



# Flom Test Labs

EMI, EMC, RF Testing Experts Since 1963

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fax: (480) 926-3598

<http://www.flomlabs.com>

[info@flomlabs.com](mailto:info@flomlabs.com)

[N1]

**Date:**

June 11, 2008

**Applicant:**

Vertu  
Beacon Hill Road  
Church Crookham, Hampshire GU52 8DY UK

**Attention of:**

Mark Pope, Certification and Compliance Manager  
+44 1252 611135; FAX: -611302  
Mobile: +44 7774 8158594  
[mark.pope@vertu.com](mailto:mark.pope@vertu.com)

**Equipment:**

RM-266V

**FCC ID:**

P7QRM-266V

**FCC Rules:**

22, 24

Gentlemen:

Enclosed please find your copy of the Engineering Test Report for which you are subject to the restrictions as listed on the attached summary.

As you know, the FCC, after a TCB issues a Grant, still has 30 days to review a submission and request added information. It is your decision whether or not to market the equipment subject to a possible recall before the end of the 30 days.

If your equipment is still retained by us, it will be returned to you 30 days after approval is achieved. Our invoice for services has been directed to your Accounts Payable Department.

Should you need any clarification, just fax or phone. Thank you again for this order - it has been a pleasure to be of service.

Sincerely yours,

Hoosamuddin S. Bandukwala, Lab Director

enclosure(s)

HSB/mdw



Flom Test Labs  
EMI, EMC, RF Testing Experts Since 1963

## Memo

**Date:** June 11, 2008

**Applicant:** Vertu  
Beacon Hill Road  
Church Crookham, Hampshire GU52 8DY UK

**Equipment:** RM-266V  
**FCC ID:** P7QRM-266V

Please note that the enclosed Reports reflect the results of tests performed to the currently published Federal Communications Commissions Rules and Regulations.

Should the FCC's Examiners' interpretations request new and unpublished requirements, we will be pleased to provide them. We will invoice you accordingly, i.e. for the time spent on re-testing, providing the amended pages and/or Reports and for the time necessary to be spent on electronic filing. We will of course provide you with copies of any of the additions.

We regret any added expense to the Applicants, but of late the FCC continues to change their requirements without any prior written publication and/or notices.

As in the past, we will continue to provide all liaison with the FCC necessary for the successful conclusion of your project and the receipt of your Grant of Equipment Authorization.

Sincerely yours,

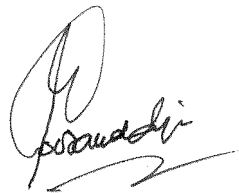
Hoosamuddin S. Bandukwala, Lab Director

enclosure(s)

## Summary of Restrictions

1. All submissions to the FCC are subject to **their** Examiner's interpretation.
2. Please allow from 60 to 90 days before hearing from the FCC with regard to any submission.
3. The FCC can set aside any action; modify or set aside any action, within 30 days. (FCC Rule 1.108, 1.113).
4. Under Rule 2.803, if device is not type accepted/certificated then it must **not** be sold, leased, offered for sale, imported, shipped or distributed or advertised for sale.
5. FCC can revoke its certificates at any time if the equipment does not meet or **continue** to meet their Rules. (Rule Parts 2.927, 2.939).
6. FCC can request a sample at any time (2.936).

Sincerely yours,



Hoosamuddin S. Bandukwala, Lab Director

enclosure(s)



Flom Test Labs  
EMI, EMC, RF Testing Experts Since 1963

Federal Communications Commission  
Via: Electronic Filing

**Attention:** Authorization & Evaluation Division

**Applicant:** Vertu  
**Equipment:** RM-266V  
**FCC ID:** P7QRM--266V  
**FCC Rules:** 22,24

Gentlemen:

On behalf of the Applicant, enclosed please find Application Form 731, Engineering Test Report and all pertinent documentation, the whole for approval of the referenced equipment as shown.

We trust the same is in order. Should you need any further information, kindly contact the writer who is authorized to act as agent.

Sincerely yours,

Hoosamuddin S. Bandukwala, Lab Director

enclosure(s)



**Flom Test Labs**  
EMI, EMC, RF Testing Experts Since 1963

## Test Report

for

**Model:** RM-266V

to

**Federal Communications Commission**

Rule Part(s) 22, 24

Date of report: June 11, 2008

Date of revised report: September 4, 2008

**On the Behalf of the  
Applicant:**

Vertu

**At the Request of:**

Vertu  
Beacon Hill Road  
Church Crookham, Hampshire GU52 8DY UK

**Attention of:**

Mark Pope, Certification and Compliance Manager  
+44 1252 611135; FAX: -611302  
Mobile: +44 7774 8158594  
[mark.pope@vertu.com](mailto:mark.pope@vertu.com)

Sincerely yours,

Hoosamuddin S. Bandukwala, Lab Director

enclosure(s)

## Revision History

Revision	Date	Revised By	Reason for revision
1.0	June 11, 2008	M. Wyman	Original Document
2.0	September, 4, 2008	M. Wyman	TCB changes

(FCC **Certification** (Transmitters) - Revised 9/28/98)

