TEST REPORT of FCC Part 2,22&24

Product : Notebook Personal Computer

Model(s): **V100** (with SIERRA HSDPA Module, Model:MC8775V)

Brand: GETAC

Applicant: MITAC Technology Corporation

Address: **4F, No.1, R&D Road 2, Hsinchu Science-Based industrial Park, Hsinchu 300, Taiwan**



Test Performed by:

International Standards Laboratory

<Lung-Tan LAB> *Site Registration No. BSMI: SL2-IN-E-0013; TAF: 0997; IC: IC4164-1; VCCI: R-1435, C-1440, T-299; NEMKO: ELA 113B *Address: No. 120, Lane 180, San Ho Tsuen, Hsin Ho Rd. Lung-Tan Hsiang, Tao Yuan County 325, Taiwan *Tel : 886-3-407-1718; Fax: 886-3-407-1738

Report No.: **ISL-07LR030FCP22** Issue Date : **2008/05/14**



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1. General

1.1 Certification of Accuracy of Test Data

Standards:	CFR 47 Part 2 CFR 47 Part 22H CFR 47 Part 24F
Test Procedure:	CFR 47 Part 24E EIA/TIA-603A
Equipment Tested:	Notebook Personal Computer
Model:	V100
Applied by:	MITAC Technology Corporation
Sample received Date:	2007/10/26
Final test Date :	refer to the date of test data
Test Result	PASS
Test Site:	Chamber 05, Conduction 02, Humidity Chamber
Reportor:	Jiin Lee
Test Engineer:	Jevry hion

All the tests in this report have been performed and recorded in accordance with the standards described above and performed by an independent electromagnetic compatibility consultant, International Standards Laboratory.

The test results contained in this report accurately represent the measurements of the characteristics and the energy generated by sample equipment under test at the time of the test. The sample equipment tested as described in this report is in compliance with the limits of above standards.

Approve & Signature

Roy Hsich

Roy Hsieh / Manager

Test results given in this report apply only to the specific sample(s) tested under stated test conditions. This report shall not be reproduced other than in full without the explicit written consent of ISL. This report totally contains 34 pages, including 1 cover page, 1 contents page, and 32 pages for the test description.

This test data shown below is traceable to NIST or national or international standard. International Standards Laboratory certifies that no party to this application has been denied the FCC benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. 853(a).



2. Test Results Summary

The functions of EUT has been tested according to the FCC regulations listed below:

Tested Standards: 47 CFR Part 2,22&24								
Standard	Test Type	Result	Remarks					
Section								
§2.1046	Peak Power Output	Pass						
§22.913								
§24.232								
§2.1049	Occupied Bandwidth	Pass						
§22.917								
§24.238								
§2.1049	Spurious Emission At	Pass						
§22.917	Antenna Terminals							
§24.238	(+/-1MHz)							
§2.1051	Spurious emissions	Pass						
§2.1053								
§22.917								
§24.238								
§2.1055	Frequency Stability	Pass						
§22.355	Under Temperature							
§24.235	Variations & Voltage							
	Variations							



3. Description of Equipment Under Test (EUT)

Product Name	Notebook Personal Computer
Model No.	V100
FCC ID	MAU027
TX Frequency	824MHz~849MHz
Rx Frequency	1850MHz ~ 1910MHz 869MHz~894MHz 1930MHz ~ 1990MHz
Antenna Type	Internal
Maximum Power(conducted) Maximum Power(radiated)	GPRS(GMSK) 850 MHz : 31.8dBm 1900 MHz : 29.6dBm EDGE(8PSK) 850 MHz : 27.37dBm 1900 MHz : 26.46dBm GPRS(GMSK) 850 MHz : 29.12dBm 1900 MHz : 27.14dBm EDGE(8PSK) 850 MHz : 21.28dBm 1900 MHz : 19.88dBm
Power Rating	By Notebook PC
Antenna Type	PIFA Antenna
Antenna Gain	0.52dBi(850MHz), 2.06dBi(1900MHz)
Type of Antenna Connector	I-PEX
HW version	2.1.4.0
SW version	R2.0.1.1 Build 1444
Emission designators Voltage and Current in final PA	GPRS:200KGXW EDGE:200KG7W Cellular850: EUT idle: DC19V,0.90A GPRS transmitting Max. power: DC19V, 0.99A
	PCS1900: EUT idle: DC19V,0.90A GPRS transmitting Max. power: DC19V, 0.95A
LCD Panel	Panel 1:LTD 104KA1S Panel 2:LTD 121EXEV



Test configuration:

configu ration	LCD	CPU	Adapter Type	Hard Disk	Modem Card	Wireless LAN Card	Battery	DDR
1	Toshiba(Model: LTD104 KA1S)	Genuine intel U2500 1.2GHz	EPS (Model: F10903-A)	Toshiba (Model:M K1234GSX) 120G	Conexant (Model: RD-02-D33 0)	Intel(Model :WM3945 ABG)	MITAC(M odel:BP-L C2600/33-0 151)	Hnnix(M odel:PC2 -530085 55-12)
2	Toshiba(Model: LTD121E XEV)	Genuine intel U2500 1.2GHz	EPS (Model: F10903-A)	Toshiba (Model:M K1234GSX) 120G	Conexant (Model: RD-02-D33 0)	Intel(Model :WM3945 ABG)	MITAC(M odel:BP-L C2600/33-0 151)	Hnnix(M odel:PC2 -5300S5 55-12)

All types of LCD \sim CPU \sim Adapter Type \sim Hard Disk \sim Modem Card \sim Wireless LAN Card \sim Battery \sim DDR with related components have been tested, only shown the worst data using the following configuration in this report.

confi atic	0	LCD	CPU	Adapter Type	Hard Disk	Modem Card	Wireless LAN Card	Battery	DDR
		Toshiba(Genuine	EPS (Model:	Toshiba	Conexant	Intel(Model	MITAC(M	Hnnix(M
2		Model:	intel	F10903-A)	(Model:M	(Model:	:WM3945	odel:BP-L	odel:PC2
2		LTD121E	U2500		K1234GSX	RD-02-D33	ABG)	C2600/33-0	-5300S5
		XEV)	1.2GHz) 120G	0)		151)	55-12)



4. TEST RESULTS (Cellular850/PCS1900)

4.1 Peak Power Output [Section 2.1046, 22.913(a), 24.232(b)]

4.1.1 Test Procedure(Conducted)

- 1. The Transmitter output of EUT was connected to the Base Simulator
- 2. Base Simulator setting is listed below:.

