



## Certification Test Report

FCC ID: A7FEA071  
IC: 11454A-EA071

FCC Rule Part: 15.247  
ISED Canada's Radio Standards Specification: RSS-247

Report Number: 16-2088.W06.1A

Applicant: JL Marine Systems, Inc.

Model(s): EA071

Test Begin Date: December 15, 2016  
Test End Date: January 20, 2017

Report Issue Date: February 16, 2018



FOR THE SCOPE OF ACCREDITATION UNDER CERTIFICATE NUMBER AT-1533

This report must not be used by the client to claim product certification, approval, or endorsement by ANAB, ANSI, or any agency of the Federal Government.

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This report contains 25 pages

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## 1 GENERAL

### 1.1 Purpose

The purpose of this report is to demonstrate compliance with Part 15 Subpart C of the FCC's Code of Federal Regulations and Innovation, Science and Economic Development Canada's Radio Standards Specification RSS-247 for the tests documented herein.

### 1.2 Applicant Information

JL MARINE SYSTEMS, INC.  
9010 Palm River Rd  
Tampa, FL 33619

### 1.3 Product Description

The JL Marine Systems, Inc. model EA071 is a footswitch remote transceiver operating in the 900 MHz ISM band.

#### Technical Details

Mode of Operation: 900 MHz ISM  
Frequency Range: 921.235 MHz - 922.73 MHz  
Number of Channels: 2  
Channel Separation: 1.5 MHz  
Modulations: GFSK  
Antenna Type/Gain: PCB printed antenna, 2.41 dBi  
Input Power: 3 VDC

Model Number: EA071

Test Sample Serial Number(s): #1

Test Sample Condition: The equipment was provided in good condition without any physical damage.

### 1.4 Test Methodology and Considerations

The EUT was evaluated for radiated and RF conducted measurements. The EUT is battery operated only and therefore is exempted from the power line conducted emissions requirements.

For the radiated emissions evaluation, the EUT was configured with DC leads and connected to a DC power supply. The EUT was evaluated in the orientation of typical installation.

For the RF conducted measurements, the EUT was configured with an RF connector at the antenna port for direct coupling to the spectrum analyzer.

The EUT was also investigated for unintentional emissions. The results are documented separately in a verification test report.

## **2 TEST FACILITIES**

### **2.1 Location**

The radiated and conducted emissions test sites are located at the following address:

TÜV SÜD America, Inc.  
3998 FAU Blvd, Suite 310  
Boca Raton, Florida 33431  
Phone: (561) 961-5585  
Fax: (561) 961-5587  
<http://www.tuv-sud-america.com>

### **2.2 Laboratory Accreditations/Recognitions/Certifications**

TÜV SÜD America, Inc. is accredited to ISO/IEC 17025 by ANSI-ASQ National Accreditation Board under their ANAB program and has been issued certificate number AT-1533 in recognition of this accreditation. Unless otherwise specified, all test methods described within this report are covered under the ISO/IEC 17025 scope of accreditation.

FCC Test Firm Registration #: 475089  
Innovation, Science and Economic Development Canada Lab Code: 4175C

## 2.3 Radiated & Conducted Emissions Test Site Description

### 2.3.1 Semi-Anechoic Chamber Test Site

The EMC radiated test facility consists of an RF-shielded enclosure. The interior dimensions of the indoor semi-anechoic chamber are approximately 48 feet (14.6 m) long by 36 feet (10.8 m) wide by 24 feet (7.3 m) high and consist of rigid, 1/8 inch (0.32 cm) steel-clad, wood core modular panels with steel framing. In the shielded enclosure, the faces of the panels are galvanized and the chamber is self-supporting. 8-foot RF absorbing cones are installed on 4 walls and the ceiling. The steel-clad ground plane is covered with vinyl flooring.

The turntable is driven by pneumatic motor, which is capable of supporting a 2000 lb. load. The turntable is flush with the chamber floor which it is connected to, around its circumference, with a continuous metallic loaded spring. An EMCO Model 1060 Multi-device controller controls the turntable position.

A pneumatic motor is used to control antenna polarizations and height relative to the ground. The height information is displayed on the control unit EMCO Model 1050.

The control room is an RF shielded enclosure attached to the semi-anechoic chamber with two bulkhead panels for connecting RF, and control cables. The dimension of the room is 7.3 m x 4.9 m x 3 m high and the entrance doors of both control and conducted rooms are 3 feet (0.91 m) by 7 feet (2.13 m).

