M. Flom Associates, Inc.
International Compliance Testing Laboratory
3356 N. San Marcos Place, Suite 107
Chandler, AZ 85225
toll-free: (866) 311-3268
fax: (480) 926-3598
http://www.mflom.com
info@mflom.com

Date: January 26, 2005

Federal Communications Commission
Via: Electronic Filing

Attention: Authorization & Evaluation Division

Applicant: Vertu Ltd.
Equipment: Ascent RHV-3
FCC ID: P7QRHV-3
FCC Rules: 15.247 Bluetooth and Confidentiality

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.

The device is incorporated in a GSM phone filed under Part 24E using the same FCC ID.

Vertu is a wholly owned division of Nokia and has the rights to reuse Nokia technology in Vertu products. The Bluetooth module used in the P7QRHV-3 has the same chipset and software as used in the QTKRH-12 (Test Report attached as exhibit). The design as incorporated in the P7QRHV-3 has a slightly different board layout to fit the physical constraints of the case, therefore M. Flom Associates has retested the RF radiated spurious and AC Powerline characteristics to confirm continued compliance.

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,

David E. Lee, Compliance Test Manager

enclosure(s)
cc: Applicant
DEL/del

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Transmitter Certification – Composite Device

Based on Bluetooth module in QTKRH-12 (Report attached)

of

FCC ID: P7QRHV-3
Model: Ascent RHV-3

to

Federal Communications Commission

FCC Rule Part 15.247

Date Of Report: January 26, 2005

On the Behalf of the Applicant:

Vertu Ltd.

At the Request of:

P.O. J93-4971588

Vertu Ltd.
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

Supervised By:

David E. Lee,
Compliance Test Manager

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.

Table Of Contents

Required information per ISO/IEC Guide 25-1990, paragraph 13.2:

a)	**Test Report**
b) Laboratory: (FCC: 31040/SIT) (Canada: IC 2044)	M. Flom Associates, Inc. 3356 N. San Marcos Place, Suite 107 Chandler, AZ 85225
c) Report Number:	d0510053
d) Client:	Vertu Ltd. Beacon Hill Road Church Crookham, Hampshire GU52 8DY UK
e) Identification: Description:	Ascent RHV-3 (with Embedded Bluetooth Module based on QTKRH-12) FCC ID: P7QRHV-3 S/N: 004400/31/171367/9 GSM Phone with Bluetooth.
f) EUT Condition:	Not required unless specified in individual tests.
g) Report Date: EUT Received:	January 26, 2005 November 8, 2004
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:	 David E. Lee, Compliance Test 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 and Confidentiality

Sub-Part 2.1033

(c)(1): **Name and Address of Applicant**:

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

Manufacturer:

Applicant

(c)(2): **FCC ID**: P7QRHV-3 (Composite Device)

Model Number: Ascent RHV-3 (Embedded Bluetooth Module)

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

Please See Attached Exhibits

(c)(4): **Type Of Emission**: FHSS (Bluetooth)

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

(c)(6): **Power Rating, W**: 0.00178

____ Switchable X Variable ____ N/A

(c)(7): **Maximum Power Rating, W**: 0.250

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): Voltages & Currents in All Elements in Final RF Stage, Including Final Transistor or Solid State Device:

Part of Composite Device P7QRHV-3. Not separately specified

(c)(9): **Tune-Up Procedure**:

Please See Attached Exhibits

(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.

Part of Composite Device P7QRHV-3. Not separately shown.

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

Part of Composite Device P7QRHV-3. Not separately shown.

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

Part of Composite Device P7QRHV-3. Not separately identified

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

___ Attached Exhibits
_X_ N/A

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

Follows

THE AMERICAN
ASSOCIATION
FOR LABORATORY
ACCREDITATION

ACCREDITED LABORATORY

A2LA has accredited

M. FLOM ASSOCIATES, 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/IEC 17025 - 1999 "General Requirements for the Competence of Testing and Calibration Laboratories" and any additional program requirements in the identified field of testing.

Presented this 16th day of June 2004.

President
For the Accreditation Council
Certificate Number 2152-01
Valid to August 31, 2006

For tests or types of tests to which this accreditation applies, please refer to the laboratory's Electrical Scope of Accreditation.

A2LA

"A2LA has accredited M. Flom Associates, 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/IEC 17025 – 1999 'General Requirements for the Competence of Testing and Calibration Laboratories' and any additional program requirements in the identified field of testing."

