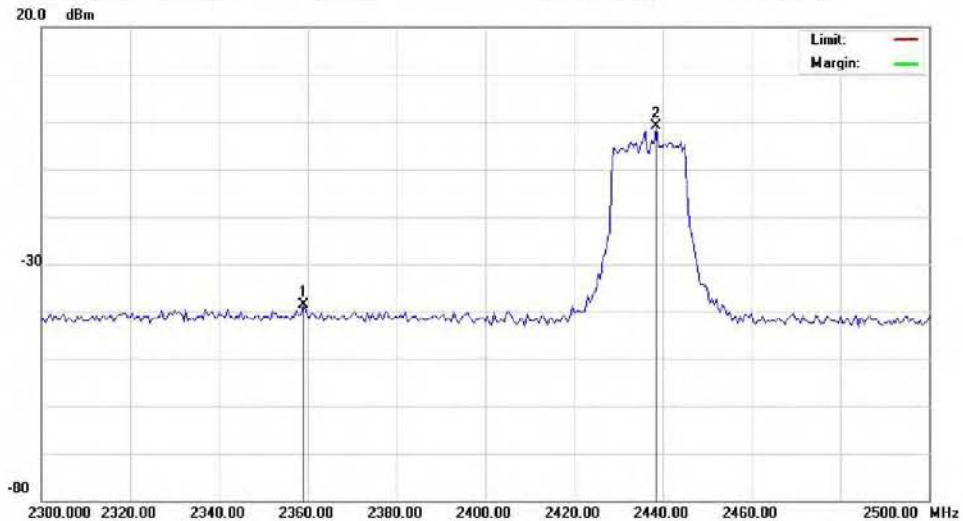
Radiated Emission Measurement

File :M619(01-04-2007)(conduct

Data :#23

Date: 2007/01/30

Time: 15:13:31



Site opensite #1

Polarization:

Temperature: 22 °C

Limit:

Power: AC 110V/60Hz

Humidity: 60 %

EUT: PDA

Distance: 3m

M/N: M619

Mode:

Note: 11g-CH06

No.	Mk	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Detector	Comment
1		2359.000	-38.71	0.00	-38.71			peak	
2	*	2438.500	-0.79	0.00	-0.79			peak	

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

●Reference Only

File :M619(01-04-2007)(conductData :#23

Page: 1

Engineer Signature:



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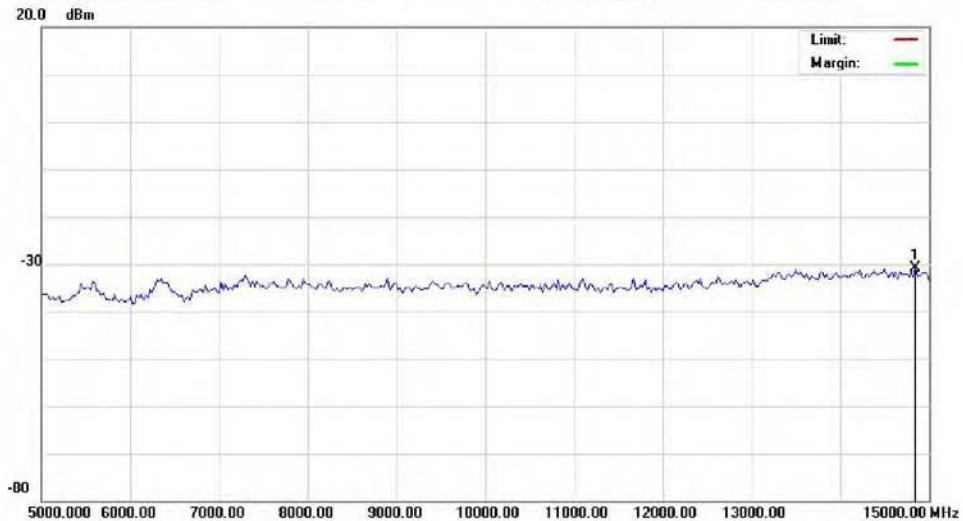
Radiated Emission Measurement

File :M619(01-04-2007)(conduct

Data :#24

Date: 2007/01/30

Time: 15:13:44



Site opensite #1

Polarization:

Temperature: 22 °C

Limit:

Power: AC 110V/60Hz

Humidity: 60 %

EUT: PDA

Distance: 3m

M/N: M619

Mode:

Note: 11g-CH06

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Detector	Comment
1	*	14850.00	-37.41	6.56	-30.85			peak	

