
REPORT ON

Limited FCC CFR 47: Part 22 Testing in support of an
Application for Grant of Equipment Authorisation
of a Option NV GX0301 Globetrotter GT Max PCMCIA Card

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FCC ID: NCMOGX0301

Document 75901982 Report 01 Issue 1

August 2007



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DATED

16th August 2007

ENGINEERING STATEMENT

The measurements shown in this report were made in accordance with the procedures described on test pages. All reported testing was carried out on a sample equipment to demonstrate limited compliance with FCC CFR 47: Part 22. The sample tested was found to comply with the requirements defined in the applied rules.

Test Engineers;


B Airs





CONTENTS

Section	Page No
1	REPORT SUMMARY
1.1	Status..... 4
1.2	Introduction..... 5
1.3	Declaration of Build Status 6
1.4	Brief Summary of Results..... 7
1.5	Product Information 8
1.6	Test Conditions..... 9
1.7	Deviations from the Standard..... 9
1.8	Modification Record..... 9
1.9	Alternative Test Site 9
2	TEST DETAILS
2.1	Effective Radiated Power 11
3	TEST EQUIPMENT
3.1	Test Equipment 14
3.2	Measurement Uncertainty 15
4	ACCREDITATION, DISCLAIMERS AND COPYRIGHT
4.1	Accreditation, Disclaimers and Copyright 17



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SECTION 1

REPORT SUMMARY

Limited FCC CFR 47: Part 22 Testing in support of an
Application for Grant of Equipment Authorisation
of a Option NV GX0301 Globetrotter GT Max PCMCIA Card



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1.1 STATUS

Equipment Under Test	GX0301 Globetrotter GT Max PCMCIA Card
Objective	To undertake measurements to determine the Equipment Under Test's (EUT's) compliance with the specification.
Name and Address of Client	Option NV Gaston Geenslaan 14 B-3001 Leuven Belgium
Model Number	GX0301
Serial Number	GE2474A04R
Hardware Version	2.0
Software Version	2.7.0
Declared Variants	None
Test Specification/Issue/Date	FCC CFR 47: Part 22, Subpart H, January 2006
Number of Items Tested	Three
Security Classification of EUT	Commercial In Confidence
Incoming Release Date	Declaration of Build Status 16 th August 2007
Order Number Date	PTP 7 th August 2007
Start of Test	13 th August 2007
Finish of Test	13 th August 2007
Related Documents	ANSI C63.4:2001. FCC: DA 00-705



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1.2 INTRODUCTION

The information contained within this report is intended to show limited verification of compliance of the Option NV GX0301 Globetrotter GT Max PCMCIA Card to the requirements of FCC CFR 47: Specification Part 22.

Testing was carried out in support of an application for Grant of Equipment Authorisation in the name of Option NV.



1.3 DECLARATION OF BUILD STATUS

MAIN EUT	
MANUFACTURING DESCRIPTION	PCMCIA data card
MANUFACTURER	Option NV
TYPE	PCMCIA data card
PART NUMBER	GX0301
SERIAL NUMBER	GE2474A04R
HARDWARE VERSION	2.0
SOFTWARE VERSION	2.7.0
TRANSMITTER OPERATING RANGE	824MHz – 1980MHz
RECEIVER OPERATING RANGE	869MHz – 2170MHz
COUNTRY OF ORIGIN	Belgium
INTERMEDIATE FREQUENCIES	Zero-IF
ITU DESIGNATION OF EMISSION	850, 1900, 900, 1800: 300KGXW 850Edge, 1900Edge, 1800 Edge, 900Edge: 300KG7W FDDII, FDDV, FDDI: 4M20F9W
HIGHEST INTERNALLY GENERATED FREQUENCY	1980MHz
OUTPUT POWER (W or dBm)	Low bands 2G: 2W; High bands 2G: 1W; 3G: 0,25W
FCC ID	NCMOGX0301
INDUSTRY CANADA ID	
TECHNICAL DESCRIPTION (a brief description of the intended use and operation)	PCMCIA datacard implementing HSUPA / HSDPA / UMTS on 2100 / 1900 / 850 and EDGE / GPRS on 1900 / 1800 / 900 / 850 bands
BATTERY/POWER SUPPLY	
MANUFACTURING DESCRIPTION	Power feed through laptop
MANUFACTURER	
TYPE	
PART NUMBER	
VOLTAGE	
COUNTRY OF ORIGIN	

Signature

Unsigned document was sent via email

Date16th August 2007**D of B S Serial No**

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TUV Product Service Limited formally certifies that the manufacturer's declaration as reproduced in this report, is a true and accurate record of the original received from the applicant.



1.4 BRIEF SUMMARY OF RESULTS

A brief summary of the tests carried out is shown below.

Section	Spec Clause	Test Description	Result	Comments
2.1	Part 2.1046 Part 22.913 (a)	Effective Radiated Power –Radiated	Pass	



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1.4 PRODUCT INFORMATION

1.4.1 Technical Description

The Equipment Under Test (EUT) was a Option NV GX0301 Globetrotter GT Max PCMCIA Card, which offers GSM connectivity.

1.4.2 Modes of Operation

Modes of operation of the EUT during testing were as follows:

Applicable testing was carried out with the EUT transmitting at maximum power.

