



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

toll-free: (866) 311-3268  
fax: (480) 926-3598  
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[info@flomlabs.com](mailto:info@flomlabs.com)

Date: April 25, 2007

Federal Communications Commission  
Via: Electronic Filing

Attention: Authorization & Evaluation Division

Applicant: Vertu  
Equipment: Ascent Ti  
FCC ID: P7QRM-267V  
FCC Rules: 15.247, 22H, 24E

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.

Filing fees are attached.

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)  
cc: Applicant  
HSB/mdw

Flom Test Labs  
3356 North San Marcos Place, Suite 107  
Chandler, Arizona 85225-7176  
(866) 311-3268 phone, (480) 926-3598 fax

MFA p0730009, d0740055



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## Transmitter Certification

of

Model: Ascent Ti

to

**Federal Communications Commission**

Rule Part(s) 15.247, 22H, 24E

Date of report: April 25, 2007

### 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)

### Supervised by:

Hoosamuddin S. Bandukwala, Lab Director

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MFA p0730009, d0740055

## List of Exhibits

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

Applicant: Vertu

FCC ID: P7QRM -267V

### 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 M.F.A. Inc.:

- A. Testimonial & Statement of Certification

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3356 North San Marcos Place, Suite 107  
Chandler, Arizona 85225-7176  
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MFA p0730009, d0740055

**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.

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2.1053(a)	Field Strength of Spurious Radiation	7

Required information per ISO 17025-1995:

a) **Test Report**

b) Laboratory: M. Flom Associates, Inc.  
 (FCC: 31040/SIT) 3356 N. San Marcos Place, Suite 107  
 (Canada: IC 2044) Chandler, AZ 85225

c) Report Number: d0740055

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

e) Identification: Model: Ascent Ti  
 Type: RM-267V  
 FCC ID: P7QRM-267V  
 SNR: 004400/58/178683/5  
 EUT Description: Mobile phone with BT

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

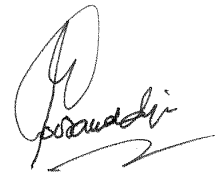
g) Report Date: April 25, 2007  
 EUT Received:

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

i) Sampling method: No sampling procedure used.

l) Uncertainty: In accordance with MFA 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				BL-5CV, N/S	
AC Charger				AC-7UV	
DC Charger				DC-7V	
Data Cable				CA-101V	

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

### A2LA

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"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**



## List of General Information Required for Certification

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

22H, 24E

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-267V

**Model Number:** Ascent Ti

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

Please see attached exhibits

(c)(4): **Type of Emission:** 256KGXW

(c)(5): **Frequency Range, MHz:** 1850 to 1910  
824 to 848

(c)(6): **Power Rating, Watts:**  
\_\_\_\_\_ Switchable \_\_\_\_\_ Variable \_\_\_\_\_ x N/A

**FCC Grant Note:**

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

**DUT Results:** Passes \_\_\_\_\_ x Fails \_\_\_\_\_

(c)(10): **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)(11): **Label Information:**

Please see attached exhibits

(c)(12): **Photographs:**

Please see attached exhibits

(c)(13): **Digital Modulation Description:**

☐ Attached Exhibits  
☒ N/A

(c)(14): **Test and Measurement Data:**

Follows

**Additional Information Supplied by Applicant:**

The new Phone Model Ascent Ti is a solidly constructed, hand assembled and crafted product of unique design, designed for a low volume bespoke market.

The construction is such that the Engine module is shielded on both sides, which defines the performance of the phone, from an EMC perspective.

The frame of the phone is of a Solid metal construction; more commonly associated with watches/ jewelry etc. This compares with most phones, where plastics are more extensively used. The metal Bezel frames provide only secondary shielding from an EMC perspective

The mechanical construction of this phone is now proven, having previously been used on the Vertu Model: MMII, Signature, Ascent and Constellation products.

The specialty nature of this product, its high price and exclusivity, means that it will only ever be sold in Limited Volumes. This Luxury market presents high customer demands in terms of additional exclusivity and service. The materials used in the phone are somewhat unique, for example: Metals– various, Ceramics, Leathers, Sapphire Glass, Diamond, colors, polished and matte finish etc.

From a Test perspective, The Engineering models are (and can only from an economic point of view), be constructed from Entry Level Materials (largely Stainless Steel). This is possible as the performance of stainless steel, acting as secondary screening only, is no worse than when other materials are used.

