TEST REPORT
FROM
RFI GLOBAL SERVICES LTD

Test of: Enfora Inc.
Enfora Enabler IIIE

To: FCC Part 22: 2007, FCC Part 24: 2007,
RSS-132 Issue 2 September 2005, RSS-133 Issue 2 June 2005
& RSS-Gen Issue 2 June 2007

Test Report Serial No:
RFI/RPTE2/RP72345D13A

Supersedes Test Report Serial No:
RFI/RPTE1/RP72345D13A

This Test Report Is Issued Under The Authority Of Steve Flooks, Service Leader RPG: 	
Checked By: **pp** **Nigel Davison** 	**Report Copy No: PDF01**
Issue Date: 12 March 2008	**Test Dates: 19 December 2007 to 08 January 2008**

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Registered in England and Wales. Company number:2117901

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1. Client Information

Company Name:	Enfora Inc.
Address:	251 Renner Parkway Richardson Texas 75080 USA
Contact Name:	Mr R Holden

2. Equipment Under Test (EUT)

The following information (with the exception of the Date of Receipt) has been supplied by the client:

2.1. Identification of Equipment Under Test (EUT)

Description:	Enabler IIIE
Brand Name:	Enfora
Model Name or Number:	EDG0308
Serial Number:	SDK0119M6702
IMEI Number:	001036000122179
Hardware Version:	5
Software Version:	2.0.3
FCC ID Number:	MIVEDG0308
IC ID Number:	4160A-EDG0308
Country of Manufacture:	USA
Date of Receipt:	19 December 2007

Description:	Switch Mode PSU
Brand Name:	Enfora
Model Name or Number:	EPA-101MU-05A
Serial Number:	None
Country of Manufacture:	China
Date of Receipt:	19 December 2007

2.2. Description of EUT

The EUT is a GSM, GPRS and EGPRS module designed to work in the 850MHz and 1900MHz bands.

2.3. Modifications Incorporated in EUT

During the course of testing the EUT was not modified.

2.4. Additional Information Related to Testing

Power Supply Requirement:	Nominal 110 V, 60 Hz AC Mains transformer
Intended Operating Environment:	Within GSM coverage
Equipment Category:	GSM, GPRS and EGPRS
Type of Unit:	Transceiver module
Modulation Type:	GMSK and 8PSK
Channel Spacing:	200 kHz
Antenna Type:	PCB Antenna type Enfora SDK Quad Band
Antenna Gain:	850MHz band +0.5dBi /1900MHz band +3.0dBi
Antenna Connection:	Antenna Port

FCC Part 22 and RSS-132

Transmit Frequency Range:	824.2 MHz to 848.8 MHz		
Transmit Channels Tested:	**Channel ID**	**Channel Number**	**Channel Frequency (MHz)**
	Bottom	128	824.2
	Middle	190	836.6
	Top	251	848.8
Receive Frequency Range:	869.2 MHz to 893.8 MHz		
Receive Channels Tested:	**Channel ID**	**Channel Number**	**Channel Frequency (MHz)**
	Bottom	128	869.2
	Middle	190	881.4
	Top	251	893.8
Maximum Power Output (ERP):	30.7 dBm		

Additional Information Related to Testing (Continued)

FCC Part 24 and RSS-133

Transmit Frequency Range:	1850.2 MHz to 1909.8 MHz		
Transmit Channels Tested:	**Channel ID**	**Channel Number**	**Channel Frequency (MHz)**
	Bottom	512	1850.2
	Middle	660	1879.8
	Top	810	1909.8
Receive Frequency Range:	1930.2 MHz to 1989.8 MHz		
Receive Channels Tested:	**Channel ID**	**Channel Number**	**Channel Frequency (MHz)**
	Bottom	512	1930.2
	Middle	660	1959.8
	Top	810	1989.8
Maximum Power Output (EIRP):	30.9 dBm		

2.5. Port Identification

Port	Description	Type / Length	Applicability
1.	RS232 x 2	RS232	No
2.	Antenna	SMA	No
3.	DC Input	2-Core	Yes

3. Test Specification, Methods and Procedures

Reference:	FCC Part 22: 2007 Subpart H (Cellular Radiotelephone Service)
Title:	Code of Federal Regulations, Part 22 (47CFR22) Personal Communication Services.

Reference:	FCC Part 24: 2007 Subpart E (Broadband PCS)
Title:	Code of Federal Regulations, Part 24 (47CFR24) Personal Communication Services.

Reference:	RSS-Gen Issue 2 June 2007
Title:	General Requirements and Information for the Certification of Radiocommunication Equipment

Reference:	RSS-132 Issue 2 September 2005
Title:	Cellular Telephones Employing New Technologies Operating in the Bands 824-849 MHz and 869-894 MHz

Reference:	RSS-133 Issue 3 June 2005
Title:	2 GHz Personal Communications Services

3.1. Methods and Procedures

The methods and procedures used were as detailed in:

ANSI/TIA-603-B-2003
Land Mobile Communications Equipment, Measurements and performance Standards

ANSI C63.2 (1987)
Title: American National Standard for Instrumentation - Electromagnetic noise and field strength.

ANSI C63.4 (2003)
Title: American National Standard Methods of Measurement of Electromagnetic Emissions from Low Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz.

ANSI C63.5 (1988)
Title: American National Standard for the Calibration of antennas used for Radiated Emission measurements in Electromagnetic Interference (EMI) control.

ANSI C63.7 (1988)
Title: American National Standard Guide for Construction of Open Area Test Sites for performing Radiated Emission Measurements.

CISPR 16-1: (1999)
Title: Specification For Radio Disturbance and Immunity Measuring Apparatus and Methods. Part 1: Radio Disturbance and Immunity Measuring Apparatus.

3.2. Definition of Measurement Equipment

The measurement equipment used complied with the requirements of the standards referenced in the methods & procedures Section above. Appendix 1 contains a list of the test equipment used.

4. Deviations from the Test Specification

There were no deviations from the test speciation.

5. Operation of the EUT during Testing

5.1. Operating Modes

The EUT was tested in the following operating modes, unless otherwise stated.

- GSM 850 allocated to the network on full power and idle mode.
- GSM 1900 allocated to the network on full power and idle mode.

Note: Radiated emission pre-scans were performed in GSM, GPRS and EGPRS modes to determine which mode of operation produced the worst case results. The results of these scans indicated that GSM mode produced the worst case and therefore full testing was performed on this mode only.

5.2. Configuration and Peripherals

The EUT was tested in the following configuration unless otherwise stated:

- Powered via an AC/DC adapter with a radio link to a GSM tester established. The EUT RF output power and transmit/receive frequency was controlled using the GSM tester.
- The module was build onto a development board for test purposes.

6. Summary of Test Results

6.1. FCC Part 22 and RSS-132 (GSM 850 band)

Range of Measurements	FCC Part Reference	IC RSS Reference	Port Type	Compliancy Status
Receiver/Idle AC Conducted Spurious Emissions (150 kHz to 30 MHz)	15.107	RSS-Gen 7.2.2	AC Mains Input	Complied
Receiver/Idle Radiated Emissions	15.109	RSS-Gen 6.0	Enclosure	Complied
Transmitter Carrier Output Power	2.1046(a)	RSS-132 4.4	Antenna Terminals	Complied
Transmitter Frequency Stability (Temperature Variation)	22.355	RSS-132 4.3	Antenna Terminals	Complied
Transmitter Frequency Stability (Voltage Variation)	22.355	RSS-132 4.3	Antenna Terminals	Complied
Transmitter Occupied Bandwidth	2.1049	RSS-Gen 4.6.1	Antenna Terminals	Complied
Transmitter Out of Band Conducted Emissions	2.1051/22.917	RSS-132 4.5	Antenna Terminals	Complied
Transmitter Band Edge Conducted Emissions	2.1051/22.917	RSS-132 4.5	Antenna Terminals	Complied
Transmitter Out of Band Radiated Emissions	2.1053/22.917	RSS-132 4.5	Antenna	Complied

6.2. FCC Part 24 and RSS-133 (GSM 1900 band)

Range of Measurements	FCC Part Reference	IC RSS Reference	Port Type	Compliancy Status
Idle Mode AC Conducted Spurious Emissions (150 kHz to 30 MHz)	15.107	RSS-Gen 7.2.2	AC Mains Input	Complied
Idle Mode Radiated Spurious Emissions	15.109	RSS-133 4.5 & 6.7	Enclosure	Complied
Transmitter Carrier Output Power	2.1046(a)	RSS-133 4.3 & 6.4	Antenna Terminals	Complied
Transmitter Frequency Stability (Temperature Variation)	24.235	RSS-133 4.2 & 6.3	Antenna Terminals	Complied
Transmitter Frequency Stability (Voltage Variation)	24.235	RSS-133 4.2 & 6.3	Antenna Terminals	Complied
Transmitter Occupied Bandwidth	24.238	RSS-Gen 4.6.1	Antenna Terminals	Complied
Transmitter Out of Band Conducted Emissions	2.1051/24.238	RSS-133 4.4 & 6.5	Antenna Terminals	Complied
Transmitter Band Edge Conducted Emissions	2.1051/24.238	RSS-133 4.4 & 6.5	Antenna Terminals	Complied
Transmitter Out of Band Radiated Emissions	2.1053/24.238	RSS-133 4.4 & 6.5	Antenna	Complied

6.3. Location of Tests

All the measurements described in this report were performed at the premises of
RFI Global Services Ltd, Ewhurst Park, Ramsdell, Basingstoke, Hampshire, RG26 5RQ.

FCC Site Registration Number: 90895

IC Site Registration Number: 3485

7. Measurements, Examinations and Derived Results

7.1. General Comments

This Section contains test results only.

Measurement uncertainties are evaluated in accordance with current best practice. Our reported expanded uncertainties are based on standard uncertainties, which are multiplied by an appropriate coverage factor to provide a statistical confidence level of approximately 95%. Please refer to Section 8 for details of measurement uncertainties.

7.2. Test Results – FCC Part 22 and RSS-132 (GSM 850 band)

7.2.1. Idle Mode AC Conducted Spurious Emissions (GSM 850 band)

Tests were performed using the test methods detailed in ANSI C63.4 Section 7

Results:

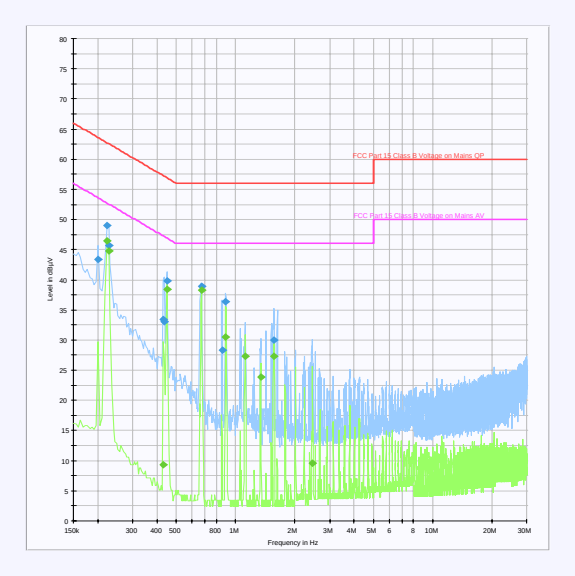
Quasi-Peak Detector Measurements on Live and Neutral Lines

Frequency (MHz)	Line	Level (dBμV)	Limit (dBμV)	Margin (dB)	Result
0.199500	Neutral	43.4	63.6	20.2	Complied
0.222000	Neutral	49.0	62.7	13.7	Complied
0.226500	Neutral	45.6	62.6	17.0	Complied
0.429000	Neutral	33.4	57.3	23.9	Complied
0.433500	Neutral	33.0	57.2	24.2	Complied
0.447000	Neutral	39.8	56.9	17.1	Complied
0.672000	Neutral	38.9	56.0	17.1	Complied
0.856500	Neutral	28.3	56.0	27.7	Complied
0.892500	Neutral	36.4	56.0	19.6	Complied
1.563000	Neutral	30.0	56.0	26.0	Complied

Average Detector Measurements on Live and Neutral Lines

Frequency (MHz)	Line	Level (dBμV)	Limit (dBμV)	Margin (dB)	Result
0.222000	Neutral	46.4	52.7	6.3	Complied
0.226500	Neutral	44.8	52.6	7.8	Complied
0.429000	Neutral	9.4	47.3	37.9	Complied
0.447000	Neutral	38.3	46.9	8.6	Complied
0.672000	Neutral	38.3	46.0	7.7	Complied
0.892500	Neutral	30.5	46.0	15.5	Complied
1.117500	Neutral	27.3	46.0	18.7	Complied
1.342500	Neutral	23.8	46.0	22.2	Complied
1.567500	Neutral	27.3	46.0	18.7	Complied
2.458500	Neutral	9.6	46.0	36.4	Complied

Idle Mode AC Conducted Spurious Emissions (Continued)



Note: This plot is a pre-scan and for indication purposes only. For final measurements, see accompanying tables.

7.2.2. Idle Mode Radiated Spurious Emissions (GSM 850 band)

Tests were performed using the test methods detailed in ANSI C63.4 Section 8

Results:

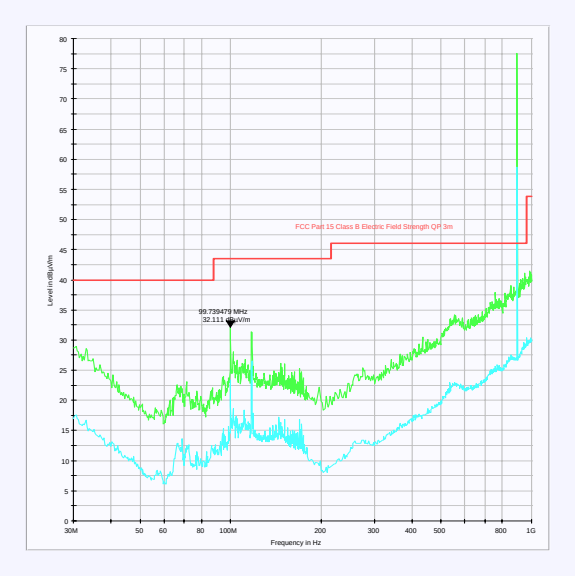
Electric Field Strength Measurements (Frequency Range: 30 to 1000 MHz)

Frequency (MHz)	Antenna Polarity	Quasi Peak Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
99.739	Vertical	32.1	43.0	10.9	Complied

Note(s):

1. *No spurious emissions were detected above the noise floor of the measuring receiver; therefore, the highest peak noise floor reading of the measuring receiver was recorded as shown in the table above.*

Idle Mode Radiated Spurious Emissions (Continued)



Note: This plot is a pre-scan and for indication purposes only. For final measurements, see accompanying tables.

7.2.3. Idle Mode Radiated Spurious Emissions (GSM 850 band)

Results:

Electric Field Strength Measurements (Frequency Range: 1 to 5 GHz)

Highest Peak Level

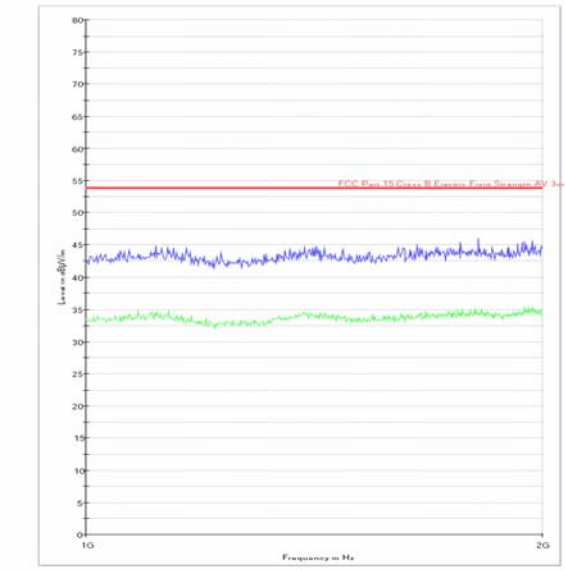
Frequency (GHz)	Antenna Polarity	Peak Detector Level (dBμV)	Transducer Factor (dB)	Actual Peak Level (dBμV/m)	Average Limit (dBμV/m)	Margin (dB)	Result
2.709418	Vertical	53.9	-8.4	45.5	54.0	8.5	Complied

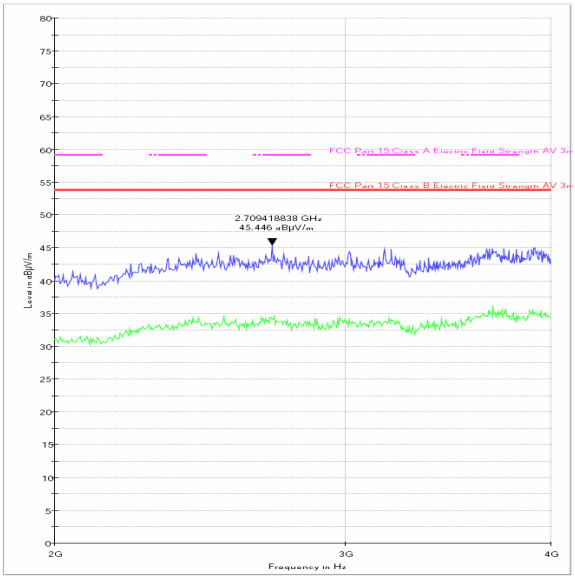
Note(s):

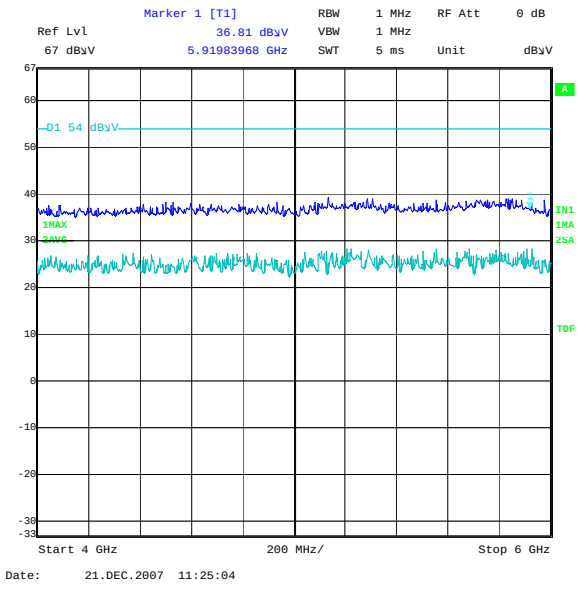
1. *No spurious emissions were detected above the noise floor of the measuring receiver; therefore, the highest peak noise floor reading of the measuring receiver was recorded as shown in the table above.*

2. *The peak level was compared to the average limit as opposed to being compared to the peak limit because this is the more onerous limit.*

Idle Mode Radiated Spurious Emissions (Continued)







Note: These plots are pre-scans and for indication purposes only. For final measurements, see accompanying tables.