Channels Tested:	Cellular850:
Channels Testeu.	
	Low Channel
	Mid. Channel
	High Channel
	PCS1900:
	Low Channel
	Mid. Channel
	High Channel
Detector Function:	Peak Power Mode

4.1.2 Test Procedure(Radiated)

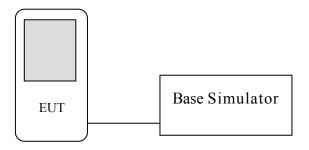
- 1. The equipment under test was set up on the 10 meter chamber with measurement distance of 3 meters. The EUT was placed on a non-conductive table 150cm above ground.
- 2. Any changes made to the configuration, or modifications made to the EUT, during testing are noted in the following test record.
- 3. The maximum readings by varying the height of antenna from 1~4meters and then rotating the turntable were recorded. Both polarization of antenna, horizontal and vertical with EUT's X, Y Z axis, were measured.
- 4. Base Simulator setting is listed below:.

Channella Tastadi	C-11-1950-
Channels Tested:	Cellular850:
	Low Channel
	Mid. Channel
	High Channel
	PCS1900:
	Low Channel
	Mid. Channel
	High Channel
Detector Function:	Peak Power Mode
Span:	100MHz
Resolution Bandwidth	1MHz(GPRS/EDGE)
(RBW):	
Video Bandwidth (VBW)	3MHz(GPRS/EDGE)
Sweep Time	500ms

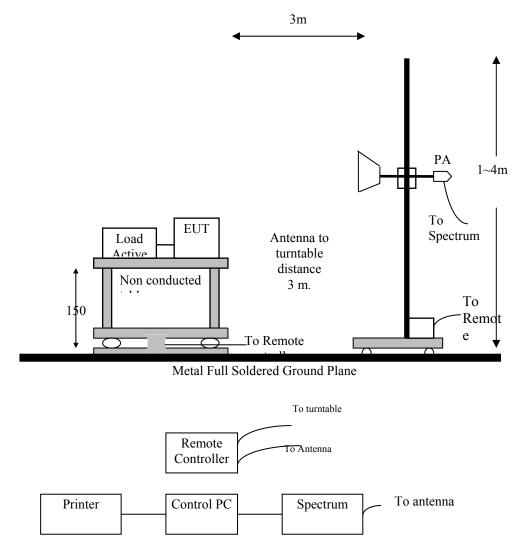


4.1.3 Test Setup

■ General Conducted Test Configuration



■ General Radiation Test Configuration





4.1.4 Conducted Test Data:

■ GPRS Maximum Peak Output Power(Conducted)

Cellular850

Channel	Frequency	Reading	Path loss	ResultsLimit(dBm)(W)(W)		Limit	Pass/Fail
	(MHz)	(dBm)	(dB)			1 u55/1 u11	
128	824.2	30.7	1.0	31.7	1.174	7	Pass
190	836.6	30.8	1.0	31.8	1.202	7	Pass
251	848.8	30.7	1.0	31.7	1.174	7	Pass

PCS1900

Channel	Frequency	Reading	Path loss	Results		Limit	Pass/Fail
Channel	(MHz)	(dBm)	(dB)	(dBm)	(W)	(W)	1 455/1 411
512	1850.2	27.7	1.5	29.2	0.588	2	Pass
661	1880.0	28	1.5	29.5	0.63	2	Pass
810	1909.8	28.1	1.5	29.6	0.645	2	Pass

EDGE Maximum Peak Output Power(Conducted)

Cellular850

Channel	Frequency	Reading	Path loss	Results		Limit	Pass/Fail
Channel	(MHz)	(dBm)	(dB)	(dBm)	(W)	(W)	1 uss/1 ull
128	824.2	26.08	1.0	27.08	0.511	7	Pass
190	836.6	26.23	1.0	27.23	0.528	7	Pass
251	848.8	26.37	1.0	27.37	0.490	7	Pass

PCS1900

Channel	Frequency	Reading	Path loss	ResultsLimit(dBm)(W)(W)		Limit	Pass/Fail
Chaliner	(MHz)	(dBm)	(dB)			(W)	1 ass/1 all
512	1850.2	24.56	1.5	26.06	0.404	2	Pass
661	1880.0	24.75	1.5	26.25	0.422	2	Pass
810	1909.8	24.96	1.5	26.46	0.443	2	Pass



4.1.5 Radiated Test Data:

■ GPRS Maximum Peak Output Power(Radiated) with config. 2

Cellular850

Channel	Frequency	Raw Results	Correction factor	Results (ERP) (dBm) (W)		Limit	Pass/Fail
	(MHz)	(dBm)	(dB)			(W)	
128	824.2	-10.07	37.35	27.28	0.535	7	Pass
190	836.6	-8.63	37.35	28.72	0.745	7	Pass
251	848.8	-8.23	37.35	29.12	0.817	7	Pass

PCS1900

Channel	Frequency	Raw Results	Correction factor	Results (EIRP) (dBm) (W)		Limit	Pass/Fail
	(MHz)	(dBm)	(dB)			(W)	
512	1850.2	-12.57	39.71	27.14	0.518	2	Pass
661	1880.0	-13.90	39.71	25.81	0.381	2	Pass
810	1909.8	-13.91	39.71	25.80	0.380	2	Pass