A diagram of the Semi-Anechoic Chamber Test Site is shown in Figure 2.3.1-1 below:

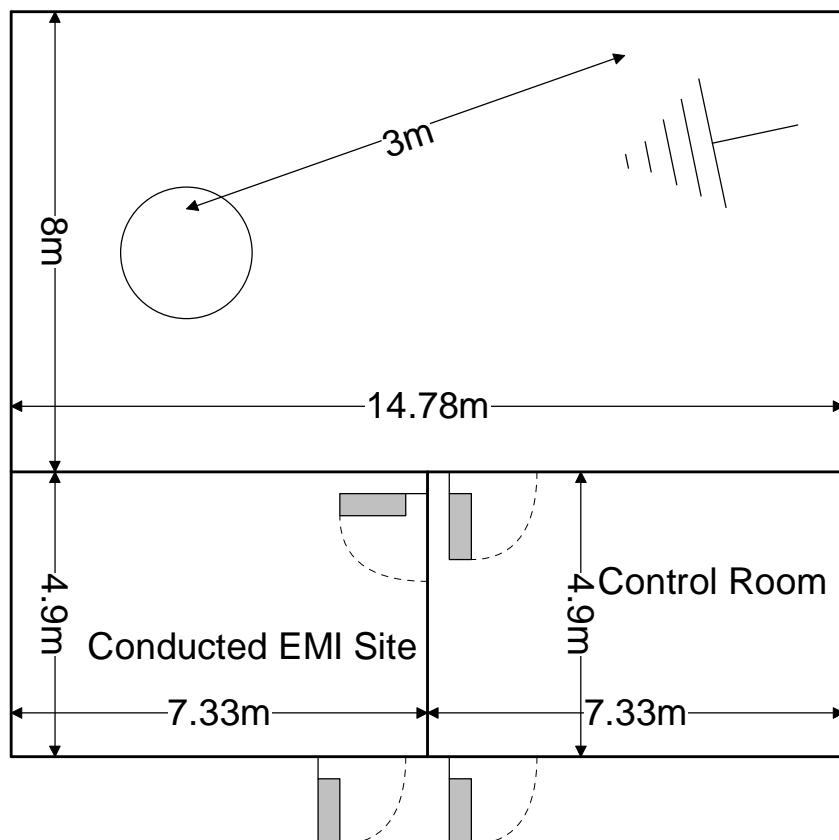


Figure 2.3.1-1: Semi-Anechoic Chamber Test Site

### 2.3.2 Conducted Emissions Test Site Description

The dimensions of the shielded conducted room are  $7.3 \times 4.9 \times 3$  m<sup>3</sup>. The power line conducted emission site includes two LISNs: a Solar Model 8028-50 50 Ω/50 μH and an EMCO Model 3825/2R, which are installed as shown in the figure below. For evaluations requiring 230 V, 50 Hz AC input, a Polarad LISN (S/N 879341/048) is used in conjunction with a California Instruments signal generator Model 2001RP-OP1.

A diagram of the room is shown below in figure 2.3.2-1:

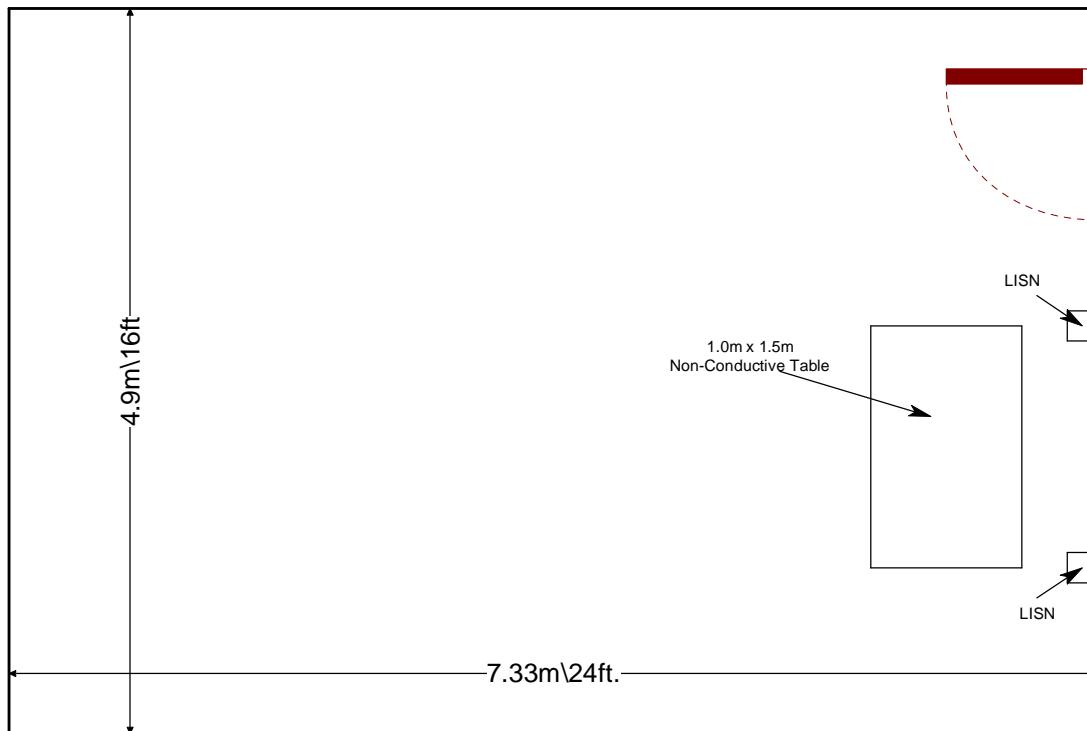


Figure 2.3.2-1: AC Mains Conducted EMI Site

### 3 APPLICABLE STANDARD REFERENCES

The following standards were used:

- ❖ ANSI C63.4-2014: Method of Measurements of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the 9 kHz to 40 GHz.
- ❖ ANSI C63.10-2013: American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices
- ❖ US Code of Federal Regulations (CFR): Title 47, Part 2, Subpart J: Equipment Authorization Procedures, 2018.
- ❖ US Code of Federal Regulations (CFR): Title 47, Part 15, Subpart C: Radio Frequency Devices, Intentional Radiators, 2018
- ❖ FCC KDB 558074 D01 DTS Meas Guidance v04 - Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under 15.247, April 5, 2017.
- ❖ Innovation, Science and Economic Development Canada Radio Standards Specification: RSS-247 — Digital Transmission Systems (DTSS), Frequency Hopping Systems (FHSs) and Licence-Exempt Local Area Network (LE-LAN) Devices, Issue 2, February 2017.
- ❖ Innovation, Science and Economic Development Canada Radio Standards Specification: RSS-GEN – General Requirements for Compliance of Radio Apparatus, Issue 4, November 2014.

#### 4 LIST OF TEST EQUIPMENT

The calibration interval of test equipment is annually or the manufacturer's recommendations. Where the calibration interval deviates from the annual cycle based on the instrument manufacturer's recommendations, it shall be stated below.

**Table 4-1: Test Equipment List**

| AssetID | Manufacturer               | Model #                | Equipment Type     | Serial #   | Last Calibration Date | Calibration Due Date |
|---------|----------------------------|------------------------|--------------------|------------|-----------------------|----------------------|
| 78      | EMCO                       | 6502                   | Antennas           | 9104-2608  | 5/11/2016             | 5/11/2018            |
| 283     | Rohde & Schwarz            | FSP40                  | Spectrum Analyzers | 1000033    | 7/21/2016             | 7/21/2018            |
| 523     | Agilent                    | E7405                  | Spectrum Analyzers | MY45103293 | 12/9/2016             | 12/9/2018            |
| 2002    | EMCO                       | 3108                   | Antennas           | 2147       | 11/19/2015            | 11/19/2017           |
| 2004    | EMCO                       | 3146                   | Antennas           | 1385       | 11/19/2015            | 11/19/2017           |
| 2006    | EMCO                       | 3115                   | Antennas           | 2573       | 4/14/2015             | 4/14/2017            |
| 2011    | Hewlett-Packard            | HP 8447D               | Amplifiers         | 2443A03952 | 11/2/2016             | 11/2/2017            |
| 2069    | Trilithic, Inc.            | 7NM867/122-X1-AA       | Notch Filter       | 200315126  | 3/25/2016             | 3/25/2017            |
| 2071    | Trilithic, Inc.            | 4HC1400-1-KK           | Filter             | 9643263    | 11/1/2016             | 11/1/2017            |
| 2089    | Agilent Technologies, Inc. | 83017A                 | Amplifiers         | 3123A00214 | 12/2/2016             | 12/2/2017            |
| 2095    | ETS Lindgren               | TILE4! - Version 4.2.A | Software           | 85242      | NCR                   | NCR                  |
| 2111    | Aeroflex Inmet             | 40AH2W-20              | Attenuator         | 2111       | 7/20/2016             | 7/20/2017            |
| 2112    | Teledyne Storm Products    | 921-0101-036           | Cables             | 12-06-698  | 11/2/2016             | 11/2/2017            |
| 2121    | ACS Boca                   | Radiated Cable Set     | Cable Set          | 2121       | 8/1/2016              | 8/1/2017             |

**Note: NCR=No Calibration Required**

## 5 SUPPORT EQUIPMENT

Table 5-1: EUT and Support Equipment Description

| Item # | Type Device     | Manufacturer            | Model/Part # | Serial #  |
|--------|-----------------|-------------------------|--------------|-----------|
| 1      | EUT             | JL Marine Systems, Inc. | EA071        | #1        |
| 2      | DC Power Supply | MPJA                    | HY5003       | 003700278 |

Table 5-2: Cable Description

| Cable # | Cable Type       | Length | Shield | Termination              |
|---------|------------------|--------|--------|--------------------------|
| A       | Power            | 2.08 m | No     | EUT to DC Power Supply   |
| B       | MPJA Power Cable | 1.8 m  | No     | Power Supply to AC Mains |