For some exclusive customers, the Titanium and Stainless Steel metal parts may be replaced by other Yellow and White metals– eg Gold/Silver/Platinum etc. Being a fashion item, correspondingly ceramics and leathers may also change be fitted in differing shades of Finish (Matte to Polished) and colors. All of these things may be in mix and match combination, with the general Rule that Metal is only replaced by Metal, and Ceramic, by Ceramic.

The Most exclusive Customers may request the additional use of decorative diamonds, on the outer surface of the metals. This may be in different degrees to suit customer requirements and taste.

All of the above finishes will be sold using a single model Name: Ascent Ti, and FCCID: P7QRM-267V to fulfill the requirements of this unique and very limited volume market, as they all offer the same performance and are electrically identical.

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

**Specification:** 47 CFR 2.1053(a)

**Guide:** ANSI/TIA/EIA-603-1992/2001, Paragraph 1.2.12 and Table 16, 47 CFR 22.917

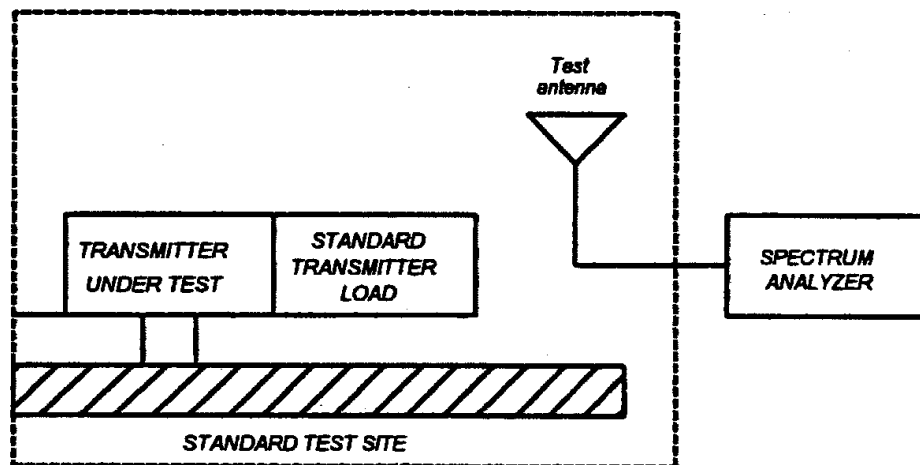
### Measurement Procedure

#### 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.

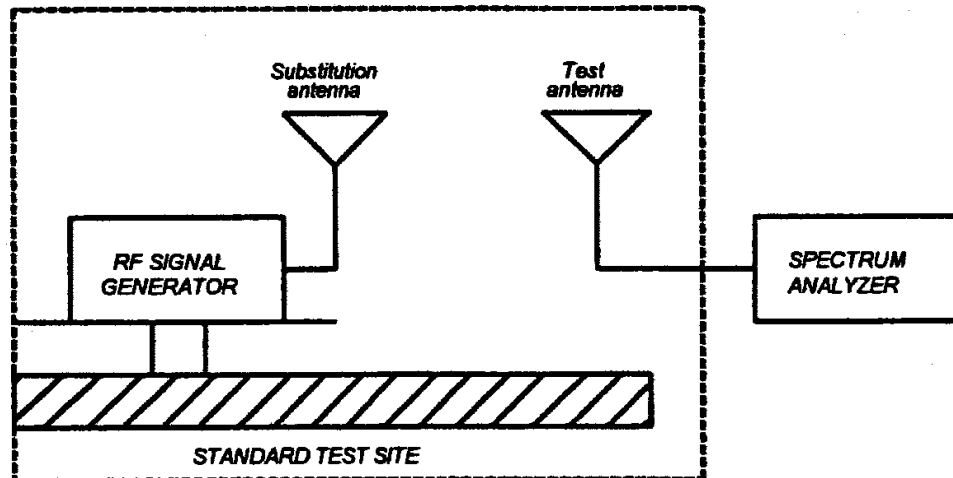
#### Method of Measurement:

- 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 = 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.



**Name of Test:** Field Strength of Spurious Radiation (Cont.)

- 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.