Applicant: Vertu  
FCC ID: P7QRM-266V

**By Applicant:**

1. Letter of Authorization
2. Confidentiality Request: 0.457 And 0.459
3. Identification Drawings, 2.1033(c)(11)
  - Label
  - Location of Label
  - Compliance Statement
  - Location of Compliance Statement
4. Photographs, 2.1033(c)(12)
5. Documentation: 2.1033(c)
  - (3) User Manual
  - (9) Tune Up Info
  - (10) Schematic Diagram
  - (10) Circuit Description
  - Block Diagram
  - Parts List
  - Active Devices
6. MPE/SAR Report

**By F.T.L.:**

- A. Testimonial & Statement of Certification

## **The Applicant has been cautioned as to the following:**

### **15.21 Information to the User.**

The users manual or instruction manual for an intentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

### **15.27(a) Special Accessories.**

Equipment marketed to a consumer must be capable of complying with the necessary regulations in the configuration in which the equipment is marketed. Where special accessories, such as shielded cables and/or special connectors are required to enable an unintentional or intentional radiator to comply with the emission limits in this part, the equipment must be marketed with, i.e. shipped and sold with, those special accessories. However, in lieu of shipping or packaging the special accessories with the unintentional or intentional radiator, the responsible party may employ other methods of ensuring that the special accessories are provided to the consumer, without additional charge.

Information detailing any alternative method used to supply the special accessories for a grant of equipment authorization or retained in the verification records, as appropriate. The party responsible for the equipment, as detailed in § 2.909 of this chapter, shall ensure that these special accessories are provided with the equipment. The instruction manual for such devices shall include appropriate instructions on the first page of text concerned with the installation of the device that these special accessories must be used with the device. It is the responsibility of the user to use the needed special accessories supplied with the equipment.

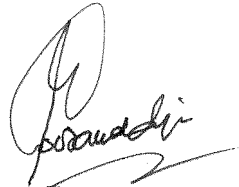


**Testimonial  
and  
Statement of Certification**

**This is to Certify:**

1. **That** the application was prepared either by, or under the direct supervision of, the undersigned.
2. **That** the technical data supplied with the application was taken under my direction and supervision.
3. **That** the data was obtained on representative units, randomly selected.
4. **That**, to the best of my knowledge and belief, the facts set forth in the application and accompanying technical data are true and correct.

Sincerely yours,



Hoosamuddin S. Bandukwala, Lab Director

enclosure(s)

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2.1053(a)	Field Strength of Spurious Radiation	6
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Required information per ISO 17025-2005, paragraph 5.10.2:

a) **Test Report**

b) Laboratory: Flom Test Lab  
(FCC: 31040/SIT) 3356 N. San Marcos Place, Suite 107  
(Canada: IC 2044-A) Chandler, AZ 85225

c) Report Number: d0860019

d) Client: Vertu  
Beacon Hill Road  
Church Crookham, Hampshire GU52 8DY UK

e) Identification: RM-266V

EUT Description: Phone is Quad Band GSM 850/900/1800/1900 - (GSM 850/1900 only apply in USA)  
Dual Band WCDMA 850/2100 (WCDMA 850 only applies in USA)  
WiFi 2.4GHz  
BT 2.4GHz

f) EUT Condition: Not required unless specified in individual tests.

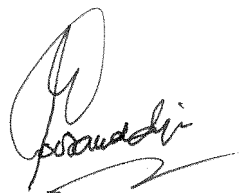
g) Report Date: June 11, 2008  
EUT Received:

h, j, k): As indicated in individual tests.

i) Sampling method: No sampling procedure used.

l) Uncertainty: In accordance with FTL internal quality manual.

m) Supervised by:



Hoosamuddin S. Bandukwala, Lab Director

n) Results: The results presented in this report relate only to the item tested.

o) Reproduction: This report must not be reproduced, except in full, without written permission from this laboratory.

Accessories used during testing:

Type	Quantity	Manufacturer	Model	Serial No.	FCC ID
Battery	1	Vertu	BL-5CV	N/S	N/ID
AC Charger	1	Vertu	AC-7UV	N/S	N/ID
DC Charger	1	Vertu	DC-7V	N/S	N/ID

Sub-part

2.1033(c)(14):

## Test and Measurement Data

All tests and measurement data shown were performed in accordance with FCC Rules and Regulations, Volume II; Part 2, Sub-part J, Sections 2.947, 2.1033(c), 2.1041, 2.1046, 2.1047, 2.1079, 2.1051, 2.1053, 2.1055, 2.1057 and the following individual Parts:

- ☐ 15 – Radio Frequency Devices (unlicensed)
- ☐ 21 – Domestic Public Fixed Radio Services
- ☐ 22 – Public Mobile Services
- ☒ 22 Subpart H - Cellular Radiotelephone Service
- ☐ 22.901(d) - Alternative technologies and auxiliary services
- ☐ 23 – International Fixed Public Radiocommunication services
- ☒ 24 – Personal Communications Services
- ☐ 74 Subpart H - Low Power Auxiliary Stations
- ☐ 80 – Stations in the Maritime Services
- ☐ 80 Subpart E - General Technical Standards
- ☐ 80 Subpart F - Equipment Authorization for Compulsory Ships
- ☐ 80 Subpart K - Private Coast Stations and Marine Utility Stations
- ☐ 80 Subpart S - Compulsory Radiotelephone Installations for Small Passenger Boats
- ☐ 80 Subpart T - Radiotelephone Installation Required for Vessels on the Great Lakes
- ☐ 80 Subpart U - Radiotelephone Installations Required by the Bridge-to-Bridge Act
- ☐ 80 Subpart V - Emergency Position Indicating Radio Beacons (EPIRB'S)
- ☐ 80 Subpart W - Global Maritime Distress and Safety System (GMDSS)
- ☐ 80 Subpart X - Voluntary Radio Installations
- ☐ 87 – Aviation Services
- ☐ 90 – Private Land Mobile Radio Services
- ☐ 94 – Private Operational-Fixed Microwave Service
- ☐ 95 Subpart A - General Mobile Radio Service (GMRS)
- ☐ 95 Subpart C - Radio Control (R/C) Radio Service
- ☐ 95 Subpart D - Citizens Band (CB) Radio Service
- ☐ 95 Subpart E - Family Radio Service
- ☐ 95 Subpart F - Interactive Video and Data Service (IVDS)
- ☐ 97 - Amateur Radio Service
- ☐ 101 – Fixed Microwave Services

