



# Compliance Testing

Previously Flom Test Lab

**RF, EMC & Safety Testing Experts Since 1963**

toll-free: (866) 311-3268

fax: (480) 926-3598

<http://www.ComplianceTesting.com>

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

**Date:** January 18, 2010

Federal Communications Commission  
Via: Electronic Filing

**Attention:** Authorization & Evaluation Division

**Applicant:** Vertu  
**Equipment:** Ascent X, Type: RM-589V  
**FCC ID:** P7QRM-589V  
**FCC Rules:** 15.247

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,

John Erhard: Engineering Manager



**List Of Exhibits**

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

**Applicant:** Vertu

**FCC ID:** P7QRM-589V

**By Applicant:**

1. Letter Of Authorization
2. Identification Drawings
  - ☐ Id Label
  - ☐ Location Info
  - ☐ Attestation Statement(S)
  - ☐ Location of Compliance Statement
3. Documentation: 2.1033(B)
  - (3) User Manual(S)
  - (4) Operational Description
  - (5) Block Diagram
  - (5) Schematic Diagram
  - (7) External Photographs
  - Internal Photographs
  - Parts List
  - Active Devices

**By Compliance Testing**

- A. Testimonial & Statement of Certification
- B. Statement of Qualifications



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## Test Report

for

**FCC ID:** P7QRM-589V

**Model:** Ascent X Type: RM-589V

to

**Federal Communications Commission**

Rule Part(s) 15.247

**Date Of Report:** January 18, 2010

**On the Behalf of the 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)

Supervised By:

John Erhard: Engineering Manager



### Test Report Revision History

Revision	Date	Revised By	Reason for revision
1.0	January 18, 2010	J. Erhard	Original Document
2.0	February 8, 2010	J. Erhard	Edit limits in test data table. Clarify operational power level used for testing.



**The applicant has been cautioned as to the following:**

**15.21 Information to 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 that:**

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.

A handwritten signature in black ink, appearing to read "John Erhard".

Certifying Engineer:

John Erhard: Engineering Manager



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Required information per ISO 17025-2005, paragraph 5.10.2:

a) **Test Report**

b) Laboratory: Compliance Testing  
(FCC: 31040/SIT) 3356 N. San Marcos Place, Suite 107  
(Canada: IC 2044A-1) Chandler, AZ 85225

c) Report Number: d1010010

d) Client: Vertu

e) Identification: Ascent X, Type: RM-589V  
Description: Quad Band Phone with GSM and UMTS functionality  
\*The Vertu Model: Ascent X, FCC ID: P7QRM-589V is a mobile phone in the Luxury category. It is differentiated from standard models in terms of craftsmanship/materials and quality. The model is available in a number of cosmetic finishes, where substituted on a like for like basis, Metal for Metal, RF Neutral/leather and cover materials for the same in a variety of colors and finishes (Mat/polished/color etc).  
All are electrically and performance identical, with the same circuit board and carry the same FCC ID: P7QRM-589V.

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

g) Report Date: January 18, 2010

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

i) Sampling method: No sampling procedure used.

l) Uncertainty: In accordance with Compliance Testing internal quality manual.

m) Supervised by:

John Erhard: Engineering Manager

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.





**List Of General Information Required For Certification**

In Accordance with FCC Rules and Regulations,  
Volume II, Part 2 and to 15.247

**Sub-Part 2.1033**

(c)(1):

**Name and Address of Applicant:** Vertu

(c)(2): **FCC ID:** P7QRM-589V

**Model Number:** Ascent X Type: RM-589V

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

Please See Attached Exhibits

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

(c)(5): **FREQUENCY RANGE, MHz:** 2402 – 2480

(c)(6): **Power Rating, W:** 0.0015  
\_\_\_\_\_ Switchable \_\_\_\_\_ Variable   X   N/A

(c)(7): **Maximum Power Rating, W:** 1

15.203: **Antenna Requirement:**

  X   The antenna is permanently attached to the EUT  
\_\_\_\_\_ The antenna uses a unique coupling  
\_\_\_\_\_ The EUT must be professionally installed  
\_\_\_\_\_ The antenna requirement does not apply