Certificate Number: **2152-01**

UNITED STATES DEPARTMENT OF COMMERCE
National Institute of Standards and Technology
Gaithersburg, Maryland 20899-

September 15, 1999

Mr. Morton Flom
M. Flom Associates Inc.
3356 N. San Marcos Place, Suite 107
Chandler, AZ 85224

Dear Mr. Flom:

I am pleased to inform you that your laboratory has been validated by the Chinese Taipei Bureau of Standards, Metrology, and Inspection (BSMI) under the Asia Pacific Economic Cooperation Mutual Recognition Arrangement (APEC MRA). Your laboratory is now formally designated to act as a Conformity Assessment Body (CAB) under Appendix B, Phase I Procedures, of the APEC MRA between the American Institute in Taiwan (AIT) and the Taipei Economic and Cultural Representative Office (TECRO) in the United States, covering equipment subject to Electro-Magnetic Compatibility (EMC) requirements. The names of all validated and nominated laboratories will be posted on the NIST website at http://ts.nist.gov/acs under the "Asia" category.

As of August 1, 1999, you may submit test data to BSMI to verify that the equipment to be imported into Chinese Taipei satisfies the applicable EMC requirements. **Your assigned BSMI number is SL2-IN-E-041R; you must use this number when sending test reports to BSMI.** Your designation will remain in force as long as your NVLAP and/or A2LA and/or BSMI accreditation remains valid for the CNS 13438.

Please note that BSMI requires that the entity making application for the approval of regulated equipment must make such application in person at their Taipei office. BSMI also requires the names of the authorized signatories who are authorized to sign the test reports. You can send this information via fax to C-Taipei CAB Response Manager at 301-975-5414. **I am also enclosing a copy of the cover sheet that, according to BSMI requirements, must accompany every test report.**

NIST

If you have any questions, please contact Robert Gladhill at 301-975-4273 or Joe Dhillon at 301-975-5521. We appreciate your continued interest in our international conformity assessment activities.

Sincerely,

Belinda L. Collins, Ph.D.
Director, Office of Standards Services

Enclosure

NIST

I am pleased to inform you that your laboratory has been validated by the Chinese Taipei Bureau of Standards, Metrology and Inspection (BSMI) under the Asia Pacific Economic Cooperation Mutual Recognition Agreement (APEC MRA). Your laboratory is now formally designated to act as a Conformity Assessment Body (CAB) under Appendix B, Phase I Procedures, of the APEC MRA between the American Institute in Taiwan (AIT) and the Taipei Economic and Cultural Representative Office (TECRO) in the United States, covering equipment subject to Electro-Magnetic Compatibility (EMC) requirements. The names of all validated and nominated laboratories will be posted on the NIST website at http://ts.nist.gov/mra under the 'Asia' category."

BSMI Number: **SL2-IN-E-041R**

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, Sub-part J, Sections 2.1031, 2.1033, 2.1035, 2.1041, 2.1043, 2.1045, and the following individual Parts:

_____	15.209	Radiated emission limits; general requirements
_____	15.211	Tunnel radio systems
_____	15.213	Cable locating equipment
_____	15.214	Cordless telephones
_____	15.217	Operation in the band 160-190 kHz
_____	15.219	Operation in the band 510-1705 kHz
_____	15.221	Operation in the band 525-1705 kHz (leaky coax)
_____	15.223	Operation in the band 1.705-10 MHz
_____	15.225	Operation in the band 13.553-13.567 MHz
_____	15.227	Operation in the band 26-27.28 MHz (remote control)
_____	15.229	Operation in the band 40.66-40.70 MHz
_____	15.231	Periodic operation in the band 40.66-40.70 MHz and above 70 MHz
_____	15.233	Operation within the bands 43.71-44.49, 46.60-46.98 MHz 48.75-49.51 MHz and 49.66-50.0 MHz
_____	15.235	Operation within the band 49.82-49.90 MHz
_____	15.237	Operation within the bands 72.0-73.0 MHz, 74.6-74.8 MHz and 75.2-76.0 MHz (auditory assistance)
_____	15.239	Operation in band 88-108 MHz
_____	15.241	Operation in the band 174-216 MHz (biomedical)
_____	15.243	Operation in the band 890-940 MHz (materials)
_____	15.245	Operation within the bands 902-928 MHz, 2435-2465 MHz, 5785-5815 MHz, 10500-10550 MHz, and 24075-24175 MHz (filed disturbance sensors)
X	15.247	Operation within bands 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz (spread spectrum)
_____	15.249	Operation within the bands 902-928 MHz, 2400-2483.5 MHz, 5725-5875 MHz, and 24.0-24.25 GHz
_____	15.251	Operation within the bands 2.9-3.26 GHz, 3.267-3.332 GHz, 3.339-3.3458 GHz, and 3.358-3.6 GHz (vehicle identification systems)
_____	15.321	Specific requirements for asynchronous devices operating in the 1910-1920 MHz and 2390-2400 MHz bands (Unlicensed PCS)
_____	15.323	Specific requirements for isochronous devices operating in the 1920-1930 MHz sub-band (Unlicensed PCS)

