

TEST REPORT FROM RFI GLOBAL SERVICES LTD

Test of: GTX Corp
GSM/GPRS/AGPS Tracking Device Mobile 1

To: FCC Part 22: 2007 (Subpart H) and
FCC Part 24: 2007 (Subpart E)

Test Report Serial No:
RFI/RPT2/RP72563JD08A

Supersedes Test Report Serial No:
RFI/RPT1/RP72563JD08A

This Test Report Is Issued Under The Authority
Of Steve Flooks, Radio Performance Group Service
Leader:



pp Brian Watson

Checked By:
Brian Watson



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Test of: **GTx Corp**
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To: **FCC Part 22: 2007 (Subpart H) and FCC Part 24: 2007 (Subpart E)**

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1. Client Information

Company Name:	GTX Corp
Address:	117 W. 9th Street, Number 1214 Los Angeles California 90015
Contact Name:	Mr E Stalnaker

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2. Equipment Under Test (EUT)

The following information (with the exception of the Date of Receipt) has been supplied by the client:

2.1. Identification of Equipment Under Test (EUT)

Description:	GSM/GPRS/AGPS Tracking Device
Brand Name:	gpVector
Model Name or Number:	Mobile1
Serial Number:	81,86,91
Hardware Version Number:	1.1
Software Version Number:	2.2
FCC ID Number:	WFR GC226142
Country of Manufacture:	USA
Date of Receipt:	16 July 2008

Description:	Battery, 3.7 Volt, 1950 mAh Li-ion cell
Brand Name:	Hi Capacity
Model Name or Number:	R-ANLK84
Serial Number:	None Stated
Connected to Port:	Battery terminal connectors

Description:	Battery Charger
Brand Name:	Battery charger for R-ANLK84
Model Name or Number:	CH-ANLK84
Serial Number:	None
Cable Length and Type:	1.5 metre
Connected to Port:	Charger port

2.2. Description of EUT

The equipment under test is a GSM/GPRS/AGPS Tracking Device.

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2.3. Support Equipment

No support equipment was used to exercise the EUT during testing.

2.4. Modifications Incorporated in EUT

During the course of testing the EUT was not modified.

2.5. Additional Information Related to Testing

Power Supply Requirement:	V-Norm 110 V, V-Min 93.5 V, V-Max 126.5 V		
Intended Operating Environment:	Within GSM coverage		
Equipment Category:	GSM		
Type of Unit:	GSM/GPRS		

FCC Part 22

Transmit Frequency Range:	824 MHz to 849 MHz		
Transmit Channels Tested:	Channel ID	Channel Number	Channel Frequency (MHz)
	Bottom	128	824.2
	Middle	189	836.4
	Top	251	848.8
Receive Frequency Range:	869 MHz to 894 MHz		
Receive Channels Tested:	Channel ID	Channel Number	Channel Frequency (MHz)
	Bottom	128	869.2
	Middle	189	881.4
	Top	251	893.8
Maximum Power Output (ERP):	28.7 dBm		

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Additional Information Related to Testing (continued)

FCC Part 24

Transmit Frequency Range:	1850 MHz to 1910 MHz		
Transmit Channels Tested:	Channel ID	Channel Number	Channel Frequency (MHz)
	Bottom	512	1850.2
	Middle	660	1879.8
	Top	810	1909.8
Receive Frequency Range:	1930 MHz to 1990 MHz		
Receive Channels Tested:	Channel ID	Channel Number	Channel Frequency (MHz)
	Bottom	512	1930.2
	Middle	660	1959.8
	Top	810	1989.8
Maximum Power Output (EIRP):	22.3 dBm		

2.6. Port Identification

Port	Description	Type/Length
1	Serial	9 pin, 12 inched

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3. Test Specification, Methods and Procedures

Reference:	FCC Part 22: 2007 Subpart H (Cellular Radiotelephone Service)
Title:	Code of Federal Regulations, Part 22 (47CFR22) Personal Communication Services.

Reference:	FCC Part 24: 2007 Subpart E (Broadband PCS)
Title:	Code of Federal Regulations, Part 24 (47CFR24) Personal Communication Services.

3.1. Methods and Procedures

The methods and procedures used were as detailed in:

ANSI/TIA-603-B-2003
Land Mobile Communications Equipment, Measurements and performance Standards

ANSI C63.2 (1987)
Title: American National Standard for Instrumentation - Electromagnetic noise and field strength.

ANSI C63.4 (2003)
Title: American National Standard Methods of Measurement of Electromagnetic Emissions from Low Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz.

ANSI C63.5 (1988)
Title: American National Standard for the Calibration of antennas used for Radiated Emission measurements in Electromagnetic Interference (EMI) control.

ANSI C63.7 (1988)
Title: American National Standard Guide for Construction of Open Area Test Sites for performing Radiated Emission Measurements.

CISPR 16-1: (1999)
Title: Specification For Radio Disturbance and Immunity Measuring Apparatus and Methods. Part 1: Radio Disturbance and Immunity Measuring Apparatus.