## Standard Test Conditions and Engineering Practices

Except as noted herein, the following conditions and procedures were observed during the testing:

In accordance with TIA 603-C 2004, and unless otherwise indicated in the specific measurement results, the ambient temperature of the actual EUT was maintained within the range of 10° to 40°C (50° to 104 °F) unless the particular equipment requirements specify testing over a different temperature range. Also, unless otherwise indicated, the humidity levels were in the range of 10% to 90% relative humidity.

Measurement results, unless otherwise noted, are worst-case measurements.

### **A2LA**

“A2LA has accredited Flom Test Labs, Inc. Chandler, AZ for technical competence in the field of Electrical testing. The accreditation covers the specific tests and types of tests listed on the agreed scope of accreditation. This laboratory meets the requirements of ISO 17025:2005 ‘General Requirements for the Competence of Testing and Calibration Laboratories’ and any additional program requirements in the identified field of testing.”

Please refer to [www.a2la.org](http://www.a2la.org) for current scope of accreditation.

Certificate number: 2152.01



**IC O.A.T.S. Number: 2044A-1**

## List of General Information Required for Certification

In Accordance with FCC Rules and Regulations,  
Volume II, Part 2 and to Part 22, 24

Sub-part 2.1033

(c)(1):

**Name and Address of Applicant:**

Vertu  
Beacon Hill Road  
Church Crookham, Hampshire GU52 8DY UK

**Manufacturer:**

Vertu  
Beacon Hill Road  
Church Crookham, Hampshire GU52 8DY UK

(c)(2): **FCC ID:**

P7QRM-266V

**Model Number:**

RM-266V

(c)(3): **Instruction Manual(s):**

Please see attached exhibits

(c)(4): **Type of Emission:**

256K0GXW

(c)(5): **Frequency Range, MHz:**

824 – 848,

(c)(6): **Power Rating, Watts:**

\_\_\_\_\_ Switchable

\_\_\_\_\_ Variable

Data Provided in additional report

\_\_\_\_\_ N/A

**FCC Grant Note:**

(c)(7): **Maximum Power Rating, Watts:**

2.0

**DUT Results:**

Passes \_\_\_\_\_ x \_\_\_\_\_ Fails \_\_\_\_\_

(c)(8): **Tune-Up Procedure:**

Please see attached exhibits

(c)(9): **Circuit Diagram/Circuit Description:**

Including description of circuitry & devices provided for determining and stabilizing frequency, for suppression of spurious radiation, for limiting modulation and limiting power.

Please see attached exhibits

(c)(10): **Label Information:**

Please see attached exhibits

(c)(11): **Photographs:**

Please see attached exhibits

(c)(12): **Digital Modulation Description:**

☐ Attached Exhibits

☒ N/A

(c)(13): **Test and Measurement Data:**

Follows

**Name of Test:** Field Strength of Spurious Radiation  
**Specification:** 2.1053(a)  
**Test Equipment Utilized:** See Equipment List for Details

**Test Date:** June 10, 11, 2008

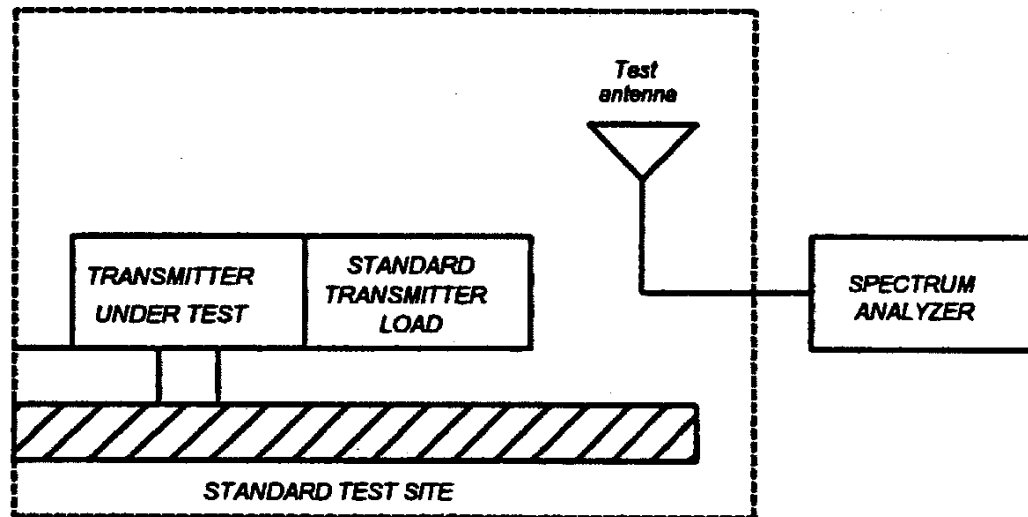
### Measurement Procedure

#### Definition:

Radiated spurious emissions are emissions from the equipment when transmitting into a non-radiating load on a frequency or frequencies which are outside an occupied band sufficient to ensure transmission of information of required quality for the class of communications desired.