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

●Reference Only

File :M619(01-04-2007)(conductData :#24

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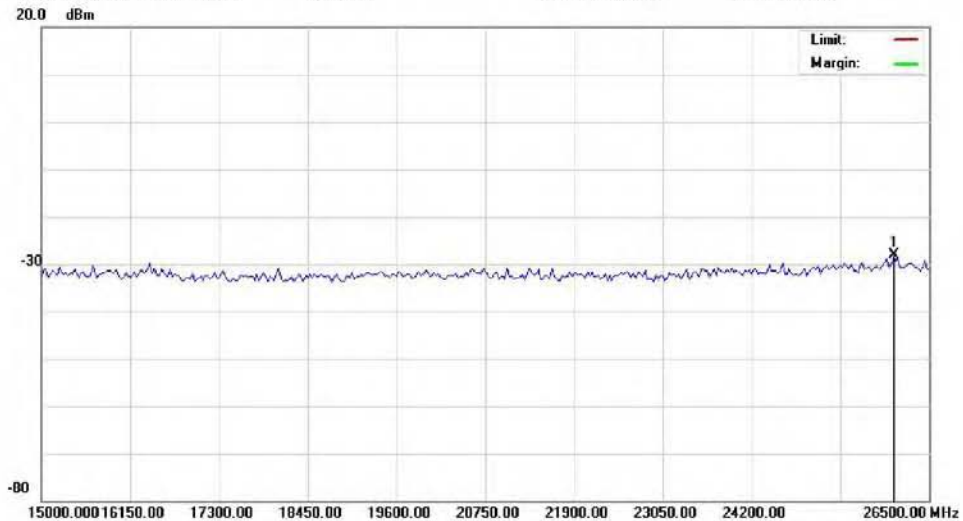
Radiated Emission Measurement

File :M619(01-04-2007)(conduct

Data :#25

Date: 2007/01/30

Time: 15:13:57



Site opensite #1

Polarization:

Temperature: 22 °C

Limit:

Power: AC 110V/60Hz

Humidity: 60 %

EUT: PDA

Distance: 3m

M/N: M619

Mode:

Note: 11g-CH06

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	*	26040.00	-35.02	6.98	-28.04			peak	

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

●Reference Only

File :M619(01-04-2007)(conductData :#25

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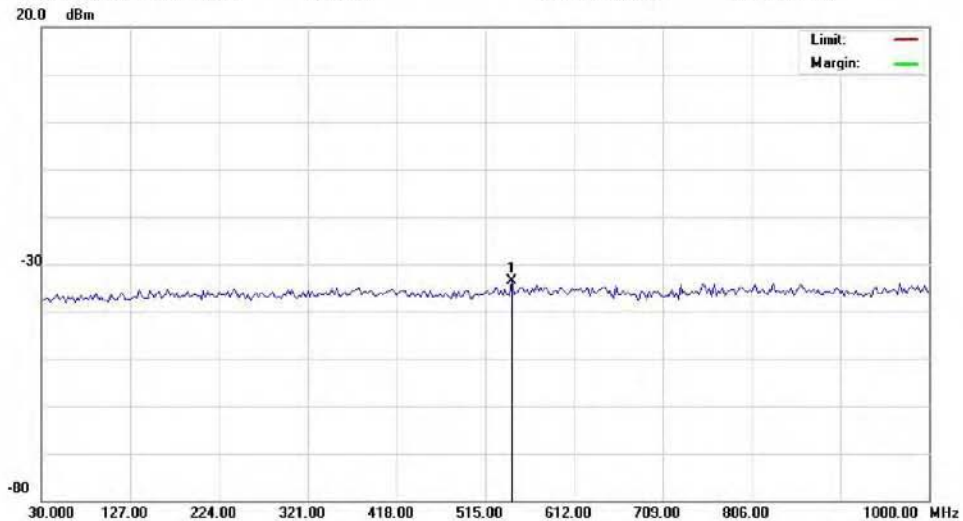
Radiated Emission Measurement

File :M619(01-04-2007)(conduct

Data :#26

Date: 2007/01/30

Time: 15:15:33



Site opensite #1

Polarization:

Temperature: 22 °C

Limit:

Power: AC 110V/60Hz

Humidity: 60 %

EUT: PDA

Distance: 3m

M/N: M619

Mode:

Note: 11g-CH11

No.	Mk	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	*	544.1000	-39.71	6.02	-33.69			peak	