## 6 EQUIPMENT UNDER TEST SETUP BLOCK DIAGRAM

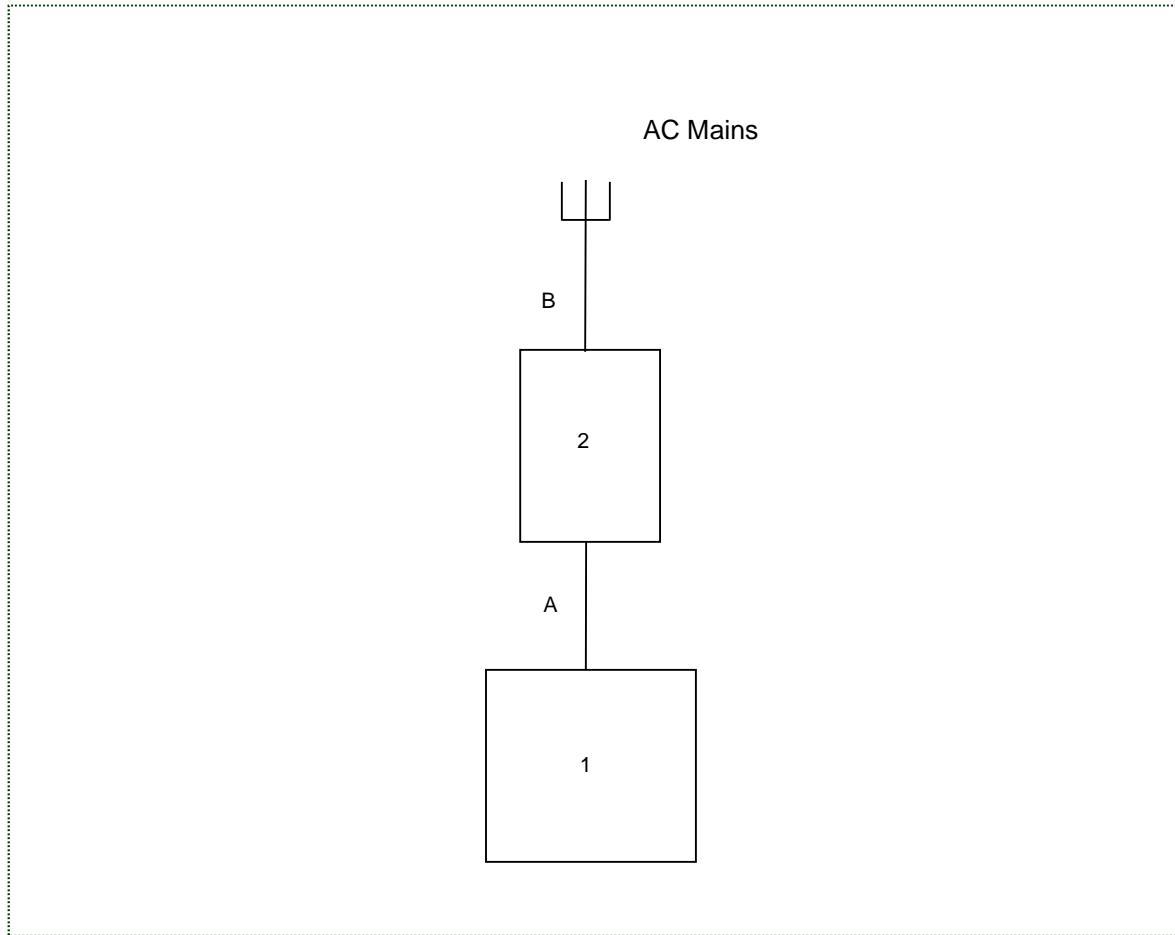


Figure 6-1: EUT Test Setup

## 7 SUMMARY OF TESTS

Along with the tabular data shown below, plots were taken of all signals deemed important enough to document.

### 7.1 Antenna Requirement – FCC: Section 15.203

T

he EUT uses a 2.41 dBi trace antenna that is integral to the PCB. The antenna is not removable and therefore meets the requirements of FCC Section 15.203.

### 7.2 6 dB Bandwidth - FCC: Section 15.247(a)(2); ISED Canada: RSS-247 5.2(a); 99% Bandwidth ISED Canada: RSS-GEN 6.6

#### 7.2.1 Measurement Procedure

The 6dB bandwidth was measured in accordance with the FCC KDB 558074 D01 DTS Meas Guidance v04 Section 8.2 Option 2. The RBW of the spectrum analyzer was set to 100 kHz and VBW 300 kHz. Span was set large enough to capture the emissions and >> RBW.

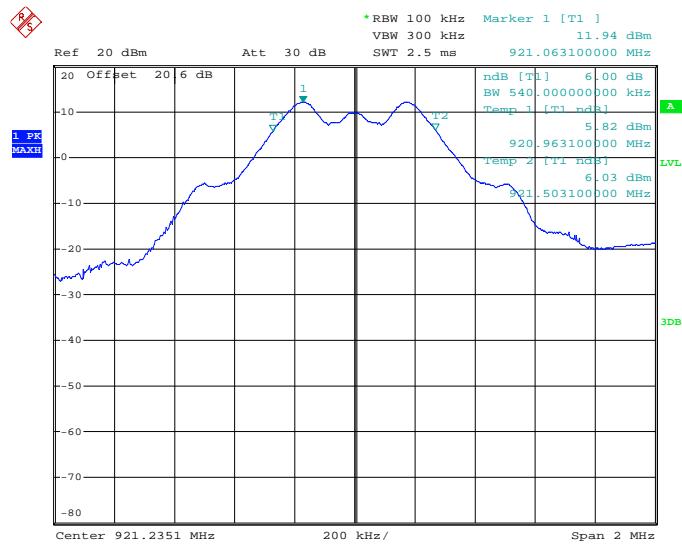
The 99% occupied bandwidth was measured with the spectrum analyzer span set to fully display the emission. The RBW was set to 1% to 5% of the approximated bandwidth. The occupied 99% bandwidth was measured by using 99% bandwidth equipment function of the spectrum analyzer.