EDGE Maximum Peak Output Power(Radiated) with config. 2

Cellular850

Channel	Frequency	Raw Results	Correction factor	Results (ERP) (dBm) (W)		Limit	Pass/Fail
	(MHz)	(dBm)	(dB)			(W)	
128	824.2	-17.25	37.35	20.10	0.102	7	Pass
190	836.6	-16.32	37.35	21.03	0.127	7	Pass
251	848.8	-16.07	37.35	21.28	0.134	7	Pass

PCS1900

Channel	Frequency	Raw Results	Correction factor	Results (EIRP)		Limit	Pass/Fail
	(MHz)	(dBm)	(dB)	(dBm)	(W)	(W)	
512	1850.2	-19.83	39.71	19.88	0.097	2	Pass
661	1880.0	-20.55	39.71	19.16	0.082	2	Pass
810	1909.8	-20.72	39.71	18.99	0.079	2	Pass

Note:

- 1. Receiver setting (Peak Detector) : RBW:1MHz; VBW:3MHz °
- 2. Correction factor = Substitution SG Level + Antenna Gain Cable Loss Rx. level \circ
- 3. ERP/EIRP Value = Raw Results + Correction factor \circ

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Cellular850 Raw Correction Frequency Results (ERP) Limit Results factor Channel Pass/Fail (MHz) (dBm) (dB)(dBm) (W) (W) 128 27.48 0.560 7 Pass 37.35 824.2 -9.87 28.80 190 836.6 -8.55 37.35 0.759 7 Pass 7 251 -8.89 37.35 28.46 0.701 848.8 Pass

■ GPRS Maximum Peak Output Power(Radiated) with config. 1

PCS1900

Channel	Frequency	Raw Results	Correction factor	Results (EIRP) (dBm) (W)		Limit	Pass/Fail
	(MHz)	(dBm)	(dB)			(W)	
512	1850.2	-13.69	39.71	26.02	0.400	2	Pass
661	1880.0	-14.53	39.71	25.18	0.330	2	Pass
810	1909.8	-13.95	39.71	25.22	0.333	2	Pass

Note:

- 1. Receiver setting (Peak Detector) : RBW:1MHz; VBW:3MHz °
- 2. Correction factor = Substitution SG Level + Antenna Gain Cable Loss Rx. level \circ
- 3. ERP/EIRP Value = Raw Results + Correction factor •



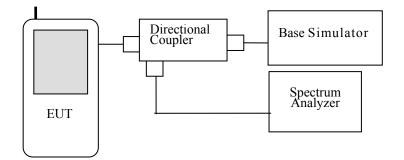
4.2 Occupied Bandwidth [Section 2.1049, 22.917(b),24.238(b)]

4.2.1 Test Procedure

- 1. The Transmitter output of EUT was connected to the Spectrum analyzer through the directional coupler.
- 2. Spectrum analyzer setting is listed below:

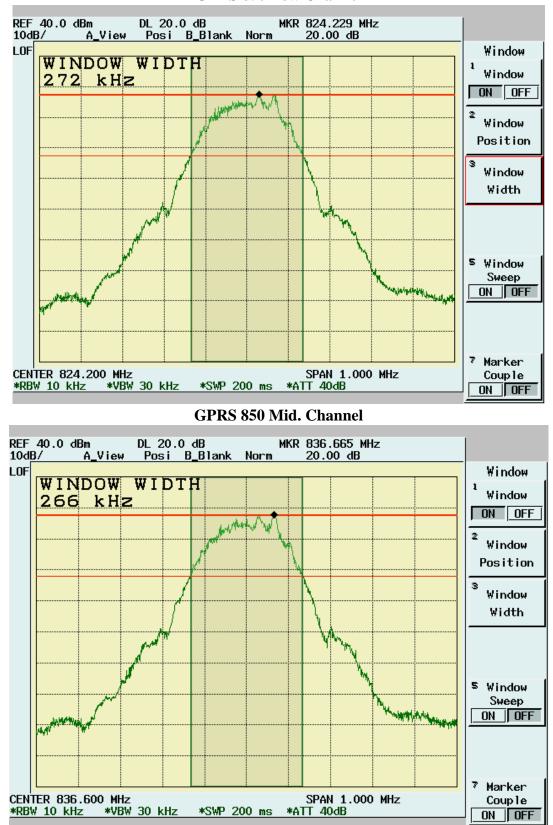
Cellular850:
Low Channel
Mid. Channel
High Channel
PCS1900:
Low Channel
Mid. Channel
High Channel
Peak Mode
1MHz
10kHz(GPRS/EDGE)
30kHz(GPRS/EDGE)
500ms