Standard Test Conditions
and
Engineering Practices

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

In accordance with ANSI C63.4-1992/2001, section 6.1.9, 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.

Prior to testing, the EUT was tuned up in accordance with the manufacturer's alignment procedures. All external gain controls were maintained at the position of maximum and/or optimum gain throughout the testing.

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

Name of Test: Maximum Peak Output Power

Specification: 47 CFR 15.247(b)

Spec. Limit: = 1 Watt peak (0.25 if <50 Hopping Channels)

Test Equipment: Attached

Measurement Data

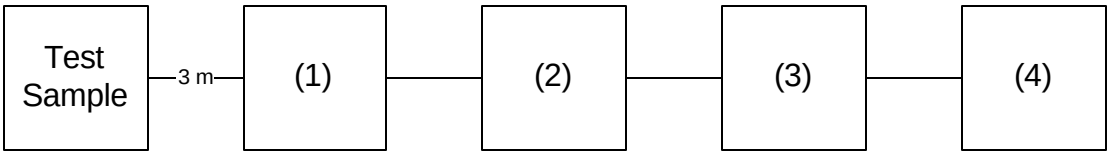
Antenna Gain, dBi	=	0dBi
Peak Output Power, Watts	=	0.00178 Worst Case For All Channels

Radiated:
g04b0008: 2004-Nov-08 Mon 11:39:00

Frequency Tuned, MHz	Frequency Emission, MHz	Meter, dBuV/m	CF, dB	EIRP, dBm	EIRP, Watts
2.441000	2401.950000	48.42	48.01	1.2	0.00132
2.441000	2440.950000	49.40	48.33	2.5	0.00178
2.441000	2479.950000	47.73	48.64	1.1	0.00129

Supervised By: David E. Lee, Compliance Test Manager

Transmitter Radiated Measurements



Transmitter Radiated Measurements

	Asset (as applicable)	Description	s/n	Cycle	Last Cal
(1) **Transducer**					
X	i00091	Emco 3115	001469	24 mo.	Jan-04
	i00089	Aprel Log Periodic	001500	24 mo.	Sep-03
	i00088	EMCO 3301-B Biconical	2336	24 mo.	Sep-03
(2) **High Pass Filter (If required)**					
(3) **Preamp**					
X	i00028	HP 8449 (+30 dB)	2749A00121	12 mo.	May-04
(4) **Spectrum Analyzer**					
	i00048	HP 8566B	2511A01467	12 mo.	Oct-04
X	i00029	HP 8563E	3213A00104	12 mo.	May-04

Name of Test: Restricted Bands of Operation

Specification: 47 CFR 15.205

Test Equipment: As per attached page

Measurement Procedure

The EUT was set up on a three-meter open field site according to the procedure on ANSI C63.4.

Sensitivity of system was measured:

Below 2 GHz:

CISPR Bandwidths	=	8 dBµV
1 MHz RBW, 1 MHz VBW	=	12 dBµV
1 MHz RBW, 10 Hz VBW	=	3 dBµV

Above 2 GHz:

1 MHz RBW, 1 MHz VBW	=	33 dBµV
1 MHz RBW, 10 Hz VBW	=	22 dBµV

Sensitivity of system with preamps:

Below 2 GHz:

Preamps are not used in this range.

Above 2 GHz:

Peak	=	3 dBµV
Average	=	-8 dBµV

Cable Loss:

915 MHz	=	-0.8 dBµV
2450 MHz	=	-3 dBµV

Note:

dB loss vs. frequency included in programmed software.

Reference Level Offset:

set @ 1 dB, accounts for cable and connector loss.