7.2.4. Transmitter Carrier Output Power (GSM 850 band)

Tests were performed using the test methods detailed in ANSI TIA-603-C-2004 referencing FCC CFR Part 2

Results:

Channel	Frequency (MHz)	Conducted RF O/P Power (dBm)	Stated Antenna Gain (dBi)	EIRP (dBm)	ERP (dBm)	ERP Limit (dBm)	Margin (dB)	Result
Bottom	824.2	32.1	0.5	32.6	30.4	38.4	8.0	Complied
Middle	836.6	32.4	0.5	32.9	30.7	38.4	7.7	Complied
Top	848.8	32.2	0.5	32.7	30.5	38.4	7.9	Complied

7.2.5. Transmitter Frequency Stability (Temperature Variation) (GSM 850 band)

Tests were performed using the test methods detailed in ANSI TIA-603-C-2004 referencing FCC CFR Part 2

Results:

Bottom Channel (824.2 MHz)

Temperature (°C)	Measured Frequency (MHz)	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)	Margin (ppm)	Result
-30	824.2000041	41	0.05	2.5	2.45	Complied
-20	824.2000029	29	0.04	2.5	2.46	Complied
-10	824.2000029	29	0.04	2.5	2.46	Complied
0	824.2000017	17	0.02	2.5	2.48	Complied
10	824.2000030	30	0.04	2.5	2.46	Complied
20	824.2000063	63	0.08	2.5	2.42	Complied
30	824.2000026	26	0.03	2.5	2.47	Complied
40	824.2000026	26	0.03	2.5	2.47	Complied
50	824.2000032	32	0.04	2.5	2.46	Complied

Top Channel (848.8 MHz)

Temperature (°C)	Measured Frequency (MHz)	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)	Margin (ppm)	Result
-30	848.800041	41	0.05	2.5	2.45	Complied
-20	848.800017	17	0.02	2.5	2.48	Complied
-10	848.800024	24	0.03	2.5	2.47	Complied
0	848.800031	31	0.04	2.5	2.46	Complied
10	848.800035	35	0.04	2.5	2.46	Complied
20	848.800040	40	0.05	2.5	2.45	Complied
30	848.800029	29	0.04	2.5	2.46	Complied
40	848.800035	35	0.04	2.5	2.46	Complied
50	848.800032	32	0.04	2.5	2.46	Complied

7.2.6. Transmitter Frequency Stability (Voltage Variation) (GSM 850 band)

Tests were performed using the test methods detailed in ANSI TIA-603-C-2004 referencing FCC CFR Part 2

Results:

Bottom Channel (824.2 MHz)

Supply Voltage (V)	Measured Frequency (MHz)	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)	Margin (ppm)	Result
93.5	824.200013	13	0.02	2.5	2.48	Complied
126.5	824.200013	13	0.02	2.5	2.48	Complied

Top Channel (848.8 MHz)

Supply Voltage (V)	Measured Frequency (MHz)	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)	Margin (ppm)	Result
93.5	848.80003	30	0.04	2.5	2.46	Complied
126.5	848.80003	30	0.04	2.5	2.46	Complied

7.2.7. Transmitter Occupied Bandwidth (GSM 850 band)

The 99% occupied bandwidth was measured using the channel bandwidth function of the R&S spectrum analyser referencing FCC CFR Part 2

Results:

Channel	Frequency (MHz)	Resolution Bandwidth (kHz)	Video Bandwidth (kHz)	Occupied Bandwidth (kHz)
Bottom	824.2	3.0	10.0	238.477
Middle	836.6	3.0	10.0	238.477
Top	848.8	3.0	10.0	236.473

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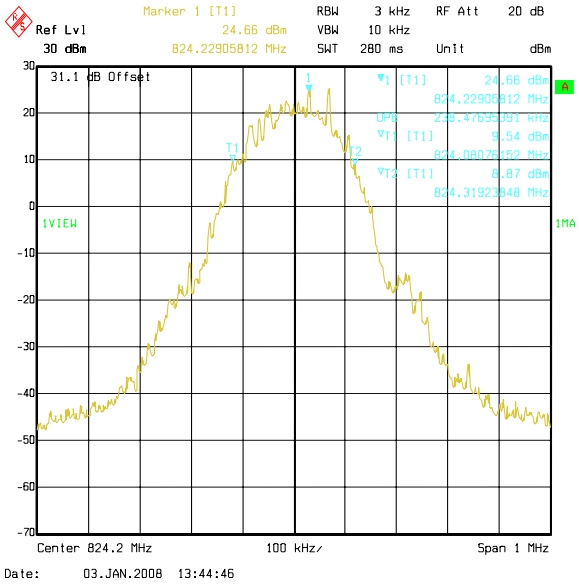
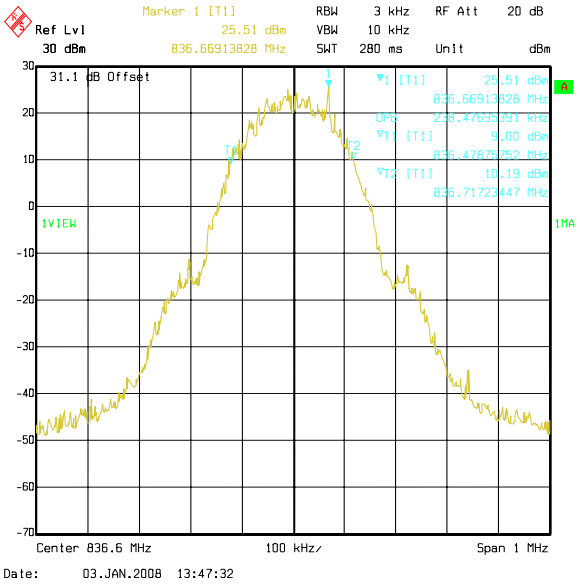
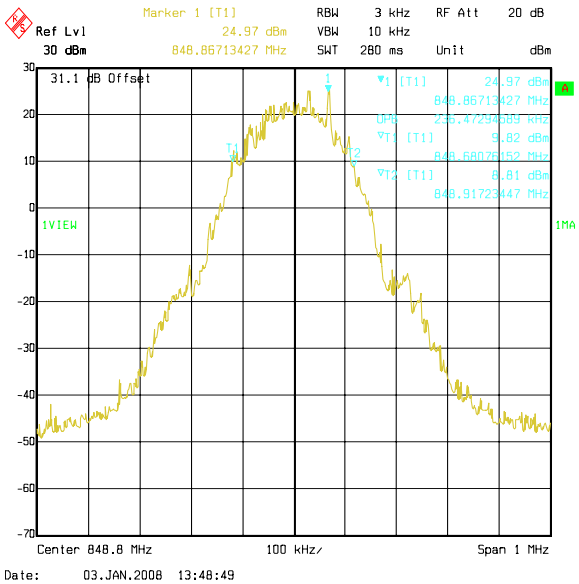
Transmitter Occupied Bandwidth (Continued)







7.2.8. Transmitter Out of Band Conducted Emissions (GSM 850 band)

Tests were performed using the test methods detailed in ANSI TIA-603-C-2004 referencing FCC CFR Part 2

Results:

Bottom Channel

Frequency (MHz)	Peak Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
822.885	-30.3	-13.0	17.3	Complied
1648.400	-21.5	-13.0	8.5	Complied
2472.600	-29.0	-13.0	16.0	Complied

Middle Channel

Frequency (MHz)	Peak Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1673.200	-22.8	-13.0	9.8	Complied
2509.800	-29.5	-13.0	16.5	Complied

Top Channel

Frequency (MHz)	Peak Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
850.167	-31.2	-13.0	18.2	Complied
1697.600	-23.3	-13.0	10.3	Complied

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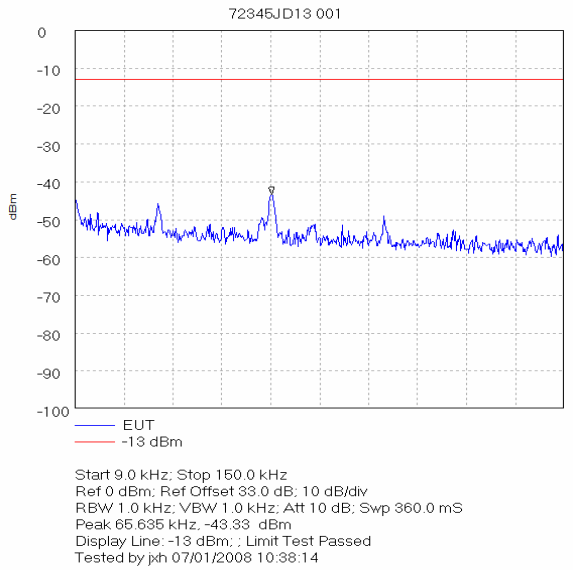
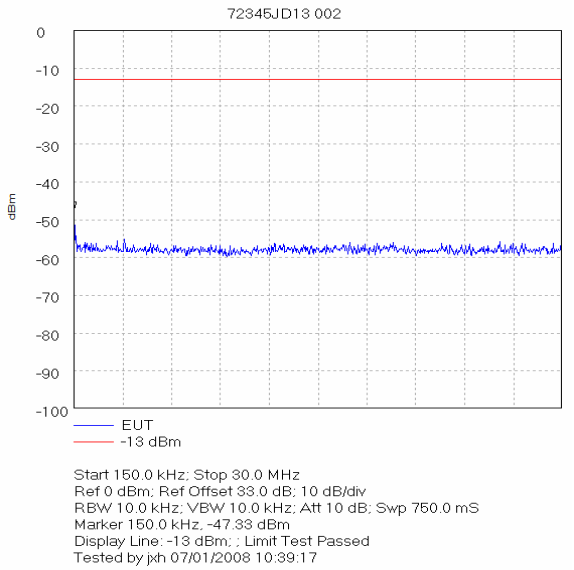
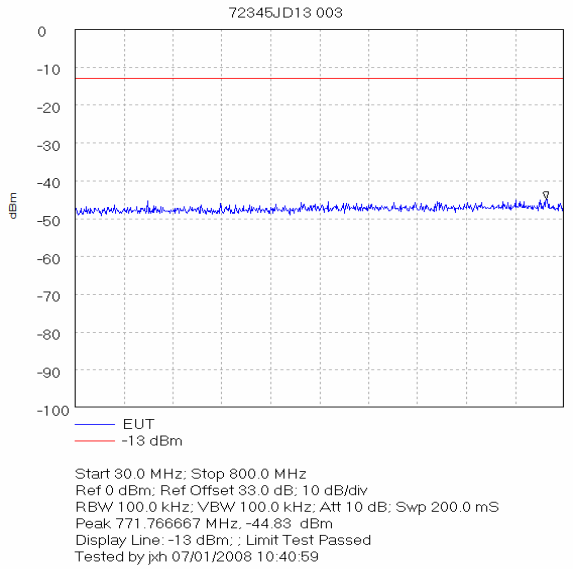
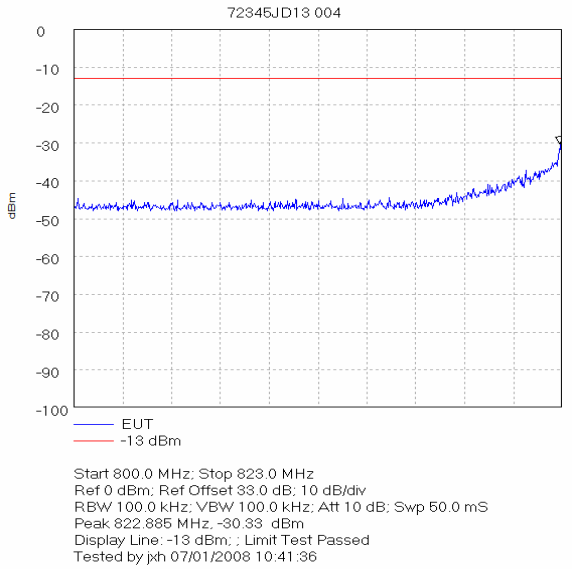
Transmitter Out of Band Conducted Emissions (Continued) – Bottom Channel



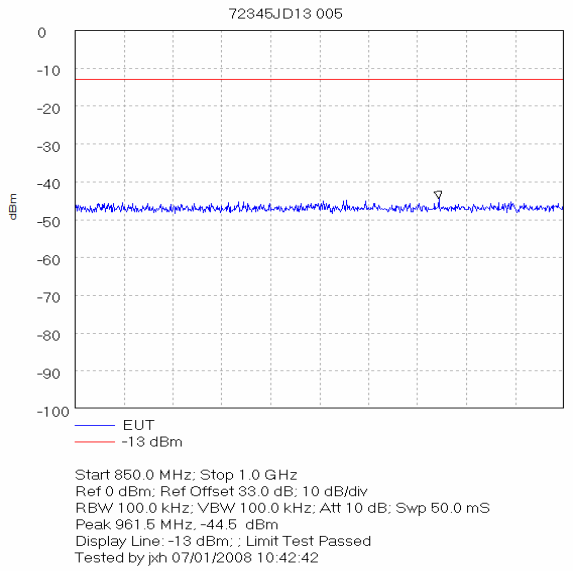


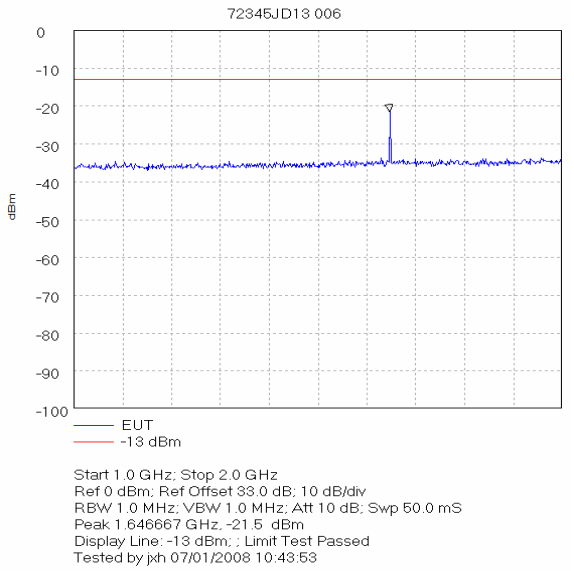


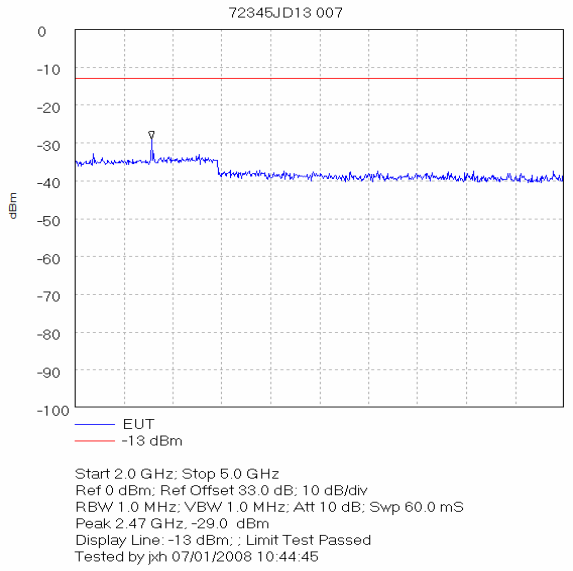


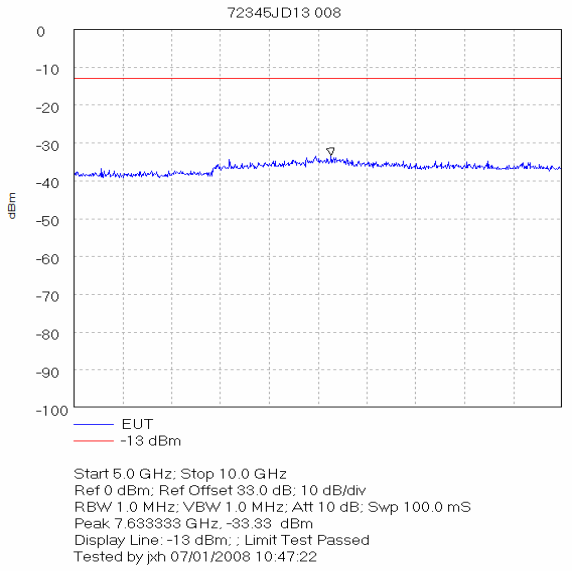
Note: These plots are pre-scans and for indication purposes only. For final measurements, see accompanying tables.