4.2.2 Test Setup



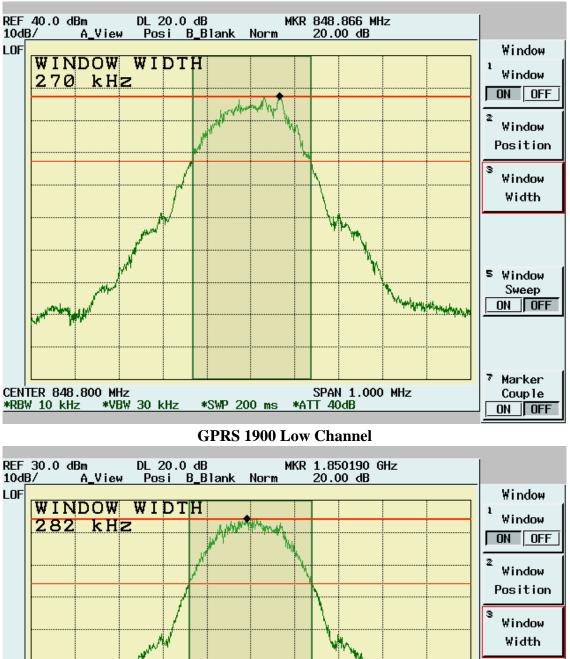


4.2.3 Test Data



GPRS 850 Low Channel





GPRS 850 High Channel

 REF 30.0 dB
 DL 20.0 dB
 MKR 1.850190 GHz

 10dB/
 A_View
 Posi B_Blank Norm
 20.00 dB

 LOF
 WINDOW WIDTH
 Window

 282 kHz
 Window
 Window

 Window
 Window
 ON DFF

 2 Window
 Window
 Position

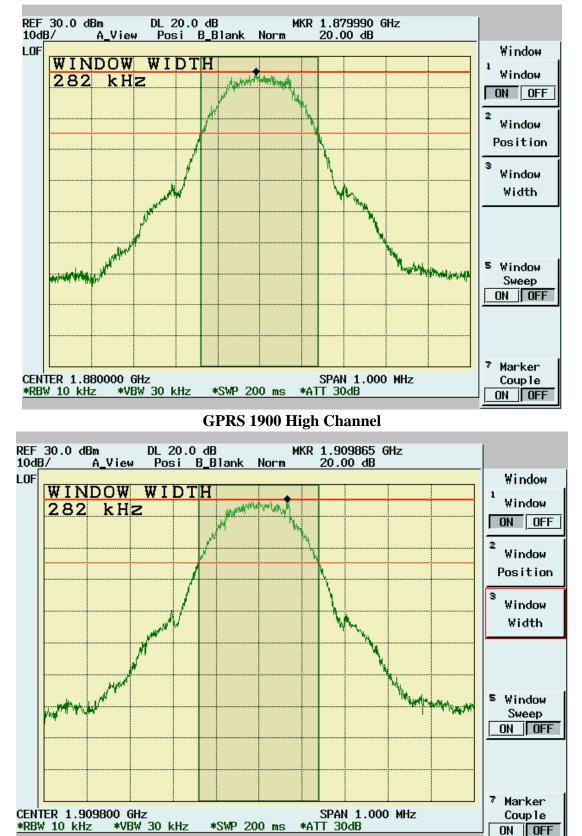
 Window
 Window
 Window

 Window
 Window
 Position

 Window
 Window
 Window

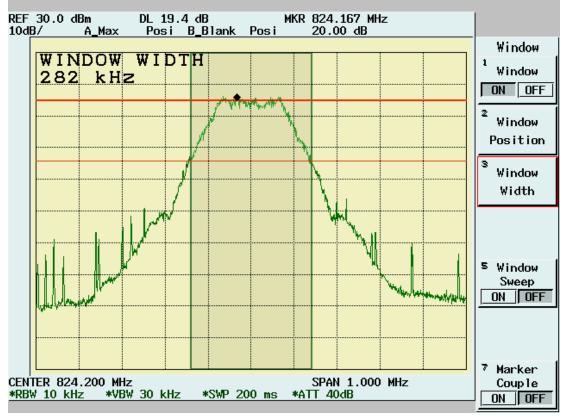
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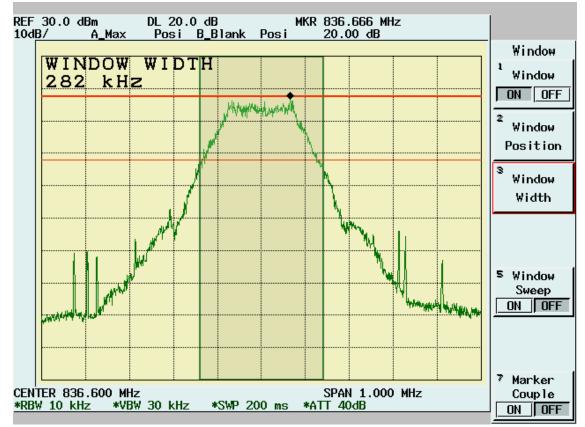
GPRS 1900 Mid. Channel