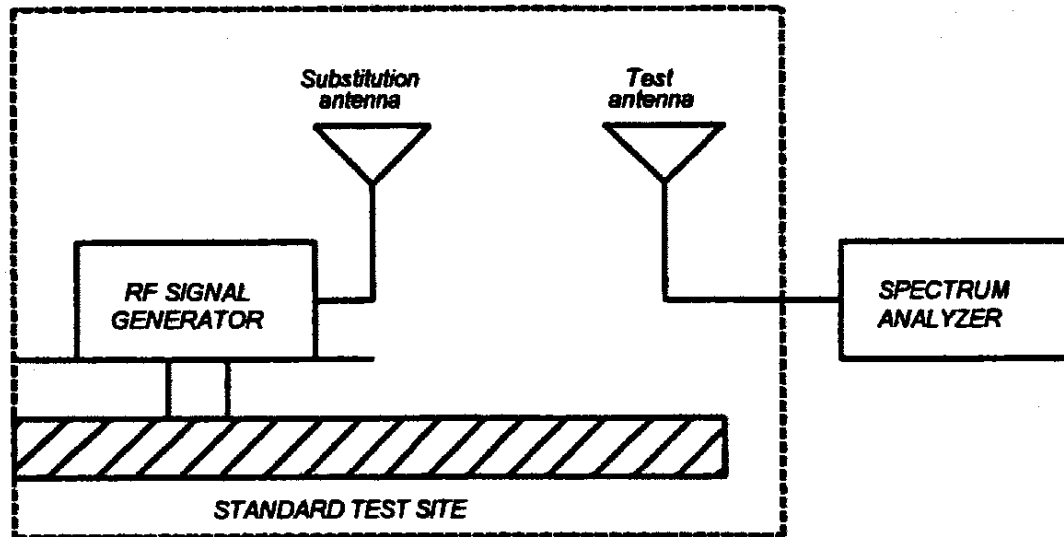
#### Method of Measurement:

- A) Connect the equipment as illustrated
- B) Adjust the spectrum analyzer for the following settings:
  - 1) Resolution Bandwidth 100 kHz (<1 GHz), 1 MHz (> 1GHz).
  - 2) Video Bandwidth  $\geq 3$  times Resolution Bandwidth, or 30 kHz (22.917)
  - 3) Sweep Speed  $\leq 2000$  Hz/second
  - 4) Detector Mode = Mean or Average Power
- C) Place the transmitter to be tested on the turntable in the standard test site. The transmitter is transmitting into a non-radiating load that is placed on the turntable. The RF cable to this load should be of minimum length.



- D) For each spurious measurement the test antenna should be adjusted to the correct length for the frequency involved. This length may be determined from a calibration ruler supplied with the equipment. Measurements shall be made from the lowest radio frequency generated in the equipment to the tenth harmonic of the carrier, except for the region close to the carrier equal to  $\pm$  the test bandwidth (see section 1.3.4.4).
- E) For each spurious frequency, raise and lower the test antenna from 1 m to 4 m to obtain a maximum reading on the spectrum analyzer with the test antenna at horizontal polarity. Repeat this procedure to obtain the highest possible reading. Record this maximum reading.
- F) Repeat step E) for each spurious frequency with the test antenna polarized vertically.
- G) Reconnect the equipment as illustrated.





- H) Keep the spectrum analyzer adjusted as in step B).
- I) Remove the transmitter and replace it with a substitution antenna (the antenna should be half-wavelength for each frequency involved). The center of the substitution antenna should be approximately at the same location as the center of the transmitter. At lower frequencies, where the substitution antenna is very long, this will be impossible to achieve when the antenna is polarized vertically. In such case the lower end of the antenna should be 0.3 m above the ground.
- J) Feed the substitution antenna at the transmitter end with a signal generator connected to the antenna by means of a non-radiating cable. With the antennas at both ends horizontally polarized and with the signal generator tuned to a particular spurious frequency, raise and lower the test antenna to obtain a maximum reading at the spectrum analyzer. Adjust the level of the signal generator output until the previously recorded maximum reading for this set of conditions is obtained. This should be done carefully repeating the adjustment of the test antenna and generator output.
- K) Repeat step J) with both antennas vertically polarized for each spurious frequency.
- L) Calculate power in dBm into a reference ideal half-wave dipole antenna by reducing the readings obtained in steps J) and K) by the power loss in the cable between the generator and the antenna and further corrected for the gain of the substitution antenna used relative to an ideal half-wave dipole antenna.
- M) The levels recorded in step L) are absolute levels of radiated spurious emissions in dBm. The radiated spurious emissions in dB can be calculated by the following:

Radiated spurious emissions dB =

$$10\log_{10}(\text{TX power in watts}/0.001) - \text{the levels in step I)}$$

*NOTE: It is permissible that other antennas provided can be referenced to a dipole.*