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

●Reference Only

File :M619(01-04-2007)(conductData :#26

Page: 1

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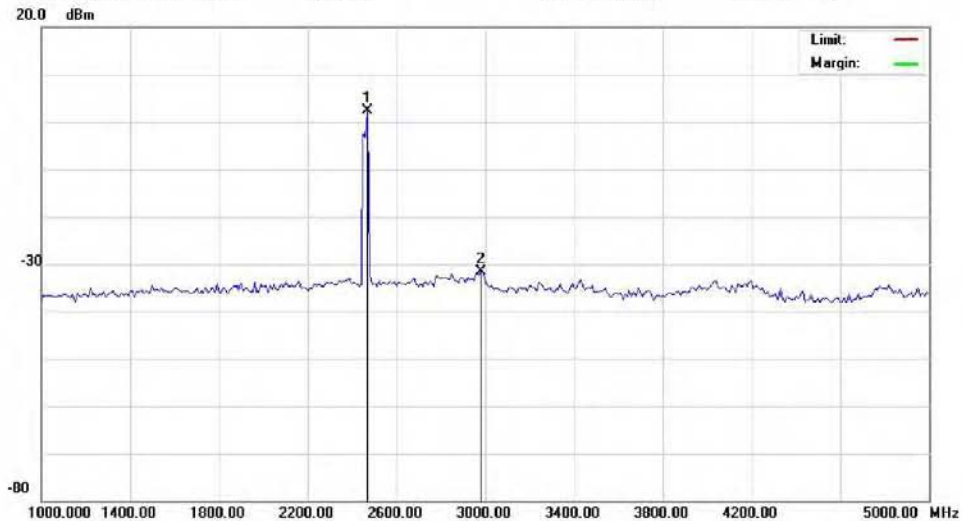
Radiated Emission Measurement

File :M619(01-04-2007)(conduct

Data :#27

Date: 2007/01/30

Time: 15:15:46



Site opensite #1

Polarization:

Temperature: 22 °C

Limit:

Power: AC 110V/60Hz

Humidity: 60 %

EUT: PDA

Distance: 3m

M/N: M619

Mode:

Note: 11g-CH11

No.	Mk	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Detector	Comment
1	*	2470.000	-3.83	6.09	2.26			peak	
2		2980.000	-37.80	6.11	-31.69			peak	

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

●Reference Only

File :M619(01-04-2007)(conductData :#27

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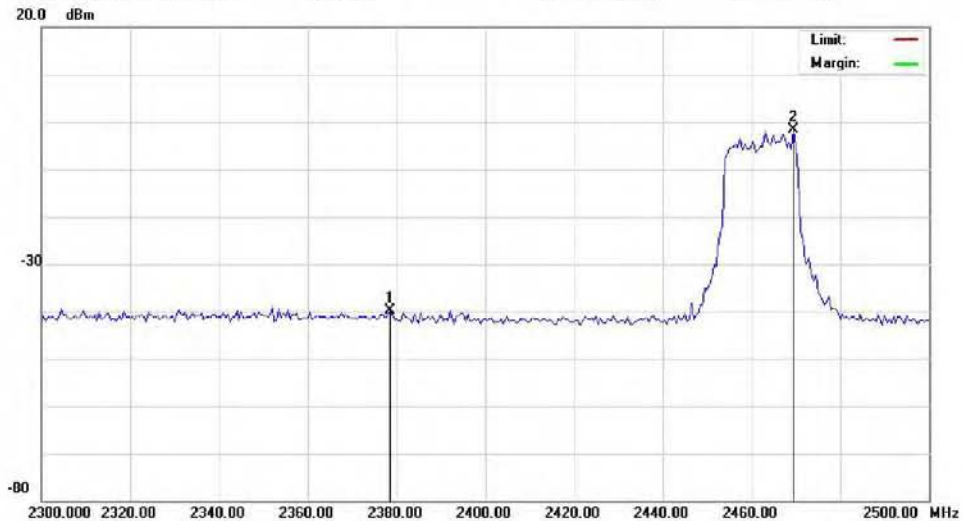
Radiated Emission Measurement

File :M619(01-04-2007)(conduct

Data :#28

Date: 2007/01/30

Time: 15:15:59



Site opensite #1

Polarization:

Temperature: 22 °C

Limit:

Power: AC 110V/60Hz

Humidity: 60 %

EUT: PDA

Distance: 3m

M/N: M619

Mode:

Note: 11g-CH11

No.	Mk	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Detector	Comment
1		2378.500	-39.77	0.00	-39.77			peak	
2	*	2469.500	-1.65	0.00	-1.65			peak	