Transmitter Out of Band Conducted Emissions (Continued) – Bottom Channel









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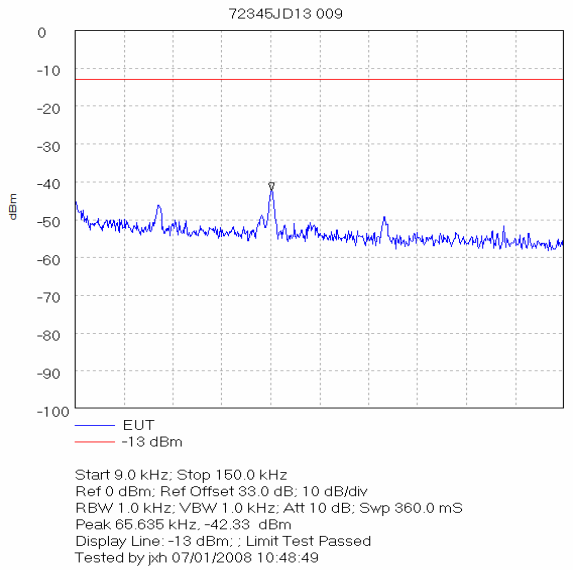
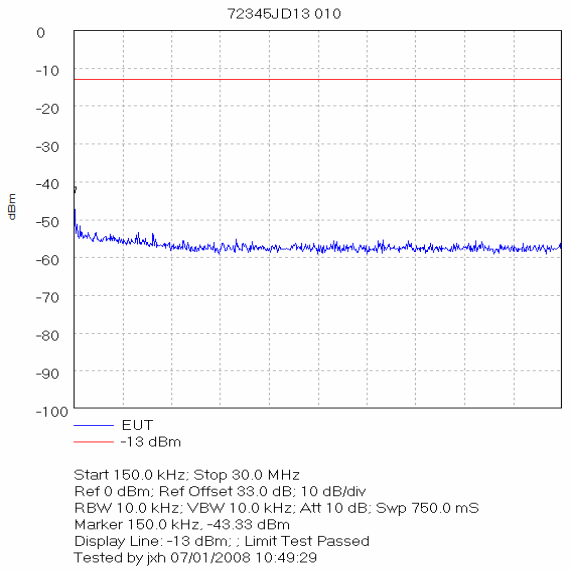
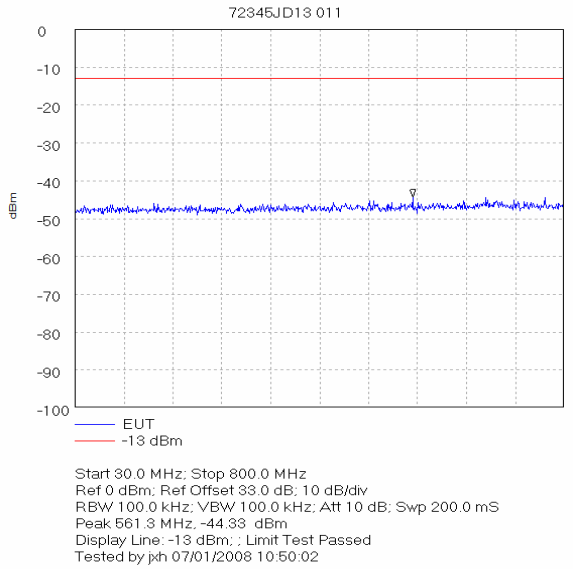
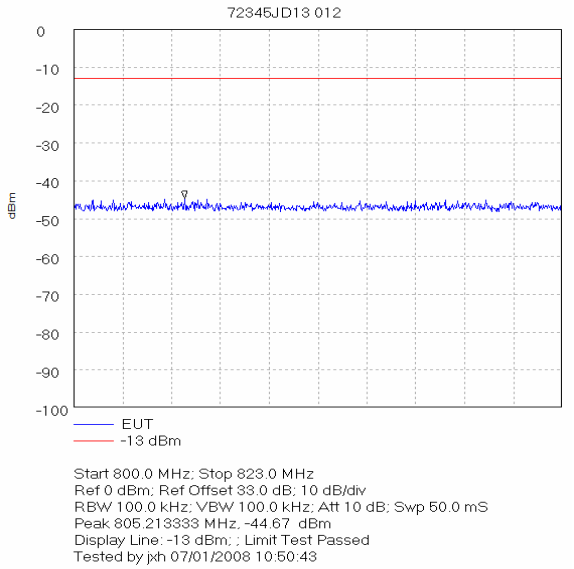
Transmitter Out of Band Conducted Emissions (Continued) – Middle Channel



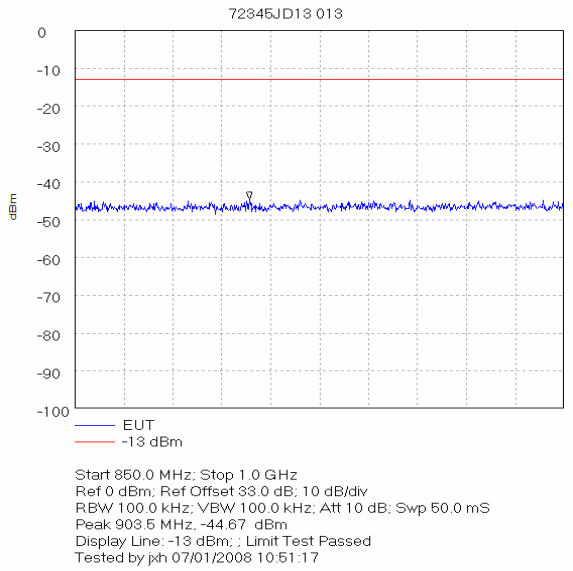


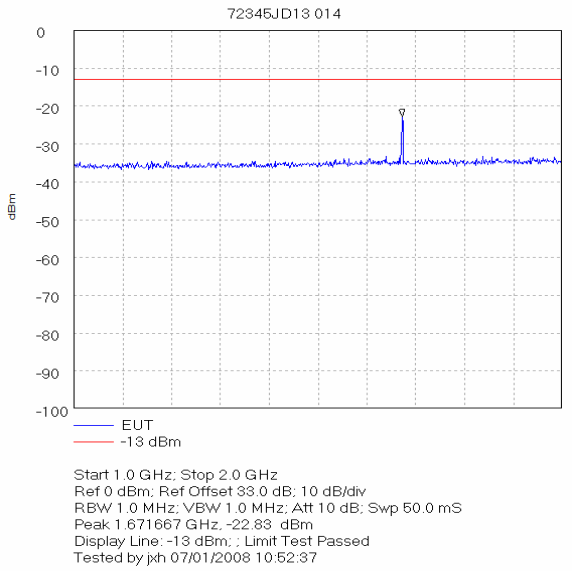


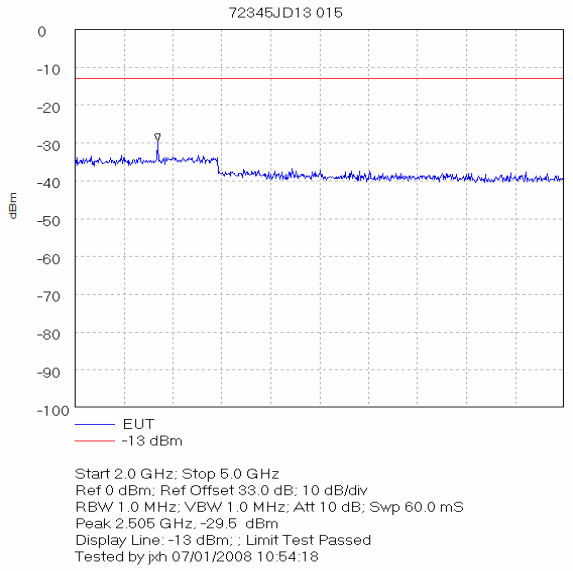


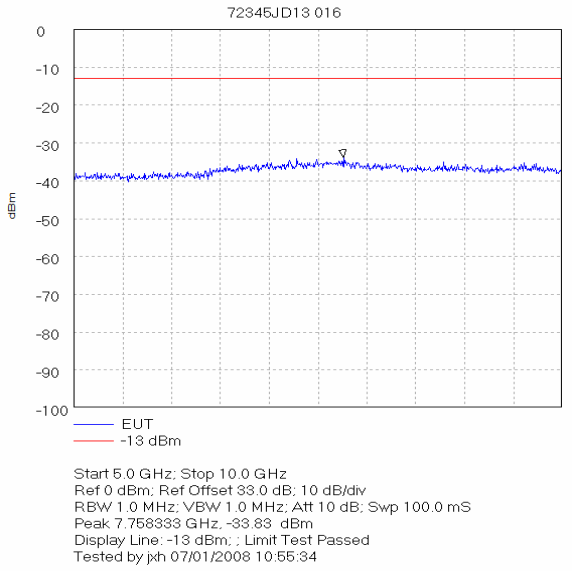
Note: These plots are pre-scans and for indication purposes only. For final measurements, see accompanying tables.

Transmitter Out of Band Conducted Emissions (Continued) – Middle Channel



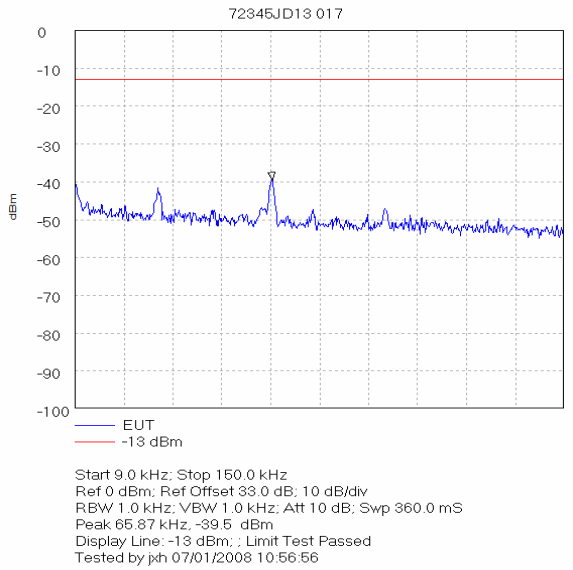


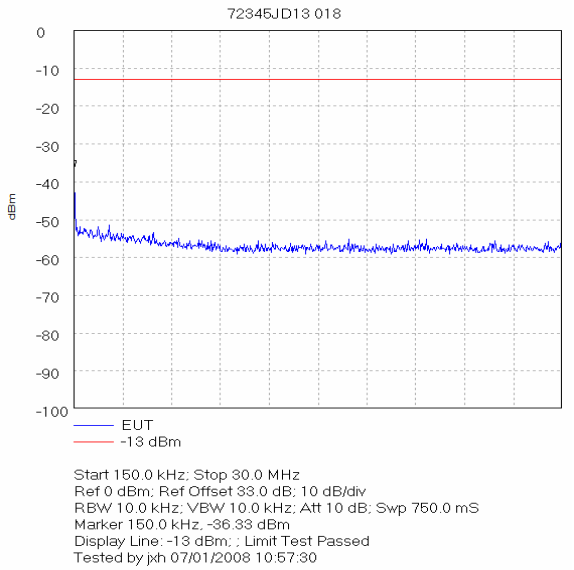


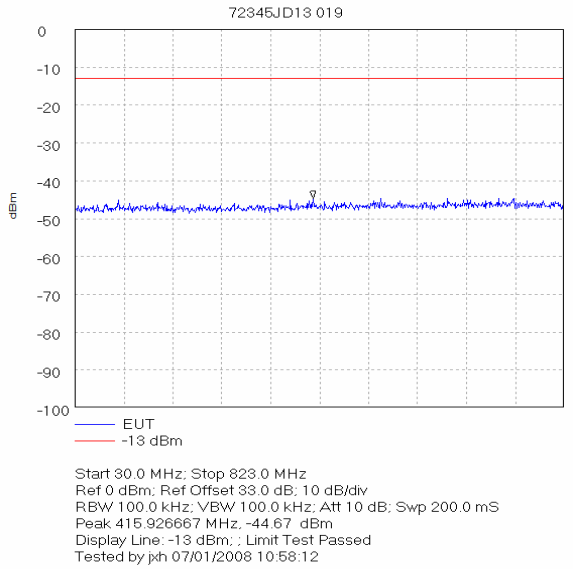


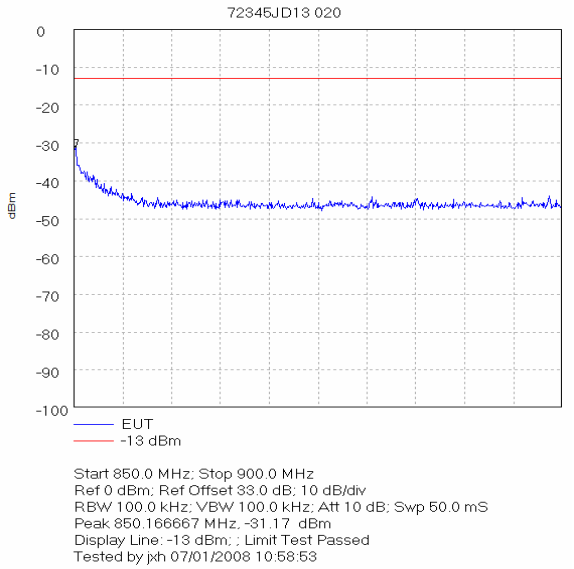
Note: These plots are pre-scans and for indication purposes only. For final measurements, see accompanying tables.

Transmitter Out of Band Conducted Emissions (Continued) – Top Channel



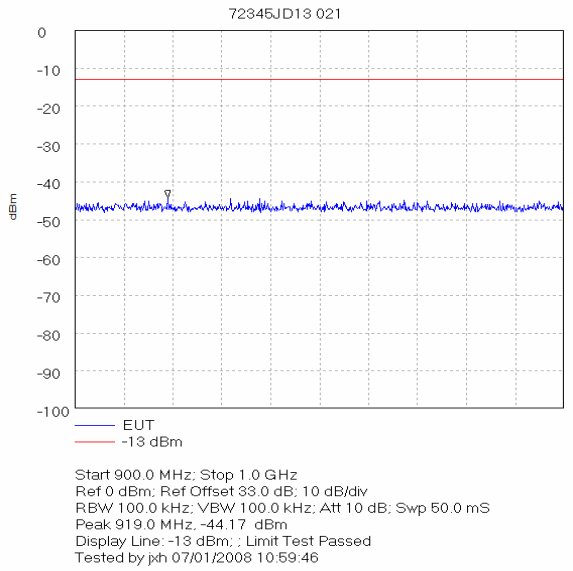


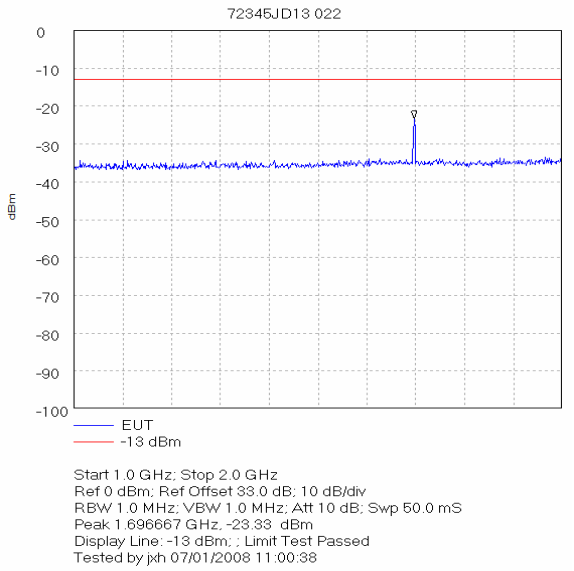


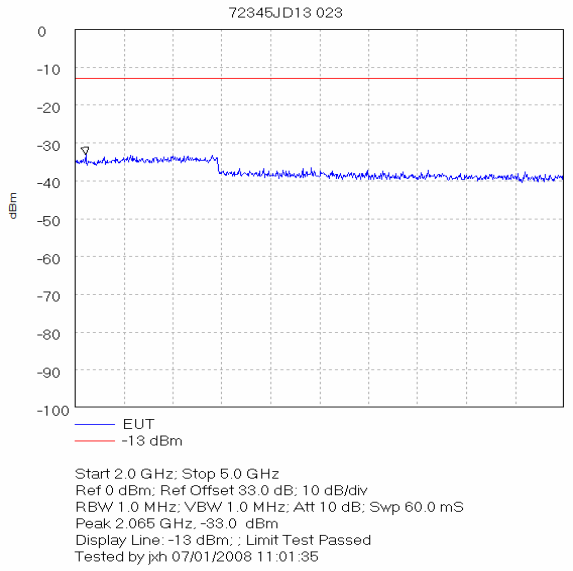


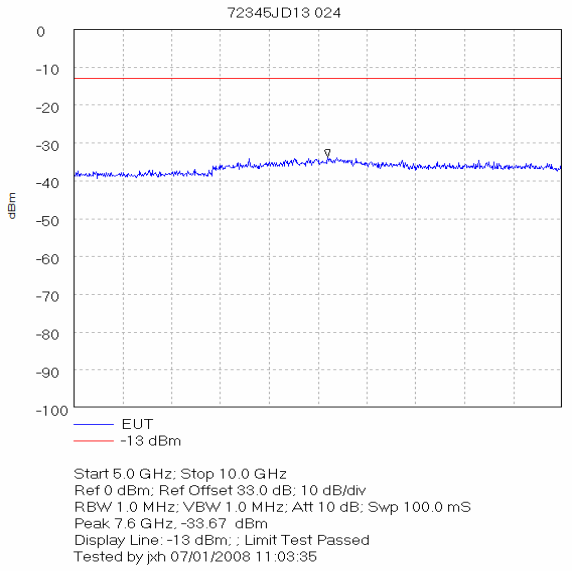
Note: These plots are pre-scans and for indication purposes only. For final measurements, see accompanying tables.

Transmitter Out of Band Conducted Emissions (Continued) – Top Channel









Note: These plots are pre-scans and for indication purposes only. For final measurements, see accompanying tables.

7.2.9. Transmitter Conducted Emissions at Band Edges (GSM 850 band)

Tests were performed using the test methods detailed in ANSI TIA-603-C-2004 referencing FCC CFR Parts 2 and 22.917

Results:

Bottom Band Edge

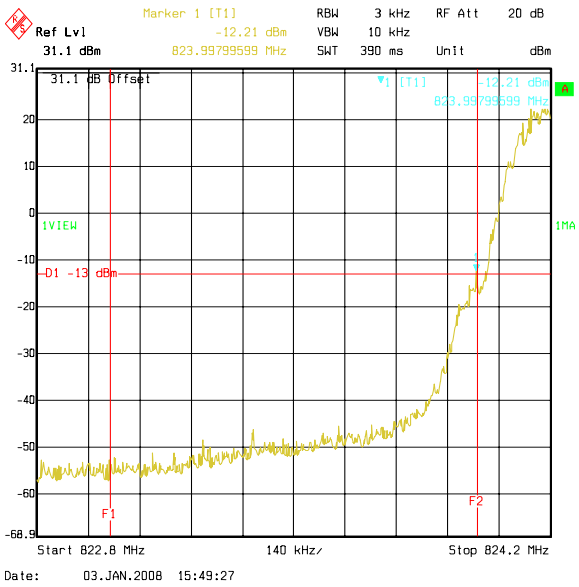
Frequency (MHz)	Peak Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
824	-26.2 *	-13.0	13.2	Complied

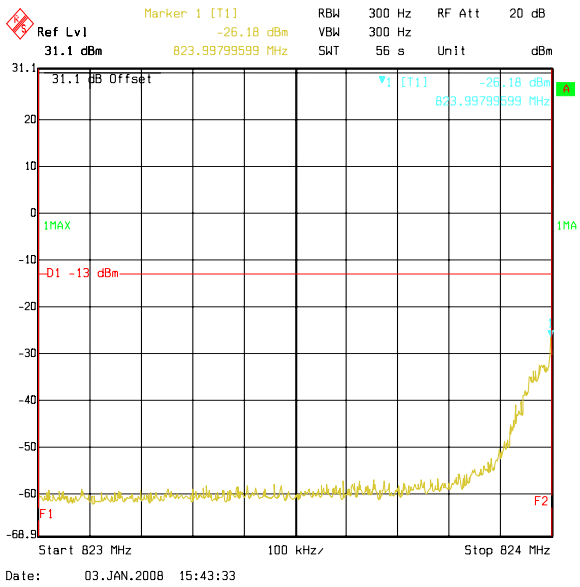
Top Band Edge

Frequency (MHz)	Peak Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
849	-14.1	-13.0	1.1	Complied

Note(s):

1. **Integration method used to obtain result.*





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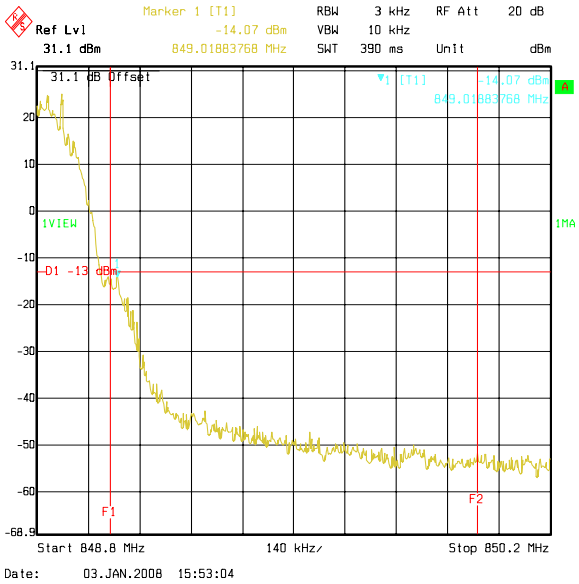
Transmitter Conducted Emissions at Band Edges (Continued)