Test Results: No harmonic or spurious emissions were detected in the restricted bands in excess of the limits of 15.205. System measurement sensitivity was –130 dBm.

Supervised By: David E. Lee, Compliance Test Manager

Name of Test: Emissions At Band Edges

Specification: 47 CFR

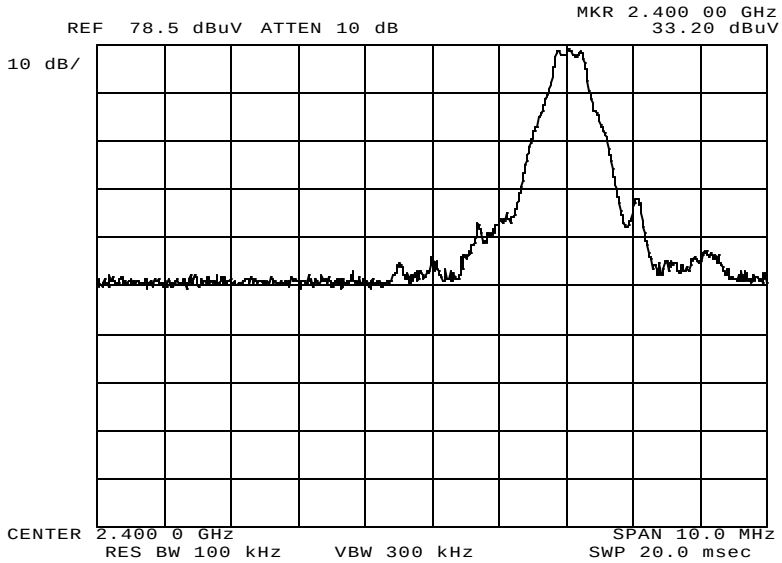
Test Equipment: As for "Out of Band Emissions"

Measurement Results

Attached

Supervised By: David E. Lee, Compliance Test Manager

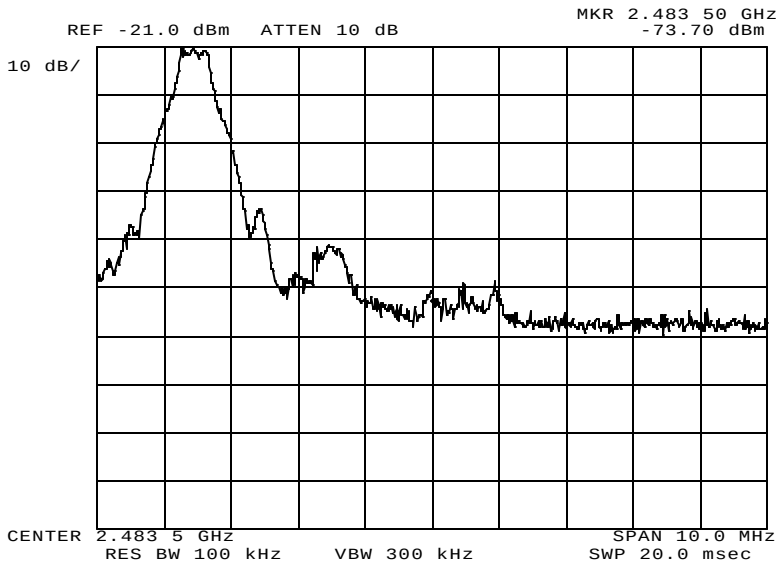
Name of Test: Emission at Band Edges (Radiated)
g04b0018: 2004-Nov-10 Wed 09:25:00
State: 2:High Power



Power:	HIGH
Modulation:	NONE
	BT LOW BAND EDGE

Supervised By: David E. Lee, Compliance Test Manager

Name of Test: Emission at Band Edges (Radiated)
g04b0022: 2004-Nov-10 Wed 09:54:00
State: 2:High Power