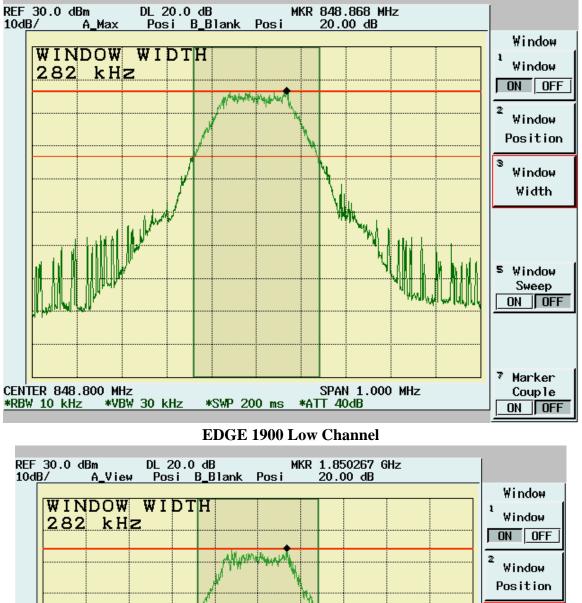


EDGE 850 Low Channel





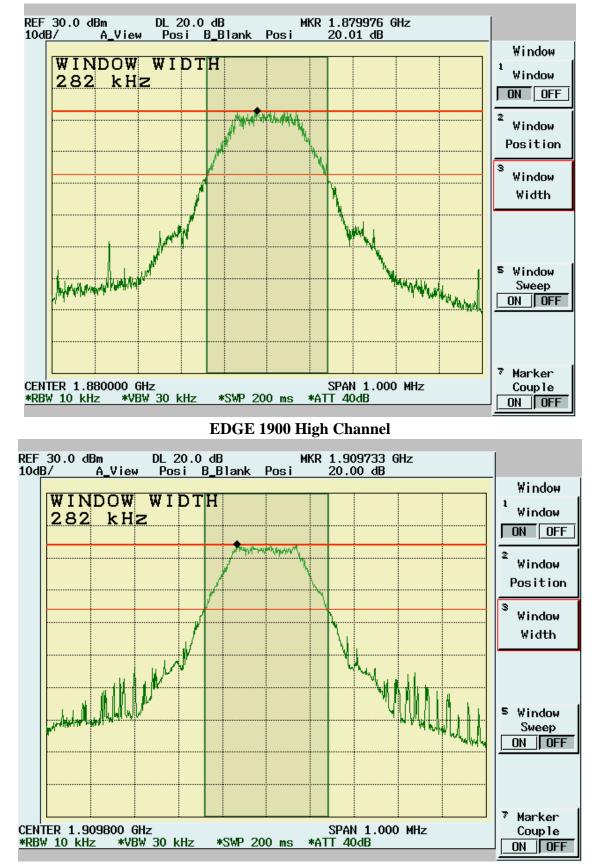




EDGE 850 High Channel







EDGE 1900 Mid. Channel



4.3 Spurious Emission At Antenna Terminals (+/-1MHz)

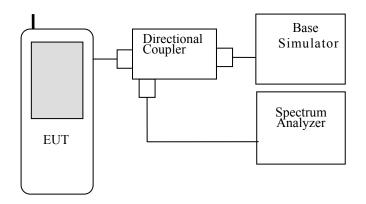
[Section 2.1049, 22.917, 24.238]

4.3.1 Test Procedure

- 1. The Transmitter output of EUT was connected to the Spectrum analyzer through the directional coupler.
- 2. Spectrum analyzer setting is listed below:

Channels Tested:	Cellular850:
	Low Channel
	High Channel
	PCS1900:
	Low Channel
	High Channel
Detector Function:	Peak Mode
Span:	5MHz
Resolution Bandwidth (RBW):	3kHz(GPRS/EDGE)
Video Bandwidth (VBW)	10kHz(GPRS/EDGE)
Sweep Time	500ms

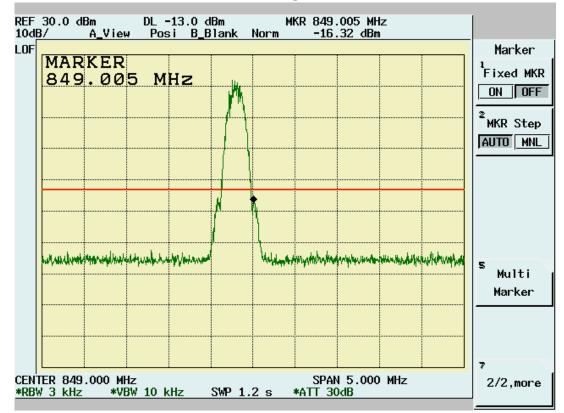
4.3.2 Test Setup



4.3.3 Test Data

dBm DL-13.0 dBm i A_View Posi B_Blank Norm REF 30.0 dBm MKR 823.995 MHz 10dB/ -14.80 dBm LOF Marker MARKER Fixed MKR 823.995 MHz ON OFF ²MKR Step AUTO MNL H ؇ۥ؞ۥڹ؇؇؞؞؞ۥ؋ڮۼۊڮڂ؞ۣ؞؞ڔ٢؞؊؞؞؞ٵٳ؞؞ؚ؊ٳڮڲؖٳ؇ٵؖٳڮڿڲ؞؇؞؉؞؇؇ڂ؇؇؇؇ڮڮڰ؞ۅڲڴ؋ڮٳڹؾۣؖؗ؇؇ٵ؞ۅڮڐٳڮڴ the all sorry and boy to get all an is a show a show a day of a should be 5 Multi Marker 7 CENTER 824.000 MHz *RBW 3 kHz <u>*VBW 10 kHz</u> SPAN 5.000 MHz *ATT 30dB 2/2,moreSWP 1.2 s

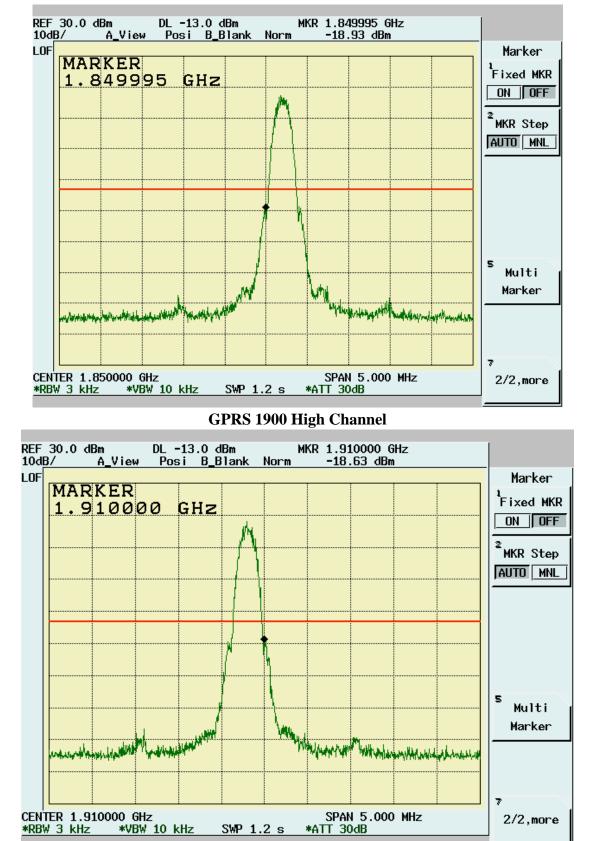
GPRS 850 High Channel



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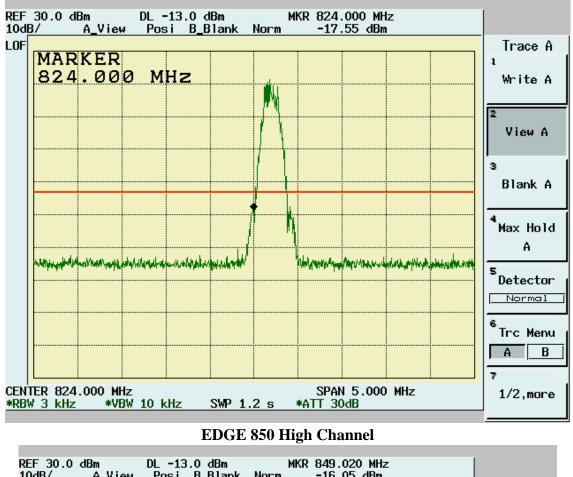
GPRS 850 Low Channel