**Name of Test:** Field Strength of Spurious Radiation (Cont.)

- 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*

**Test Equipment**

Asset	Description	s/n	Cycle	Last Cal
<b>Transducer</b>				
i00088	EMCO 3109-B 25MHz-300MHz	2336	12 mo.	Oct-06
X i00089	Apriel 2001 200MHz-1GHz	001500	12 mo.	Oct-06
X i00103	EMCO 3115 1GHz-18GHz	9208-3925	12 mo.	Sep-06
<b>Amplifier</b>				
X i00028	HP 8449A	2749A00121	12 mo.	Jun-06
<b>Spectrum Analyzer</b>				
X i00029	HP 8563E	3213A00104	12 mo.	Jan-06
i00033	HP 85462A	3625A00357	12 mo.	
<b>Substitution Generator</b>				
X i00067	HP 8920A Communication TS	3345U01242	12 mo.	Jun-06
i00207	HP 8753D Network Analyzer	3410A08514	12 mo.	

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

### Measurement Results Part 22

#### Sample calculation

Spurious Power – Radiated ERP = Spurious dBc

#### Limit calculation

$P_{lim} = 43 + 10\log(P) = 58.60\text{dBc}$

**Fundamental ERP value = 36.20dbm**

### Summary Results Table

g0740276: 2007-Apr-23 Mon 13:20:00

STATE: 2:High Power GSM

Ambient Temperature: 23°C ± 3°C

Tuned Frequency (MHz)	Emission Frequency (MHz)	Analyzer Level, dBm	Correction Factor, dB	Calculated Power dBrm	Spurious dBrm
824.200000	1648.400000	-82.88	32.1	-50.7	-86.9
824.200000	2472.600000	-82.88	35.7	-47.2	-83.4
824.200000	3296.800000	-76.18	39.2	-37.0	-73.2
824.200000	4121.000000	-90.88	42.3	-48.6	-84.8
824.200000	4945.200000	-94.68	44.5	-50.2	-86.4
824.200000	5769.400000	-94.48	46.8	-47.7	-83.9
824.200000	6593.600000	-92.98	48.2	-44.8	-81.0
824.200000	7417.800000	-92.38	50.6	-41.7	-77.9
824.200000	8242.000000	-93.38	52.4	-41.0	-77.2

Data was observed to the 10<sup>th</sup> harmonic. There were no observable emissions past the 9<sup>th</sup> harmonic.

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

**Measurement Results Part 22**

**Limit calculation**

$$P_{lim} = 43 + 10\log(P) = \mathbf{58.60dBc}$$

**Fundamental ERP value = 35.20dbm**

g0740277: 2007-Apr-23 Mon 13:59:00

STATE: 2:High Power GSM

Ambient Temperature: 23°C ± 3°C

Tuned Frequency (MHz)	Emission Frequency (MHz)	Analyzer Level, dBm	Correction Factor, dB	Calculated Power dBM	Spurious dBM
836.600000	1673.200000	-83.5	32.3	-51.2	-86.4
836.600000	2509.800000	-85.9	35.8	-50.1	-85.2
836.600000	3346.400000	-81.0	39.4	-41.6	-76.8
836.600000	4183.000000	-94.5	42.3	-52.2	-87.4
836.600000	5019.600000	-94.4	44.8	-49.6	-84.8
836.600000	5856.200000	-96.2	46.9	-49.3	-84.5
836.600000	6692.800000	-92.7	48.4	-44.3	-79.5
836.600000	7529.400000	-93.2	51.0	-42.2	-77.4
836.600000	8366.000000	-94.0	52.6	-41.4	-76.6

Data was observed to the 10<sup>th</sup> harmonic. There were no observable emissions past the 9<sup>th</sup> harmonic.



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

**Measurement Results Part 22**

**Limit calculation**

$$P_{lim} = 43 + 10\log(P) = \mathbf{58.30dBc}$$

**Fundamental ERP value = 34.00dbm**

g0740278: 2007-Apr-23 Mon 14:10:00

STATE: 2:High Power GSM

Ambient Temperature: 23°C ± 3°C

Tuned Frequency (MHz)	Emission Frequency (MHz)	Analyzer Level, dBm	Correction Factor, dB	Calculated Power, dBm	Spurious, dBc
848.800000	1697.600000	-82.4	32.4	-50.0	-84.0
848.800000	2546.400000	-85.4	36.0	-49.4	-83.4
848.800000	3395.200000	-92.0	39.6	-52.4	-86.4
848.800000	4244.000000	-93.9	42.4	-51.5	-85.5
848.800000	5092.800000	-93.9	45.0	-48.9	-82.9
848.800000	5941.600000	-94.5	47.0	-47.5	-81.5
848.800000	6790.400000	-93.4	48.6	-44.8	-78.8
848.800000	7639.200000	-94.2	51.2	-43.0	-77.0
848.800000	8488.000000	-92.2	52.8	-39.4	-73.4

Data was observed to the 10<sup>th</sup> harmonic. There were no observable emissions past the 9<sup>th</sup> harmonic.