Power:	HIGH
Modulation:	NONE
	BT UPPER BAND EDGE

Supervised By: David E. Lee, Compliance Test Manager

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

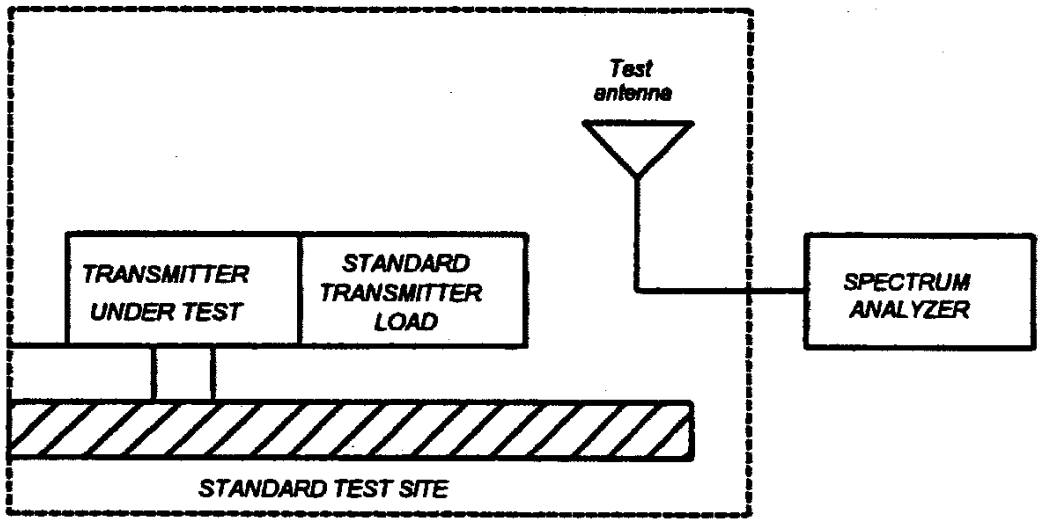
1.2.12.1 Definition: Radiated spurious emissions are emissions from the equipment when transmitting into a non-radiating load on a frequency or frequencies which are outside an occupied band sufficient to ensure transmission of information of required quality for the class of communications desired.

1.2.12.2 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 ≤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 which is placed on the turntable. The RF cable to this load should be of minimum length.

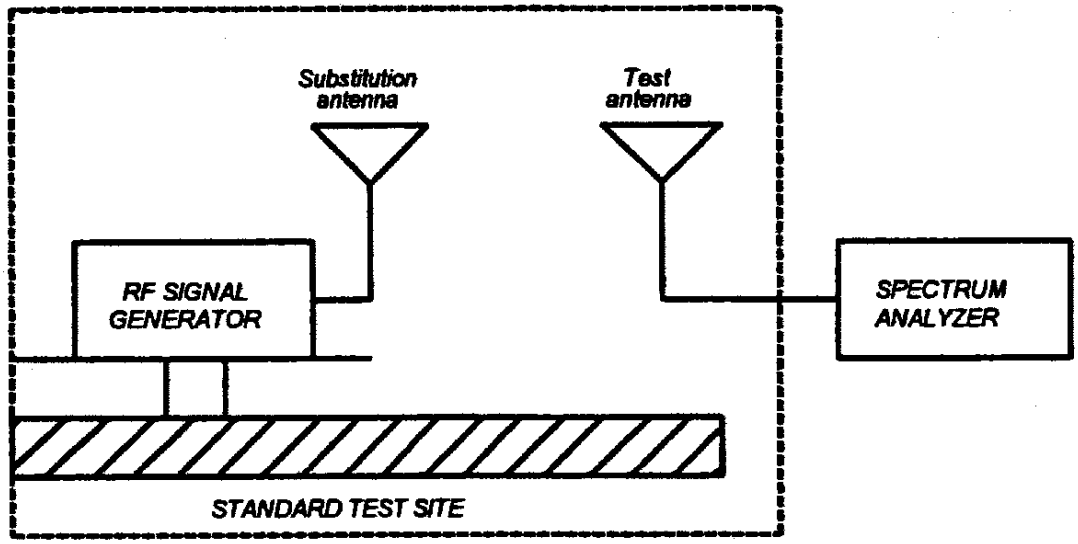


Name of Test: Field Strength of Spurious Radiation (Cont.)

