



**TEST REPORT
FROM
RFI GLOBAL SERVICES LTD**

Partial Test of: Blutag Victim

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

Test Report Serial No:
RFI-RPT-RP76131JD04A

Version 2.0 supersedes all previous versions

This Test Report Is Issued Under The Authority Of Brian Watson, COO Payments and Consultancy:		
Checked By:	Nigel Davison	
Signature:	 pp	
Date of Issue:	14 May 2010	

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1. Customer Information





Company Name:	Satellite Tracking of People LLC
Address:	1212 North Post Oak Road Suite 100 Houston Texas 77055 USA

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
Test Dates:	18 October 2009 to 20 November 2009

2.2. Summary of Test Results

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

2.3. Methods and Procedures

Reference:	ANSI/TIA-603-C-2004
Title:	Land Mobile FM or PM - Communications Equipment - Measurement and Performance Standards
Reference:	ANSI C63.10 (2009)
Title:	American National Standard Methods for Testing Unlicensed Wireless Devices

2.4. Deviations from the Test Specification

ERP and EIRP tests requested only.

3. Equipment Under Test (EUT)

3.1. Identification of Equipment Under Test (EUT)

Brand Name:	Blutag
Model Name or Number:	Victim
Serial Number:	000015
Hardware Version Number:	BB11_V
Software Version Number:	4_603
FCC ID Number:	S5EBTV0909

3.2. Description of EUT

The equipment under test was a body worn GPRS/GPS tracker fitted with an inductive transmitter.

3.3. Modifications Incorporated in the EUT

No modifications were applied to the EUT during testing.

3.4. Additional Information Related to Testing

Equipment Category	GPRS850 / GPRS1900
Type of Radio Device:	Short Range Device
Antenna Type:	Internal
Antenna Gain:	<0 dBi
Power Supply Requirement(s):	3.7 V

3.5. Support Equipment

The following support equipment was used to exercise the EUT during testing:

Description:	Wireless Communication Test Set
Brand Name:	Agilent
Model Name or Number:	8960 Series 10
Serial Number:	GB46311280
Cable Length and Type:	~1.5m Utiflex Cable
Connected to Port:	RF Input/Output Port

4. Operation and Monitoring of the EUT during Testing

4.1. Operating Modes

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

- GPRS - Constantly transmitting at full power on bottom, centre and top channels as required.

4.2. Configuration and Peripherals

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

- The EUT was put into GSM or SRD modes by following the Client's instructions. The main button was pressed until the Light Emitting Diodes indicated the required mode.
- Connected to a calibrated GSM / GPRS system simulator, operating in transceiver mode.
- A GSM test SIM was fitted during the GPRS measurements.
- The battery was fully charged before testing commenced and recharged as required during the testing.

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:	ANSI TIA-603-C-2004 Section 2.2.17.2

Environmental Conditions:

Temperature (°C):	25
Relative Humidity (%):	32

Results: GPRS 850 ERP

Channel	Frequency (MHz)	Maximum Transmitter Peak Power (dBm)	Maximum Transmitter Average Power (dBm)
Bottom	824.2	13.3	12.8
Middle	836.4	14.5	14.0
Top	848.8	13.5	13.0

Results: GPRS 850 Conducted Average Power Measurement

Channel	Frequency (MHz)	GPRS - TX Average Power (dBm)	Note
Bottom	824.2	32.6	Conducted
Middle	836.4	32.7	Conducted
Top	848.8	32.6	Conducted

Note(s):

- ERP measurements - The EUT was positioned in the X, Y and Z planes. The measurement antenna was positioned in the horizontal and vertical planes. The highest peak and average power level was recorded in the above table.
- Conducted average power measurements were made with the EUT antenna port connected directly to the GSM system simulator.

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

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

Environmental Conditions:

Temperature (°C):	25
Relative Humidity (%):	32

Results: GPRS 1900 EIRP

Channel	Frequency (MHz)	Maximum Transmitter Peak Power (dBm)	Maximum Transmitter Average Power (dBm)
Bottom	1850.2	30.6	29.6
Middle	1879.8	28.2	27.2
Top	1909.8	27.7	26.7

Results: GPRS 1900 Conducted Average Power Measurement

Channel	Frequency (MHz)	GPRS - TX Average Power (dBm)	Note
Bottom	1850.2	27.7	Conducted
Middle	1879.8	28.6	Conducted
Top	1909.8	28.9	Conducted

Note(s):

1. EIRP measurements - The EUT was positioned in the X, Y and Z planes. The measurement antenna was positioned in the horizontal and vertical planes. The highest peak and average power level was recorded in the above table.
2. Conducted average power measurements were made with the EUT antenna port connected directly to the GSM system simulator.

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
Effective Radiated Power (ERP)	30 MHz to 1000 MHz	95%	±4.64 dB
Equivalent Isotropic Radiated Power (EIRP)	1850 to 1910 MHz	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)
A1005	Waveguide Transition	Silver Lab	PM 7325X	None	Calibrated before use	-
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	-
A288	Antenna	Chase	CBL6111A	1589	16 Mar 2010	12
M1124	Spectrum Analyser	Rohde & Schwarz	ESIB26	100046K	09 Mar 2009	12
K0002	3m RSE Chamber	Rainford EMC	Not applicable	Not applicable	01 Sept 2009	12

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