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

**Measurement Results Part 22**

**Limit calculation**

$$P_{lim} = 43 + 10\log(P) = \mathbf{58.60dBc}$$

**Fundamental ERP value = 36.20dbm**

g0740279: 2007-Apr-23 Mon 14:16:00

STATE: 2:High Power EGPRS

Ambient Temperature: 23°C ± 3°C

Tuned Frequency (MHz)	Emission Frequency (MHz)	Analyzer Level, dBm	Correction Factor, dB	Calculated Power dBrm	Spurious dBrm
824.200000	1648.400000	-84.5	32.1	-52.4	-86.4
824.200000	2472.600000	-87.4	35.7	-51.7	-85.7
824.200000	3296.800000	-82.2	39.2	-43.0	-77.0
824.200000	4121.050000	-92.2	42.3	-49.9	-83.9
824.200000	4945.250000	-93.0	44.5	-48.5	-82.5
824.200000	5769.450000	-95.7	46.8	-48.9	-82.9
824.200000	6593.650000	-93.5	48.2	-45.3	-79.3
824.200000	7417.850000	-93.0	50.6	-42.4	-76.4
824.200000	8242.050000	-93.4	52.4	-41.0	-75.0

Data was observed to the 10<sup>th</sup> harmonic. There were no observable emissions past the 9<sup>th</sup> harmonic.

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

### Measurement Results Part 22

#### Limit calculation

$$P_{lim} = 43 + 10\log(P) = \mathbf{58.50dBc}$$

**Fundamental ERP value = 35.20dbm**

g0740280: 2007-Apr-23 Mon 14:27:00  
 STATE: 2:High Power EGPRS

Ambient Temperature: 23°C ± 3°C

Tuned Frequency (MHz)	Emission Frequency (MHz)	Analyzer Level, dBm	Correction Factor, dB	Calculated Power dBr	Spurious dBr
836.600000	1673.200000	-83.0	32.3	-50.7	-84.7
836.600000	2509.800000	-92.7	35.8	-56.9	-90.9
836.600000	3346.400000	-90.7	39.4	-51.3	-85.3
836.600000	4183.000000	-93.2	42.3	-50.9	-84.9
836.600000	5019.600000	-93.0	44.8	-48.2	-82.2
836.600000	5856.200000	-95.4	46.9	-48.5	-82.5
836.600000	6692.800000	-92.5	48.4	-44.1	-78.1
836.600000	7529.400000	-93.4	51.0	-42.4	-76.4
836.600000	8366.000000	-93.0	52.6	-40.4	-74.4

Data was observed to the 10<sup>th</sup> harmonic. There were no observable emissions past the 9<sup>th</sup> harmonic.

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

**Measurement Results Part 22**

**Limit calculation**

$$P_{lim} = 43 + 10\log(P) = \mathbf{58.30dBc}$$

**Fundamental ERP value = 34.00dbm**

g0740281: 2007-Apr-23 Mon 14:36:00

STATE: 2:High Power EGPRS

Ambient Temperature: 23°C ± 3°C

Tuned Frequency (MHz)	Emission Frequency (MHz)	Analyzer Level, dBm	Correction Factor, dB	Calculated Power, dBm	Spurious Level, dBc
848.800000	1697.600000	-81.5	32.4	-49.1	-83.1
848.800000	2546.400000	-91.5	36.0	-55.5	-89.5
848.800000	3395.200000	-93.5	39.6	-53.9	-87.9
848.800000	4244.000000	-93.5	42.4	-51.1	-85.1
848.800000	5092.800000	-94.0	45.0	-49.0	-83.0
848.800000	5941.600000	-95.4	47.0	-48.4	-82.4
848.800000	6790.400000	-91.9	48.6	-43.3	-77.3
848.800000	7639.200000	-92.5	51.2	-41.3	-75.3
848.800000	8488.000000	-93.4	52.8	-40.6	-74.6

Data was observed to the 10<sup>th</sup> harmonic. There were no observable emissions past the 9<sup>th</sup> harmonic.