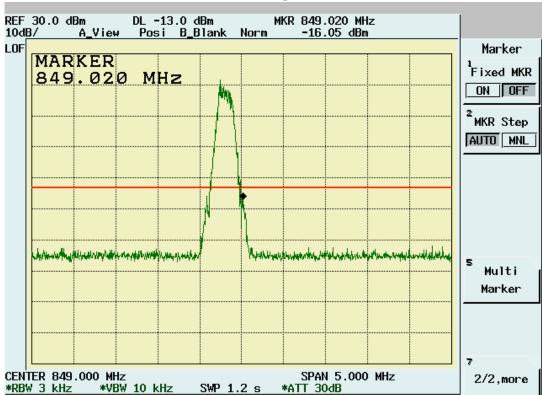


GPRS 1900 Low Channel

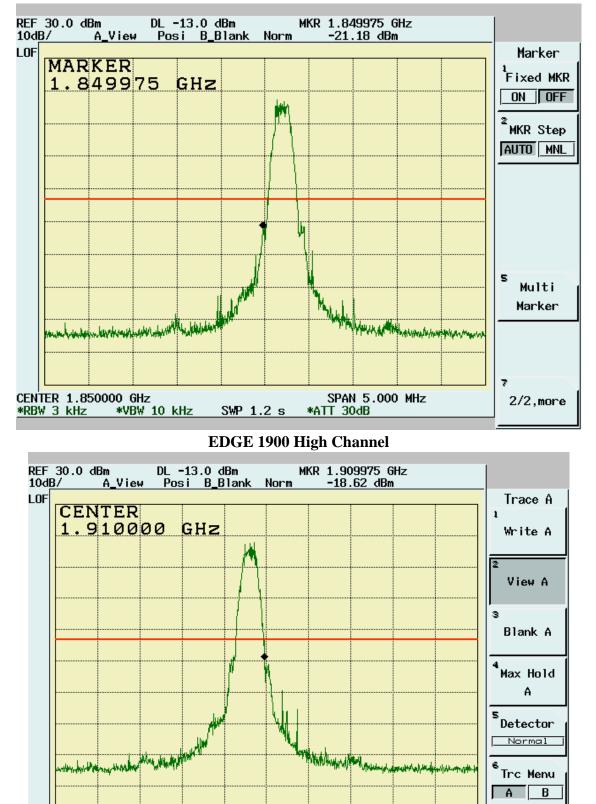




EDGE 850 Low Channel







EDGE 1900 Low Channel

CENTER 1.910000 GHz *RBW 3 kHz *VBW 10 kHz SPAN 5.000 MHz *ATT 30dB

SWP 1.2 s

7

1/2,more



4.4 Spurious Emission Measurement [Section 2.1051,2.1053, 22.917(a), 24.238(b)]

4.4.1 Test Procedure(Conducted)

- 1. The Transmitter output of EUT was connected to the Spectrum analyzer through the directional coupler.
- the directional coupler.
 For the test of 2nd to 10th harmonics frequencies, the frequencies were tested using Peak mode.
- 3. Spectrum analyzer setting is listed below:

Channels Tested:	Cellular850: Mid. Channel PCS1900: Mid. Channel
Detector Function:	Peak Power Mode
Span:	4000MHz
Resolution Bandwidth (RBW):	1MHz
Video Bandwidth (VBW)	3MHz
Sweep Time	500ms

4.4.2 Test Procedure(Radiated)

- 1. The equipment under test was set up on the 10 meter chamber with measurement distance of 3 meters. The EUT was placed on a non-conductive table 80cm above ground.
- 2. Any changes made to the configuration, or modifications made to the EUT, during testing are noted in the following test record.

The system was set up as described above, with the EMI diagnostic software running. We found the maximum readings by varying the height of antenna and then rotating the turntable. Both polarization of antenna, horizontal and vertical, are measured.

- 3. 30M to 1GHz: The highest emissions between 30 MHz to 1000 MHz were also analyzed in details by operating the spectrum analyzer and/or EMI receiver in quasi-peak mode to determine the precise amplitude of the emissions. While doing so, the interconnecting cables and major parts of the system were moved around, the antenna height was varied between one and four meters, its polarization was varied between vertical and horizontal, and the turntable was slowly rotated, to maximize the emission.
- 4. 1GHz 20GHz: The highest emissions were also analyzed in details by operating the spectrum analyzer and/or EMI receiver in peak mode to determine the precise amplitude of the emission. While doing so, the interconnecting cables and major parts of the system were moved around, the antenna height was varied between one and four meters, its polarization was varied between vertical and horizontal, and the turntable was slowly rotated, to maximize the emission. During test the EMI receiver and spectrum was setup according to EMI Receiver/Spectrum Analyzer Configuration.
- 5. For the test of 2nd to 10th harmonics frequencies, the frequencies were tested using Peak mode.