3.2. Definition of Measurement Equipment

The measurement equipment used complied with the requirements of the standards referenced in the methods & procedures Section above. Appendix 1 contains a list of the test equipment used.

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4. Deviations from the Test Specification

There were no deviations from the test specification.

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5. Operation of the EUT during Testing

5.1. Operating Modes

The EUT was tested in the following operating modes, unless otherwise stated.

Connected (via wireless link) to a GSM system simulator, operating in GSM transceiver mode.

Transmitter Modes:

Testing was performed at full power on the top, middle and bottom channels of the assigned frequency block.

5.2. Configuration and Peripherals

The EUT was tested in the following configuration unless otherwise stated:

For this test the EUT was configured using the Battery Charger and in GSM mode, as this was found to give the highest transmit power.

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6. Summary of Test Results

FCC Part 22

Range of Measurements	Specification Reference	Port Type	Compliance Status
Transmitter Effective Radiated Power (ERP)	22.913(a)	Antenna	Complied

FCC Part 24

Range of Measurements	Specification Reference	Port Type	Compliance Status
Transmitter Effective Isotropic Radiated Power (EIRP)	24.232	Antenna	Complied

6.1. Location of Tests

All the measurements described in this report were performed at the premises of RFI Global Services Ltd, Ewhurst Park, Ramsdell, Basingstoke, Hampshire, RG26 5RQ.

6.2. Site Registration Numbers

FCC: 90895
IC: 3485

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7. Measurements, Examinations and Derived Results

7.1. General Comments

This Section contains test results only.

Measurement uncertainties are evaluated in accordance with current best practice. Our reported expanded uncertainties are based on standard uncertainties, which are multiplied by an appropriate coverage factor to provide a statistical confidence level of approximately 95%. Please refer to Section 8 for details of measurement uncertainties.

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7.2. Test Results – FCC Part 22 (Subpart H)

7.2.1. Transmitter Effective Radiated Power (ERP)

Ambient Temperature: 23°C Relative Humidity: 44%

Tests were performed using the test methods detailed in ANSI TIA-603-C-2004 referencing FCC CFR Part 2.

Results:

Channel	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Result
Bottom	824.2	28.7	38.4	9.7	Complied
Middle	836.6	27.8	38.4	10.6	Complied
Top	848.8	27.5	38.4	10.9	Complied

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7.3. Test Results – FCC Part 24 (Subpart E)

7.3.1. Transmitter Effective Isotropic Radiated Power (EIRP)

Ambient Temperature: 23°C Relative Humidity: 44%

Tests were performed using the test methods detailed in ANSI TIA-603-C-2004 referencing FCC CFR Part 2.

Results:

Channel	Measured Frequency (MHz)	Antenna Polarity	Maximum Transmitter EIRP (dBm)	Limit EIRP (dBm)	Margin (dB)	Result
Bottom	1850.2	Horizontal	22.3	33.0	10.7	Complied
Middle	1879.8	Horizontal	21.9	33.0	11.1	Complied
Top	1909.8	Horizontal	22.3	33.0	10.7	Complied

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8. Measurement Uncertainty

No measurement or test can ever be perfect and the imperfections give rise to error of measurement in the results. Consequently, the result of a measurement is only an approximation to the value of the measurand (the specific quantity subject to measurement) and is only complete when accompanied by a statement of the uncertainty of the approximation.

The expression of uncertainty of a measurement result allows realistic comparison of results with reference values and limits given in specifications and standards.

The uncertainty of the result may need to be taken into account when interpreting the measurement results.

The reported expanded uncertainties below are based on a standard uncertainty multiplied by an appropriate coverage factor, such that a confidence level of approximately 95% is maintained. For the purposes of this document "approximately" is interpreted as meaning "effectively" or "for most practical purposes".

Measurement Type	Range	Confidence Level (%)	Calculated Uncertainty
Effective Radiated Power (ERP)	Not applicable	95%	±2.94 dB
Effective Isotropic Radiated Power (EIRP)	Not applicable	95%	±2.54 dB

The methods used to calculate the above uncertainties are in line with those recommended within the various measurement specifications. Where measurement specifications do not include guidelines for the evaluation of measurement uncertainty, the published guidance of the appropriate accreditation body is followed.

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Appendix 1. Test Equipment Used

RFI No.	Instrument	Manufacturer	Type No.	Serial No.	Date Last Calibrated	Cal. Interval (months)
A028	Antenna	Eaton	91888-2	304	08 Jun 2006	36
A059	Antenna	EMCO	3146	8902-2378	07 Feb 2008	12
M1242	Spectrum Analyser	Rohde & Schwarz, Inc.	FSEM30	845986/022	29 Nov 2007	12
S202	Site 2	RFI	2	S202-15011990	28 Jan 2008	12

NB In accordance with UKAS requirements, all the measurement equipment is on a calibration schedule