

# EMC Test Report

**Project Number:** 4038788

**Report Number:** 4038788EMC01

**Revision Level:** 0

**Client:** Itron, Inc.

**Equipment Under Test:** Electricity metering module

**Model Name:** OW1

**Applicable Standards:** ANSI C63.10:2013

ANSI C95.3:2010

KDB 447498 D01 General RF Exposure Guidance v06

CFR 47 Part 1.1309

RSS-102, Issue 5

**Report issued on:** 29 September 2016

**Test Result:** Compliant

Tested by:



\_\_\_\_\_  
Fabian Nica, Senior Engineering Technician

Reviewed by:



\_\_\_\_\_  
David Schramm, EMC/RF/SAR/HAC Manager

**Remarks:**

This report details the results of the testing carried out on one sample, the results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

This report may only be reproduced and distributed in full. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of SGS International Electrical Approvals or Testing done by SGS International Electrical Approvals in connection with distribution or use of the product described in this report must be approved by SGS international Electrical Approvals in writing.

## TABLE OF CONTENTS

<b>1</b>	<b>SUMMARY OF TEST RESULTS</b> .....	<b>3</b>
1.1	MODIFICATIONS REQUIRED TO COMPLIANCE .....	3
<b>2</b>	<b>GENERAL INFORMATION</b> .....	<b>3</b>
2.1	CLIENT INFORMATION .....	3
2.2	TEST LABORATORY .....	3
2.3	GENERAL INFORMATION OF EUT .....	3
2.1	OPERATING MODES AND CONDITIONS .....	3
2.2	EUT CONNECTION BLOCK DIAGRAM .....	4
2.3	SYSTEM CONFIGURATIONS .....	4
2.4	CABLE LIST .....	4
<b>3</b>	<b>POWER DENSITY</b> .....	<b>5</b>
3.1	TEST RESULT.....	5
3.2	TEST METHOD.....	5
3.3	TEST SITE .....	5
3.4	TEST EQUIPMENT .....	5
3.5	TEST SETUP PHOTOGRAPHS.....	6
3.6	TEST DATA.....	7
<b>4</b>	<b>REVISION HISTORY</b> .....	<b>8</b>

# 1 Summary of Test Results

Basic Standards	Test Result
Power density measurements compared to Uncontrolled environment	Compliant

## 1.1 Modifications Required to Compliance

None

# 2 General Information

## 2.1 Client Information

Name: Itron, Inc.  
 Address: 313 N HWY 11  
 City, State, Zip, Country: West Union, SC 29696, USA

## 2.2 Test Laboratory

Name: SGS North America, Inc.  
 Address: 620 Old Peachtree Road NW, Suite 100  
 City, State, Zip, Country: Suwanee, GA 30024, USA

## 2.3 General Information of EUT

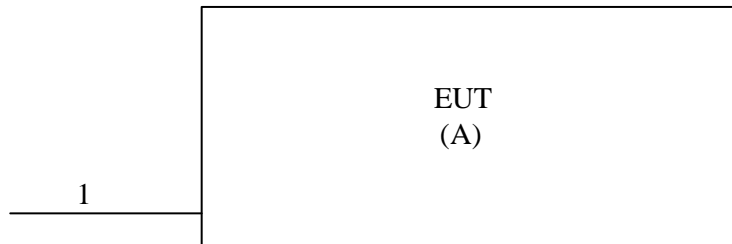
Model Name: OW1  
 Model Number: NA  
 Serial Number: 8860000779  
 FCC ID: SK9OW1  
 IC: 864G-OW1

Sample Received Date: 23 September 2016  
 Date of testing: 23 September 2016

## 2.1 Operating Modes and Conditions

The EUT was programmed by the manufacturer to run continuously.

## 2.2 EUT Connection Block Diagram



## 2.3 System Configurations

Device reference	Manufacturer	Description	Model Number	Serial Number
A	Itron, Inc	Electricity metering module	NA	8860000779

## 2.4 Cable List

Cable reference	Port Name	Start	End	Cable Length (m)	Ferrite installed?	Shielded?
1	AC Power	AC Mains	EUT	2.00	N	N

### 3 Power Density

#### 3.1 Test Result

Test Description	Basic Standard	Test Result
Power Density	KDB 447498	Compliant

#### 3.2 Test Method

Setup:

- EUT placed in center of turntable at a height of 1.5 m above the ground plane, which was covered with absorbers in accordance with ANSI C63.10:2013.
- A measurement probe was placed on an adjustable mast at a distance of 20 cm from the EUT in the location of expected highest measurement
- The turntable was rotated 360 degrees to determine the azimuth of maximum response. The mast was adjusted to find the maximum response and included the upper and lower boundaries where the measured value was within 10% of the limit. The procedure was repeated until a stable reading was obtained.
- The maximum response was recorded.