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

### Measurement Results Part 24

#### Sample calculation

Spurious Power – Radiated ERP = Spurious dBc

#### Limit calculation

Plim =  $43 + 10 \log (P)$  = **59.50dBc**

**Fundamental ERP value = 44.80dbm**

### Summary Results Table

g0740282: 2007-Apr-23 Mon 14:45:00  
 STATE: 2:High Power GSM

Ambient Temperature: 23°C ± 3°C

Tuned Frequency (MHz)	Emission Frequency (MHz)	Analyzer Level, dBm	Correction Factor, dB	Calculated Power dBM	Spurious dBM
1850.200000	3700.400000	-93.7	40.9	-52.8	-97.6
1850.200000	5550.600000	-89.9	46.4	-43.5	-88.3
1850.200000	7400.800000	-92.4	50.6	-41.8	-86.6
1850.200000	9251.000000	-94.4	53.8	-40.6	-85.4
1850.200000	11101.200000	-93.0	55.9	-37.1	-81.9
1850.200000	12951.400000	-93.4	57.9	-35.5	-80.3
1850.200000	14801.600000	-89.2	61.4	-27.8	-72.6
1850.200000	16651.800000	-90.7	60.7	-30.0	-74.8

Data was observed to the 10<sup>th</sup> harmonic. There were no observable emissions past the 8<sup>th</sup> harmonic.

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

### Measurement Results Part 24

#### Sample calculation

Spurious Power – Radiated ERP = Spurious dBc

#### Limit calculation

$P_{lim} = 43 + 10 \log (P) = 59.50\text{dBc}$

**Fundamental ERP value = 45.10dbm**

g0740283: 2007-Apr-23 Mon 15:00:00

STATE: 2:High Power GSM

Ambient Temperature: 23°C ± 3°C

Tuned Frequency (MHz)	Emission Frequency (MHz)	Analyzer Level, dBm	Correction Factor, dB	Calculated Power, dBm	Spurious, dBc
1880.000000	3760.000000	-91.7	41.1	-50.6	-95.7
1880.000000	5640.000000	-88.4	46.6	-41.8	-86.9
1880.000000	7520.000000	-93.4	51.0	-42.4	-87.5
1880.000000	9400.000000	-93.5	53.8	-39.7	-84.8
1880.000000	11280.000000	-94.4	56.2	-38.2	-83.3
1880.000000	13160.000000	-94.2	58.4	-35.8	-80.9
1880.000000	15040.000000	-90.4	60.9	-29.5	-74.6
1880.000000	16920.000000	-91.4	61.9	-29.5	-74.6

Data was observed to the 10<sup>th</sup> harmonic. There were no observable emissions past the 8<sup>th</sup> harmonic.

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

### Measurement Results Part 24

#### Sample calculation

Spurious Power – Radiated ERP = Spurious dBc

#### Limit calculation

$P_{lim} = 43 + 10 \log (P) = 59.50\text{dBc}$

**Fundamental ERP value = 45.10dbm**

g0740284: 2007-Apr-23 Mon 15:07:00

STATE: 2:High Power GSM

Ambient Temperature: 23°C ± 3°C

Tuned Frequency (MHz)	Emission Frequency (MHz)	Analyzer Level, dBm	Correction Factor, dB	Calculated Power dBM	Spurious dBC
1909.800000	3819.600000	-94.5	41.4	-53.1	-98.2
1909.800000	5729.400000	-93.7	46.7	-47.0	-92.1
1909.800000	7639.200000	-92.4	51.2	-41.2	-86.3
1909.800000	9549.000000	-94.0	53.9	-40.1	-85.2
1909.800000	11458.800000	-93.7	56.4	-37.3	-82.4
1909.800000	13368.600000	-89.5	58.9	-30.6	-75.7
1909.800000	15278.400000	-89.5	59.9	-29.6	-74.7
1909.800000	17188.200000	-92.5	63.3	-29.2	-74.3

Data was observed to the 10<sup>th</sup> harmonic. There were no observable emissions past the 8<sup>th</sup> harmonic.

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

### Measurement Results Part 24

#### Sample calculation

Spurious Power – Radiated ERP = Spurious dBc

#### Limit calculation

Plim =  $43 + 10 \log (P)$  = **59.50dBc**

**Fundamental ERP value = 44.80dbm**

g0740285: 2007-Apr-23 Mon 15:12:00

STATE: 2:High Power EGPRS

Ambient Temperature: 23°C ± 3°C

Tuned Frequency (MHz)	Emission Frequency (MHz)	Analyzer Level, dBm	Correction Factor, dB	Calculated Power, dBm	Spurious, dBc
1850.200000	3700.400000	-92.5	40.9	-51.6	-96.4
1850.200000	5550.600000	-91.4	46.4	-45.0	-89.8
1850.200000	7400.800000	-92.9	50.6	-42.3	-87.1
1850.200000	9251.000000	-92.9	53.8	-39.1	-83.9
1850.200000	11101.200000	-92.7	55.9	-36.8	-81.6
1850.200000	12951.400000	-93.2	57.9	-35.3	-80.1
1850.200000	14801.600000	-89.9	61.4	-28.5	-73.3
1850.200000	16651.800000	-90.7	60.7	-30.0	-74.8

Data was observed to the 10<sup>th</sup> harmonic. There were no observable emissions past the 8<sup>th</sup> harmonic.