1.4.3 Test Configuration

Test Configuration – 3G Mode

Channel 139: 826.4MHz

Channel 190: 836.6MHz

Channel 240: 846.6MHz

The Output Power level (controlled by application software) was set to maximum



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1.5 TEST CONDITIONS

The EUT was set-up simulating a typical user installation on the Open Field Test Site under Registration Number: 90987, (90986 for Bearley) and tested in accordance with the applicable specification.

For all tests, the Option NV GX0301 Globetrotter GT Max PCMCIA Card was powered via one of three different host laptops.

- Fujitsu Siemens Laptop Serial Number YK5T053249
- Max Data Laptop Serial Number GO662120008
- IBM ThinkPad Laptop Serial Number 99-CYLXA 03/07

1.6 DEVIATIONS FROM THE STANDARD

No deviations from the applicable test standards were made.

1.7 MODIFICATION RECORD

No modifications were made to the EUT during testing.

1.8 ALTERNATIVE TEST SITE

Under our group UKAS Accreditation, TÜV Product Service Ltd conducted the following tests at our Bearley, Stratford-upon-Avon Test Laboratory, FCC Registration Number: 90986.

- FCC: Part 22.913 Effective Radiated Power



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SECTION 2

TEST DETAILS

Limited FCC CFR 47: Part 22 Testing in support of an
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2.1 EFFECTIVE RADIATED POWER

2.1.1 Specification Reference

FCC CFR 47: Part 22 Subpart H, Section 22.913

2.1.2 Equipment Under Test

GX0301 Globetrotter GT Max PCMCIA Card

2.1.3 Date of Test

13th August 2007

2.1.4 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.

2.1.5 Test Procedure

Test Performed in accordance with ANSI C63.4.

The EUT has an Integral Antenna, therefore the Maximum Peak Output Power (ERP) was made using the Radiated method.

The Spectrum Analyser was tuned to the test frequency. The device Output Power setting was controlled as specified in the Product Information, Section 1.5 of this document. The device was then rotated through 360 degrees, and the measuring antenna height searched (1m – 4m) until the highest power level was observed in both horizontal and vertical polarisation. The device was then replaced with a substitution antenna, whose input signal to the antenna was adjusted until the received level matched that of the previously detected emission.

2.1.6 Test Results

The EUT met the requirements of FCC CFR 47: Part 22 Subpart H, Section 22.913 for Effective Radiated Power.

Measurements were made with the EUT in Test Mode 1: GSM 850MHz.

Laptop S/N YK5T053249

Frequency (MHz)	Result ERP (dBm)	Limit ERP (dBm)	Result ERP (mW)	Limit ERP (mW)
826.4	+24.07	38.45	255.3	7000
836.6	+26.37	38.45	433.5	7000
846.6	+25.20	38.45	331.1	7000



2.1 EFFECTIVE RADIATED POWER

2.1.6 Test Results

Laptop S/N G0662120008

Frequency (MHz)	Result ERP (dBm)	Limit ERP (dBm)	Result ERP (mW)	Limit ERP (mW)
826.4	+23.59	38.45	228.6	7000
836.6	+26.84	38.45	483.1	7000
846.6	+28.30	38.45	676.1	7000

Laptop S/N 99-CYLXA

Frequency (MHz)	Result ERP (dBm)	Limit ERP (dBm)	Result ERP (mW)	Limit ERP (mW)
826.4	+25.75	38.45	375.8	7000
836.6	+29.65	38.45	922.6	7000
846.6	+29.03	38.45	799.8	7000



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SECTION 3

TEST EQUIPMENT



3.1 TEST EQUIPMENT

List of absolute measuring and other principal items of test equipment.

Instrument	Manufacturer	Type No	TE Number	Calibration Due
Section 2.1 Effective Radiated Power				
Receiver	Rhode & Schwarz	ESIB40	2941	20/09/2007
Signal Generator	Agilent	E4433B	2893	05/12/2007
Antenna	EMCO	3115	1711	27/07/2008
Antenna	Schaffner	CBL6143	1858	08/09/2008
Antenna	Schwarzbeck	UHAP	447	08/09/2007
Antenna	EMCO	3115	794	27/07/2008
Hygrometer	Rotronic	A1	2760	04/06/2008
Meter	Fluke	79-3	611	31/05/2008
Analyser	Hewlett Packard	8990A	107	25/11/2007
Sensor	Hewlett Packard	84812A	2743	25/11/2007



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3.2 MEASUREMENT UNCERTAINTY

For a 95% confidence level, the measurement uncertainties for defined systems are:-

Test Discipline	Frequency / Parameter	MU
Radiated Emissions, Bilog Antenna, AOATS	30MHz to 1GHz Amplitude	5.1dB*
Radiated Emissions, Horn Antenna, AOATS	1GHz to 40GHz Amplitude	6.3dB*

Worst case error for both Time and Frequency measurement 12 parts in 10^6 .

* In accordance with CISPR 16-4



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SECTION 4

ACCREDITATION, DISCLAIMERS AND COPYRIGHT



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4.1 ACCREDITATION, DISCLAIMERS AND COPYRIGHT



This report relates only to the actual item/items tested.

Our UKAS Accreditation does not cover opinions and interpretations and any expressed are outside the scope of our UKAS Accreditation.

Results of tests not covered by our UKAS Accreditation Schedule are marked NUA (Not UKAS Accredited).

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