7.2.10. Transmitter Out of Band Radiated Emissions (GSM 850 band)

Tests were performed using the test methods detailed in ANSI TIA-603-C-2004 referencing FCC CFR Part 2

Results:

Bottom Channel

Frequency (MHz)	Peak Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1648.000	-19.1	-13.0	6.1	Complied
6593.436	-27.5	-13.0	14.5	Complied

Middle Channel

Frequency (MHz)	Peak Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1672.000	-34.9	-13.0	21.9	Complied
6691.701	-25.3	-13.0	12.3	Complied

Top Channel

Frequency (MHz)	Peak Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1672.000	-35.5	-13.0	22.5	Complied
6789.974	-24.2	-13.0	11.2	Complied

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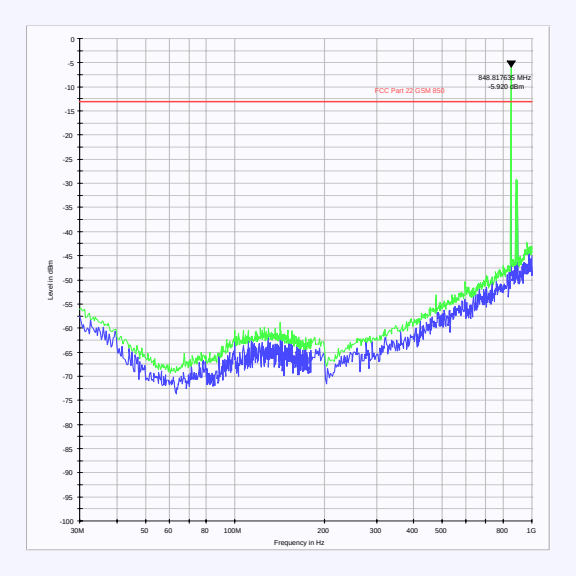
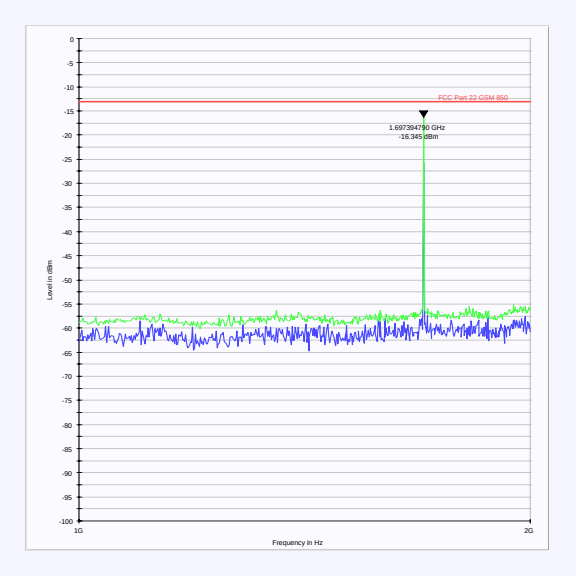
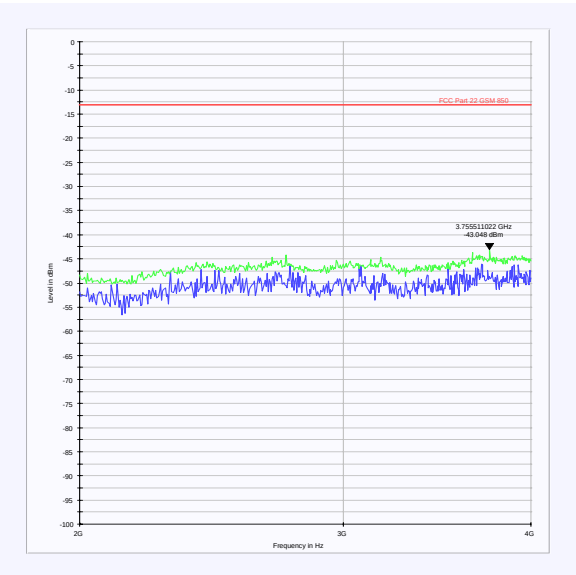
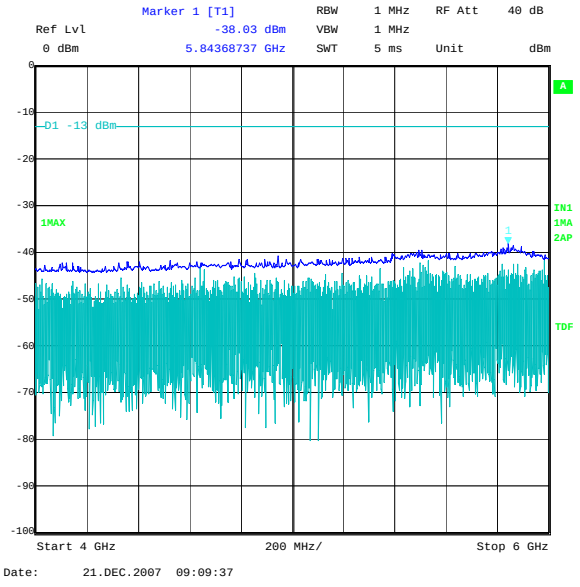
Transmitter Out of Band Radiated Emissions (Continued)









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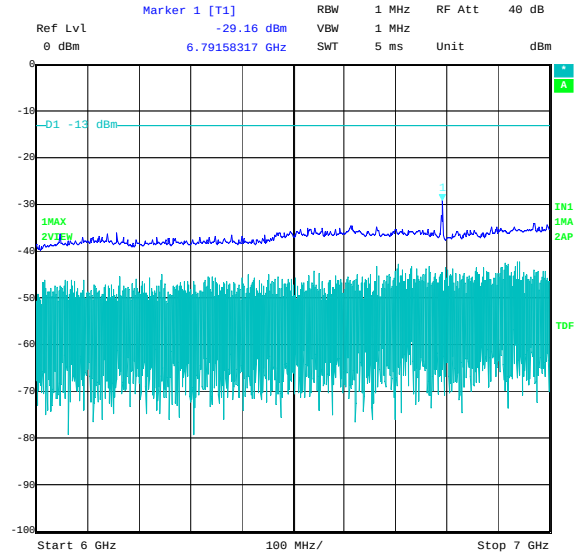
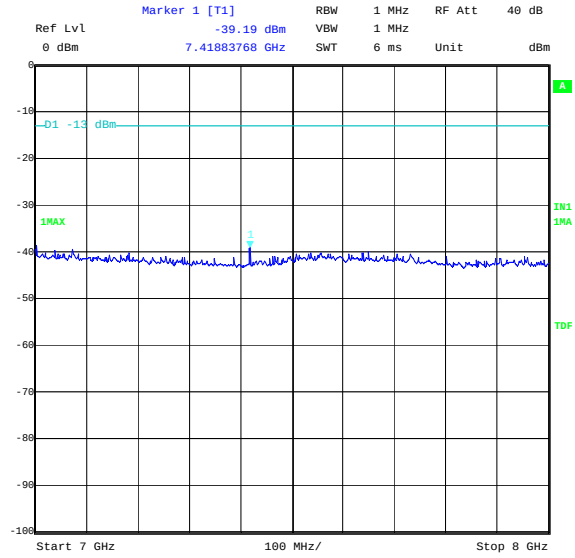
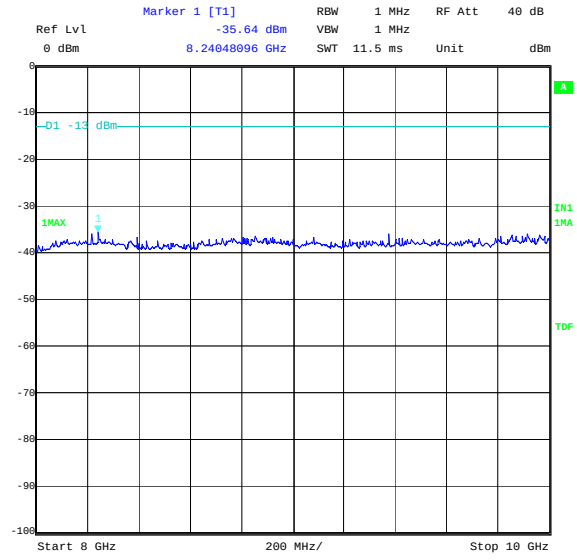
Transmitter Out of Band Radiated Emissions (Continued)







7.3. Test Results – FCC Part 24 and RSS-133 (GSM 1900 band)

7.3.1. Idle Mode AC Conducted Spurious Emissions (GSM 1900 band)

Tests were performed using the test methods detailed in ANSI C63.4 Section 7

Results:

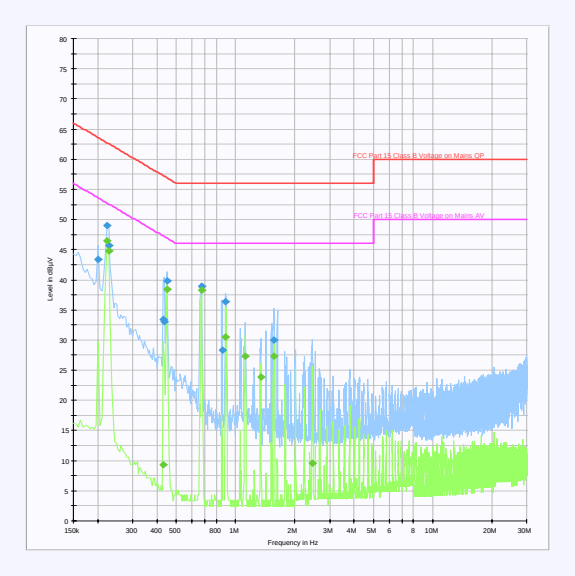
Quasi-Peak Detector Measurements on Live and Neutral Lines

Frequency (MHz)	Line	Level (dBμV)	Limit (dBμV)	Margin (dB)	Result
0.199500	Neutral	43.4	63.6	20.2	Complied
0.222000	Neutral	49.0	62.7	13.7	Complied
0.226500	Neutral	45.6	62.6	17.0	Complied
0.429000	Neutral	33.4	57.3	23.9	Complied
0.433500	Neutral	33.0	57.2	24.2	Complied
0.447000	Neutral	39.8	56.9	17.1	Complied
0.672000	Neutral	38.9	56.0	17.1	Complied
0.856500	Neutral	28.3	56.0	27.7	Complied
0.892500	Neutral	36.4	56.0	19.6	Complied
1.563000	Neutral	30.0	56.0	26.0	Complied

Average Detector Measurements on Live and Neutral Lines

Frequency (MHz)	Line	Level (dBμV)	Limit (dBμV)	Margin (dB)	Result
0.222000	Neutral	46.4	52.7	6.3	Complied
0.226500	Neutral	44.8	52.6	7.8	Complied
0.429000	Neutral	9.4	47.3	37.9	Complied
0.447000	Neutral	38.3	46.9	8.6	Complied
0.672000	Neutral	38.3	46.0	7.7	Complied
0.892500	Neutral	30.5	46.0	15.5	Complied
1.117500	Neutral	27.3	46.0	18.7	Complied
1.342500	Neutral	23.8	46.0	22.2	Complied
1.567500	Neutral	27.3	46.0	18.7	Complied
2.458500	Neutral	9.6	46.0	36.4	Complied

Idle Mode AC Conducted Spurious Emissions (Continued)



Note: This plot is a pre-scan and for indication purposes only. For final measurements, see accompanying tables.

7.3.2. Idle Mode Radiated Spurious Emissions (GSM 1900 band)

Tests were performed using the test methods detailed in ANSI C63.4 Section 8

Results:

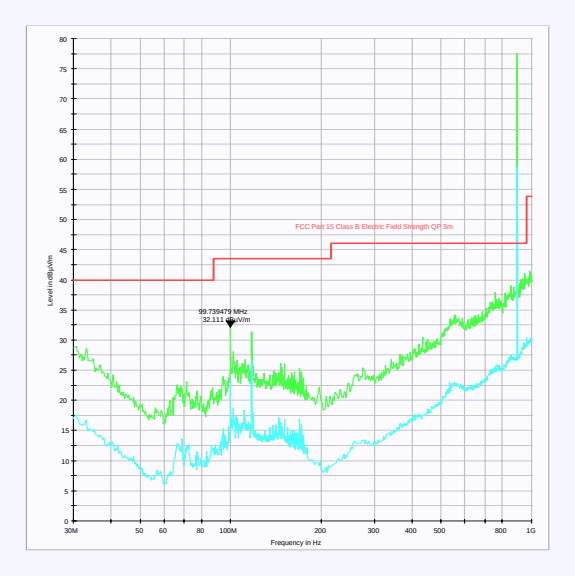
Electric Field Strength Measurements (Frequency Range: 30 to 1000 MHz)

Frequency (MHz)	Antenna Polarity	Quasi Peak Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
99.739	Vertical	32.1	43.0	11.9	Complied

Note(s):

1. *No spurious emissions were detected above the noise floor of the measuring receiver; therefore, the highest peak noise floor reading of the measuring receiver was recorded as shown in the table above.*

Idle Mode Radiated Spurious Emissions (Continued)



Note: This plot is a pre-scan and for indication purposes only. For final measurements, see accompanying tables.

7.3.3. Idle Mode Radiated Spurious Emissions (GSM 1900 band)

Results:

Electric Field Strength Measurements (Frequency Range: 1 to 10 GHz)

Highest Peak Level

Frequency (GHz)	Antenna Polarity	Peak Detector Level (dBμV)	Transducer Factor (dB)	Actual Peak Level (dBμV/m)	Average Limit (dBμV/m)	Margin (dB)	Result
2.709418	Vertical	53.9	-8.4	45.5	54.0	8.5	Complied

Note(s):

1. *No spurious emissions were detected above the noise floor of the measuring receiver; therefore, the highest peak noise floor reading of the measuring receiver was recorded as shown in the table above.*

2. *The peak level was compared to the average limit as opposed to being compared to the peak limit because this is the more onerous limit.*

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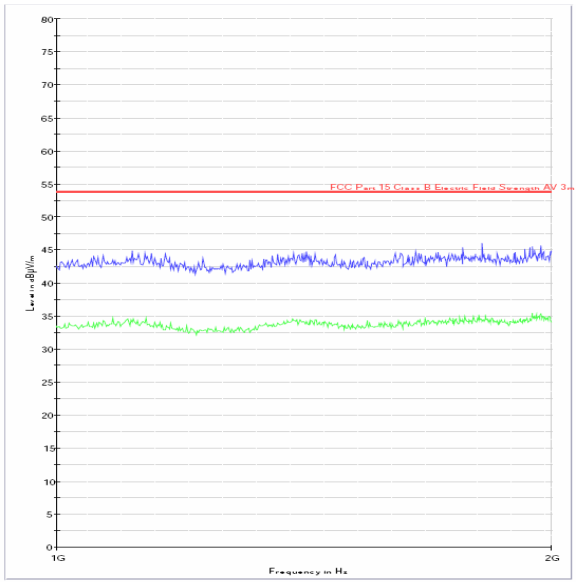
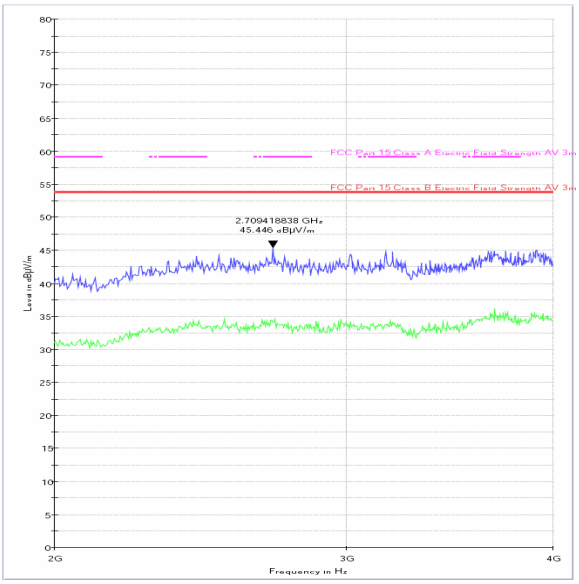
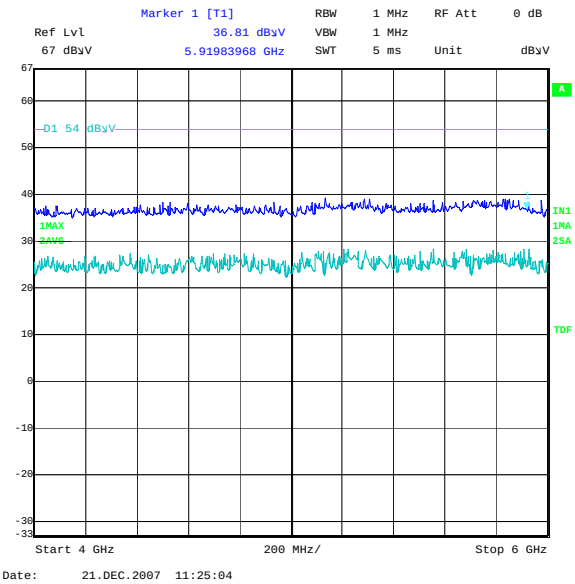
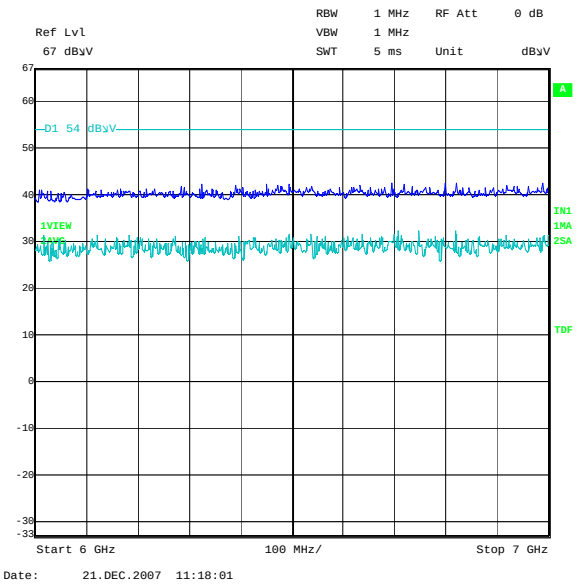
Idle Mode Radiated Spurious Emissions (Continued)









Note: These plots are pre-scans and for indication purposes only. For final measurements, see accompanying tables.