**Name of Test:** Field Strength of Spurious Radiation

**Measurement Results Part 22**

**Sample calculation**

Spurious Power – Radiated EIRP = Spurious dBc

**Limit calculation**

$P_{lim} = 43 + 10\log(P) = 58.58\text{dBm}$

**Fundamental EIRP value = 36.10dbm**

g0840007: 2008-Apr-08 Tue 08:01:00

STATE: 2:High Power GSM

Ambient Temperature: 23°C ± 3°C

Tuned Frequency (MHz)	Emission Frequency (MHz)	Analyzer Level, dBuV/m	Correction Factor, dB	Measured Power dBm EIRP	Spurious dBc
824.200000	1648.390000	17.3	29.9	-50.2	-86.3
824.200000	2472.590000	16.1	33.4	-47.9	-84.0
824.200000	3296.790000	11.0	35.8	-50.5	-86.6
824.200000	4120.990000	10.5	37.1	-49.8	-85.9
824.200000	4945.190000	10.9	39.1	-47.4	-83.5
824.200000	5769.390000	12.3	40.6	-44.5	-80.6
824.200000	6593.590000	16.6	41.9	-38.8	-74.9
824.200000	7417.790000	16.0	44.2	-37.2	-73.3

**Name of Test:** Field Strength of Spurious Radiation

**Measurement Results Part 22**

**Sample calculation**

Spurious Power – Radiated EIRP = Spurious dBc

**Limit calculation**

$P_{lim} = 43 + 10\log(P) = 58.45\text{dBm}$

**Fundamental EIRP value = 35.10dbm**

**Measurement Results**

g0860024: 2008-Jun-10 Tue 11:04:00  
STATE: 2:High Power GSM

Ambient Temperature: 23°C ± 3°C

Tuned Frequency (MHz)	Emission Frequency (MHz)	Analyzer Level, dBuV/m	Correction Factor, dB	Measured Power dBm EIRP	Spurious dBc
836.600000	1673.280000	24.1	30.0	-43.2	-78.3
836.600000	2509.880000	11.1	33.5	-52.8	-87.9
836.600000	3346.480000	9.7	35.9	-51.8	-86.9
836.600000	4183.080000	9.7	37.2	-50.5	-85.3
836.600000	5019.680000	11.8	39.3	-46.2	-81.3
836.600000	5856.280000	16.3	40.6	-40.5	-75.6
836.600000	6692.880000	17.8	42.4	-37.4	-72.5
836.600000	7529.480000	15.9	44.5	-37.0	-72.1
836.600000	8366.080000	16.3	45.7	-35.3	-70.4

**Name of Test:** Field Strength of Spurious Radiation

### Measurement Results Part 22

#### Sample calculation

Spurious Power – Radiated EIRP = Spurious dBc

#### Limit calculation

$P_{lim} = 43 + 10\log(P) = 58.34\text{dBm}$

Fundamental EIRP value = 34.20dbm

### Measurement Results

g0860025: 2008-Jun-10 Tue 11:11:00

STATE: 2:High Power GSM

Ambient Temperature: 23°C ± 3°C

Tuned Frequency (MHz)	Emission Frequency (MHz)	Analyzer Level, dBuV/m	Correction Factor, dB	Measured Power dBm EIRP	Spurious dBc
848.800000	1697.660000	21.8	30.2	-45.4	-79.6
848.800000	2546.460000	10.5	33.7	-53.2	-87.4
848.800000	3395.260000	10.5	36.0	-50.9	-85.1
848.800000	4244.060000	11.3	37.3	-48.8	-83.0
848.800000	5092.860000	12.7	39.5	-45.2	-79.4
848.800000	5941.660000	16.7	40.7	-40.0	-74.2
848.800000	6790.460000	16.5	42.4	-38.5	-72.7
848.800000	7639.260000	16.3	44.6	-36.5	-70.4
848.800000	8488.060000	14.9	45.9	-36.5	-70.4

**Name of Test:** Field Strength of Spurious Radiation

**Measurement Results Part 22**

**Sample calculation**

Spurious Power – Radiated EIRP = Spurious dBc

**Limit calculation**

$P_{lim} = 43 + 10\log(P) = 43.15\text{dBm}$

**Fundamental EIRP value = 36.35**

**Measurement Results**

g0860026: 2008-Jun-10 Tue 12:46:00

STATE: 2:High Power CDMA

Ambient Temperature: 23°C ± 3°C

Tuned Frequency (MHz)	Emission Frequency (MHz)	Analyzer Level, dBuV/m	Correction Factor, dB	Measured Power dBm EIRP	Spurious dBc
826.400000	1650.900000	18.4	29.9	-49.1	-85.5
826.400000	3305.570000	11.2	35.9	-50.3	-71.0
826.400000	4131.970000	9.5	37.1	-50.7	-87.1
826.400000	4958.370000	10.5	39.2	-47.7	-84.1
826.400000	5784.770000	12.2	40.6	-44.6	-80.1
826.400000	6611.170000	16.3	42.0	-39.1	-75.5
826.400000	7437.570000	16.1	44.2	-37.1	-73.5
826.400000	8263.970000	16.7	45.6	-35.1	-71.5