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

●Reference Only

File :M619(01-04-2007)(conductData :#28

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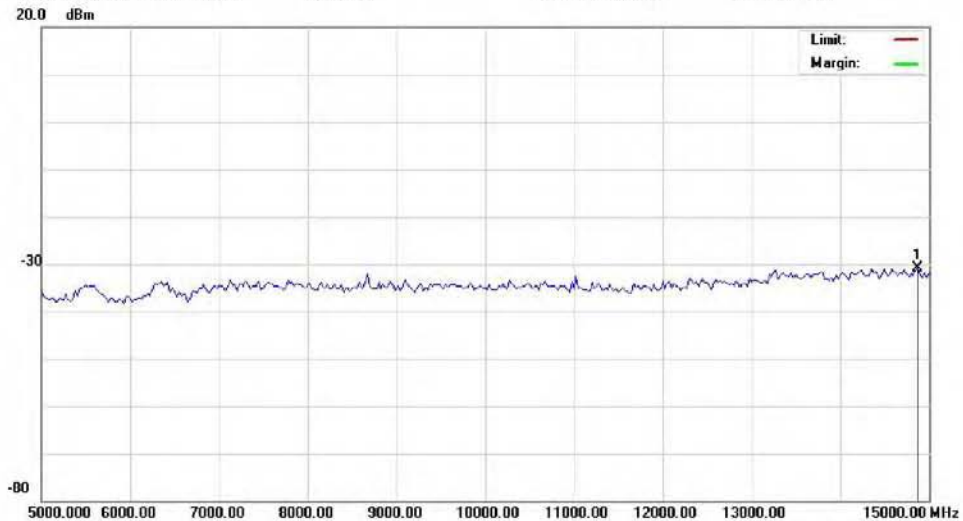
Radiated Emission Measurement

File :M619(01-04-2007)(conduct

Data :#29

Date: 2007/01/30

Time: 15:16:11



Site opensite #1

Polarization:

Temperature: 22 °C

Limit:

Power: AC 110V/60Hz

Humidity: 60 %

EUT: PDA

Distance: 3m

M/N: M619

Mode:

Note: 11g-CH11

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	*	14875.00	-37.46	6.56	-30.90			peak	

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

●Reference Only

File :M619(01-04-2007)(conductData :#29

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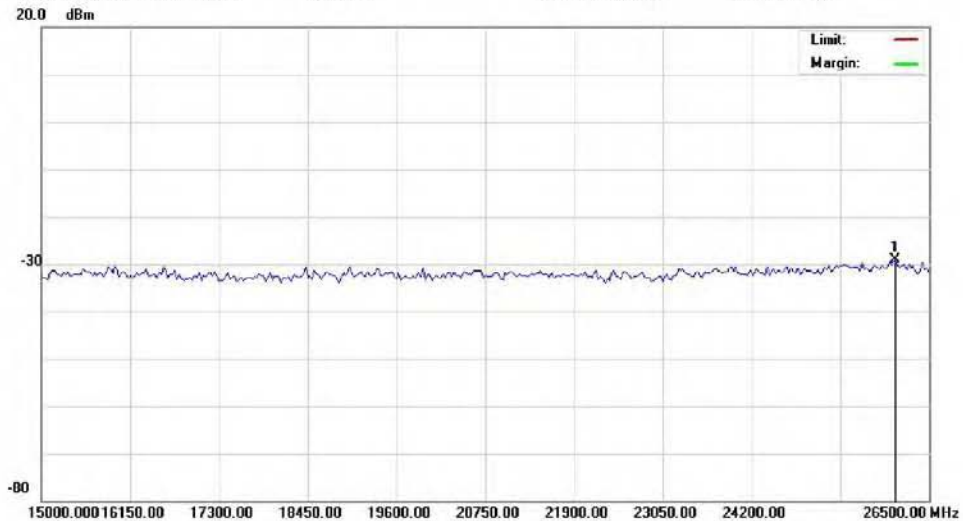
Radiated Emission Measurement

File :M619(01-04-2007)(conduct

Data :#30

Date: 2007/01/30

Time: 15:16:24



Site opensite #1

Polarization:

Temperature: 22 °C

Limit:

Power: AC 110V/60Hz

Humidity: 60 %

EUT: PDA

Distance: 3m

M/N: M619

Mode:

Note: 11g-CH11

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	*	26068.75	-36.10	6.98	-29.12			peak	

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

●Reference Only

File :M619(01-04-2007)(conductData :#30

Page: 1

Engineer Signature:

8. Band Edges Requirements

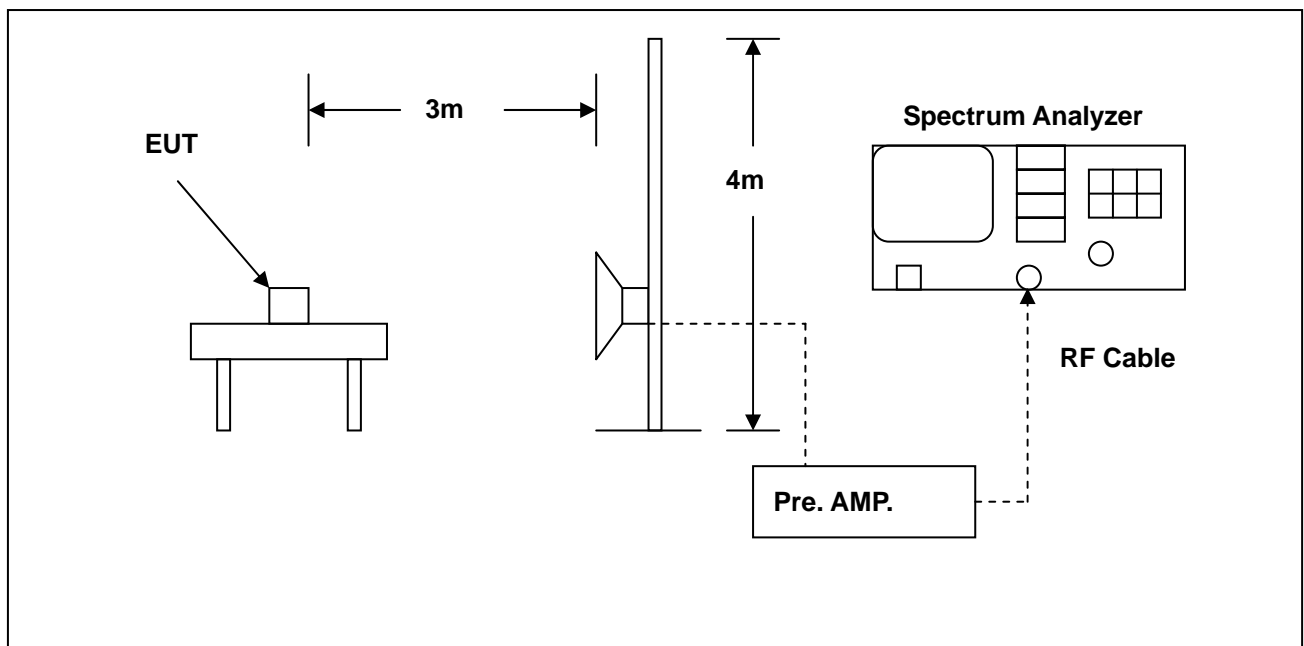
8.1 Test Condition & Setup:

The emissions on the harmonics frequencies, the limits, and the margin of compliance are presented. These tests were made when the transmitter was in full radiated power. The additional test was performed to show compliance with the requirement at the band-edge frequency 2483.5 MHz and up to 2500 MHz and at 2390.0 MHz.

The transmitter was configured with the worst case antenna and setup to transmit at the highest channel. Then the field strength was measured at 2483.5 MHz.

The transmitter was then configured with the worst case antenna and setup to transmit at the lowest channel. Then the field strength was measured at 2390.0 MHz. These tests were performed at 4 different bit rates.

8.2 Test Instruments Configuration:





8.3 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
Horn Antenna	SCHWARZBECK MESS-ELEKTRONIK	BBHA9120D	9120D-550	Jun. 26, 2006	Jun. 25, 2007



8.4 Test Result:

Applicant : Inventec Corporation
Model No : Mercury 619
EUT : PDA PHONE
Test Mode : 802.11b Low CH & High CH
Test Date : 01/30/2007

Test Graphs See next page.

Notes:

1. Margin= Amplitude - Limits
2. Height of table for EUT placed: 0.8 Meter.
3. ANT= Antenna height.
4. Duty= Duty cycle correction factor.
5. Dis= Distance extrapolation factor.
6. Amplitude= Reading Amplitude – Amplifier gain + Cable loss + Antenna factor
(Auto calculate in spectrum analyzer)
7. Actual Amp= Amplitude – Duty – Dis.