#### 7.2.2 Measurement Results

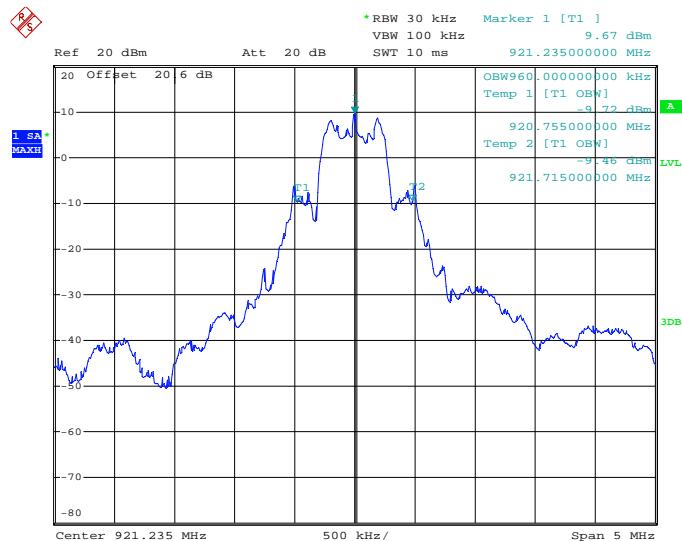
Performed by: Thierry Jean-Charles

**Table 7.2.2-1: 6dB / 99% Bandwidth**

| Frequency<br>[MHz] | 6dB Bandwidth<br>[kHz] | 99% Bandwidth<br>[kHz] |
|--------------------|------------------------|------------------------|
| 921.235            | 540                    | 960                    |
| 922.73             | 536                    | 950                    |

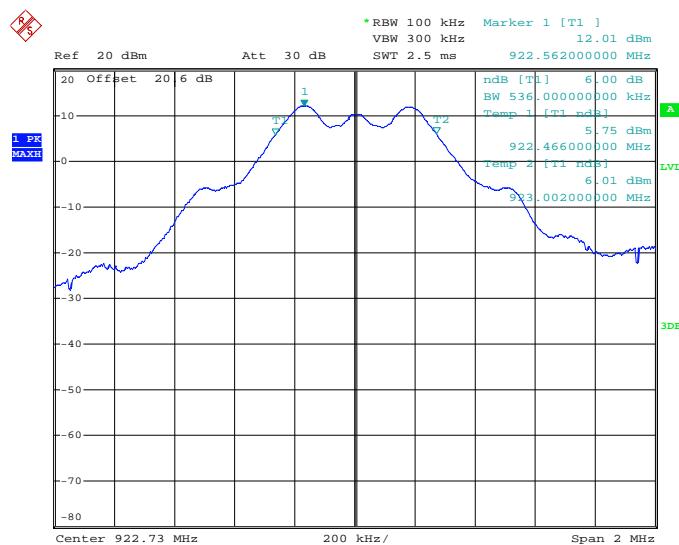


Date: 13.JAN.2017 19:05:50

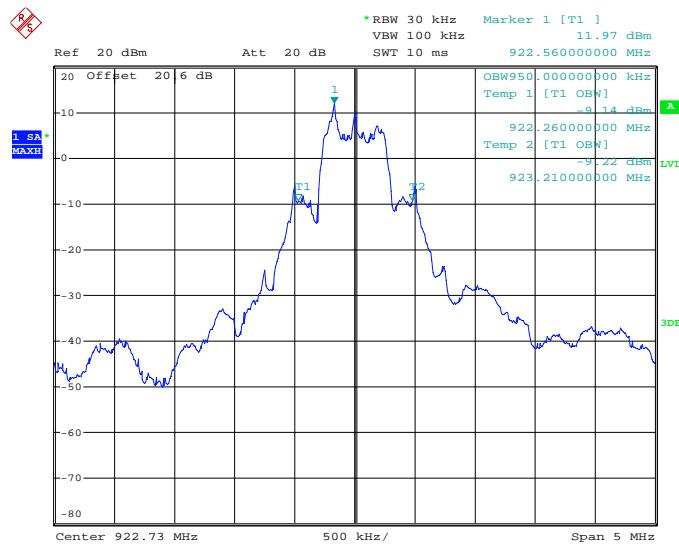
**Figure 7.2.2-1: 6dB BW – Low Channel**

