



Nemko Test Report: 18361RUS1

Applicant: Xplore Technologies Corp. of America
14000 Summit Drive, Suite 900
Austin, TX 78728

Equipment Under Test: iX104C4 Tablet PC
(E.U.T.)

In Accordance With: **FCC Part 15, Subpart C, 15.247**
Radiated Spurious Emissions

Tested By: Nemko USA Inc.
802 N. Kealy
Lewisville, Texas 75057-3136

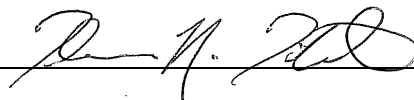
TESTED BY:



David Light, Senior Wireless Engineer

DATE: 10 October, 2008

APPROVED BY:



DATE: 10 October, 2008

Total Number of Pages: 12

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Section 1. Summary of Test Results

Manufacturer: Xplore Technologies Corp. of America

Model No.: iX104C4

Serial No.: 914H601007G8320014DM000

General: **All measurements are traceable to national standards.**

These tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with Part 15, Subpart C, Paragraph 15.247 for radiated Spurious Emissions with simultaneous operation of co-located transmitter modules. Radiated tests were conducted in accordance with ANSI C63.4-2003. Radiated emissions are made in a semi-anechoic chamber. A description of the test facility is on file with the FCC. FCC site registration number: 90693



New Submission



Production Unit



Class II Permissive Change



Pre-Production Unit

THIS TEST REPORT RELATES ONLY TO THE ITEM(S) TESTED.

THE FOLLOWING DEVIATIONS FROM, ADDITIONS TO, OR EXCLUSIONS FROM THE TEST SPECIFICATIONS HAVE BEEN MADE.

See " Summary of Test Data".



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Summary Of Test Data

NAME OF TEST	PARA. NO.	RESULT
Spurious Emissions (Radiated)	15.247(d)	Complies

Footnotes:

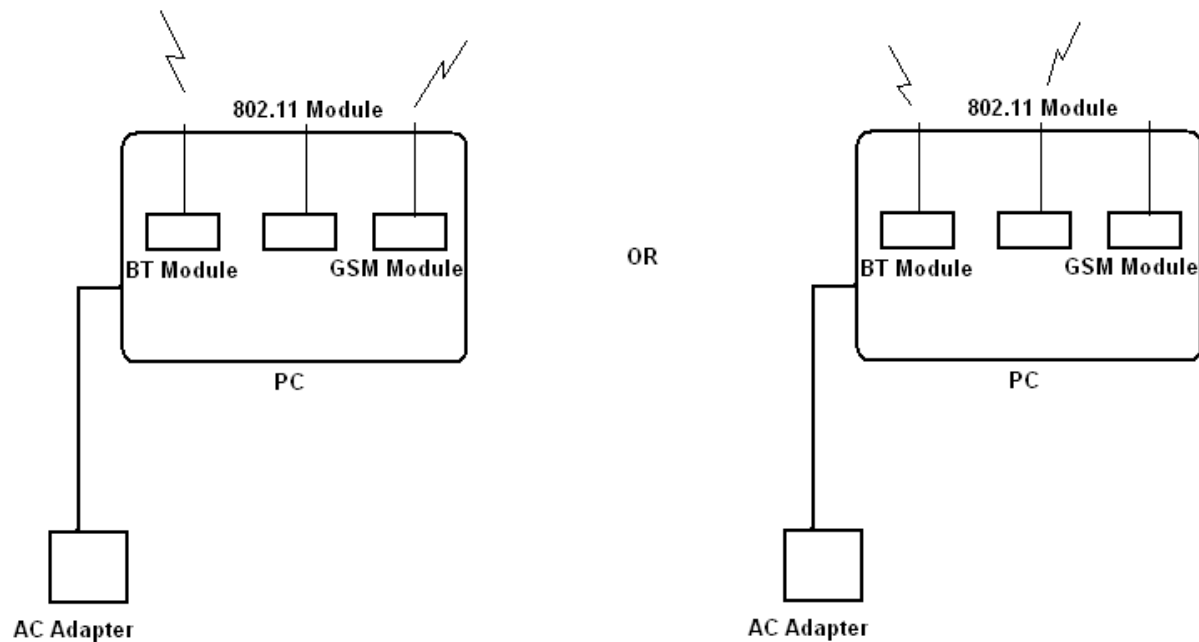
This was the only test performed by Nemko to verify that there were no intermodulation products between the Bluetooth® module and either the LAN or WAN modules. All other testing on individual radios is presented in separate exhibits.

Section 2. Equipment Under Test (E.U.T.)

Description of EUT

The iX104C4 tablet PC incorporates a Qcom Bluetooth® radio along with a wireless Intel 802.11 a/g/n network adapter and an Sierra Wireless UMTS network adapter operating in the 850 cell band or the 1900 PCS band. The network adapters will not be functional at the same time. The Bluetooth module can operate simultaneously with either of the wireless network adapters.