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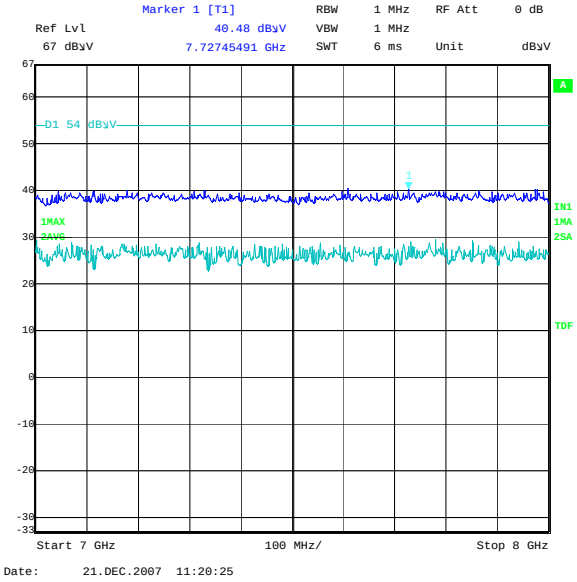
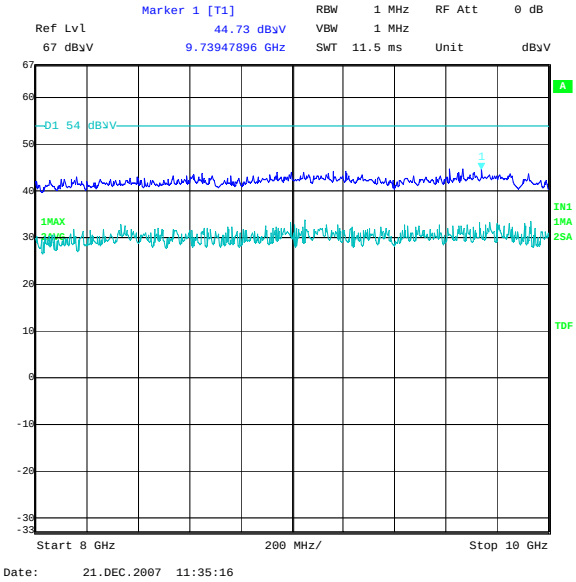
Idle Mode Radiated Spurious Emissions (Continued)





Note: These plots are pre-scans and for indication purposes only. For final measurements, see accompanying tables.

7.3.4. Transmitter Carrier Output Power (GSM 1900 band)

Tests were performed using the test methods detailed in ANSI TIA-603-C-2004 referencing FCC CFR Part 2

Results:

Channel	Frequency (MHz)	Conducted RF O/P Power (dBm)	Stated Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
Bottom	1850.2	27.9	3.0	30.9	33.0	2.1	Complied
Middle	1879.8	27.7	3.0	30.7	33.0	2.3	Complied
Top	1909.8	27.7	3.0	30.7	33.0	2.3	Complied

7.3.5. Transmitter Frequency Stability (Temperature Variation) (GSM 1900 band)

Tests were performed using the test methods detailed in ANSI TIA-603-C-2004 referencing FCC CFR Part 2

Results:

Bottom Channel (1850.2 MHz)

Temperature (ºC)	Frequency Error (Hz)	Measured Frequency (MHz)	Lower Band Edge Limit (MHz)	Margin (MHz)	Result
-30	36	1850.200036	1850.0	0.200036	Complied
-20	40	1850.200040	1850.0	0.200040	Complied
-10	31	1850.200031	1850.0	0.200031	Complied
0	27	1850.200027	1850.0	0.200027	Complied
10	34	1850.200034	1850.0	0.200034	Complied
20	26	1850.200026	1850.0	0.200026	Complied
30	61	1850.200061	1850.0	0.200061	Complied
40	51	1850.200051	1850.0	0.200051	Complied
50	30	1850.200030	1850.0	0.200030	Complied

Top Channel (1909.8 MHz)

Temperature (ºC)	Frequency Error (Hz)	Measured Frequency (MHz)	Upper Band Edge Limit (MHz)	Margin (MHz)	Result
-30	24	1909.800024	1910.0	0.199976	Complied
-20	52	1909.800052	1910.0	0.199948	Complied
-10	23	1909.800023	1910.0	0.199977	Complied
0	42	1909.800042	1910.0	0.199958	Complied
10	33	1909.800033	1910.0	0.199967	Complied
20	41	1909.800041	1910.0	0.199959	Complied
30	27	1909.800027	1910.0	0.199973	Complied
40	19	1909.800019	1910.0	0.199981	Complied
50	20	1909.800020	1910.0	0.199980	Complied

7.3.6. Transmitter Frequency Stability (Voltage Variation) (GSM 1900 band)

Tests were performed using the test methods detailed in ANSI TIA-603-C-2004 referencing FCC CFR Part 2

Results:

Bottom Channel (1850.2 MHz)

Supply Voltage (V)	Frequency Error (Hz)	Measured Frequency (MHz)	Lower Band Edge Limit (MHz)	Margin (MHz)	Result
93.5	24	1850.200024	1850	0.200024	Complied
126.5	24	1850.200024	1850	0.200024	Complied

Top Channel (1909.8 MHz)

Supply Voltage (V)	Frequency Error (Hz)	Measured Frequency (MHz)	Lower Band Edge Limit (MHz)	Margin (MHz)	Result
93.5	43	1909.800043	1910	0.199957	Complied
126.5	43	1909.800043	1910	0.199957	Complied

7.3.7. Transmitter Occupied Bandwidth (GSM 1900 band)

The 99% occupied bandwidth was measured using the channel bandwidth function of the R&S spectrum analyser referencing FCC CFR Part 2

Results:

Channel	Frequency (MHz)	Resolution Bandwidth (kHz)	Video Bandwidth (kHz)	Occupied Bandwidth (kHz)
Bottom	1850.2	3.0	10.0	238.477
Middle	1879.8	3.0	10.0	238.477
Top	1909.8	3.0	10.0	238.477

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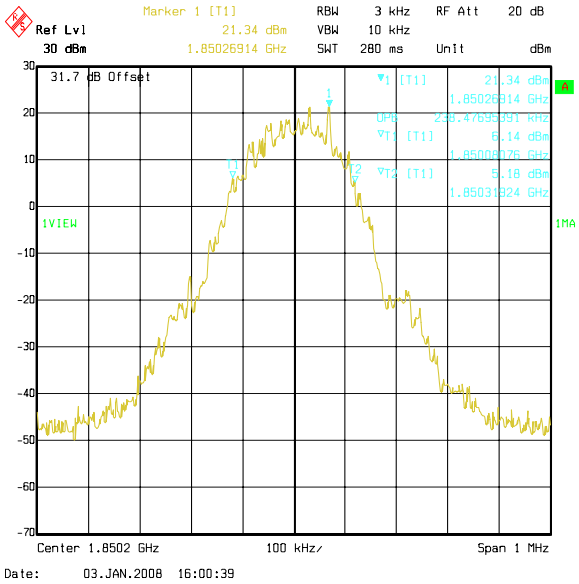
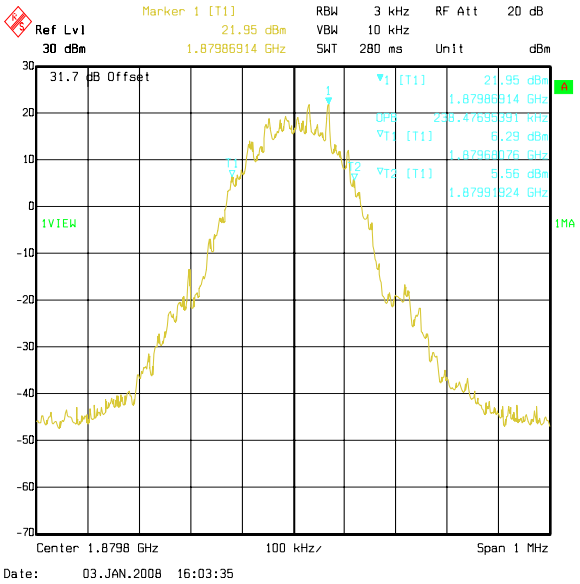
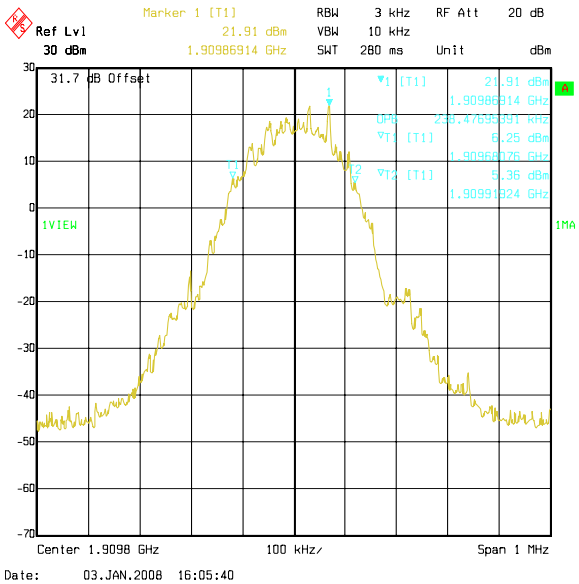
Transmitter Occupied Bandwidth (Continued)







7.3.8. Transmitter Out of Band Conducted Emissions (GSM 1900 band)

Tests were performed using the test methods detailed in ANSI TIA-603-C-2004 referencing FCC CFR Parts 2 and 24.238

Results:

Bottom Channel

Frequency (MHz)	Peak Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1847.000	-22.7	-13.0	9.7	Complied

Middle Channel

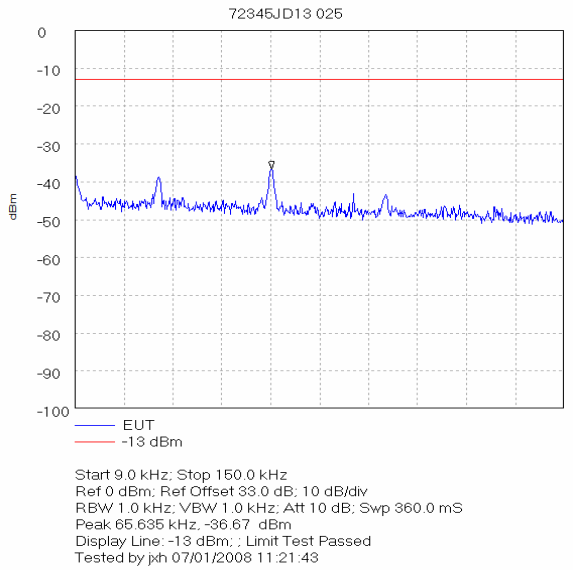
Frequency (MHz)	Peak Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
2040.471	-36.3	-13.0	23.3	Complied

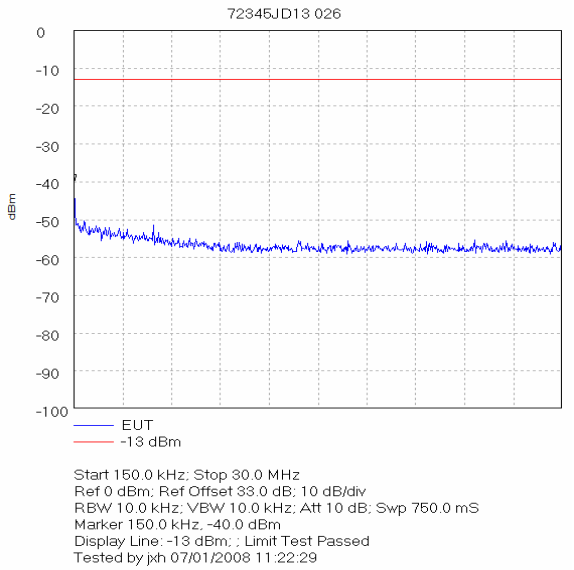
Top Channel

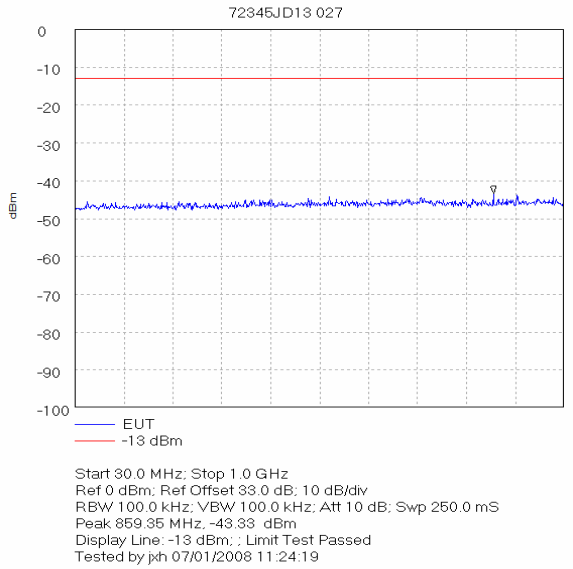
Frequency (MHz)	Peak Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1913.000	-13.7	-13.0	0.7	Complied

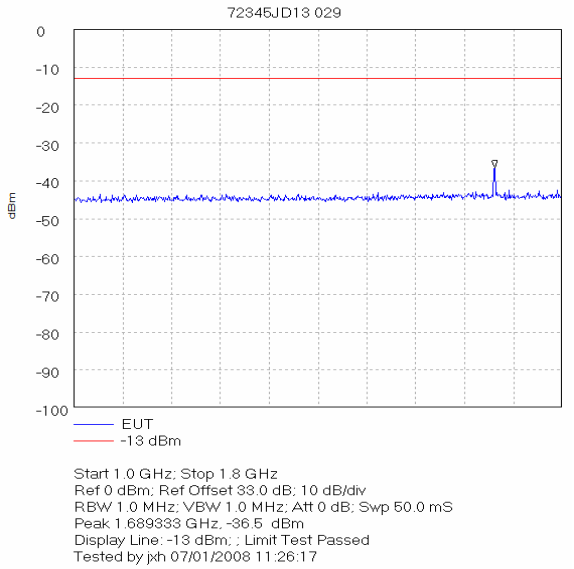
Test of: **Enfora Inc.**
Enfora Enabler IIIE
To: **FCC Part 22: 2007, FCC Part 24: 2007,**
RSS-132 Issue 2 September 2005, RSS-133 Issue 2 June 2005
& RSS-Gen Issue 2 June 2007

Transmitter Out of Band Conducted Emissions (Continued) – Bottom Channel



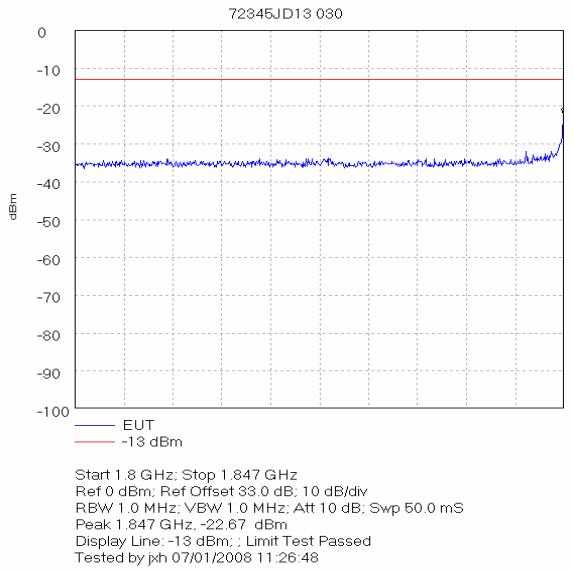


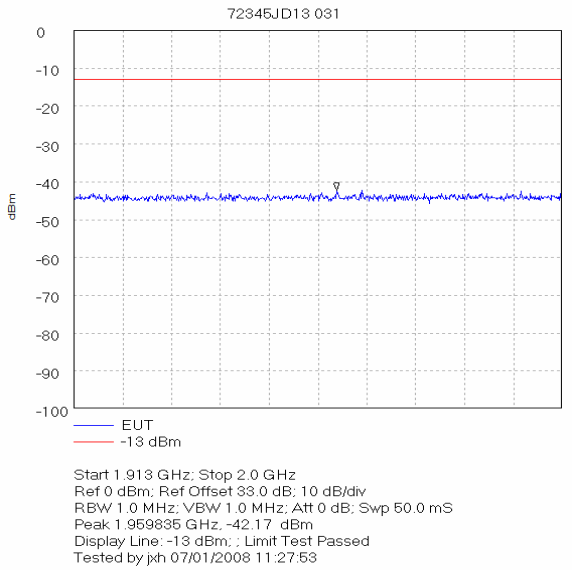


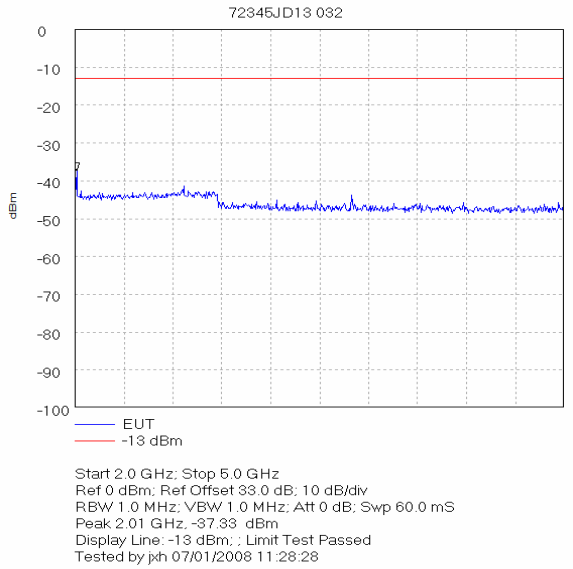


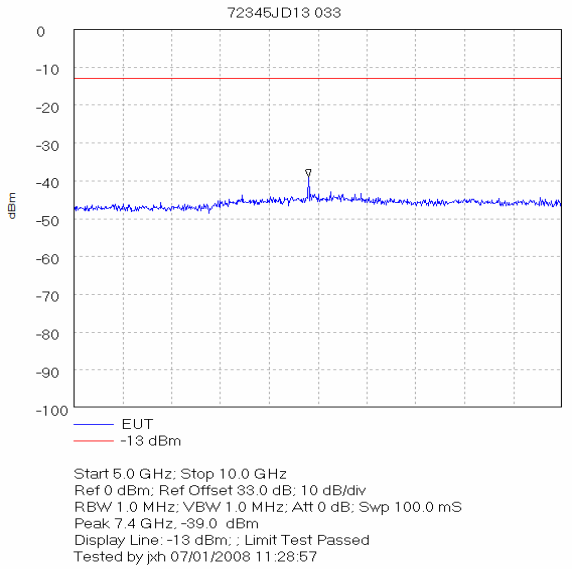
Note: These plots are pre-scans and for indication purposes only. For final measurements, see accompanying tables.