**Subpart 2.1033 (continued)**

**(c)(8): 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)(9): Label Information:**

Please See Attached Exhibits

**(c)(10): Photographs:**

Please See Attached Exhibits

**(c)(11): Digital Modulation Description:**

☐ Attached Exhibits

☒ N/A

**(c)(12): Test And Measurement Data:**

Follows



Sub-part  
2.1033(b):

### Test And Measurement Data

All tests and measurement data shown were performed in accordance with FCC Rules and Regulations, Volume II; Part 2 and the following individual Parts: 15.247, Operation within bands 902-928, 2400-2483.5, 5725-5850 MHz

### Standard Test Conditions and Engineering Practices

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

In accordance with ANSI C63.10-2009 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 Compliance Testing in 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



**FCC OATS Reg. #933597**

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



### Test Results Summary

Specification	Test Name	Pass, Fail, N/A	Comments
15.247(d), 15.209(a), 15.205	Radiated Spurious Emissions	Pass	



**Name of Test:** Radiated Spurious Emissions  
**Specification:** 15.247(d), 15.209(a), 15.205  
**Test Equipment Utilized** i00028, i00103, i00177, i00331

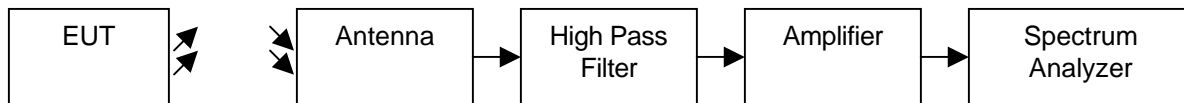
**Engineer:** J. Erhard  
**Test Date:** 1/15/2010

### Test Procedure

The EUT was tested in a semi-anechoic chamber set 3m from the receiving antenna. A spectrum analyzer was used to verify that the EUT met the requirements for Radiated Spurious Emissions. The antenna correction factor, cable loss, and external amplifier gain were input into the spectrum analyzer to ensure accurate readings. The spectrum for each tuned frequency was examined to the 10<sup>th</sup> harmonic.

The transmitter was tested at the highest operational power level.

### Test Setup



Detector Settings	RBW	VBW	Span
Peak	1 MHz	3 MHz	as necessary
Average	1 MHz	3 MHz	as necessary

### Radiated Spurious Emissions

Tuned Freq (MHz)	Emission Freq (MHz)	Peak Monitored Level (dBuV/m)	Average Limit (dBuV/m)	Result
2402	4804	50.0	54.0	Pass
2402	7206	50.8	54.0	Pass
2402	9608	53.6	54.0	Pass

### Radiated Spurious Emissions

Tuned Freq (MHz)	Emission Freq (MHz)	Peak Monitored Level (dBuV/m)	Average Limit (dBuV/m)	Result
2442	4884	48.5	54.0	Pass
2442	7236	50.5	54.0	Pass
2442	9768	52.8	54.0	Pass

### Radiated Spurious Emissions

Tuned Freq (MHz)	Emission Freq (MHz)	Peak Monitored Level (dBuV/m)	Average Limit (dBuV/m)	Result
2480	4960	48.1	54.0	Pass
2480	7440	49.8	54.0	Pass
2480	9920	53.5	54.0	Pass

No other emissions were detectable. All emissions were greater than -20 dBc. All peak readings were below the average limit.

**Test Equipment Utilized**

Description	MFG	Model Number	CT Asset Number	Last Cal Date	Cal Due Date
RF Amplifier	HP	8449A	i00028	6/29/2009	6/29/2010
Horn Antenna	EMCO	3115	i00103	11/25/2008	11/25/2010
High-pass Filter	Trilithic	4HX3400-3-KK	i00177	NCR	NCR
Spectrum Analyzer	Agilent	E4407B	i00331	11/3/2009	11/3/2010

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