Date: 13.JAN.2017 19:14:08

**Figure 7.2.2-2: 99% OBW – Low Channel**



Date: 13.JAN.2017 19:18:47

**Figure 7.2.2-3: 6dB BW – High Channel**

Date: 13.JAN.2017 19:16:51

**Figure 7.2.2-4: 99% OBW – High Channel**

### 7.3 Peak Output Power - FCC Section 15.247(b)(3); ISED Canada: RSS-247 5.4(d)

#### 7.3.1 Measurement Procedure (Conducted Method)

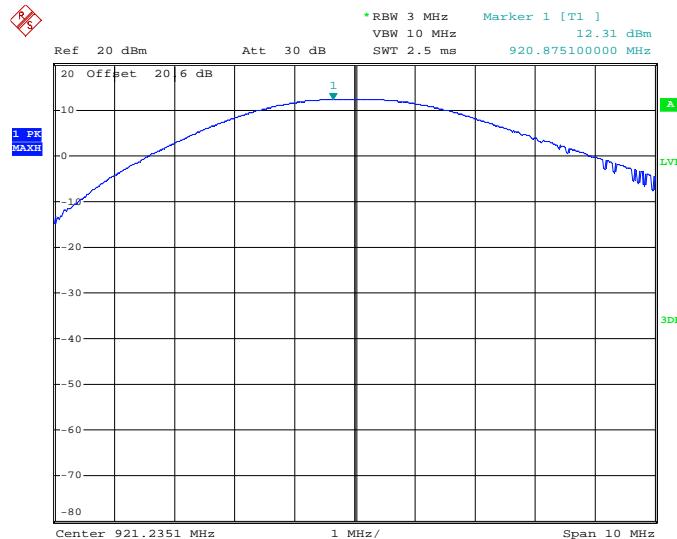
The fundamental emission output power was measured in accordance with the FCC KDB 558074 D01 DTS Meas Guidance v04 Section 9.1.1 RBW  $\geq$  DTS bandwidth. The RF output of the equipment under test was directly connected to the input of the spectrum analyzer through suitable attenuation.

#### 7.3.2 Measurement Results

Performed by: Thierry Jean-Charles

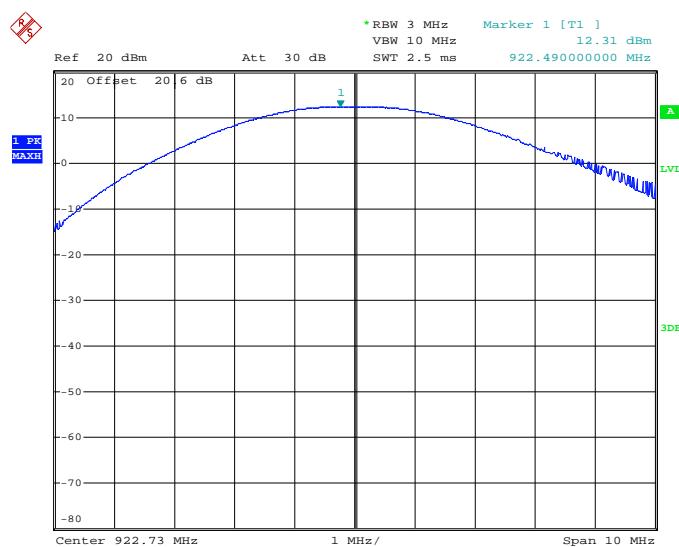
Table 7.3.2-1: RF Output Power

| Frequency [MHz] | Level [dBm] |
|-----------------|-------------|
| 921.235         | 12.31       |
| 922.73          | 12.31       |



Date: 13.JAN.2017 19:09:06

Figure 7.3.2-1: RF Output Power – Low Channel



Date: 13.JAN.2017 19:17:37

**Figure 7.3.2-2: RF Output Power – High Channel**

## 7.4 Band-Edge and Spurious Emissions

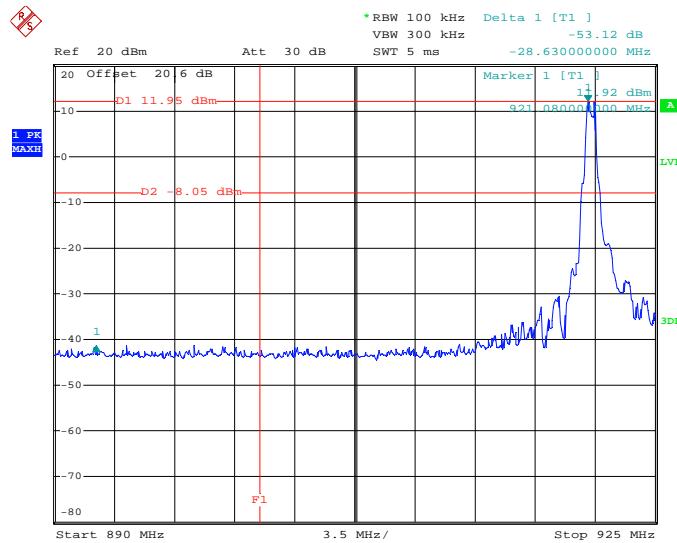
### 7.4.1 Band-Edge Compliance of RF Conducted Emissions - FCC Section 15.247(d); ISED Canada: RSS-247 5.5

#### 7.4.1.1 Measurement Procedure

The RF output port of the EUT was directly connected to the input of the spectrum analyzer via suitable attenuation. The EUT was investigated at the transmit channel to determine band-edge compliance. For each measurement the spectrum analyzer's RBW was set to 100 kHz, and the VBW was set to 300 kHz.

