

# FCC Part 1 Subpart I FCC Part 2 Subpart J

### RF EXPOSURE EXCLUSION REPORT

**WIRELESS TRANSMITTER** 

**MODEL NUMBER: RFMD** 

FCC ID: QZC-RFMD-01

**REPORT NUMBER: 10583303D** 

ISSUE DATE: April 26, 2016

Prepared for

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Prepared by
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REPORT NO: 10583303D DATE: April 26, 2016 FCC ID: QZC-RFMD-01

# **Revision History**

Rev.	Issue Date	Revisions	Revised By
	2016- 04-26	Initial Issue	VS

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## 1. ATTESTATION OF TEST RESULTS

**COMPANY NAME:** Elster American Meter Co LLC

2221 Industrial Rd

Nebraska City, NE, 68410-6886, USA

**EUT DESCRIPTION:** 902-928MHz transceiver

MODEL: RFMD

SERIAL NUMBER: None

**DATE TESTED:** September 10, 2015 to April 5, 2016

#### **APPLICABLE STANDARDS**

STANDARD TEST RESULTS

FCC PART 1 SUBPART I & PART 2 SUBPART J

Pass

Mayla

UL Verification Services Inc. calculated the RF Exposure of the above equipment in accordance with the requirements set forth in the above standards, using test results reported in the test report documents referenced below and/or documentation furnished by the applicant. All indications of Pass/Fail in this report are opinions expressed by UL Verification Services Inc. based on interpretations of these calculations. The results show that the equipment is capable of demonstrating compliance with the requirements as documented in this report.

**Note:** The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by UL Verification Services Inc. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL Verification Services Inc. will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, any agency of the Federal Government, or any agency of any government.

Approved & Released For

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Tested By:

Vincent Sabalvaro EMC Engineer

UL LLC

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**UL LLC** 

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### 2. TEST METHODOLOGY

All calculations were made in accordance with FCC KDB "447498 D01 General RF Exposure Guidance v06".

# 3. REFERENCES

Output power, Duty cycle and Antenna gain data is excerpted from the applicable test reports.

# 4. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 333 Pfingsten Road, Northbrook, IL 60062 USA.

UL NBK is accredited by NVLAP, Laboratory Code 100414-0. The full scope of accreditation can be viewed at <a href="http://ts.nist.gov">http://ts.nist.gov</a>

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## 5. STANDALONE SAR TEST EXCLUSION CONSIDERATIONS

#### 5.1. FCC

SAR test exclusion in accordance with KDB 447498.

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

[(max. power of channel, including tune-up tolerance, mW) / (min. test separation distance, mm)]·[ $\sqrt{f(GHz)}$ ]  $\leq$  3.0, for 1-g SAR and  $\leq$  7.5 for 10-g extremity SAR, where

- f<sub>(GHz)</sub> is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is  $\leq$  50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

SAR Exclusion Calculations Table for Portable Devices (separation distance < 20cm)

Antenna	Тх	Frequency	Average Output power		Separation	Calculated
		(MHz)	dBm	mW	distances (mm)	Threshold Value
*Main	FHSS	902	1.16	1.31	5	0.25
**Main	FHSS	902	1.56	1.43	5	0.27

<sup>\*</sup> Initial power measured during EMC testing where settings adjusted to put out maximum power.

#### Conclusion:

The computed value is < 3; therefore, this device qualifies for Standalone SAR test exclusion

## **END OF REPORT**

<sup>\*\*</sup> Accounting for additional +0.4dB based on power tolerance reported by the manufacurer.