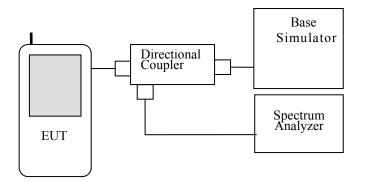


6. Spectrum analyzer setting is listed below:

Frequency Range Tested:	30MHz~1000MHz
Detector Function:	Peak Mode
Resolution Bandwidth (RBW):	120KHz
Video Bandwidth (VBW)	1MHz
Frequency Range Tested:	1GHz – 20 GHz
Detector Function:	Peak Mode
Resolution Bandwidth (RBW):	1MHz
Video Bandwidth (VBW)	3MHz

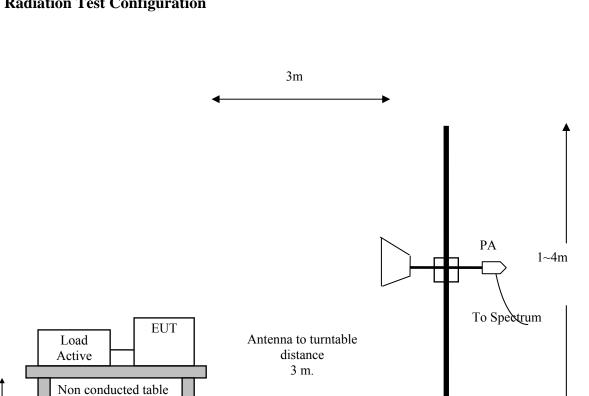
4.4.3 Test Setup

General Conducted Test Configuration





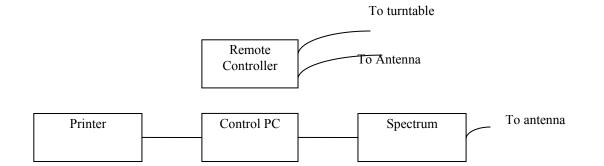
15¢cm



To Remote controller

Metal Full Soldered Ground Plane

General Radiation Test Configuration



То

-Remote Controller



4.4.4 Conducted Test Data:

GPRS 9kHz – 10GHz Conducted Emissions Mid. Channel

Cellular850					
Frequency	Reading Level	Path loss	Results	Limit	Pass/Fail
(MHz)	(dBm)	(dB)	(dBm)	(dBm)	
1670	-41.88	1.55	-40.33	-13	Pass
2510	-36.27	2.11	-34.16	-13	Pass
3345	-58.41	3.23	-55.18	-13	Pass
4180	-46.76	3.57	-43.19	-13	Pass
5015	-55.17	3.63	-51.54	-13	Pass
5859	-65.12	3.55	-61.57	-13	Pass
6696	-64.41	3.65	-60.76	-13	Pass
7528	-44.46	3.98	-40.48	-13	Pass
8364	-53.71	4.50	-49.21	-13	Pass

GPRS 9kHz - 20GHz Conducted Emissions Mid Channel

PCS1900					
Frequency	Reading Level	Path loss	Results	Limit	Pass/Fail
(MHz)	(dBm)	(dB)	(dBm)	(dBm)	
3755	-50.97	1.89	-49.08	-13	Pass
5635	-53.16	3.52	-49.64	-13	Pass
6432	-59.91	3.43	-56.48	-13	Pass
7518	-60.23	3.91	-56.32	-13	Pass
9396	-56.02	4.57	-51.45	-13	Pass
11280	-60.81	4.09	-56.72	-13	Pass
13158	-56.00	3.49	-52.51	-13	Pass
15036	-58.69	4.97	-53.72	-13	Pass
16920	-65.02	4.96	-60.06	-13	Pass
18800	-66.11	5.80	-60.31	-13	Pass

-25-



4.4.5 Radiated Test Data: .

Cellular850 Correction Frequency Raw Results Results (EIRP) Limit factor Pass/Fail (MHz) (dBm) (dB)(dBm) (dBm) Pass -63.95 4.24 -59.71 -13 1672 Pass 7.72 -57.19 2508 -64.91 -13 Pass 3345 -65.01 9.30 -55.71 -13 Pass 4180 -65.05 9.67 -55.38 -13 Pass 5015 -64.78 11.02 -53.76 -13 Pass 5859 -64.65 13.98 -50.67 -13 Pass 6696 -64.31 20.54 -43.77 -13 Pass -49.73 7528 -65.55 15.82 -13 Pass -13 8364 -65.18 18.74 -46.44

GPRS 30M - 10GHz Open Field Radiated Emissions (Horizontal) Mid. Channel

GPRS 30M - 10GHz Open Field Radiated Emissions (Vertical) Mid. Channel

Cellular850					
Frequency	Raw Results	Correction factor	Results (EIRP)	Limit	Pass/Fail
(MHz)	(dBm)	(dB)	(dBm)	(dBm)	
1672	-60.84	4.24	-56.6	-13	Pass
2508	-59.88	7.72	-52.16	-13	Pass
3345	-64.23	9.30	-54.93	-13	Pass
4180	-64.65	9.67	-54.98	-13	Pass
5015	-65.04	11.02	-54.02	-13	Pass
5859	-64.13	13.98	-50.15	-13	Pass
6696	-65.06	20.54	-44.52	-13	Pass
7528	-64.77	15.82	-48.95	-13	Pass
8364	-64.79	18.74	-46.05	-13	Pass

Callular 950



PCS1900

GPRS 30M - 20GHz Open Field Radiated Emissions (Horizontal) Mid. Channel

Frequency	Raw Results	Correction factor	Results (EIRP)	Limit	Pass/Fail
(MHz)	(dBm)	(dB)	(dBm)	(dBm)	
3760	-60.42	11.04	-49.38	-13	Pass
5635	-64.24	15.30	-48.94	-13	Pass
7518	-65.09	17.84	-47.25	-13	Pass
9396	-65.13	21.64	-43.49	-13	Pass
11280	-64.07	17.48	-46.59	-13	Pass
13158	-65.09	19.83	-45.26	-13	Pass
15036	-64.99	26.01	-38.98	-13	Pass

GPRS 30M - 20GHz Open Field Radiated Emissions (Vertical) Mid. Channel

PCS1900

Frequency	Raw Results	Correction factor	Results (EIRP)	Limit	Pass/Fail
(MHz)	(dBm)	(dB)	(dBm)	(dBm)	
3760	-58.24	11.04	-47.2	-13	Pass
5635	-64.93	15.30	-49.63	-13	Pass
7518	-65.05	17.84	-47.21	-13	Pass
9396	-65.78	21.64	-44.14	-13	Pass
11280	-64.44	17.48	-46.96	-13	Pass
13158	-64.11	19.83	-44.28	-13	Pass
15036	-65.23	26.01	-39.22	-13	Pass