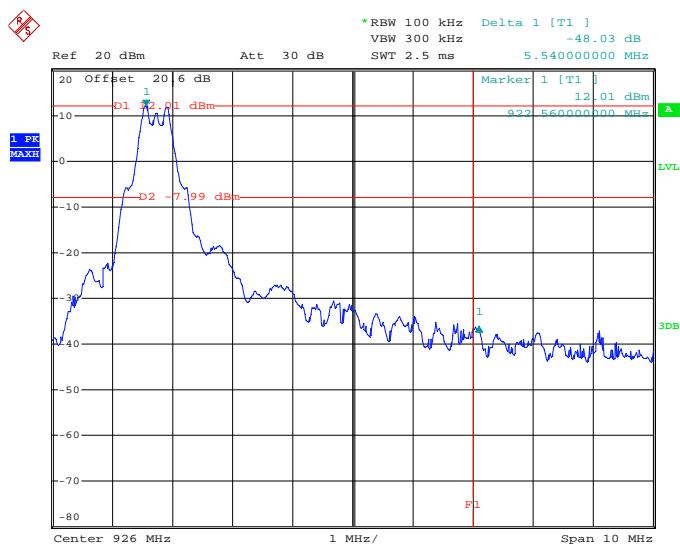
#### 7.4.1.2 Measurement Results

Performed by: Thierry Jean-Charles



Date: 13.JAN.2017 19:12:02

Figure 7.4.1.2-1: Lower Band-edge



Date: 13.JAN.2017 19:22:54

**Figure 7.4.1.2-2: Upper Band-edge**

## 7.4.2 RF Conducted Spurious Emissions - FCC Section 15.247(d); ISED Canada: RSS-247 5.5

### 7.4.2.1 Measurement Procedure

The RF Conducted Spurious Emissions were measured in accordance with the FCC KDB 558074 D01 DTS Meas Guidance v03r05 Section 11.3 Emission level measurement. The RF output port of the equipment under test was directly connected to the input of the spectrum analyzer. The EUT was investigated for conducted spurious emissions from 30MHz to 10 GHz, 10 times the highest fundamental frequency. The spectrum analyzer's RBW was set to 100 kHz and the VBW was set to 300 kHz. The peak Max Hold function of the analyzer was utilized. The reference level was determined by measuring the Peak PSD level in any 100 kHz bandwidth within the DTS channel bandwidth.

### 7.4.2.2 Measurement Results

Performed by: Thierry Jean-Charles

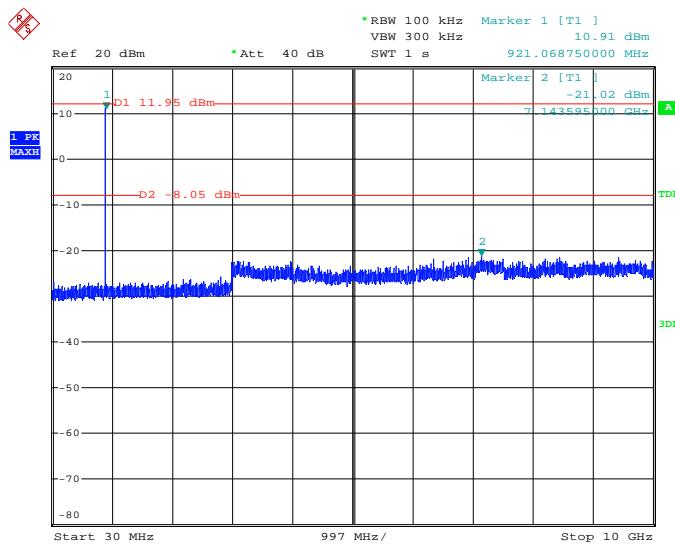
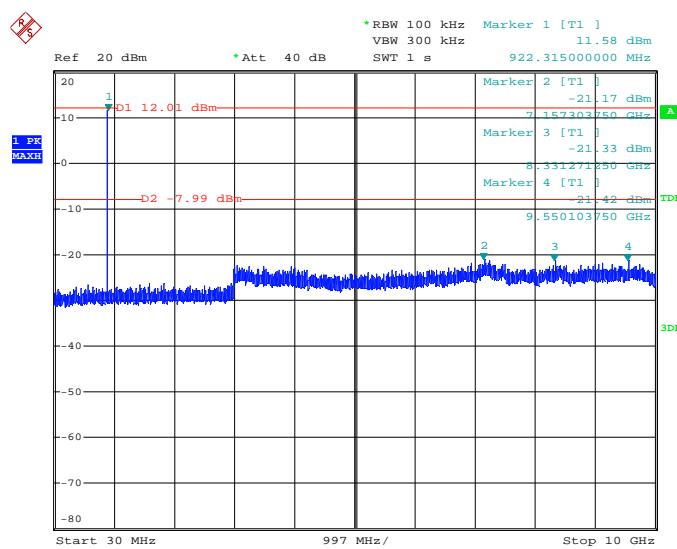


Figure 7.4.2.2-1: 30 MHz – 10 GHz – Low Channel



Date: 13.JAN.2017 19:26:12

**Figure 7.4.2.2-2: 30 MHz – 10 GHz – High Channel**

**7.4.3 Radiated Spurious Emissions into Restricted Frequency Bands – FCC Sections 15.205, 15.209; ISED Canada: RSS-Gen 8.9, 8.10****7.4.3.1 Measurement Procedure**

Radiated emissions tests were made over the frequency range of 9 kHz to 10 GHz, 10 times the highest fundamental frequency. Each emission found to be in a restricted band as defined by section 15.205, including any emission at the operational band-edge, was compared to the radiated emission limits as defined in Section 15.209.

