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## **CERTIFICATION TEST REPORT**

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**Manufacturer:** **Embedded Planet**  
**4760 Richmond Road, Suite 400**  
**Cleveland, Ohio 44128 USA**

**Applicant:** **Same As Above**

**Product Name:** **Radio Module**

**Product Description:** The EPM2M-LORA-DC-8-NA Radio Module is a LoRa Data Collector Radio for use in LoRaWAN packet forwarding gateways. The radio module is based on the Semtech SX1301 Base Band Processor and the SX1257 Radio Transceiver. Both SPI and USB interfaces are provided for easy interfacing to processor based systems. The module acts as a data collector of LoRa packets received from remote radio modules. This module also transmits data to remote radio modules allowing for two-way control of remote devices. The radio module nominally operates in the 915MHz ISM band in uplink and downlink paths.

**Model:** **EPM2M-LORA-DC-8-NA**

**FCC ID:** **PZSLORA-DC-8**

**Testing Commenced:** Mar. 31, 2016

**Testing Ended:** Apr. 1, 2016

**Test Results:** **In Compliance**

The EUT complies with the EMC requirements when manufactured identically as the unit tested in this report, including any required modifications. Any changes to the design or build of this unit subsequent to this testing may deem it non-compliant.

**Standards:**

- **KDB447498**



Order Number: F2LQ8292

Client: Embedded Planet  
Model: EPM2M-LORA-DC-8-NA

**Evaluation Conducted by:**

Ken Littell, Director of EMC & Wireless Operations

**Report Reviewed by:**

Wendy Fuster, President

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## 1 ADMINISTRATIVE INFORMATION

### 1.1 Measurement Location:

F2 Labs in Middlefield, Ohio. Site description and attenuation data are on file with the FCC's Sampling and Measurement Branch at the FCC Laboratory in Columbia, MD.

### 1.2 Measurement Procedure:

All measurements were performed according to KDB558074.

### 1.4 Document History

Document Number	Description	Issue Date	Approved By
F2LQ8292-03E	First Issue	Dec. 10, 2018	W. Fuster



## 2 SUMMARY OF TEST RESULTS

Test Name	Standard(s)	Results
RF Exposure for Device >20cm from Human	KDB447498	Complies

Modifications Made to the Equipment
None



### 3 ENGINEERING STATEMENT

This report has been prepared on behalf of Embedded Planet to provide documentation for the testing described herein. This equipment has been tested and found to comply with KDB447498. The test results found in this test report relate only to the item(s) tested.



#### **4 EUT INFORMATION AND DATA**

##### **4.1 Equipment Under Test:**

Product: Radio Module  
Model: EPM2M-LORA-DC-8-NA  
Serial No.: None Spec.  
FCC ID: PZSLORA-DC-8

##### **4.2 Trade Name:**

Embedded Planet

##### **4.3 Power Supply:**

AC/DC Supply

##### **4.4 Applicable Rules:**

- KDB447498

##### **4.5 Equipment Category:**

Radio Transmitter-DTS

##### **4.6 Antenna:**

1.2dBi Internal Antenna

##### **4.7 Accessories:**

N/A

##### **4.8 Test Item Condition:**

The equipment to be tested was received in good condition.



## 5. RF EXPOSURE FOR DEVICE >20cm FROM HUMAN

### 5.1 Requirements:

**Distance:** 20cm

**Limit:** 0.6155mW/cm<sup>2</sup>

**Formula Used for Result:**  $\frac{E.I.R.P.}{4 \pi R^2}$

**Results:** E.I.R.P. = 336.5mW

336.5mW at the 923.3 MHz High Channel  
which is the highest.

$$\frac{336.5mW}{4 \pi R^2} = \frac{336.5mW}{5026.55} = 0.067mW/cm^2$$