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Radiated Emission Measurement

File :FCC part15C(01-04-2007)

Data :#5

Date: 2007/01/30

Time: 23:21:20

125.0 dBuV



Site opensite #1

Polarization: **Vertical**

Temperature: 22 °C

Limit: FCC part 15 (PK)

Power:

Humidity: 60 %

EUT: PDA

Distance: 3m

M/N: M619

Mode: 11b

Note: CH01(2412MHz)

No.	Mk	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		2386.600	55.61	0.16	55.77	74.00	-18.23	peak	
2	*	2386.600	44.27	0.16	44.43	54.00	-9.57	AVG	

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

●Reference Only

File :FCC part15C(01-04-2007)\Data :#5

Page: 1

Engineer Signature: TONY



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Radiated Emission Measurement

File :FCC part15C(01-04-2007)

Data :#3

Date: 2007/01/30

Time: 23:14:52

125.0 dBuV



Site opensite #1

Polarization: **Horizontal**

Temperature: 22 °C

Limit: FCC part 15 (PK)

Power:

Humidity: 60 %

EUT: PDA

Distance: 3m

M/N: M619

Mode: 11b

Note: CH01(2412MHz)

No.	Mk	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		2386.600	53.04	0.16	53.20	74.00	-20.80	peak	
2	*	2386.600	38.33	0.16	38.49	54.00	-15.51	AVG	

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

●Reference Only

File :FCC part15C(01-04-2007)\Data :#3

Page: 1

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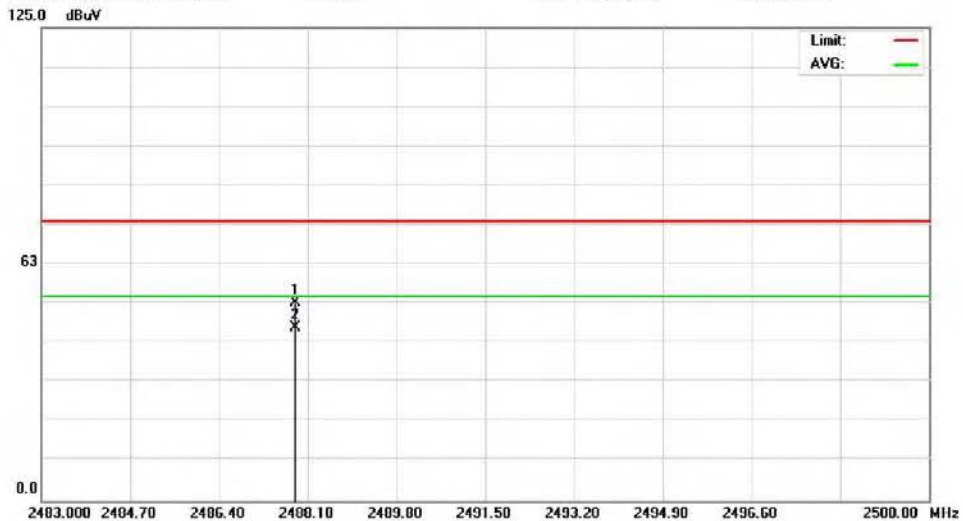
Radiated Emission Measurement

File :FCC part15C(01-04-2007)

Data :#7

Date: 2007/01/30

Time: 23:41:09



Site opensite #1
Limit: FCC part 15 (PK)
EUT: PDA
M/N: M619
Mode: 11b
Note: CH11(2462MHz)

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		2487.862	51.98	0.25	52.23	74.00	-21.77	peak	
2	*	2487.862	45.55	0.25	45.80	54.00	-8.20	AVG	

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

●Reference Only

File :FCC part15C(01-04-2007)\Data :#7

Page: 1

Engineer Signature: TONY



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Radiated Emission Measurement

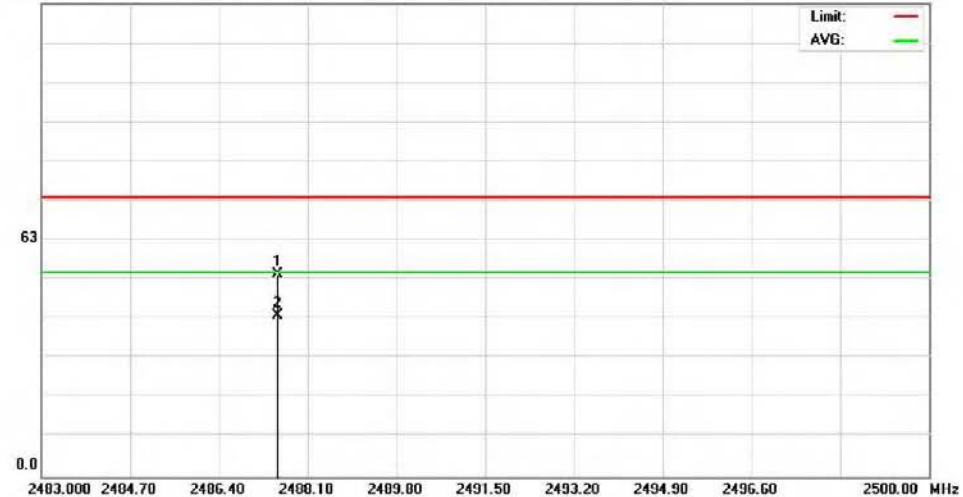
File :FCC part15C(01-04-2007)

