



Compliance Testing, LLC
Previously Flom Test Lab
RF, EMC and Safety Testing Experts Since 1963

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Date: January 7, 2011

Federal Communications Commission
Via: Electronic Filing

Attention: Authorization & Evaluation Division

Applicant: Technology Solutions (UK) Ltd

Equipment: 1116

FCC ID: S6J-1116

FCC Rules: Radio Frequency Radiation Exposure Limits
47 CFR 1.1310
MPE - Mobiles **X** Fixed Based Station

On behalf of the Applicant, enclosed please find the Supplemental Test Data Report, the whole for Environmental Assessment (MPE) of the referenced equipment as shown.

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Please retain a copy of this report for your archival purposes.

For any additional information please contact us.

Sincerely,

Compliance Testing



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Environmental Assessment

for

Mobiles

for

FCC ID: S6J-1116

Model: 1116

to

Federal Communications Commission

47 CFR 1.1310

Radio Frequency Radiation Exposure Limits

Date of Report: January 7, 2011

On the Behalf of the Applicant: Technology Solutions (UK) Ltd

At the Request of: Technology Solutions (UK) Ltd
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LE11 3GE

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By
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Test Report Revision History

Revision	Date	Revised By	Reason for revision
1.0	January 7, 2011	J. Erhard	Original Document
2.0	January 13, 2011	Karen Springer	Corrected FCC ID
3.0	February 2, 2011	John Erhard	Add calculation for second antenna. Use source based time average power for calculation(duty cycle)
4.0	February 2, 2011	J. Erhard	Show duty-cycle calculations from original filing



Table of Contents

<u>Rule</u>	<u>Description</u>	<u>Page</u>
	Standard Test Conditions and Engineering Practices	2
1.1310	Environmental Assessment	3



**Testimonial
and
Statement of Certification**

This is to certify that:

1. **That** the application was prepared either by, or under the direct supervision of, the undersigned.
2. **That** the technical data supplied with the application was taken under my direction and supervision.
3. **That** the data was obtained on representative units, randomly selected.
4. **That**, to the best of my knowledge and belief, the facts set forth in the application and accompanying technical data is true and correct.

A handwritten signature in black ink, appearing to read "John Erhard".

Certifying Engineer:

John Erhard: Engineering Manager



Standard Test Conditions and Engineering Practices

Except as noted herein, the following conditions and procedures were observed during the testing:

In accordance with ANSI C63.4-2009 and unless otherwise indicated in the specific measurement results, the ambient temperature of the actual EUT was maintained within the range of 10° to 40°C (50° to 104 °F) unless the particular equipment requirements specify testing over a different temperature range. Also, unless otherwise indicated, the humidity levels were in the range of 10% to 90% relative humidity.

Prior to testing, the EUT was tuned up in accordance with the manufacturer's alignment procedures. All external gain controls were maintained at the position of maximum and/or optimum gain throughout the testing.

Measurement results, unless otherwise noted, are worst-case measurements.

A2LA

"A2LA has accredited Compliance Testing LLC, in Chandler, AZ for technical competence in the field of Electrical testing. The accreditation covers the specific tests and types of tests listed on the agreed scope of accreditation. This laboratory meets the requirements of ISO 17025:2005 'General Requirements for the Competence of Testing and Calibration Laboratories' and any additional program requirements in the identified field of testing."

Please refer to www.a2la.org for current scope of accreditation.

Certificate number: 2152.01





Name of Test: Environmental Assessment

Specification: FCC: 47 CFR 1.1310

Measurement Guide: ANSI/IEEE C95.1 1992

Name of Test: R.F. Radiation Exposure

FCC Rules: 1.1307, 1.1310, 1.1311, 2.1091

Limits: Uncontrolled Exposure
47 CFR 1.1310
Table 1, (B)

0.3-1.234 MHz:
1.34-30 MHz:
30-300 MHz:
300-1500 MHz
1500-100,000 MHz:

Limit [mW/cm²] = 100
Limit [mW/cm²] = (180/f²)
Limit [mW/cm²] = 0.2
Limit [mW/cm²] = f/1500
Limit [mW/cm²] = 1.0

40X40 Antenna

Test Frequencies, MHz 915
Power, Conducted, W (P) 0.928
Antenna Gain Isotropic 2.5 dBi
Antenna Gain Numeric (G) 1.78
Duty Cycle (D) 10.66%
Antenna Type Loop
Distance (R) 20 cm

Power Density Calculations

Formula =
Power Density (S) =
Limit =

$S = (PG / 4\pi R^2)D$
0.035
0.610

79X79 Antenna

Test Frequencies, MHz 915
Power, Conducted, W (P) 0.928
Antenna Gain Isotropic 0.5 dBi
Antenna Gain Numeric (G) 1.12
Duty Cycle (D) 10.66%
Antenna Type Loop
Distance (R) 20 cm

Power Density Calculations

Formula =
Power Density (S) =
Limit =

$S = (PG / 4\pi R^2)D$
0.022
0.610

Duty cycle supplied by the mfg based upon total transmit time vs. transmit time on a single channel.

T_{on} = 16 mS
T_{off} = 150 mS

Duty Cycle = 10-66%

END OF TEST REPORT