**Name of Test:** Field Strength of Spurious Radiation

### Measurement Results Part 22

#### Sample calculation

Spurious Power – Radiated EIRP = Spurious dBc

#### Limit calculation

$P_{lim} = 43 + 10\log(P) = 58.59\text{dBm}$

**Fundamental EIRP value = 36.22**

### Measurement Results

g0860027: 2008-Jun-10 Tue 13:18:00

STATE: 2:High Power CDMA

Ambient Temperature: 23°C ± 3°C

Tuned Frequency (MHz)	Emission Frequency (MHz)	Analyzer Level, dBuV/m	Correction Factor, dB	Measured Power dBm EIRP	Spurious dBc
835.000000	1668.540000	16.8	30.0	-50.6	-86.0
835.000000	2504.980000	11.3	33.5	-52.6	-88.8
835.000000	3339.980000	10.3	35.9	-51.2	-87.4
835.000000	4174.980000	10.1	37.2	-50.1	-86.3
835.000000	5009.980000	10.8	39.3	-47.2	-83.4
835.000000	5844.980000	16.7	40.6	-40.1	-76.3
835.000000	6679.980000	18.5	42.1	-36.7	-72.9
835.000000	7514.980000	16.0	44.4	-36.9	-73.1
835.000000	8349.980000	17.8	45.7	-33.9	-70.1

**Name of Test:** Field Strength of Spurious Radiation

**Measurement Results Part 22**

**Sample calculation**

Spurious Power – Radiated EIRP = Spurious dBc

**Limit calculation**

$P_{lim} = 43 + 10\log(P) = 58.57\text{dBm}$

**Fundamental EIRP value = 36.08**

**Measurement Results**

g0860028: 2008-Jun-10 Tue 13:31:00

STATE: 2:High Power CDMA

Ambient Temperature: 23°C ± 3°C

Tuned Frequency (MHz)	Emission Frequency (MHz)	Analyzer Level, dBuV/m	Correction Factor, dB	Measured Power dBm EIRP	Spurious dBc
846.600000	1691.480000	17.2	30.1	-50.0	-86.1
846.600000	2538.080000	10.6	33.6	-53.1	-89.1
846.600000	3386.400000	10.9	36.0	-50.5	-86.6
846.600000	4233.000000	10.1	37.2	-50.0	-86.1
846.600000	5079.600000	11.5	39.5	-46.4	-82.5
846.600000	5926.200000	17.8	40.7	-38.9	-75.0
846.600000	6772.800000	16.0	42.3	-39.1	-75.2
846.600000	7619.400000	15.9	44.6	-36.9	-73.0
846.600000	8466.000000	17.2	45.9	-34.3	-70.9

**Name of Test:** Field Strength of Spurious Radiation

**Measurement Results Part 22**

**Sample calculation**

Spurious Power – Radiated EIRP = Spurious dBc

**Limit calculation**

$P_{lim} = 43 + 10\log(P) = 58.58\text{dBm}$

**Fundamental EIRP value = 36.10dbm**

**Measurement Results**

g0860029: 2008-Jun-11 Wed 09:43:00

STATE: 2:High Power E-GPRS

Ambient Temperature: 23°C ± 3°C

Tuned Frequency (MHz)	Emission Frequency (MHz)	Analyzer Level, dBuV/m	Correction Factor, dB	Measured Power dBm EIRP	Spurious dBc
824.200000	1648.395000	20.4	29.9	-47.1	-83.2
824.200000	2472.895000	16.2	33.4	-47.8	-83.9
824.200000	3297.095000	5.9	35.8	-55.6	-91.7
824.200000	4121.295000	5.3	37.1	-55.0	-91.1
824.200000	4945.495000	6.1	39.1	-52.2	-80.3
824.200000	5769.695000	4.6	40.6	-52.2	-80.3
824.200000	6593.600000	9.1	41.9	-46.3	-82.4
824.200000	7417.800000	8.7	44.2	-44.5	-80.6
824.200000	8242.000000	8.4	45.5	-43.4	-79.5



**Name of Test:** Field Strength of Spurious Radiation

**Measurement Results Part 22**

**Sample calculation**

Spurious Power – Radiated EIRP = Spurious dBc

**Limit calculation**

$P_{lim} = 43 + 10\log(P) = 58.45\text{dBm}$

**Fundamental EIRP value = 35.15dbm**

**Measurement Results**

g0860030: 2008-Jun-11 Wed 09:52:00

STATE: 2:High Power E-GPRS

Ambient Temperature: 23°C ± 3°C

Tuned Frequency (MHz)	Emission Frequency (MHz)	Analyzer Level, dBuV/m	Correction Factor, dB	Measured Power dBm EIRP	Spurious dBc
836.600000	1673.280000	18.4	30.0	-48.9	-84.1
836.600000	2509.880000	6.5	33.5	-57.4	-92.6
836.600000	3346.480000	5.2	35.9	-56.3	-91.5
836.600000	4183.080000	6.9	37.2	-53.3	-88.5
836.600000	5019.680000	5.7	39.3	-52.3	-87.5
836.600000	5856.280000	8.8	40.6	-48.0	-83.2
836.600000	6692.880000	9.9	42.2	-45.3	-80.5
836.600000	7529.480000	8.9	44.5	-44.0	-79.2
836.600000	8366.080000	8.3	45.7	-43.3	-78.4