Transmitter Out of Band Conducted Emissions (Continued) – Bottom Channel



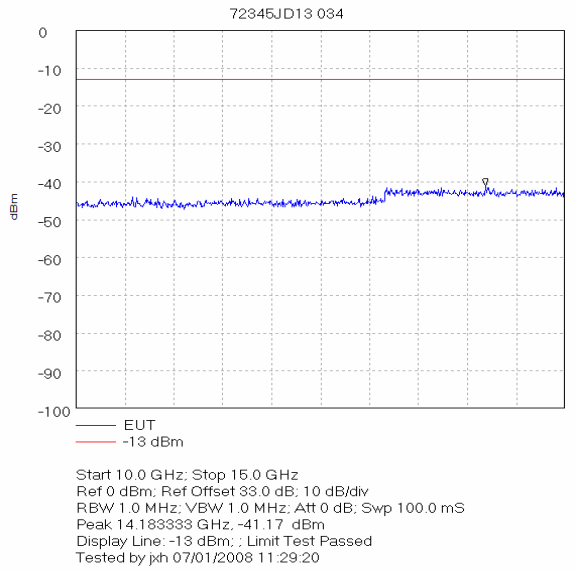


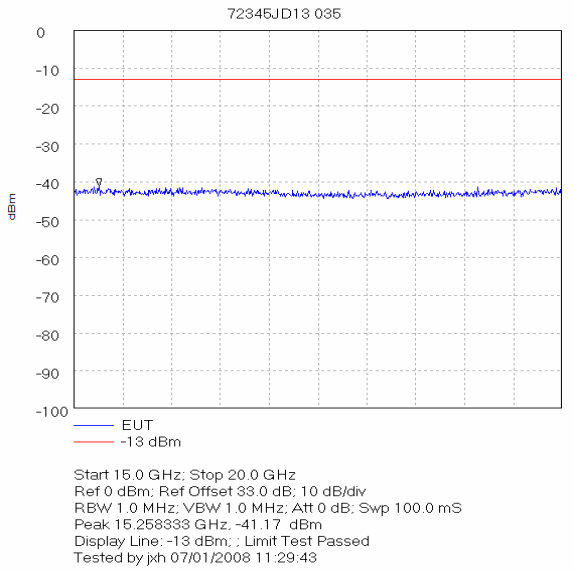




Note: These plots are pre-scans and for indication purposes only. For final measurements, see accompanying tables.

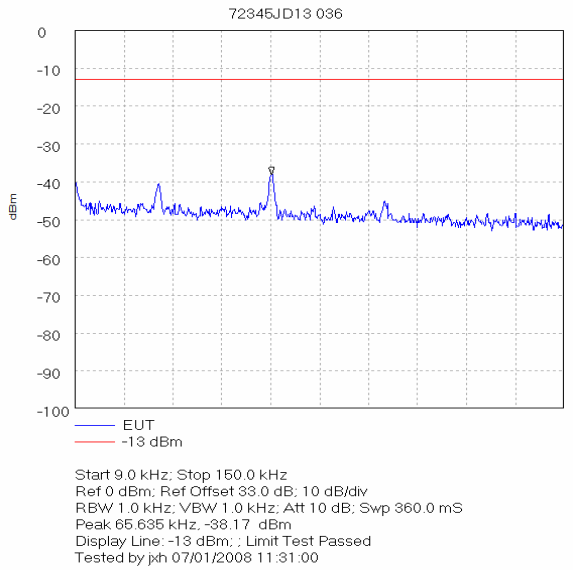
Transmitter Out of Band Conducted Emissions (Continued) – Bottom Channel

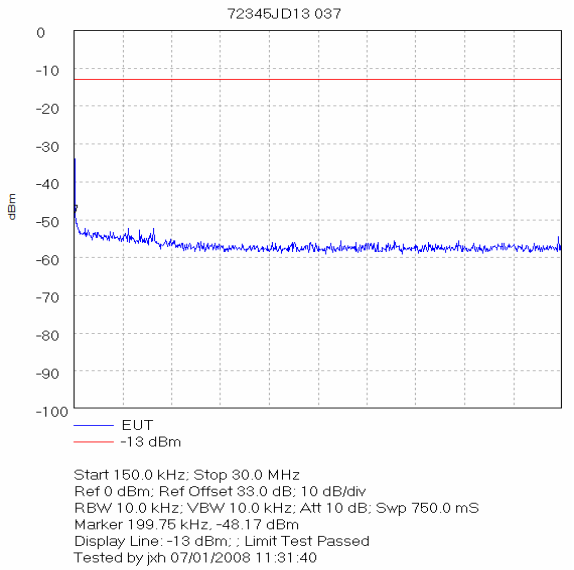


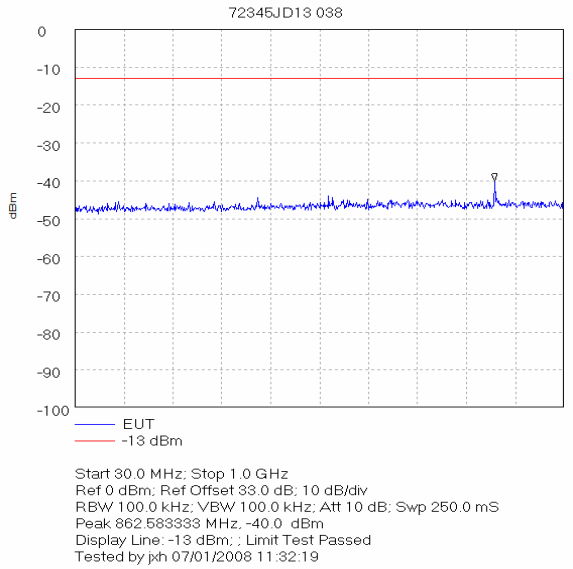


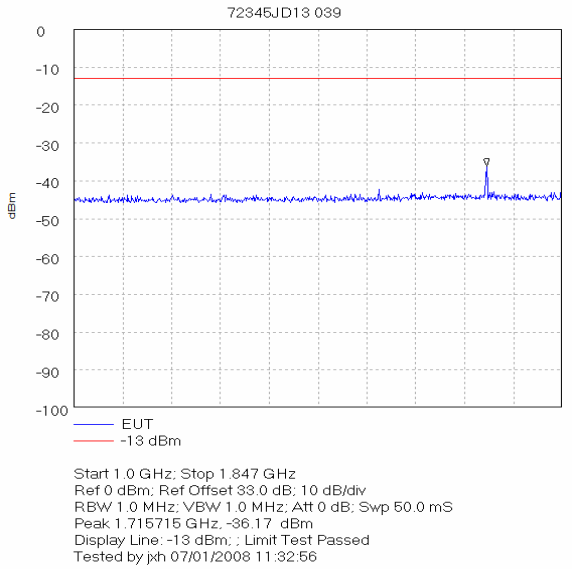
Note: These plots are pre-scans and for indication purposes only. For final measurements, see accompanying tables.

Transmitter Out of Band Conducted Emissions (Continued) – Middle Channel



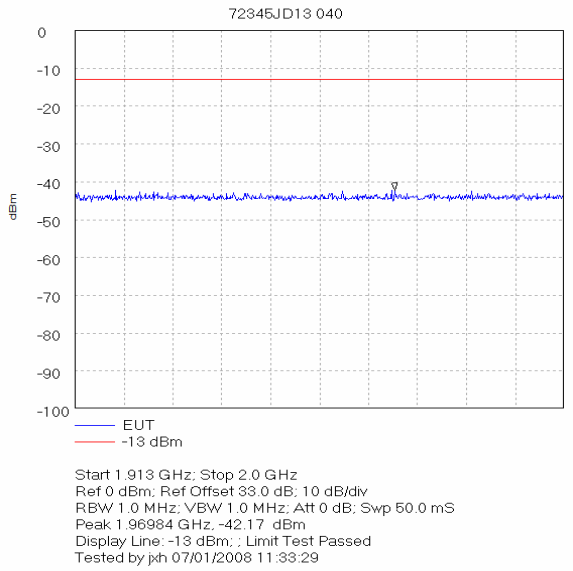


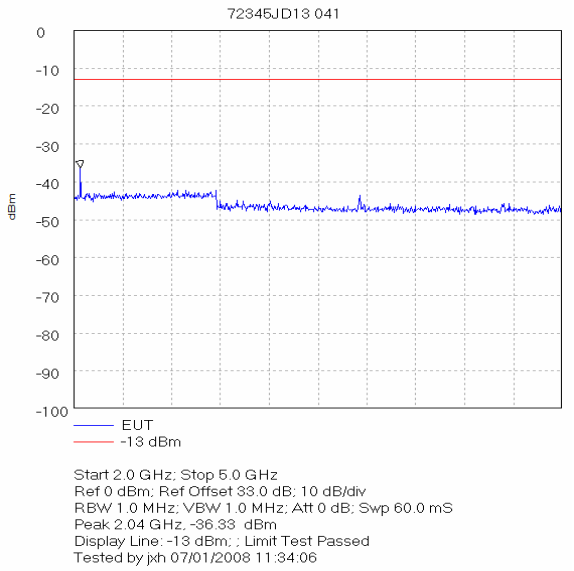


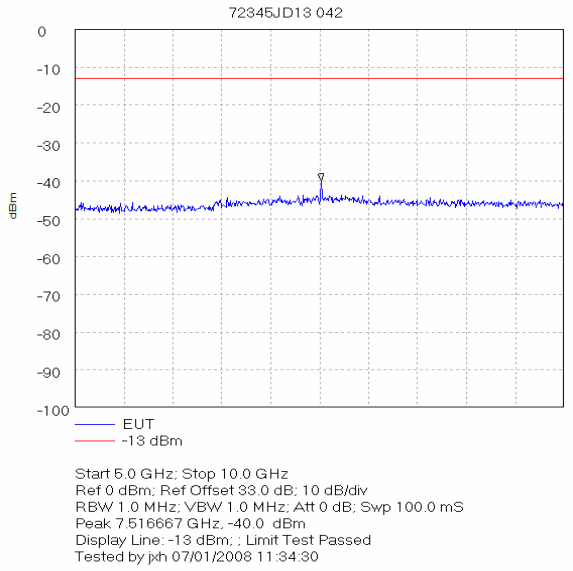


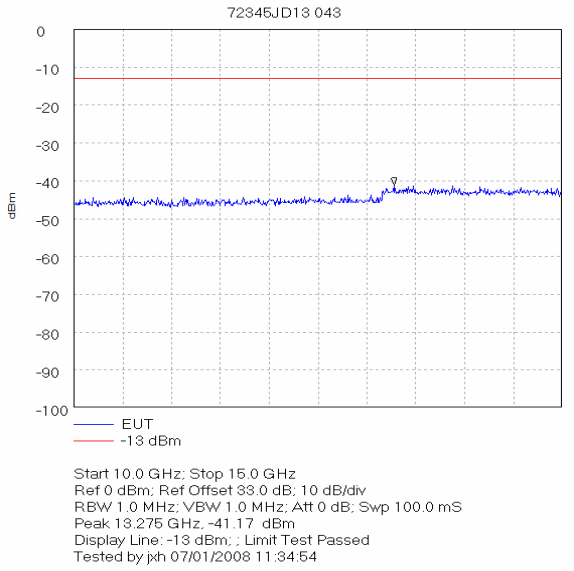
Note: These plots are pre-scans and for indication purposes only. For final measurements, see accompanying tables.

Transmitter Out of Band Conducted Emissions (Continued) – Middle Channel



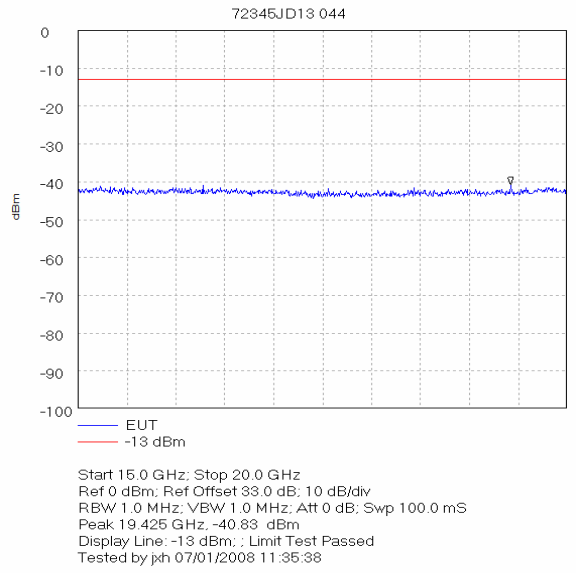






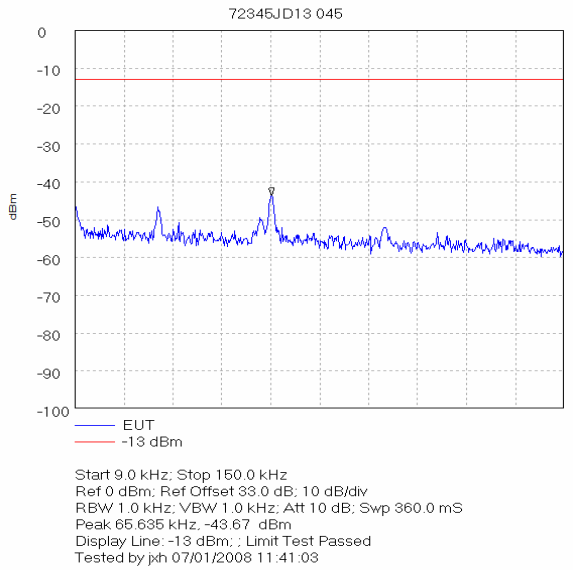
Note: These plots are pre-scans and for indication purposes only. For final measurements, see accompanying tables.

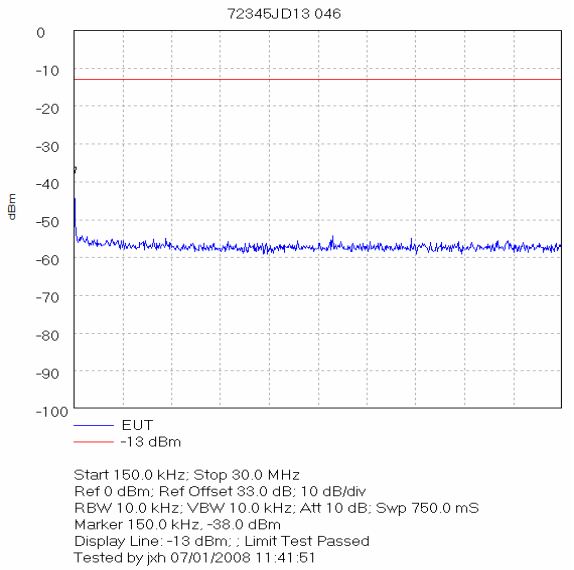
Transmitter Out of Band Conducted Emissions (Continued) – Middle Channel

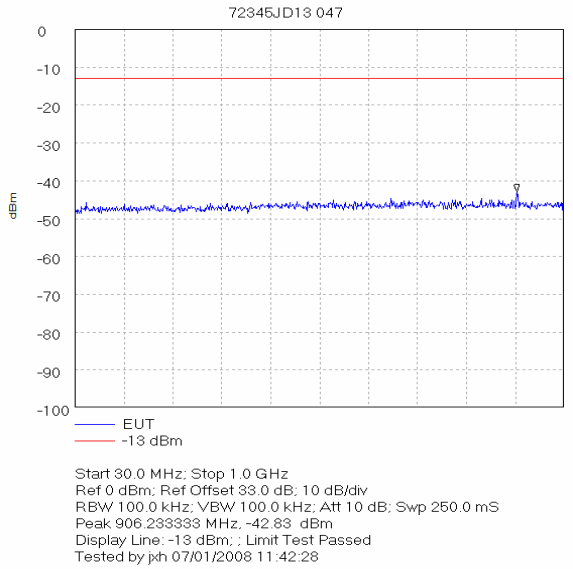


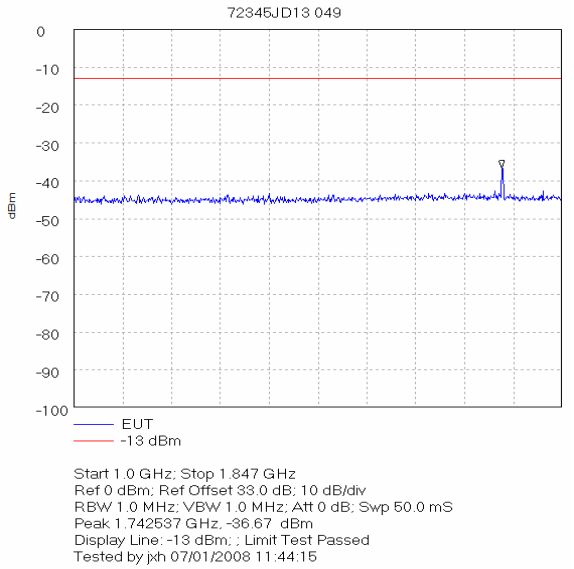
Note: These plots are pre-scans and for indication purposes only. For final measurements, see accompanying tables.