Data :#9

Date: 2007/01/30

Time: 0:00:29

125.0 dBuV



Site opensite #1

Polarization: **Horizontal**

Temperature: 22 °C

Limit: FCC part 15 (PK)

Power:

Humidity: 60 %

EUT: PDA

Distance: 3m

M/N: M619

Mode: 11b

Note: CH11(2462MHz)

No.	Mk	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		2487.522	53.50	0.25	53.75	74.00	-20.25	peak	
2	*	2487.522	42.46	0.25	42.71	54.00	-11.29	AVG	

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

●Reference Only

File :FCC part15C(01-04-2007)\Data :#9

Page: 1

Engineer Signature: TONY



Applicant : Inventec Corporation
Model No : Mercury 619
EUT : PDA PHONE
Test Mode : 802.11g Low CH & High CH
Test Date : 01/30/2007

Test Graphs See next page.

Notes:

1. Margin= Amplitude - Limits
2. Height of table for EUT placed: 0.8 Meter.
3. ANT= Antenna height.
4. Duty= Duty cycle correction factor.
5. Dis= Distance extrapolation factor.
6. Amplitude= Reading Amplitude – Amplifier gain + Cable loss + Antenna factor
(Auto calculate in spectrum analyzer)
7. Actual Amp= Amplitude – Duty – Dis.



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Radiated Emission Measurement

File :FCC part15C(01-04-2007)

Data :#13

Date: 2007/01/30

Time: 0:23:24

125.0 dBuV



Site opensite #1

Polarization: **Vertical**

Temperature: 22 °C

Limit: FCC part 15 (PK)

Power:

Humidity: 60 %

EUT: PDA

Distance: 3m

M/N: M619

Mode: 11g

Note: CH01(2412MHz)

No.	Mk	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	*	2389.000	60.43	0.16	60.59	74.00	-13.41	peak	
2		2389.000	39.78	0.16	39.94	54.00	-14.06	AVG	

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

●Reference Only

File :FCC part15C(01-04-2007)\Data :#13

Page: 1

Engineer Signature: TONY



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Radiated Emission Measurement

File :FCC part15C(01-04-2007)

Data :#11

Date: 2007/01/30

Time: 0:09:30

125.0 dBuV



Site opensite #1

Polarization: **Horizontal**

Temperature: 22 °C

Limit: FCC part 15 (PK)

Power:

Humidity: 60 %

EUT: PDA

Distance: 3m

M/N: M619

Mode: 11g

Note: CH01(2412MHz)

No.	Mk	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		2387.800	55.81	0.16	55.97	74.00	-18.03	peak	
2	*	2387.800	40.54	0.16	40.70	54.00	-13.30	AVG	

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

●Reference Only

File :FCC part15C(01-04-2007)\Data :#11

Page: 1

Engineer Signature: TONY



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Radiated Emission Measurement

File :FCC part15C(01-04-2007)

Data :#15

Date: 2007/01/30

Time: 0:33:49

125.0 dBuV



Site opensite #1

Polarization: **Vertical**

Temperature: 22 °C

Limit: FCC part 15 (PK)

Power:

Humidity: 60 %

EUT: PDA

Distance: 3m

M/N: M619

Mode: 11g

Note: CH11(2462MHz)

No.	Mk	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	*	2483.884	62.84	0.24	63.08	74.00	-10.92	peak	
2		2483.884	40.41	0.24	40.65	54.00	-13.35	AVG	