**Name of Test:** Field Strength of Spurious Radiation

**Measurement Results Part 22**

**Sample calculation**

Spurious Power – Radiated EIRP = Spurious dBc

**Limit calculation**

$P_{lim} = 43 + 10\log(P) = 58.34\text{dBm}$

**Fundamental EIRP value = 34.20dbm**

**Measurement Results**

g0860031: 2008-Jun-11 Wed 10:03:00

STATE: 2:High Power E-GPRS

Ambient Temperature: 23°C ± 3°C

Tuned Frequency (MHz)	Emission Frequency (MHz)	Analyzer Level, dBuV/m	Correction Factor, dB	Measured Power dBm EIRP	Spurious dBc
848.800000	1697.710000	43.7	30.2	-23.5	-57.7
848.800000	2546.510000	5.6	33.7	-58.1	-92.3
848.800000	3395.310000	6.1	36.0	-55.3	-89.5
848.800000	4244.110000	5.7	37.3	-54.4	-88.6
848.800000	5092.910000	6.4	39.5	-51.5	-85.7
848.800000	5941.710000	8.7	40.7	-48.0	-82.2
848.800000	6790.510000	8.4	42.4	-46.6	-80.8
848.800000	7639.310000	9.4	44.6	-43.4	-77.6
848.800000	8488.110000	8.9	45.9	-42.5	-76.7

**Name of Test:** Field Strength of Spurious Radiation

### Measurement Results Part 24

#### Sample calculation

Spurious Power – Radiated EIRP = Spurious dBc

#### Limit calculation

$P_{lim} = 43 + 10 \log (P) =$

**Fundamental EIRP value = 44.80dbm**

### Measurement Results

g0860032: 2008-Jun-11 Wed 10:11:00

STATE: 2:High Power GSM

Ambient Temperature: 23°C ± 3°C

Tuned Frequency (MHz)	Emission Frequency (MHz)	Analyzer Level, dBuV/m	Correction Factor, dB	Measured Power dBm EIRP	Spurious dBc
1850.200000	3700.525000	25.2	36.5	-35.7	-80.5
1850.200000	5550.725000	6.3	40.4	-50.6	-95.4
1850.200000	7400.925000	9.4	44.1	-43.9	-88.7
1850.200000	9251.125000	7.8	47.0	-42.6	-87.4
1850.200000	11101.325000	8.2	49.5	-39.7	-84.5
1850.200000	12951.525000	12.8	51.4	-33.1	-77.9
1850.200000	14801.725000	14.4	56.9	-26.1	-70.9
1850.200000	16651.925000	13.9	39.2	-44.3	-89.1

**Name of Test:** Field Strength of Spurious Radiation

**Measurement Results Part 24**

**Sample calculation**

Spurious Power – Radiated EIRP = Spurious dBc

**Limit calculation**

Plim =  $43 + 10 \log(P)$  = **59.56dBm**

**Fundamental EIRP value = 45.30dbm**

**Measurement Results**

g0860033: 2008-Jun-11 Wed 10:21:00

STATE: 2:High Power GSM

Ambient Temperature: 23°C ± 3°C

Tuned Frequency (MHz)	Emission Frequency (MHz)	Analyzer Level, dBuV/m	Correction Factor, dB	Measured Power dBm EIRP	Spurious dBc
1880.000000	3760.000000	4.9	36.6	-55.9	-101.2
1880.000000	5640.000000	5.5	40.5	-51.4	-96.7
1880.000000	7520.000000	9.0	44.4	-43.9	-89.2
1880.000000	9400.000000	8.1	47.1	-42.2	-87.5
1880.000000	11280.000000	10.7	49.8	-36.9	-82.2
1880.000000	13160.000000	13.7	52.0	-31.6	-76.9
1880.000000	15040.000000	38.0	40.7	-38.7	-84.0
1880.000000	16920.000000	13.1	40.2	-44.1	-89.4

**Name of Test:** Field Strength of Spurious Radiation

### Measurement Results Part 24

#### Sample calculation

Spurious Power – Radiated EIRP = Spurious dBc

#### Limit calculation

Plim =  $43 + 10 \log (P)$  =

**Fundamental EIRP value = 45.20dbm**

### Measurement Results

g0860034: 2008-Jun-11 Wed 10:28:00

STATE: 2:High Power GSM

Ambient Temperature: 23°C ± 3°C

Tuned Frequency (MHz)	Emission Frequency (MHz)	Analyzer Level, dBuV/m	Correction Factor, dB	Measured Power dBm EIRP	Spurious dBc
1909.800000	3819.600000	5.0	36.7	-55.7	-100.9
1909.800000	5729.400000	6.6	40.6	-50.2	-95.4
1909.800000	7639.200000	8.3	44.6	-44.5	-89.2
1909.800000	9549.000000	8.4	47.3	-41.7	-86.9
1909.800000	11458.800000	10.6	50.1	-36.6	-81.8
1909.800000	13368.600000	15.2	52.7	-29.4	-74.6
1909.800000	15278.400000	12.9	39.4	-45.0	-90.2
1909.800000	17188.200000	13.9	41.4	-42.1	-87.3