#### 3.3 Test Site

3m Absorber Lined Shielded Enclosure (ALSE), Suwanee, GA

Environmental Conditions

Temperature: 22.9 °C

Relative Humidity: 53.3 %

#### 3.4 Test Equipment

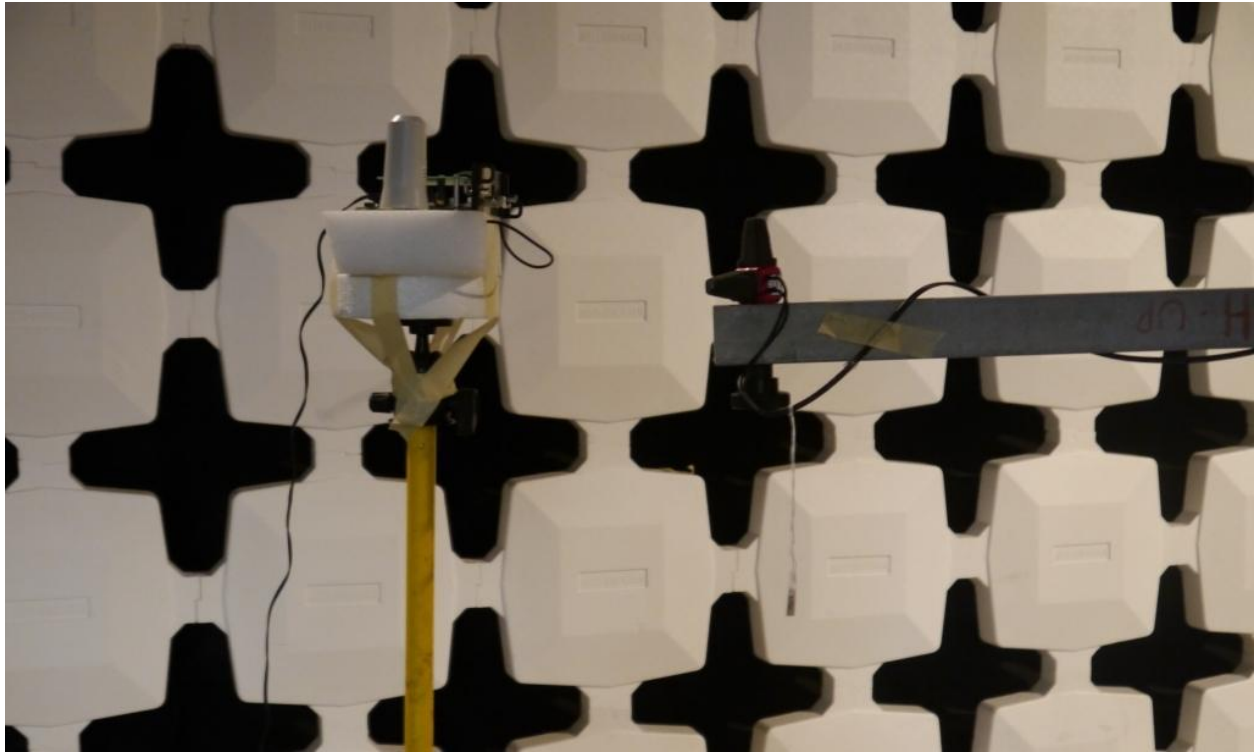
Test Date: 23-Sep-2016

Tester: FRN

Equipment	Model	Manufacturer	Asset Number	Cal Due Date
ISOTROPIC FIELD PROBE (150KHZ-6GHZ)	HI-6105	ETS LINDGREN	B085740	16-Aug-2017
FIELD MONITOR	HI-6100	ETS LINDGREN	B079819	CNR
MULTI-DEVICE CONTROLLER	2090	ETS LINDGREN	B079818	CNR

Note: The equipment calibration period is 1 year.

### 3.5 Test Setup Photographs



### 3.6 Test Data

Frequency MHz	Distance cm	Azimuth degrees	Elevation cm	Probe Display V/m	Probe Factor	Field Str V/m	Power Densit mW/cm <sup>2</sup>	FCC Limit mW/cm <sup>2</sup>	Canada Limit mW/cm <sup>2</sup>	Result
915.20	20.0	0.0	140.0	9.2	1.150	10.6	0.03	0.6	0.3	Pass
915.20	20.0	45.0	140.0	7.3	1.150	8.4	0.02	0.6	0.3	Pass
915.20	20.0	90.0	140.0	4.9	1.150	5.6	0.01	0.6	0.3	Pass
915.20	20.0	135.0	140.0	3.0	1.150	3.5	0.00	0.6	0.3	Pass
915.20	20.0	180.0	140.0	4.8	1.150	5.5	0.01	0.6	0.3	Pass
915.20	20.0	225.0	140.0	5.1	1.150	5.9	0.01	0.6	0.3	Pass
915.20	20.0	270.0	140.0	3.8	1.150	4.4	0.01	0.6	0.3	Pass
915.20	20.0	315.0	140.0	7.6	1.150	8.7	0.02	0.6	0.3	Pass
915.20	20.0	360.0	140.0	9.0	1.150	10.4	0.03	0.6	0.3	Pass

## 4 Revision History

Revision Level	Description of changes	Revision Date
0	Initial release	29 September 2016