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 ± 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 =
$10\log_{10}$(TX power in watts/0.001) – the levels in step l)

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

Test Equipment:

	Asset (as applicable)	Description	s/n	Cycle (Per ANSI C63.4-1992/2000 Draft, 10.1.4)	Last Cal
Transducer					
	i00088	EMCO 3109-B 25MHz-300MHz	2336	24 mo.	Sep-03
	i00065	EMCO 3301-B Active Monopole	2635	24 mo.	Sep-03
	i00089	Aprel 2001 200MHz-1GHz	001500	24 mo.	Sep-03
X	i00103	EMCO 3115 1GHz-18GHz	9208-3925	24 mo.	Jan-04
Amplifier					
X	i00028	HP 8449A	2749A00121	12 mo.	May-04
Spectrum Analyzer					
X	i00029	HP 8563E	3213A00104	12 mo.	May-04
X	i00033	HP 85462A	3625A00357	12 mo.	Aug-04
	i00048	HP 8566B	2511AD1467	12 mo.	Oct-04

Name of Test: Field Strength of Spurious Radiation
g04b0008: 2004-Nov-08 Mon 16:04:00
State: 2:High Power

Frequency Tuned, MHz	Frequency Emission, MHz	Calc, dBm 3m	Margin, dB
2402.000000	4804.000000	-68.92	45.92
2440.000000	4880.000000	-72.75	49.75
2480.000000	4960.000000	-69.57	46.57
2402.000000	7206.000000	-72.14	49.14
2440.000000	7320.000000	-67.30	44.30
2480.000000	7440.000000	-63.44	40.44
2402.000000	9608.000000	-72.39	49.39
2440.000000	9760.000000	-65.41	42.41
2480.000000	9920.000000	-67.73	44.73
2402.000000	12010.000000	-71.04	48.04
2440.000000	12200.000000	-68.26	45.26
2480.000000	12400.000000	-68.54	45.54
2402.000000	14412.000000	-64.65	41.65
2440.000000	14640.000000	-66.40	43.40
2480.000000	14880.000000	-65.78	42.78
2402.000000	16814.000000	-70.93	47.93
2440.000000	17080.000000	-68.89	45.89
2480.000000	17360.000000	-63.44	40.44
2402.000000	19216.000000	-72.15	49.15
2440.000000	19520.000000	-69.93	46.93
2480.000000	19840.000000	-67.46	44.46
2402.000000	21618.000000	-71.79	48.79
2440.000000	21960.000000	-67.77	44.77
2480.000000	22320.000000	-67.80	44.80

Performed By: Samir Mahmoud, Test Technician

Vertu is a wholly owned division of Nokia and has the rights to reuse Nokia technology in Vertu products. The Bluetooth module used in the P7QRHV-3 uses the same chipset and software as used in the QTKRH-12.

Summary of test RESULTS

Rule part in CFR 47	Section in RSS-210		Result
15.247, a1	6.2.2 (o), a1	Carrier frequency separation	PASS
15.247, a1ii	6.2.2 (o), a3	Number of hopping frequencies	PASS
15.247, a1ii, 15.247, f	6.2.2 (o), a3	Time of occupancy	PASS
15.247, a	6.2.2 (o), a1	20dB bandwidth	PASS
15.247, b1	6.2.2 (o), a3	Peak output power	PASS
15.247, c	6.2.2 (o), e1	Band-edge compliance of RF emissions	PASS
15.207	6.6	AC powerline conducted emissions	PASS
15.247, c	6.2.2 (o), e1	Spurious RF conducted emissions	PASS
15.247, c	6.2.2 (o), e1	Spurious radiated emissions	PASS

The report is provided by the applicant and is included as an Exhibit.

Name of Test: A/C Powerline Conducted Emissions

Specification: FCC: 47 CFR 15.207

Guide: IEEE Standard 213

Test Conditions: S. T. & H.

Measurement Procedure

1. A test sample was connected to the Public Utility lines through a LISN.

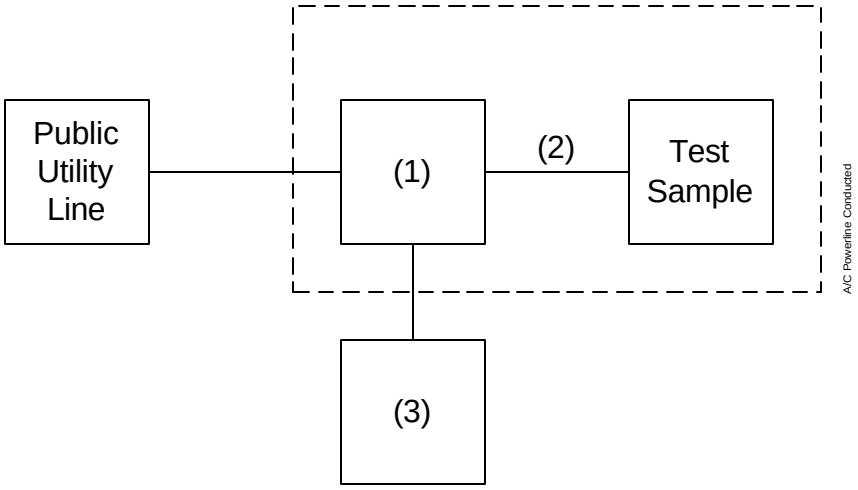
2. A reference level of 250 µV was set on the Spectrum Analyzer. The spectrum was searched over the range of 150 kHz to 30 MHz.

