



TEST REPORT FROM RFI GLOBAL SERVICES LTD

Test of: Num8

To: FCC Part 22.913(a) and FCC Part 24.232

Test Report Serial No:
RFI/RPT2/RP75594JD01A

Version 2 Supersedes All Previous Versions

This Test Report Is Issued Under The Authority Of Brian Watson, Operations Director:	
	
Checked By:	Nigel Davison
Signature:	
Date of Issue:	02 February 2010

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1. Customer Information





Company Name:	Lok8U Ltd
Address:	Unit 2, Colemeadow Road North Moons Moat Redditch Worcestershire B98 9PB

2. Summary of Testing

2.1. General Information

Specification Reference:	47CFR22
Specification Title:	Code of Federal Regulations Volume 47 (Telecommunications) 2009: Part 22 Subpart H (Public Mobile Services)
Specification Reference:	47CFR24
Specification Title:	Code of Federal Regulations Volume 47 (Telecommunications) 2009: Part 24 Subpart E (Personal Communication Services)
Site Registration:	209735
Location of Testing:	RFI Global Services Ltd, Wade Road, Basingstoke, Hampshire, RG24 8AH.

2.2. Summary of Test Results

FCC Reference (47CFR)	Measurement	Port Type	Result
FCC 22.913(a)	Transmitter Effective Radiated Power (ERP)	Antenna	
FCC 24.232	Transmitter Equivalent Isotropic Radiated Power (EIRP)	Antenna	
Key to Results  = Complied  = Did not comply			

2.3. Methods and Procedures

Reference:	ANSI/TIA-603-C-2004
Title:	Land Mobile Communications Equipment, Measurements and performance Standards
Reference:	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.

2.4. Deviations from the Test Specification

For the measurements contained within this test report, there were no deviations from, additions to, or exclusions from the test specification identified above.

3. Equipment Under Test (EUT)

3.1. Identification of Equipment Under Test (EUT)

Brand Name:	Lok8U
Model Name or Number:	Num8
IMEI Number:	356021011706476
Hardware Version Number:	8 2.0
Software Version Number:	8.4
FCC ID Number:	XYANUM8

3.2. Description of EUT

The equipment under test was a wrist worn tracking device which incorporates GSM/GPRS functionality.

3.3. Modifications Incorporated in the EUT

No modifications were applied to the EUT during testing.

3.4. Additional Information Related to Testing

Technology Tested:	GSM/GPRS
Type of Radio Device:	Mobile Station
Cycle Time:	<1 s
Antenna Type:	Integral
Antenna Gain:	+1 dB
Power Supply Requirement(s):	Internal Battery Supply

3.5. Support Equipment

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

4. Operation and Monitoring of the EUT during Testing

4.1. Operating Modes

The EUT was tested in the following operating mode(s):

- Allocated mode – the device was placed into a call with a Rohde & Schwarz communications test set.

4.2. Configuration and Peripherals

The EUT was tested in the following configuration(s):

- The EUT was placed horizontally on the turntable.

5. Measurements, Examinations and Derived Results

5.1. General Comments

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 6. Measurement Uncertainty* for details.

5.2. Test Results**5.2.1. Transmitter Effective Radiated Power (ERP)****Test Summary:**

FCC Part:	22.913(a)
Test Method Used:	As detailed in ANSI TIA-603-C-2004 Section 2.2.17.2

Environmental Conditions:

Temperature (°C):	21
Relative Humidity (%):	34

Results: GPRS 850

Channel	Measured Frequency (MHz)	Antenna Polarity	Maximum ERP (dBm)	Limit (dBm)	Margin (dB)	Result
Bottom	824.280	Vertical	22.0	38.5	16.5	Complied
Middle	836.400	Vertical	22.0	38.5	16.5	Complied
Top	848.800	Vertical	22.0	38.5	16.5	Complied

5.2.2. Transmitter Equivalent Isotropic Radiated Power (EIRP)**Test Summary:**

FCC Part:	24.232
Test Method Used:	As detailed in ANSI TIA-603-C-2004 Section 2.2.17.2

Environmental Conditions:

Temperature (°C):	21
Relative Humidity (%):	34

Results: GPRS 1900

Channel	Measured Frequency (MHz)	Antenna Polarity	Maximum EIRP (dBm)	Limit (dBm)	Margin (dB)	Result
Bottom	1850.200	Vertical	24.1	33.0	8.9	Complied
Middle	1879.800	Vertical	24.1	33.0	8.9	Complied
Top	1909.800	Vertical	24.1	33.0	8.9	Complied

6. 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
Equivalent Isotropic Radiated Power (EIRP)	Not applicable	95%	±2.94 dB
Effective Radiated Power (ERP)	Not applicable	95%	±2.94 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.

Appendix 1. Test Equipment Used

RFI No.	Instrument	Manufacturer	Type No.	Serial No.	Date Last Calibrated	Cal. Interval (months)
A1391	Attenuator	HUBER + SUHNER AG	757987	6810.17.B	Calibrated before use	-
A1392	Attenuator	HUBER + SUHNER AG	757456	6820.17.B	Calibrated before use	-
A1534	Pre Amplifier	Hewlett Packard	8449B OPT H02	3008A00405	Calibrated before use	-
A1818	Antenna	EMCO	3115	00075692	27 Nov 2009	12
K0002	3m RSE Chamber	Rainford EMC	N/A	N/A	01 Sep 2009	12
M1124	Spectrum Analyser	Rohde & Schwarz	ESIB26	100046K	09 Mar 2009	12

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