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## Test Report

Prepared for: Shenzhen SolidRF, LLC

Model: M2M

Description: Dual Band Consumer BDA

FCC ID: A7V-SR42152001

To

FCC Part 1.1310

Date of Issue: February 26, 2015

On the behalf of the applicant:

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Project No: p1510005

**Greg Corbin**  
Project Test Engineer

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### Test Report Revision History

Revision	Date	Revised By	Reason for Revision
1.0	February 26, 2015	Greg Corbin	Original Document



## ILAC / A2LA

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The tests results contained within this test report all fall within our scope of accreditation, unless below

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Testing Certificate Number: **2152.01**



**FCC Site Reg. #349717**

**IC Site Reg. #2044A-2**

### Non-accredited tests contained in this report:

N/A

### EUT Description

**Model:** M2M

**Description:** Dual Band Consumer BDA

**Firmware:** 079 M2M-20150124.hex

**Accessories:** Power adaptor supplied from customer, model MX18W1-050300U

### Additional Information:

The EUT is a M2M direct connect, bi-directional amplifier for the boosting of cellular phone signals and data communication devices.



## Minimum Safe Distance Evaluation

This is a mobile device used in **Uncontrolled** Exposure environment.

### Limits Controlled Exposure

47 CFR 1.1310

Table 1, (A)

0.3-3.0 MHz	Limit [mW/cm <sup>2</sup> ] = 100
3.0-30 MHz	Limit [mW/cm <sup>2</sup> ] = (900/f <sup>2</sup> )
30-300 MHz	Limit [mW/cm <sup>2</sup> ] = 1.0
300-1500 MHz	Limit [mW/cm <sup>2</sup> ] = f/300
1500-100,000 MHz	Limit [mW/cm <sup>2</sup> ] = 5

### Limits Uncontrolled Exposure

47 CFR 1.1310

Table 1, (B)

0.3-1.234 MHz	Limit [mW/cm <sup>2</sup> ] = 100
1.34-30 MHz	Limit [mW/cm <sup>2</sup> ] = (180/f <sup>2</sup> )
30-300 MHz	Limit [mW/cm <sup>2</sup> ] = 0.2
300-1500 MHz	Limit [mW/cm <sup>2</sup> ] = f/1500
1500-100,000 MHz	Limit [mW/cm <sup>2</sup> ] = 1.0

### Test Data

Note: Antenna gain Isotropic = Antenna gain (dBi) – cable loss (dB)

Antenna Gain and cable loss supplied by manufacturer in Antenna Kitting information document

Test Frequency, MHz	830
Power, Conducted, mW (P)	256
Antenna Gain Isotropic	2.1 dBi
Antenna Gain Numeric (G)	1.62
Distance (R)	20 cm

$$S = \frac{P * G}{4\pi r^2}$$

Power Density (S) mw/cm <sup>2</sup>	Power mW (P)	Numeric Gain (G)	Distance (r <sup>2</sup> ) cm
0.082	256	1.62	20

Power Density (S) = 0.082 mw/cm<sup>2</sup>

Limit = (from above table) = 0.553 mw/cm<sup>2</sup>

The BDA meets the power spectral density requirements at 20 cm.

Test Frequency, MHz	1877
Power, Conducted, mW (P)	0.0851
Antenna Gain Isotropic	2.4
Antenna Gain Numeric (G)	1.74
Distance (R)	20 cm

$$S = \frac{P * G}{4\pi r^2}$$

Power Density (S) mw/cm <sup>2</sup>	Power mW (P)	Numeric Gain (G)	Distance (r <sup>2</sup> ) cm
0.0000294	0.0851	1.74	20

Power Density (S) = 0.0000294 mw/cm<sup>2</sup>

Limit = (from above table) = 1.0 mw/cm<sup>2</sup>

The BDA meets the power spectral density requirements at 20 cm.

END OF TEST REPORT