**Name of Test:** Field Strength of Spurious Radiation

### Measurement Results Part 24

#### Sample calculation

Spurious Power – Radiated EIRP = Spurious dBc

#### Limit calculation

Plim =  $43 + 10 \log(P)$  = **59.49dBm**

**Fundamental EIRP value = 44.60dbm**

### Measurement Results

g0860035: 2008-Jun-11 Wed 10:33:00

STATE: 2:High Power E-GPRS

Ambient Temperature: 23°C ± 3°C

Tuned Frequency (MHz)	Emission Frequency (MHz)	Analyzer Level, dBuV/m	Correction Factor, dB	Measured Power dBm EIRP	Spurious dBc
1850.200000	3700.400000	6.0	36.5	-54.9	-99.5
1850.200000	5550.600000	6.0	40.4	-50.9	-95.5
1850.200000	7400.800000	8.4	44.1	-44.9	-89.5
1850.200000	9251.000000	8.1	47.0	-42.3	-86.9
1850.200000	11101.200000	9.3	49.5	-38.6	-83.2
1850.200000	12951.400000	12.9	51.4	-33.0	-77.6
1850.200000	14801.600000	12.8	56.9	-27.7	-72.3
1850.200000	16651.800000	14.5	39.2	-43.7	-88.3

**Name of Test:** Field Strength of Spurious Radiation

**Measurement Results Part 24**

**Sample calculation**

Spurious Power – Radiated EIRP = Spurious dBc

**Limit calculation**

Plim =  $43 + 10 \log(P)$  = **59.55dBm**

**Fundamental EIRP value = 45.20dbm**

**Measurement Results**

g0860036: 2008-Jun-11 Wed 10:40:00

STATE: 2:High Power E-GPRS

Ambient Temperature: 23°C ± 3°C

Tuned Frequency (MHz)	Emission Frequency (MHz)	Analyzer Level, dBuV/m	Correction Factor, dB	Measured Power dBm EIRP	Spurious dBc
1880.000000	3760.000000	4.9	36.6	-55.9	-101.1
1880.000000	5640.000000	5.1	40.5	-51.8	-97.0
1880.000000	7520.000000	8.3	44.4	-44.6	-89.8
1880.000000	9400.060000	9.8	47.1	-40.5	-85.7
1880.000000	11280.060000	9.0	49.8	-38.6	-83.8
1880.000000	13160.060000	13.2	52.0	-32.1	-77.3
1880.000000	15040.060000	12.9	40.7	-43.8	-89.0
1880.000000	16920.060000	14.6	40.2	-42.6	-87.8

**Name of Test:** Field Strength of Spurious Radiation

**Measurement Results Part 24**

**Sample calculation**

Spurious Power – Radiated EIRP = Spurious dBc

**Limit calculation**

$P_{lim} = 43 + 10 \log(P) = 59.55$

**Fundamental EIRP value = 45.25dbm**

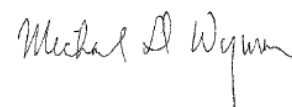
**Measurement Results**

g0860037: 2008-Jun-11 Wed 10:59:00

STATE: 2:High Power E-GPRS

Ambient Temperature: 23°C ± 3°C

Tuned Frequency (MHz)	Emission Frequency (MHz)	Analyzer Level, dBuV/m	Correction Factor, dB	Measured Power dBm EIRP	Spurious dBc
1909.800000	3819.600000	5.5	36.7	-55.2	-100.5
1909.800000	5729.400000	7.5	40.6	-49.3	-94.6
1909.800000	7639.200000	10.1	44.6	-42.7	-88.0
1909.800000	9549.000000	9.5	47.3	-40.6	-85.9
1909.800000	11458.800000	8.5	50.1	-38.7	-84.0
1909.800000	13368.600000	13.0	52.7	-31.6	-76.9
1909.800000	15278.400000	14.6	39.4	-43.3	-88.6
1909.800000	17188.200000	13.7	41.4	-42.3	-87.6



Performed by:

Michael Wyman



### Test Equipment Utilized

Description	MFG	Model Number	FTL Asset Number	Last Cal Date	Cal Due Date
RF Pre-Amplifier	HP	8449	i00028	1/23/07	1/23/09
Spectrum Analyzer	HP	8563E	i00029	3/9/07	3/9/08
Spectrum Analyzer	HP	8566B	i00049	8/18/07	8/18/08
Bi Con Antenna	EMCO	3109B	i00088	10/15/07	10/15/09
Log Periodic Antenna	Aprel	2001	i00089	10/22/07	10/22/09
Monopole Antenna	Ailtech	DM-105A-T1,T2, T3	i00037, 39 i00042, 48	Verified	Verified
Horn Antenna	EMCO	3115	i00103	9/5/06	9/5/08
Horn Antenna	Aprel	3115	i00091	NCR	NCR
Power Meter	HP	E4418B	i00228	9/6/07	9/6/08
Power sensor	HP	8481A	i00317	9/6/07	9/6/08
Spectrum Analyzer	HP	8566B	i00329	5/05/08	5/05/09
Voltmeter	Fluke	87III	i00319	11/05/07	11/05/08
Temperature Chamber	Tenney	Tenney Jr.	i00027	9/25/07	9/25/08
Audio Analyzer	HP	8903A	i00324	9/14/07	9/14/08
Modulation Analyzer	HP	8901A	i00321	9/17/07	9/17/08
Frequency Counter	HP	5334A	i00019	11/20/07	11/29/08
Power Supply	HP	6286A	i00005	NCR	NCR
Signal Generator	R&S	SMT-03	i00266	NCR	NCR

In addition to the above listed equipment standard RF connectors and cables were utilized in the testing of the described equipment. Prior to testing these components were tested to verify proper operation.

### END OF TEST REPORT