System Diagram



Section 3. Spurious Emissions (Radiated)

NAME OF TEST: Spurious Emissions (Radiated)	PARA. NO.: 15.247(d)
TESTED BY: David Light	DATE(s): 10 October 2008

Test Results:

Complies. All emissions within 20 dB of the specification limit are reported per 15.31(o).

Notes:

The EUT was tested on three orthogonal axis'

The device was tested from 30 MHz to 40 GHz per 15.33

The device was tested with the Bluetooth® module transmitting at 2402 MHz with each of the following combinations:

- 1) 802.11b at 2442 MHz
- 2) 802.11g at 2442 MHz
- 3) 802.11a at 5190 MHz
- 4) 802.11n at 5190
- 5) WAN at 835 MHz
- 6) WAN at 1880 MHz

Analyzer Settings:

Peak measurements	<1000 MHz	RBW/VBW=100 kHz	Peak detector
Peak Measurements	>1000 MHz	RBW/VBW=1 MHz	Peak detector
Average measurements	>1000 MHz	RBW=1 MHz VBW=1 kHz	Peak detector

Equipment Used: 1767-1783-1763-1785-1310-1464-991-992

Measurement Uncertainty: +/-3.6 dB

Temperature: 22 °C

Relative Humidity: 35 %

Test Data – Spurious Emissions**WLAN and Bluetooth Modules**

Measurement Data:						Test Distance: 3 Meters					
Freq MHz	Rdng dBμV	Cable dB	Cable dB	Pre-A dB	Horn dB	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant	
4803.9	47.8	+1.0	+3.2	+32.5	+33.1	+0.0	52.6	74.0	-21.4	Horiz	
Peak											
4803.9	42.8	+1.0	+3.2	+32.5	+33.1	+0.0	47.6	54.0	-6.4	Horiz	
Ave											

RLAN and Bluetooth Modules

Measurement Data:							Test Distance: 3 Meters			
4804.0	48.3	+1.0	+3.2	+32.5	+33.1	+0.0	53.1	74.0	-20.9	Horiz
4804.0	43.2	+1.0	+3.2	+32.5	+33.1	+0.0	48.0	54.0	-6.0	Horiz
Ave										

WWAN and Bluetooth Modules

4803.9	48.2	+1.0	+3.2	+32.5	+33.1	+0.0	53.0	74.0	-21.0	Horiz
4803.9	44.2	+1.0	+3.2	+32.5	+33.1	+0.0	49.0	54.0	-5.0	Horiz
Ave										

Section 4. Test Equipment List

Nemko	Description	Manufacturer Model Number	Serial Number	Calibration Dat	Calibration Du
176	EMI Test Receiver 20Hz - 26.5 GHz	ROHDE & SCHWARZ ESIB26	837491/0002	09/20/07	09/19/09
178	Cabl	Nemko 0	0	06/12/08	06/12/09
176	Bilog Antenna	Schaffner CBL	2292	09/21/08	09/20/09
178	Prea	A.H PAM-0126	14	07/29/08	07/29/09
131	Antenna horn	Electro Metrics RGA-60	617	08/31/07	08/30/09
146	Spectrum analyzer	Hewlett Packard 8563	3551A04428	01/24/07	01/24/09
99	Horn antenna	EMC 3160-10	9704-1049	CNR	N/
99	Horn antenna	EMC 3160-09	9705-1079	CNR	N/

ANNEX A - TEST DETAILS

NAME OF TEST: Radiated Spurious Emissions

PARA. NO.: 15.247(d)

Minimum Standard: In any 100kHz bandwidth outside the frequency band in which the transmitter is operating, emissions shall be at least 20 dB below the fundamental emission or shall not exceed the following field strength limits:

Emissions falling in the restricted bands of 15.205 shall not exceed the following field strength limits:

Frequency (MHz)	Field Strength ($\mu\text{V/m}$ @ 3m)	Field Strength (dB @ 3m)
30 - 88	100	40.0
88 - 216	150	43.5
216 - 960	200	46.0
Above 960	500	54.0

THE SPECTRUM WAS SEARCHED TO THE 10th HARMONIC

15.205 Restricted Bands

MHz	MHz	MHz	GHz
0.09-0.11	16.42-16.423	399.9-410	4.5-5.25
0.495-0.505	16.69475-16.69525	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
6.125-6.218	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	322-335.4	3600-4400	Above 38.6
13.36-13.41	1718		

Number of channels tested:

Tuning range	Number of channels tested	Channel location in band
1 MHz or less	1	middle
1 to 10 MHz	2	top and bottom
more than 10 MHz	3	top, middle, bottom

ANNEX B - TEST DIAGRAMS

EQUIPMENT: iX104C4 Tablet PC

Test Site For Radiated Emissions