Transmitter Out of Band Conducted Emissions (Continued) – Top Channel



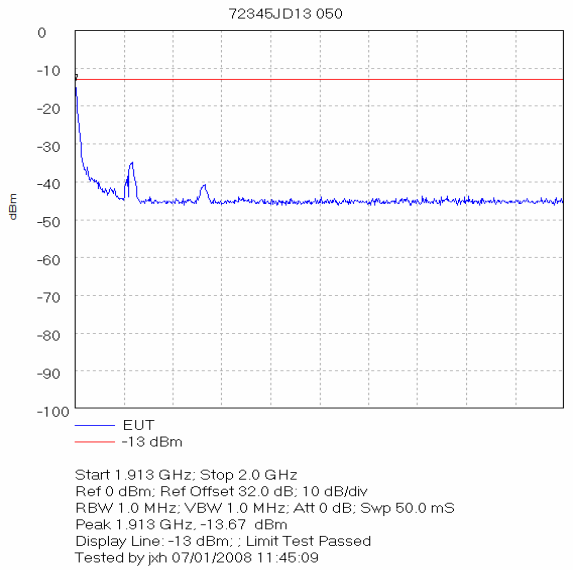


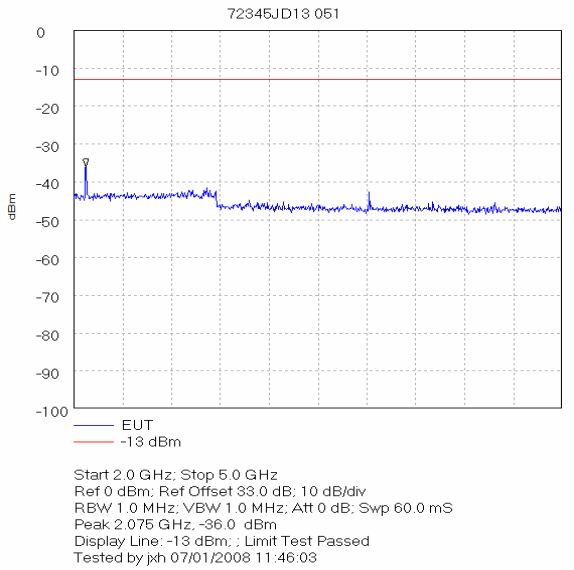


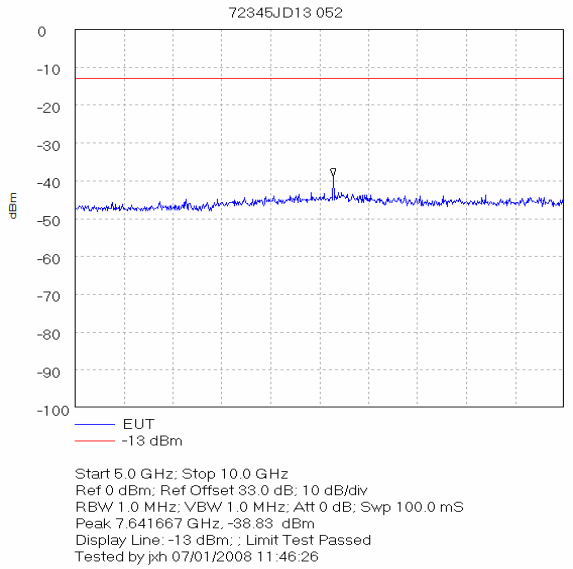


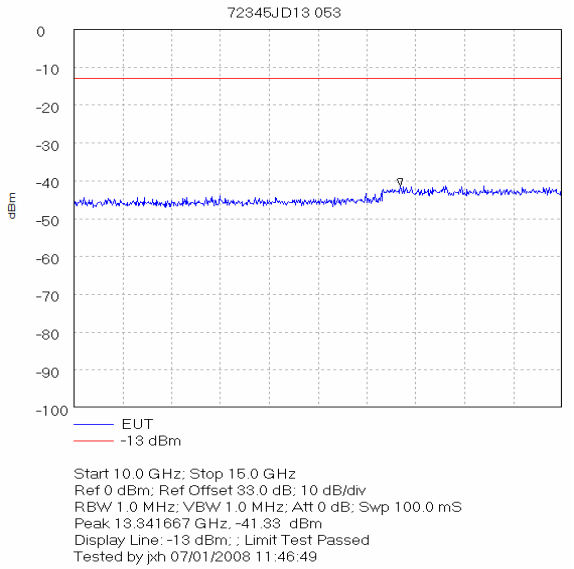
Note: These plots are pre-scans and for indication purposes only. For final measurements, see accompanying tables.

Transmitter Out of Band Conducted Emissions (Continued) – Top Channel



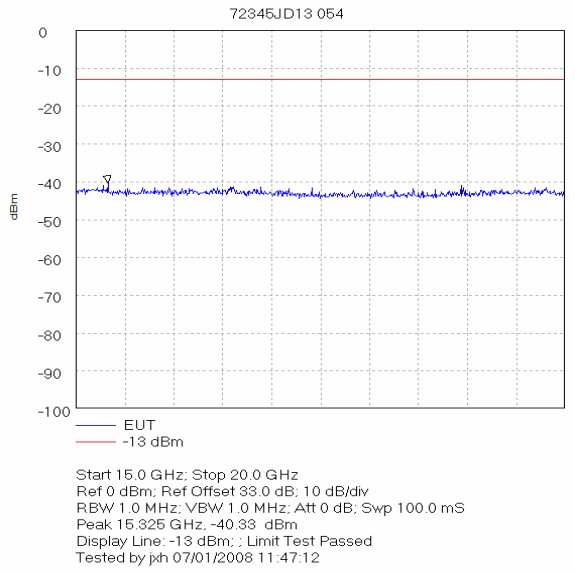






Note: These plots are pre-scans and for indication purposes only. For final measurements, see accompanying tables.

Transmitter Out of Band Conducted Emissions (Continued) – Top Channel



Note: These plots are pre-scans and for indication purposes only. For final measurements, see accompanying tables.

Transmitter Out of Band Conducted Emissions (Continued)

Integrated Power Over 1 MHz Strip Band: 1847 to 1848 MHz

2nd 1 MHz block immediately outside adjacent frequency block

100 kHz Strip Number	Peak Power (nW/100 kHz)	100 kHz Strip Number	Peak Power (nW/100 kHz)
1	74.13	6	77.62
2	39.81	7	107.15
3	35.48	8	162.18
4	40.74	9	144.54
5	36.31	10	89.13
Total Peak Power:	807.10 nW/MHz		

Integrated Power Over 1 MHz Strip Band: 1848 to 1849 MHz

1st 1 MHz block immediately outside adjacent frequency block

100 kHz Strip Number	Peak Power (nW/100 kHz)	100 kHz Strip Number	Peak Power (nW/100 kHz)
1	100.00	6	177.83
2	123.03	7	181.97
3	85.11	8	208.93
4	120.23	9	218.78
5	147.91	10	213.80
Total Peak Power:	1577.58 nW/MHz		

Results:

Band (MHz)	Peak Power (nW/MHz)	Peak Power (dBm/MHz)	Limit (dBm/MHz)	Margin (dB)	Status
1847 to 1848	807.10	-30.9	-13.0	17.9	Complied
1848 to 1849	1577.58	-28.0	-13.0	15.0	Complied

Test of: Enfora Inc.
Enfora Enabler IIIE
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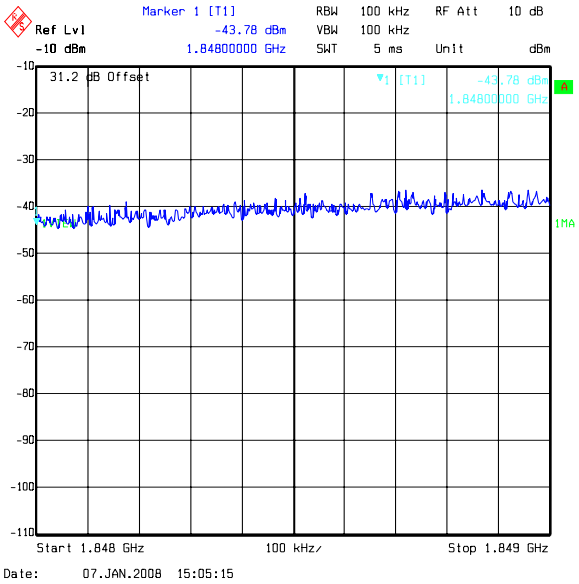
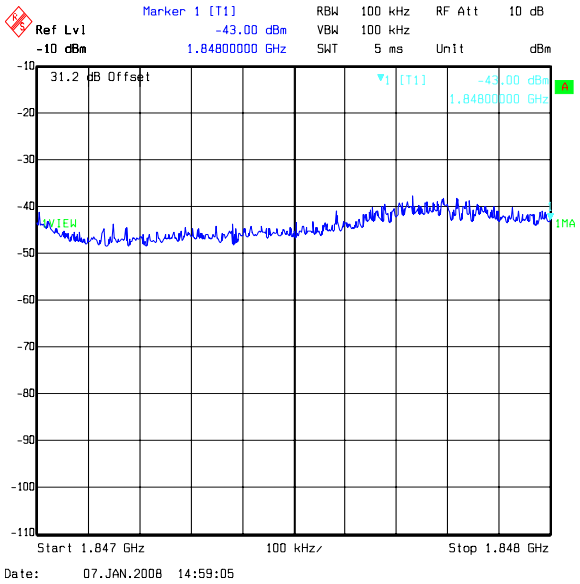
Transmitter Out of Band Conducted Emissions (Continued)





Transmitter Out of Band Conducted Emissions (Continued)

Integrated Power Over 1 MHz Strip Band: 1911 to 1912 MHz

1st 1 MHz block immediately outside adjacent frequency block

100 kHz Strip Number	Peak Power (nW/100 kHz)	100 kHz Strip Number	Peak Power (nW/100 kHz)
1	1122.02	6	549.54
2	1513.56	7	831.76
3	1412.54	8	630.96
4	870.96	9	323.59
5	549.54	10	309.03
Total Peak Power:	8113.51 nW/MHz		

Integrated Power Over 1 MHz Strip Band: 1912 to 1913 MHz

2nd 1 MHz block immediately outside adjacent frequency block

100 kHz Strip Number	Peak Power (nW/100 kHz)	100 kHz Strip Number	Peak Power (nW/100 kHz)
1	194.98	6	69.18
2	93.33	7	42.66
3	87.10	8	52.48
4	85.11	9	52.48
5	117.49	10	54.95
Total Peak Power:	849.77 nW/MHz		

Results:

Band (MHz)	Peak Power (nW/MHz)	Peak Power (dBm/MHz)	Limit (dBm/MHz)	Margin (dB)	Status
1911 to 1912	8113.51	-20.9	-13.0	7.9	Complied
1912 to 1913	849.77	-30.7	-13.0	17.7	Complied

Test of: Enfora Inc.
Enfora Enabler IIIE
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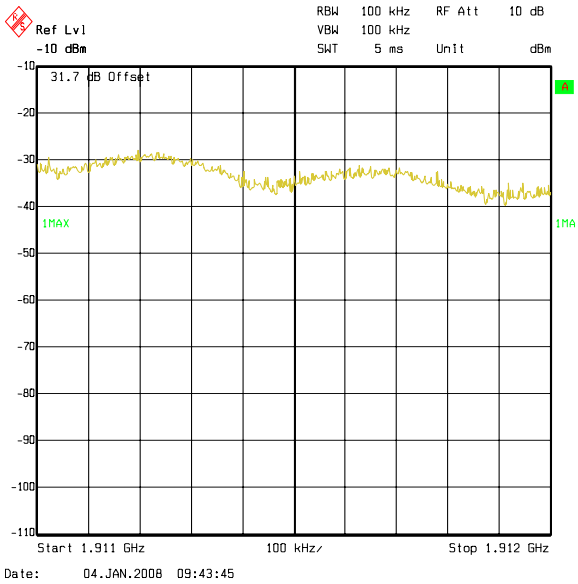
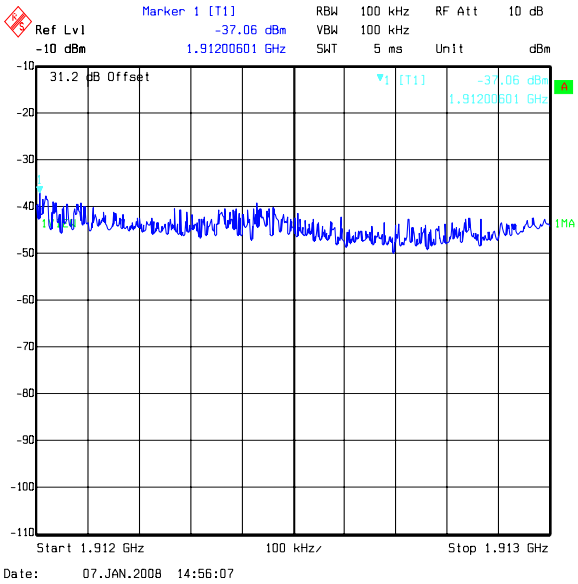
Transmitter Out of Band Conducted Emissions (Continued)





7.3.9. Transmitter Conducted Emissions at Band Edges (GSM 1900 band)

Tests were performed using the test methods detailed in ANSI TIA-603-C-2004 referencing FCC CFR Parts 2 and 24.238

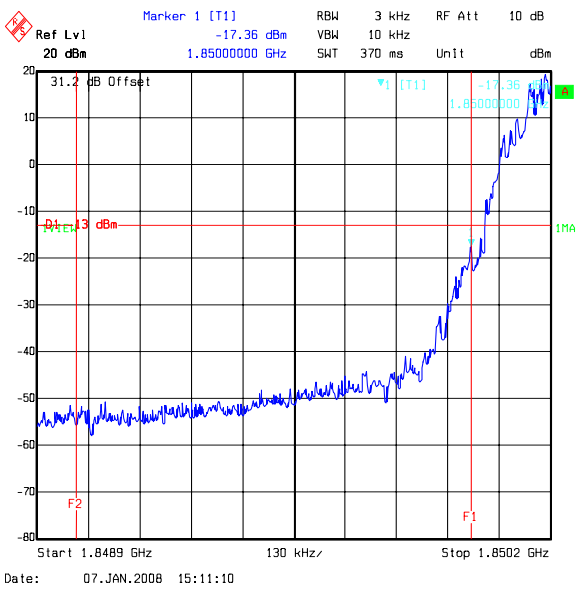
Results:

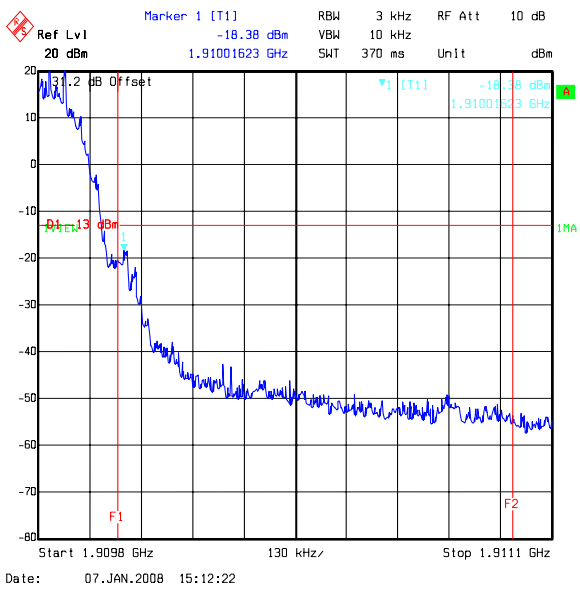
Bottom Band Edge

Frequency (MHz)	Peak Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1850	-17.4	-13.0	4.4	Pass

Top Band Edge

Frequency (MHz)	Peak Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1910	-18.4	-13.0	5.4	Pass





7.3.10. Transmitter Out of Band Radiated Emissions (GSM 1900 band)

Tests were performed using the test methods detailed in ANSI TIA-603-C-2004 referencing FCC CFR Parts 2 and 24.238

Results:

Bottom Channel

Frequency (MHz)	Peak Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
12950.851	-28.0	-13.0	15.0	Complied

Middle Channel

Frequency (MHz)	Peak Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
13158.286	-28.7	-13.0	15.7	Complied

Top Channel

Frequency (MHz)	Peak Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
13370.740	-31.7	-13.0	18.7	Complied

Note(s):

1. *All other emissions were investigated and found to be greater than 20dB below the applicable limit.*

Test of: Enfora Inc.
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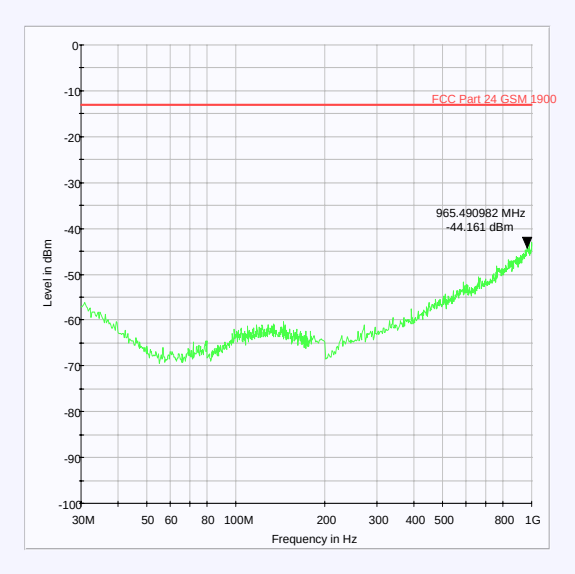
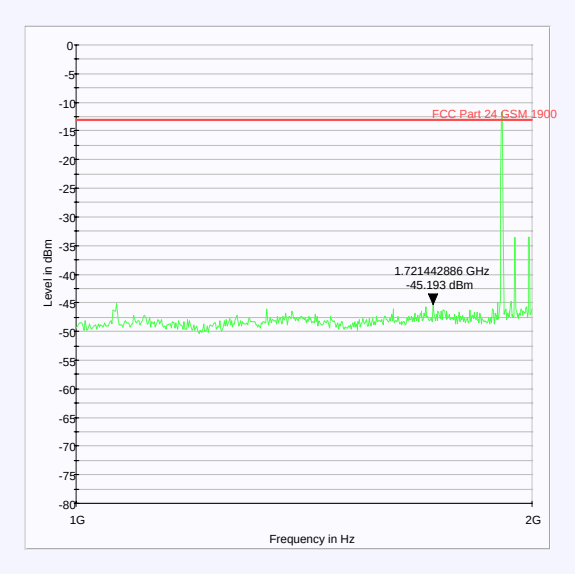
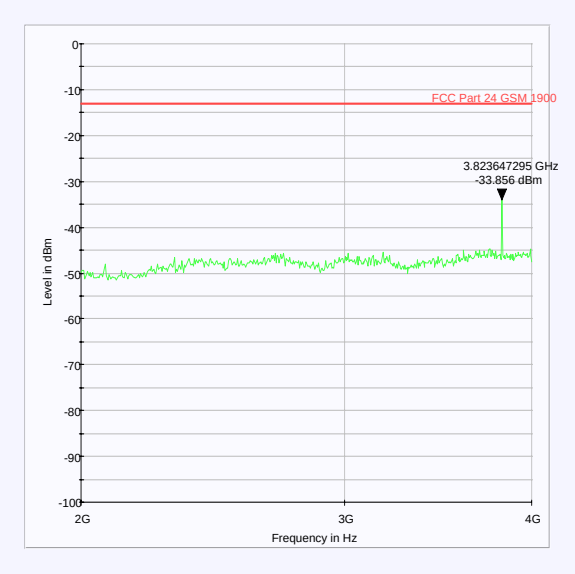
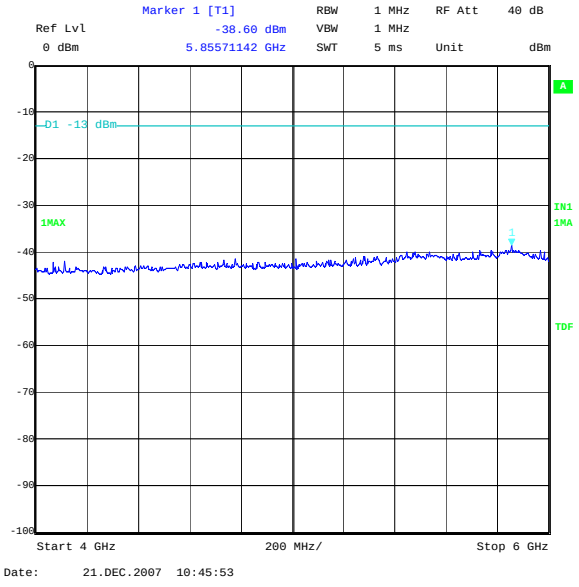
Transmitter Out of Band Radiated Emissions (Continued)