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

●Reference Only

File :FCC part15C(01-04-2007)\Data :#15

Page: 1

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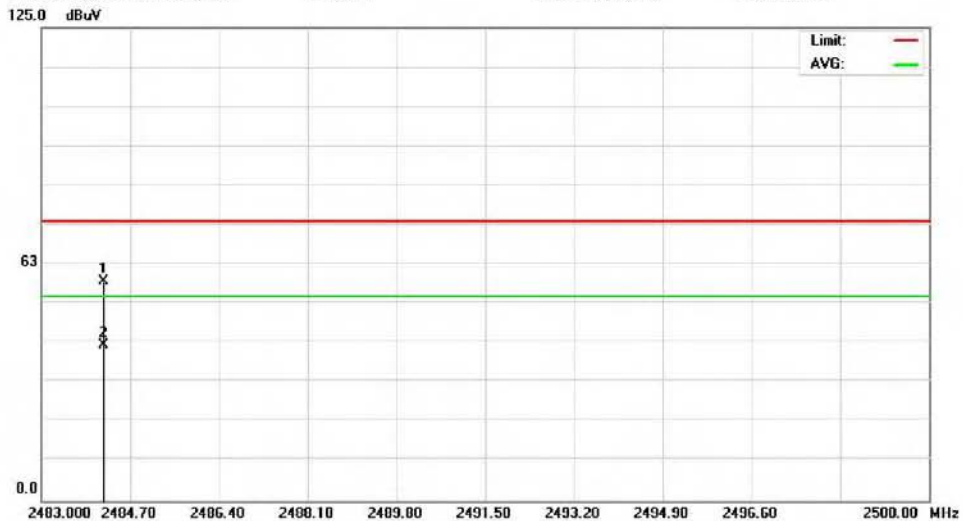
Radiated Emission Measurement

File :FCC part15C(01-04-2007)

Data :#17

Date: 2007/01/30

Time: 0:42:19



Site opensite #1
Limit: FCC part 15 (PK)
EUT: PDA
M/N: M619
Mode: 11g
Note: CH11(2462MHz)

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		2484.190	57.65	0.24	57.89	74.00	-16.11	peak	
2	*	2484.190	40.71	0.24	40.95	54.00	-13.05	AVG	

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

●Reference Only

File :FCC part15C(01-04-2007)\Data :#17

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9. Antenna Requirements

9.1 Standard Applicable:

For intentional device, according to 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

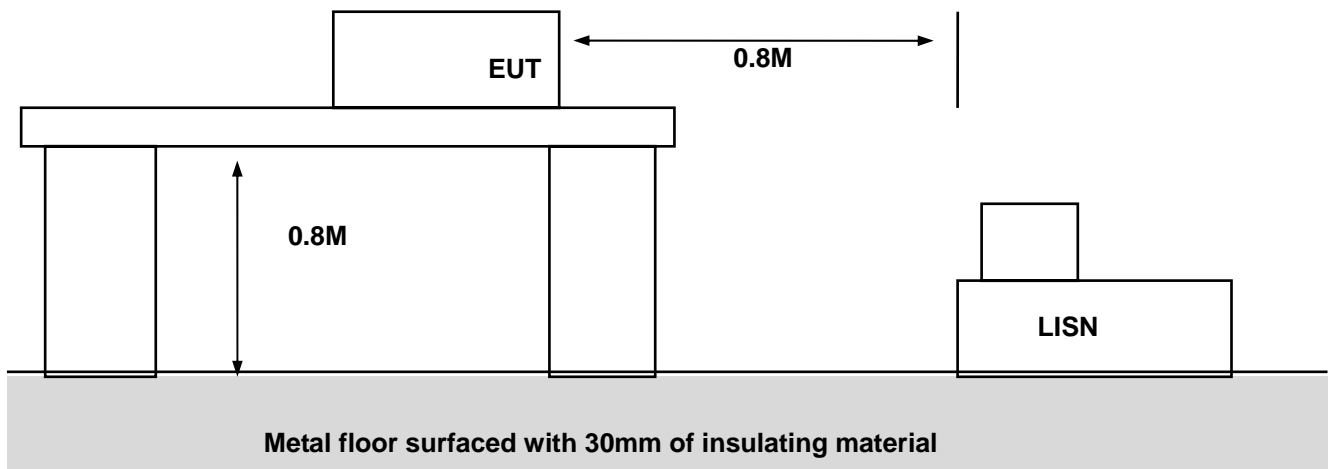
And According to 15.247 (b), if transmitting antennas of directional gain greater than 6 dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

9.2 Antenna Connector Construction

The antenna used in this product is internal antenna. And the maximum Gain of this antenna is only 2.03 dBi.

Appendix A - EUT Test SETUP

MEASUREMENT OF POWER LINE CONDUCTED RFI VOLTAGE



Appendix B - EUT Test SETUP

MEASUREMENT OF RADIATED EMISSION