Note:

- 1. Receiver setting (Peak Detector) : RBW:1MHz; VBW:3MHz •
- Correction factor = Substitution SG Level + Antenna Gain Cable Loss Rx. level 2.
- 3. ERP/EIRP Value = Raw Results + Correction factor •



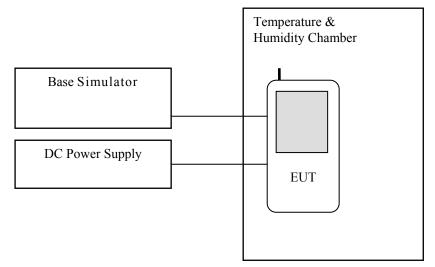
4.5 Frequency Stability Under Temperature Variations & Voltage Variations [Section 2.1055, 22.355, 24.235]

4.5.1 Test Procedure

- 1. The Temperature/Humidity Chamber was set to the specified temperature and humidity and allow sufficient time, approximetely 30 minites, to be stabilized.
- 2. The EUT was placed in the Temperature/Humidity Chamber and powered by a Voltage/Frequency Power converter.
- 3. The Transmitter output of EUT was connected to the Base Simulator
- 4. EUT is turned on and the operating frequency was measured after 2, 5, 10 minutes with its normal supply voltage.
- 5. The Voltage/Frequency Power Converter was then set to 85% and 115% of supply voltage and operating frequency was measured after 2, 5, 10 minutes.
- 6. The above steps were repeated for temperature of 50, 0 and -30 degree C.
- 7. Base Simulator setting is listed below:.

Channels Tested:	Cellular850:
Chamiers rested.	
	Low Channel
	Mid. Channel
	High Channel
	PCS1900:
	Low Channel
	Mid. Channel
	High Channel
Detector Function:	Frequency Error Mode

4.5.2 Test Setup





4.5.3 Test Data:

■GPRS850 Temperature Variations

	GSM850 CH190 (836.6MHz)				
Test conditions	Deviation limits		Pass/fail		
	(Hz)	(Hz)	1 400/1411		
50 °C	25				
40°C	33				
30°C	-47				
20°C	37				
10°C	-66	±836	Pass		
0°C	-57				
-10 °C	35				
-20 °C	52				
-30 °C	21				

■GPRS850 Voltage Variations

	GSM850 CH190 (836.6MHz)			
Test conditions	Deviation	Deviation limits		
	(Hz)	(Hz)	Pass/fail	
16.15 V	-55		Pass	
19 V	-28	±836		
21.85 V	34			



■GPRS 1900 Temperature Variations

	GSM1900 CH661 (1880MHz)				
Test conditions	Deviation limits (Hz) (Hz)		Pass/fail		
50 °C	-20				
40°C	-31				
30°C	18				
20°C	53				
10°C	61	±1880	Pass		
0°C	-44				
-10 °C	-56				
-20 °C	51				
-30 °C	37				

■GPRS1900 Voltage Variations

	GSM1900 CH661 (1880MHz)			
Test conditions	Deviation limits		Pass/fail	
	(Hz)	(Hz)	1 455/1411	
16.15 V	-45		Pass	
19 V	-39	± 1880		
21.85 V	47			



5. Test Equipment

Location	Equipment Name	Brand	Model	S/N	Last Cal.	Next Cal.
					Date	Date
Radiation	BILOG Antenna 08	Schaffner	CBL6112B	2756	06/13/2007	06/12/2008
Radiation	Coaxial Cable Chmb 02-10M	Belden	RG-8/U	Chmb 02-10M	12/28/2007	12/28/2008
Radiation	Digital Hygro-Thermometer Chmb 02	MicroLife	HT-2126G	Chmb 02	11/30/2007	12/30/2008
Radiation	EMI Receiver 03	HP	85460A	3448A00209	04/01/2007	04/01/2008
Radiation	Spectrum Analyzer 13	Advantest	R3132	121200411	02/17/2007	02/17/2008
Radiation	Horn Antenna 02	Com-Power	AH-118	10088	12/28/2007	12/27/2008
Radiation	Horn Antenna 04	Com-Power	AH-826	081-001	01/13/2007	01/13/2008
Radiation	Horn Antenna 05	Com-Power	AH-640	100A	11/16/2007	11/15/2008
Radiation	Microwave Cable RF SK-01	HUBER+SUH NERAG.	Sucoflex 102	22139 /2	11/09/2007	11/09/2008
Chamber 05	Peak Power Analyzer	HP	8990A	3621A01269	03/28/2007	03/28/2008
Chamber 05	Power Sensor Radar	HP	84815A	3318A01828	03/28/2007	03/28/2008
Radiation	Preamplifier 02	MITEQ	AFS44-00102 650-40-10P-44	728229	11/28/2007	11/28/2008
Radiation	Preamplifier 10	MITEQ	JS-26004000-2 7-5A	818471	11/22/2007	11/22/2008
Radiation	Band Reject Filter	Wainwright	WRCG 824/ 849-60/10SS	003	N/A	N/A
Radiation	Band Reject Filter	Wainwright	WRCG 1850/ 1910-60/10SS	007	N/A	N/A
Radiation	High Pass Filter 01	HEWLETT-P ACKARD	84300-80038	001	N/A	N/A
Radiation	High Pass Filter 02	HEWLETT-P ACKARD	84300-80039	005	N/A	N/A
Radiation	Spectrum Analyzer 14	Advantest	R3182	140600028	11/22/2007	11/22/2008

Note: Calibration is traceable to NIST or national or international standards.



6. Appendix

6.1 Appendix A: Photographs of EUT Configuration Test Set Up Please refer to the attached file.

6.2 Appendix B: Photographs of EUT

Please refer to the attached file.