

TEST REPORT FROM RFI GLOBAL SERVICES LTD

Test of: DataSend900-GPRS

FCC ID: MS8C9P

To: FCC Part 15.247(b)(2)

Test Report Serial No:
RFI-RPT-RP79172JD06A

**This Test Report Is Issued Under The Authority
Of Scott D'Adamo, Operations Manager Global
Approvals:**



Checked By:

A. Henriques

Signature:



Date of Issue:

08 October 2010

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Table of Contents

1. Customer Information	4
2. Summary of Testing	5
2.1. General Information	5
2.2. Summary of Test Results	5
2.3. Methods and Procedures	5
2.4. Deviations from the Test Specification	5
3. Equipment Under Test (EUT)	6
3.1. Identification of Equipment Under Test (EUT)	6
3.2. Description of EUT	6
3.3. Modifications Incorporated in the EUT	6
3.4. Additional Information Related to Testing	7
3.5. Support Equipment	7
4. Operation and Monitoring of the EUT during Testing	8
4.1. Operating Modes	8
4.2. Configuration and Peripherals	8
5. Measurements, Examinations and Derived Results	9
5.1. General Comments	9
5.2. Test Results	10
5.2.1. Transmitter Maximum Peak Output Power	10
6. Measurement Uncertainty	11
Appendix 1. Test Equipment Used	12

1. Customer Information




Company Name:	Kenure Developments Ltd
Address:	Springlakes Deadbrook Lane Aldershot Hampshire GU12 4UH United Kingdom

2. Summary of Testing

2.1. General Information

Specification Reference:	47CFR15.247
Specification Title:	Code of Federal Regulations Volume 47 (Telecommunications) 2009: Part 15 Subpart C (Intentional Radiators) - Section 15.247(b)(2)
Site Registration:	FCC: 209735
Location of Testing:	RFI Global Services Ltd, Wade Road, Basingstoke, Hampshire, RG24 8AH.
Test Dates:	28 September 2010

2.2. Summary of Test Results

FCC Reference (47CFR)	Measurement	Result
Part 15.247(b)(2)	Transmitter Maximum Peak Output Power	
Key to Results  = Complied  = Did not comply		

2.3. Methods and Procedures

Reference:	ANSI C63.10 (2009)
Title:	American National Standard for Testing Unlicensed Wireless Devices

2.4. Deviations from the Test Specification

Only the measurements of Transmitter Maximum Peak Output Power was performed.

3. Equipment Under Test (EUT)

3.1. Identification of Equipment Under Test (EUT)

Brand Name:	DataSend900-GPRS
Model Name or Number:	DS-C900G
Serial Number:	0001
IMEI Number:	012000000016424
Hardware Version Number:	7327/0 iss A
Software Version Number:	1.0
FCC ID Number:	MS8C9G

Description:	2.15 dBi gain half-wave dipole antenna with SMA connector
Brand Name:	Antenna Factor
Model Name or Number:	ANT-916-CW-HWR-SMA
Serial Number:	Not Stated

3.2. Description of EUT

The equipment under test was a Wireless Data Concentrator operating over the 902 MHz to 928 MHz band with 850/900/1800/1900 GPRS modem. The EUT uses total 51 channels for communications where the 36th channel (919.8976MHz) is a receive-only channel and the rest are bi-directional (transmit/receive) channels.

3.3. Modifications Incorporated in the EUT

No modifications were applied to the EUT during testing.

3.4. Additional Information Related to Testing

Tested Technology:	902 to 928 MHz ISM band FHSS Fixed Radio Network		
Transmit Frequency Range:	902 MHz to 928 MHz		
Transmit Channels Tested:	Channel ID	Channel Number	Channel Frequency (MHz)
	Bottom	1	902.3976
	Middle	26	914.8976
	Top	51	927.3976

3.5. Support Equipment

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

Description:	AC/DC 5V adapter
Brand Name:	Power Pax
Model Name or Number:	5V 15W Model PA1024-1I
Serial Number:	2K9S0770

Description:	Laptop PC
Brand Name:	Dell
Model Name or Number:	Inspiron 1900
Serial Number:	Not Stated

4. Operation and Monitoring of the EUT during Testing

4.1. Operating Modes

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

- Tests were performed with the EUT transmitting at full power on the bottom, centre and top channels.

4.2. Configuration and Peripherals

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

- Tests were performed with the EUT powered from an AC/DC adapter with 120 VAC and 5 VDC output.

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 Maximum Peak Output Power

Test Summary:

Test Engineer:	Fara Razally	Test Date:	28 September 2010
Test Sample Serial No:	0001		

FCC Part:	15.247(b)(2)
Test Method Used:	As detailed in ANSI C63.10 Section 6.10.1

Environmental Conditions:

Temperature (°C):	26
Relative Humidity (%):	34

Results:

Channel	Conducted Peak Power (dBm)	Conducted Peak Power Limit (dBm)	Margin (dB)	Result
Bottom	20.3	30.0	9.7	Complied
Middle	20.8	30.0	9.2	Complied
Top	20.7	30.0	9.3	Complied

Channel	Conducted Peak Power (dBm)	Declared Antenna Gain (dBi)	EIRP (dBm)	De Facto EIRP Limit (dBm)	Margin (dB)	Result
Bottom	20.3	2.15	22.45	36.0	13.55	Complied
Middle	20.8	2.15	22.95	36.0	13.05	Complied
Top	20.7	2.15	22.85	36.0	13.15	Complied

Note(s):

- As per the requirements of Public Notice DA 00-705, the stated antenna gain of the EUT is 2.15 dBi which, when added to the highest (worst case) measured conducted peak output power of 20.8 dBm (from the table above), gives a de facto EIRP of 22.95 dBm. This is in compliance with the de facto EIRP limitation, i.e. 4 Watt (36 dBm).

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
Conducted Maximum Peak Output Power	902 to 928 MHz	95%	±0.27 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 Calibration Due	Cal. Interval (Months)
A1396	Attenuator	Huber + Suhner	757987	6810.17.B	06 Jul 2011	12
M127	Spectrum Analyser	Rohde & Schwarz	FSEB 30	842 659/016	15 Sep 2011	12

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