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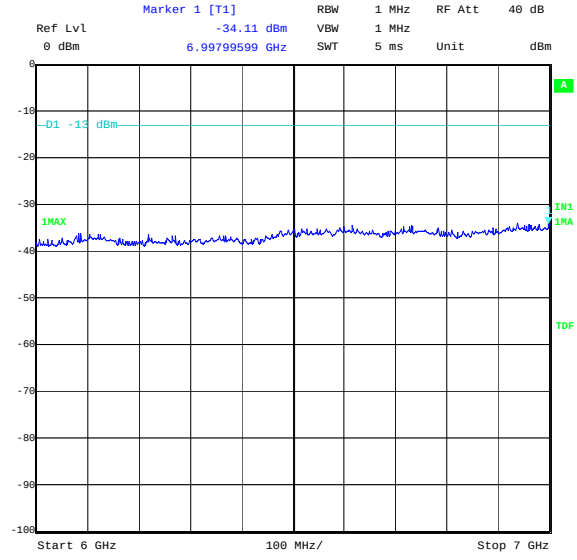
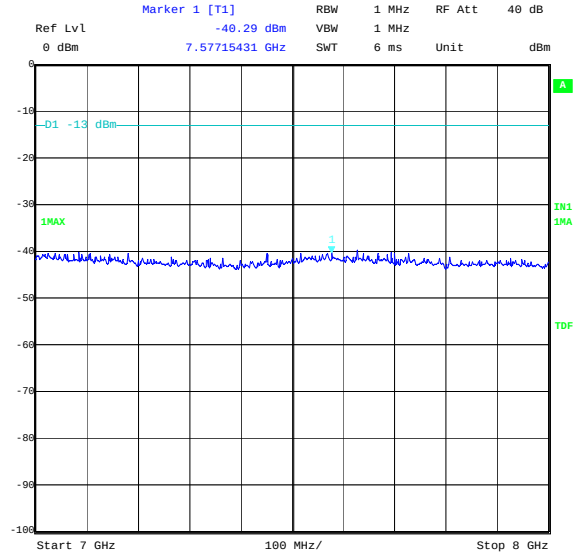
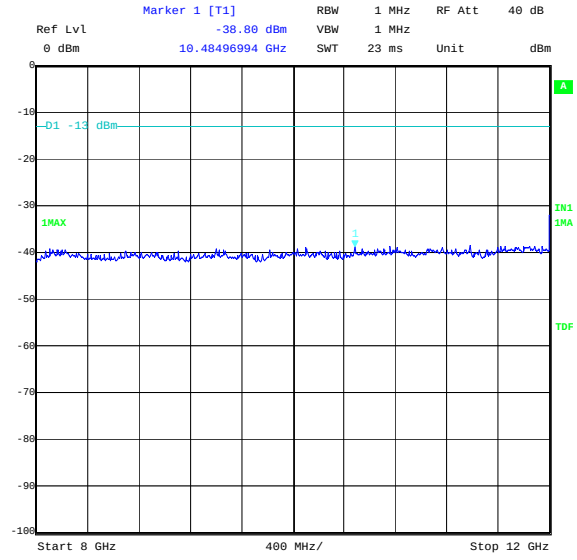
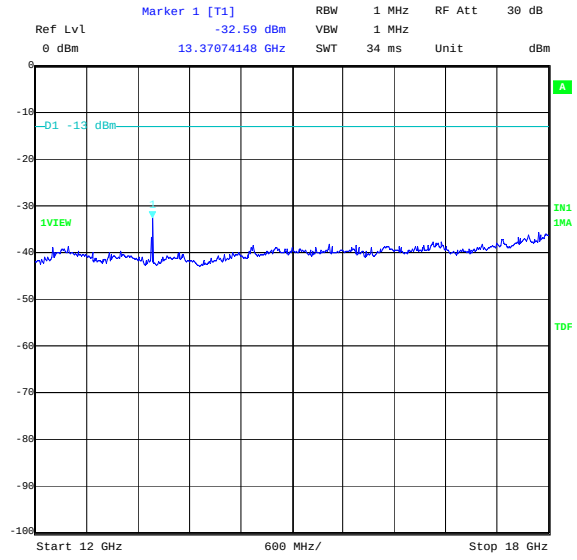
Transmitter Out of Band Radiated Emissions (Continued)

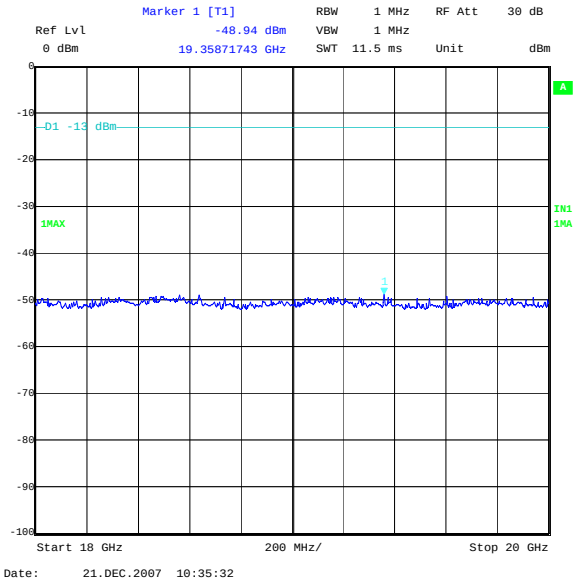








Transmitter Out of Band Radiated Emissions (Continued)



8. Measurement Uncertainty

No measurement or test can ever be perfect and the imperfections give rise to error of measurement in the results. Consequently, the result of a measurement is only an approximation to the value of the measurand (the specific quantity subject to measurement) and is only complete when accompanied by a statement of the uncertainty of the approximation.

The expression of uncertainty of a measurement result allows realistic comparison of results with reference values and limits given in specifications and standards.

The uncertainty of the result may need to be taken into account when interpreting the measurement results.

The reported expanded uncertainties below are based on a standard uncertainty multiplied by an appropriate coverage factor, such that a confidence level of approximately 95% is maintained. For the purposes of this document “approximately” is interpreted as meaning “effectively” or “for most practical purposes”.

Measurement Type	Range	Confidence Level (%)	Calculated Uncertainty
AC Conducted Spurious Emissions	0.15 MHz to 30 MHz	95	+/- 3.72 dB
Carrier Output Power	Not applicable	95	+/- 0.46 dB
Conducted Emissions	9 kHz to 10 GHz	95	+/- 1.2 dB
Conducted Emissions Antenna Port	30 MHz to 10 GHz	95	+/- 1.2 dB
Frequency Stability	Not applicable	95	+/- 20 Hz
Occupied Bandwidth	824 to 849 MHz	95	+/- 0.12 %
Radiated Spurious Emissions	30 MHz to 1000 MHz	95	+/- 5.26 dB
Radiated Spurious Emissions	1 GHz to 10 GHz	95	+/- 2.94 dB

The methods used to calculate the above uncertainties are in line with those recommended within the various measurement specifications. Where measurement specifications do not include guidelines for the evaluation of measurement uncertainty, the published guidance of the appropriate accreditation body is followed.

Appendix 1. Test Equipment Used

RFI No.	Instrument	Manufacturer	Type No.	Serial No.	Date Last Calibrated	Cal. Interval (Months)
A028	Antenna	Eaton	91888-2	304	08 Jun 2006	36
A067	Line Impedance Stabilization Network	Rohde & Schwarz	ESH3-Z5	890603/002	23 Apr 2007	12
A1415	Directional Coupler	Atlantic	422057-1	306	Calibrated before use	-
A1421	Attenuator	Narda	4779-10	8712	31 May 2007	12
A1426	Attenuator	Narda	4779-20	9	31 May 2007	12
A1534	Pre Amplifier	Hewlett Packard	8449B OPT H02	3008A00405	Calibrated before use	-
A1829	Pulse Limiter	Rhode & Schwarz	ESH3-Z2	100671	16 Jan 2008	12
A246	30 dB Attenuator	Schaffner	6830-17-B	None	Calibrated before use	-
A253	Antenna	Flann Microwave	12240-20	128	17 Nov 2006	36
A254	Antenna	Flann Microwave	14240-20	139	17 Nov 2006	36
A255	Antenna	Flann Microwave	16240-20	519	17 Nov 2006	36
A256	Antenna	Flann Microwave	18240-20	400	17 Nov 2006	36
A259	Antenna	Chase	CBL6111	1513	13 Mar 2007	12
A435	Antenna	Flann	22240-20	400	21 Jul 2006	36
C1002	Cable	Rosenberger	FA210A1010M50509	001	Calibrated before use	-
C1111	Cable	Semflex Inc.	X116BFSX10080	0337	Calibrated before use	-
C1121	Cable	Rosenberger	FA210A1030005050	1704 34844-02	Calibrated before use	-
C1262	Cable	Rosenberger	FA210A0075008080	49356-2	Calibrated before use	-
C1265	Cable	Rosenberger	FA210A1020007070	49317-01	Calibrated before use	-
C454	Cable	Rosenberger	RG142XX-001-RFIB	C454-10081998	Calibrated before use	-
E0513	Environmental Chamber	TAS	LT600 Series 3	23900506	Calibration not required	-
M1008	Spectrum Analyser	Hewlett Packard	8563E	3551A04412	26 Jun 2007	12

Test Equipment Used (Continued)

RFI No.	Instrument	Manufacturer	Type No.	Serial No.	Date Last Calibrated	Cal. Interval (Months)
M1093	Communications Test Set	Will tek	4202S	0513018	Calibration not required	-
M1124	Spectrum Analyser	Rohde & Schwarz	ESIB26	100046K	20 Dec 2006	15
M1140	Radio Communications Analyser	Anritsu	MT8820A	6K0000647	Calibration not required	-
M1227	Power Sensor	Agilent	8487D	3318A02122	11 Jun 2007	12
M127	Spectrum Analyser	Rohde & Schwarz	FSEB 30	842 659/016	15 Aug 2007	12
M1273	Test Receiver	Rhode & Schwarz	ESIB 26	100275	20 Feb 2007	12
M166	Thermometer/Barometer/Hygrometer	EuroCom	None	None	20 Sep 2007	12
M283	Power Sensor	Hewlett Packard	8487A	3318A03241	08 Jun 2007	12
S201	Open Area Test Site	RFI	1	None	25 May 2007	12
S202	Site 2	RFI	2	S202-15011990	Verified before use	-
S216	Site 16	RFI	16	None	Calibration not required	-

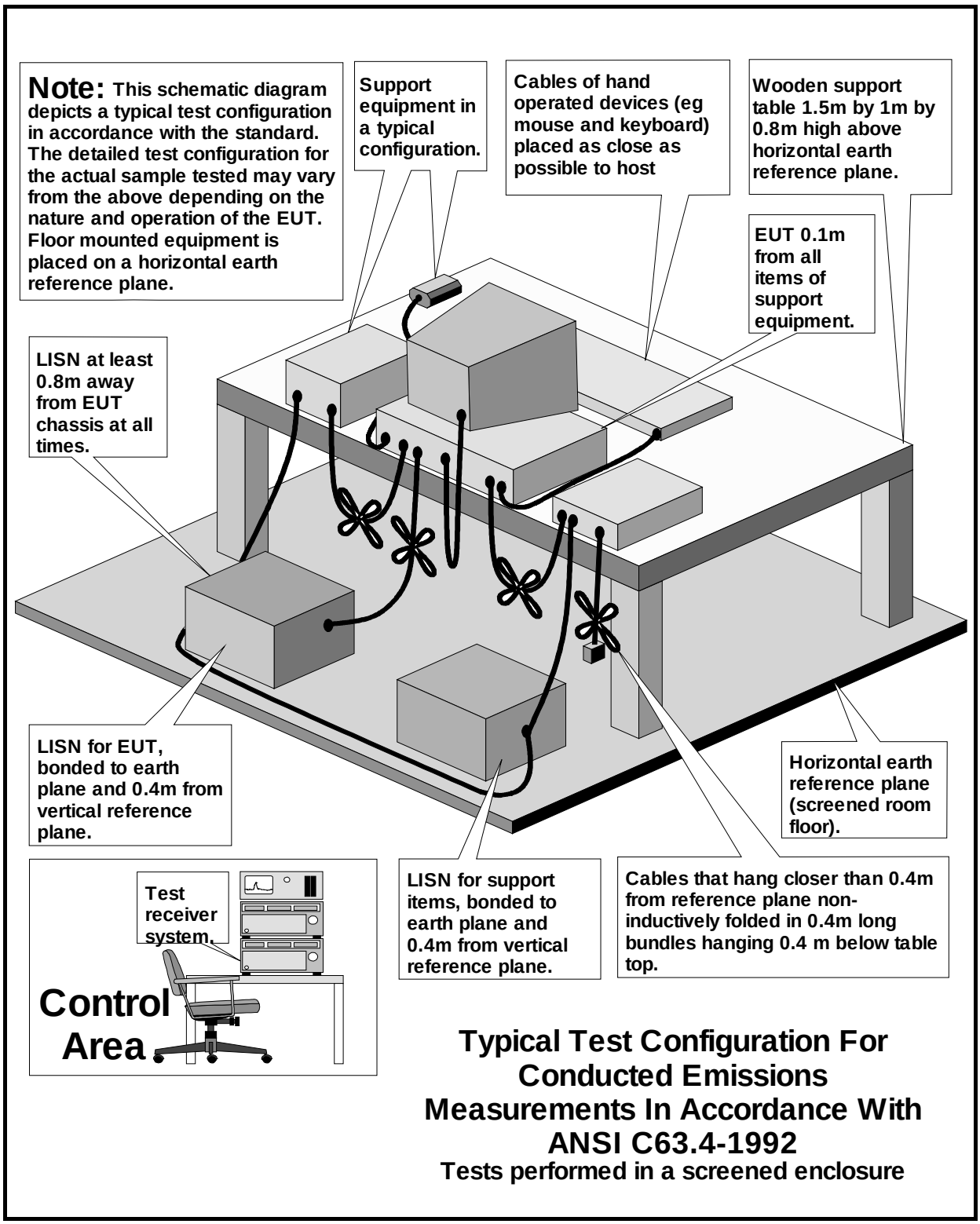
NB In accordance with UKAS requirements, all the measurement equipment is on a calibration schedule.

Appendix 2. Test Configuration Drawings

This appendix contains the following drawings:

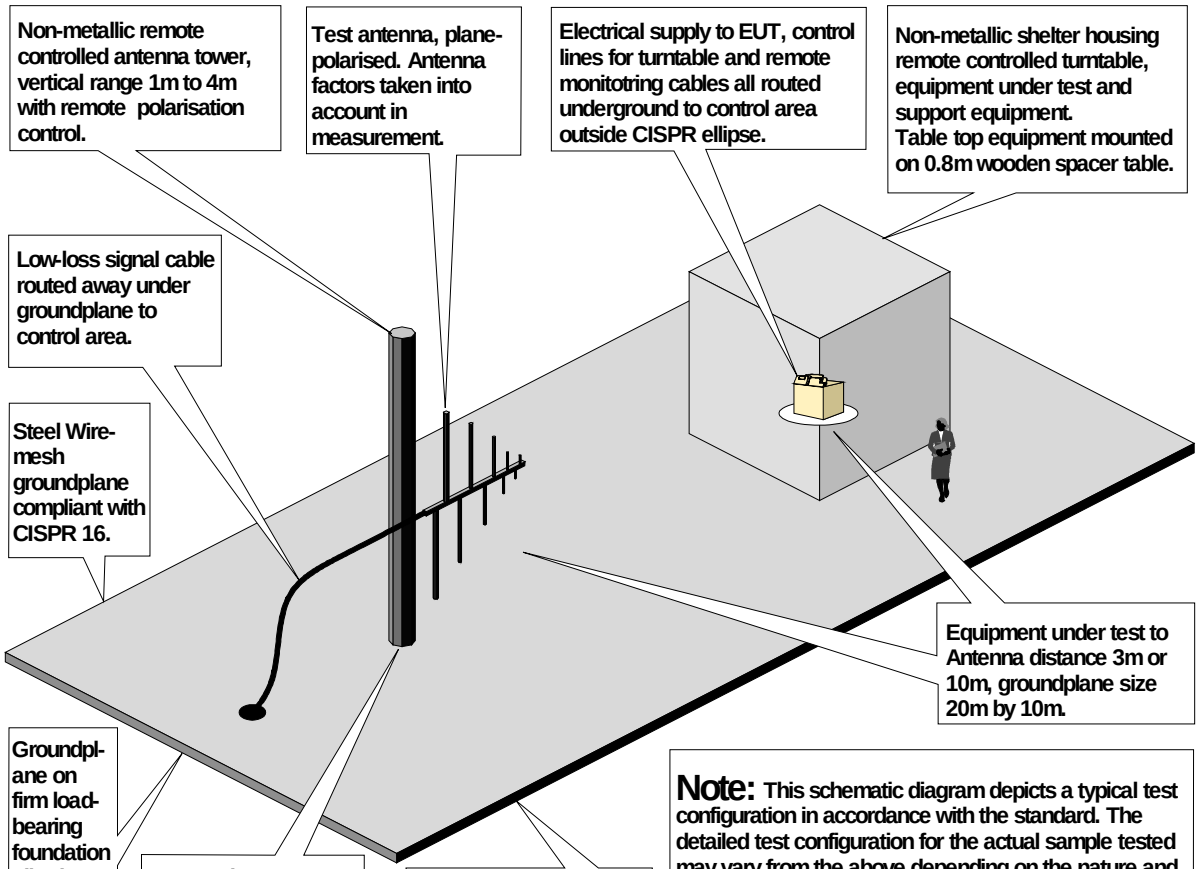
Drawing Reference Number	Title
DRG\72345JD13\EMICON	Test configuration for measurement of conducted emissions.
DRG\72345JD13\EMIRAD	Test configuration for measurement of radiated emissions.

DRG\72345JD13\EMICON



Test of: Enfora Inc.
Enfora Enabler IIIE
To: FCC Part 22: 2007, FCC Part 24: 2007,
RSS-132 Issue 2 September 2005, RSS-133 Issue 2 June 2005
& RSS-Gen Issue 2 June 2007

DRG\72345JD13\EMIRAD



Note: This schematic diagram depicts a typical test configuration in accordance with the standard. The detailed test configuration for the actual sample tested may vary from the above depending on the nature and operation of the EUT.
The test site used by RFI is nominally at ground level.
All electrical cables run underground.
All other dimensions in accordance with the standard.

Test Configuration For Radiated Emissions Measurements

Reflection-free area: >60m by 52m (CISPR ellipse)
Groundplane Earthed
Control room outside CISPR ellipse