3. All other emissions were 20 dB or more below limit.

4. x The test sample used a charger.
   ____ The test sample does not use a charger.

5. Measurement Results: Attached.

Test Set Up: A/C Powerline Conducted Measurements



	Asset	Description	s/n	Cycle	Last Cal
				Per ANSI C63.4-1992/2000 Draft, 10.1.4	
(1) **Line Impedance Stabilization Network**					
X	i00244	Fischer 50-20-2-01	2047		
(2) **Screen Room**					
X	i00170	Lindgren LG170	4999		
(3) **Spectrum Analyzer**					
X	i00033	HP 85462A	3625A00357	12 mo.	Jul-04
	i00048	HP 8566B	2511AD1467	12 mo.	Sep-04

Test Setup: A/C Powerline Conducted Emissions

Results: A/C Powerline Conducted Emissions

g04b0012: 2004-Nov-09 Tue 15:29:00
State: 0: Line Side (Bluetooth Active)

Frequency Tuned, MHz	Frequency Emission, MHz	Level, dBuV	C.F., dB	µV/m
0.000000	0.210000	41.2	0.91	127.50
0.000000	2.540000	38.3	0.60	88.10
0.000000	3.140000	36.3	0.62	70.15
0.000000	11.700000	28.9	1.02	31.33
0.000000	13.760000	28.7	1.12	30.97
0.000000	19.730000	23.9	1.96	19.63

g04b0014: 2004-Nov-09 Tue 15:43:00
State: 0: Neutral Side (Bluetooth Active)

Frequency Tuned, MHz	Frequency Emission, MHz	Level, dBuV	C.F., dB	µV/m
0.000000	0.150000	43.6	1.39	177.62
0.000000	1.190000	31.4	0.51	39.40
0.000000	2.630000	34.7	0.56	57.94
0.000000	6.780000	31.2	0.84	39.99
0.000000	12.510000	26.0	1.11	22.67
0.000000	16.810000	22.5	1.46	15.78

Performed By: Samir Mahmoud

END OF TEST REPORT

Radiated Measurements
For Part 15 Transmitters with Integral Antennas

Radiated Measurements

Range Of Measurement	Specification	Resolution B/W	Video B/A
30 to 1000 MHz	CISPR	=100 kHz	=100 kHz
>1000 MHz	FCC, 15.37(b)	1 MHz	=1 MHz
(if averaging)	FCC, 15.37(b)	1 MHz	10 Hz

Measuring Equipment

a. **Antennas**:

EMCO 3109	20 - 300 MHz
APREL AALP2001	200 - 1000 MHz
APREL AAB20200	20 - 200 MHz
APREL AAH118	1 - 18 GHz

b. **Instruments**:

HP8566B	Spectrum Analyzer
HP85685A	Preselector, w/ preamp below 2 GHz
HP85650A	Quasi Peak Adapter
HP8449	Preamp, above 2 GHz
HP8563E	Spectrum Analyzer, above 2 GHz

All test instrumentation is calibrated every January and every July. In addition, all test instrumentation is calibrated daily, or as required by the manufacturer. A Calibration Agreement is maintained with Hewlett Packard.

Occupied Bandwidth

Occupied Bandwidth is measured as a radiated signal without attenuators and/or filter. RBW, VBW and scan settings as shown were set to produce a meaningful result in accordance with ANSI C63.4, Section 13.1.7.

Part 15.21, Information To User

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

§ 15.205 Restricted Bands of Operation

(a) Except as shown in paragraph (b) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.25
0.495-0.505	16.69475-16.69625	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2655-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-339.4	3600-4400	(2)
13.36-13.41			

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.

Certifying Engineer: David E. Lee, Compliance Test Manager

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Chandler, Arizona 85225-7176
(480) 926-3100 phone, fax (480) 926-3598