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

### Measurement Results Part 24

#### Sample calculation

Spurious Power – Radiated ERP = Spurious dBc

#### Limit calculation

Plim =  $43 + 10 \log (P)$  = **59.50dBc**

**Fundamental ERP value = 45.10dbm**

g0740286: 2007-Apr-23 Mon 15:18:00

STATE: 2:High Power EGPRS

Ambient Temperature: 23°C ± 3°C

Tuned Frequency (MHz)	Emission Frequency (MHz)	Analyzer Level, dBm	Correction Factor, dB	Calculated Power dBM	Spurious dBC
1880.000000	3760.000000	-92.2	41.1	-51.1	-96.2
1880.000000	5640.000000	-91.9	46.6	-45.3	-90.4
1880.000000	7520.000000	-91.7	51.0	-40.7	-85.8
1880.000000	9400.000000	-93.2	53.8	-39.4	-84.5
1880.000000	11280.000000	-94.4	56.2	-38.2	-83.3
1880.000000	13160.000000	-94.0	58.4	-35.6	-80.7
1880.000000	15040.000000	-90.4	60.9	-29.5	-74.6
1880.000000	16920.000000	-91.5	61.9	-29.6	-74.7

Data was observed to the 10<sup>th</sup> harmonic. There were no observable emissions past the 8<sup>th</sup> harmonic.

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

### Measurement Results Part 24

#### Sample calculation

Spurious Power – Radiated ERP = Spurious dBc

#### Limit calculation

Plim =  $43 + 10 \log (P)$  = **59.50dBc**

**Fundamental ERP value = 45.10dbm**

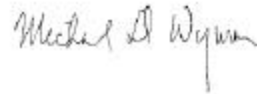
g0740287: 2007-Apr-23 Mon 15:22:00

STATE: 2:High Power EGPRS

Ambient Temperature: 23°C ± 3°C

Tuned Frequency (MHz)	Emission Frequency (MHz)	Analyzer Level, dBm	Correction Factor, dB	Calculated Power, dBm	Spurious, dBc
1909.800000	3819.600000	-93.0	41.4	-51.6	-96.7
1909.800000	5729.400000	-93.9	46.7	-47.2	-92.3
1909.800000	7639.200000	-93.4	51.2	-42.2	-87.3
1909.800000	9549.000000	-92.7	53.9	-38.8	-83.9
1909.800000	11458.800000	-93.2	56.4	-36.8	-81.9
1909.800000	13368.600000	-89.5	58.9	-30.6	-75.7
1909.800000	15278.400000	-87.5	59.9	-27.6	-72.7
1909.800000	17188.200000	-92.4	63.3	-29.1	-74.2

Data was observed to the 10<sup>th</sup> harmonic. There were no observable emissions past the 8<sup>th</sup> harmonic.



Performed by:

Michael Wyman

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

**Measurement Results Part 15.247**

**Limit calculation**

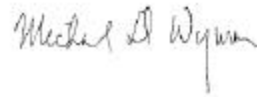
Limit = **-20.0dBc , 54dBuV/m (Avg) 74.0 dBuV/m (Peak)**

g0740287: 2007-Apr-23 Mon 15:22:00  
 STATE: 2:High Power HIGH

Ambient Temperature: 23°C ± 3°C

Tuned Frequency (MHz)	Emission Frequency (MHz)	Analyzer Level, dBuV/m	Correction Factor, dB	Calculated Power dBuV/m
2400.00	4800.00	29.0	14.2	43.2
2437.00	4874.00	30.5	14.2	44.7
2483.5	4967.00	30.33	14.5	44.83

Data was observed to the 10<sup>th</sup> harmonic. There were no observable emissions past the Fundamental. Above measurement are Peak readings



Performed by:

Michael Wyman

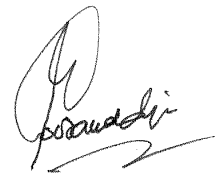
END OF TEST REPORT

**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.

Certifying Engineer:



Hoosamuddin S. Bandukwala, Lab Director