For measurements below 30 MHz, the receive antenna height was set to 1m and the EUT was rotated through 360 degrees. The resolution bandwidth was set to 200 Hz below 150 kHz and to 9 kHz above 150 kHz.

The EUT was rotated through 360° and the receive antenna height was varied from 1m to 4m so that the maximum radiated emissions level would be detected. For frequencies below 1000MHz, quasi-peak measurements were made using a resolution bandwidth RBW of 120 kHz and a video bandwidth VBW of 300 kHz. For frequencies above 1000 MHz, peak measurements are made with RBW of 1 MHz and VBW of 3 MHz. Average measurements are performed in the linear scale using VBW of 30 Hz.

**7.4.3.2 Duty Cycle Correction**

The average measurements were further corrected using a duty cycle correction factor corresponding to  $20 \cdot \log(15/100) = -16.48$  dB. Justification for the duty cycle of the transceiver is provided in the Theory of Operation of the device.

**7.4.3.3 Measurement Results**

Performed by: Jean Rene

Radiated band-edge and spurious emissions found in the restricted frequency bands of 9 kHz to 10 GHz are reported in the tables below.

Table 7.4.3.3-1: Radiated Spurious Emissions Tabulated Data

| Frequency<br>(MHz)       | Level<br>(dBuV) |         | Antenna<br>Polarity<br>(H/V) | Correction<br>Factors<br>(dB) | Corrected Level<br>(dBuV/m) |         | Limit<br>(dBuV/m) |         | Margin<br>(dB) |         |
|--------------------------|-----------------|---------|------------------------------|-------------------------------|-----------------------------|---------|-------------------|---------|----------------|---------|
|                          | pk              | Qpk/Avg |                              |                               | pk                          | Qpk/Avg | pk                | Qpk/Avg | pk             | Qpk/Avg |
| Low Channel = 921.23 MHz |                 |         |                              |                               |                             |         |                   |         |                |         |
| 2763.69                  | 60.51           | 55.79   | H                            | -3.24                         | 57.27                       | 36.07   | 74.0              | 54.0    | 16.7           | 17.9    |
| 2763.69                  | 55.28           | 49.59   | V                            | -3.24                         | 52.04                       | 29.87   | 74.0              | 54.0    | 22.0           | 24.1    |
| 3684.92                  | 46.28           | 36.41   | H                            | 0.35                          | 46.63                       | 20.29   | 74.0              | 54.0    | 27.4           | 33.7    |
| 3684.92                  | 45.35           | 34.81   | V                            | 0.35                          | 45.70                       | 18.69   | 74.0              | 54.0    | 28.3           | 35.3    |
| 4606.15                  | 53.83           | 47.31   | H                            | 2.59                          | 56.42                       | 33.42   | 74.0              | 54.0    | 17.6           | 20.6    |
| 4606.15                  | 56.98           | 51.34   | V                            | 2.59                          | 59.57                       | 37.45   | 74.0              | 54.0    | 14.4           | 16.5    |
| 7369.84                  | 44.92           | 33.33   | H                            | 9.24                          | 54.16                       | 26.09   | 74.0              | 54.0    | 19.8           | 27.9    |
| 7369.84                  | 44.98           | 32.55   | V                            | 9.24                          | 54.22                       | 25.31   | 74.0              | 54.0    | 19.8           | 28.7    |
| 8291.07                  | 48.13           | 39.71   | H                            | 10.25                         | 58.38                       | 33.48   | 74.0              | 54.0    | 15.6           | 20.5    |
| 8291.07                  | 51.01           | 43.28   | V                            | 10.25                         | 61.26                       | 37.05   | 74.0              | 54.0    | 12.7           | 16.9    |

**Notes:**

All emissions above 8.3 GHz were attenuated below the limits and the noise floor of the measurement equipment.

The average measurements were further corrected using a duty cycle correction factor of  $20 \times \log(15/100) = -16.48$  dB.

Table 7.4.3.3-2: Radiated Spurious Emissions Tabulated Data

| Frequency<br>(MHz)        | Level<br>(dBuV) |         | Antenna<br>Polarity<br>(H/V) | Correction<br>Factors<br>(dB) | Corrected Level<br>(dBuV/m) |         | Limit<br>(dBuV/m) |         | Margin<br>(dB) |         |
|---------------------------|-----------------|---------|------------------------------|-------------------------------|-----------------------------|---------|-------------------|---------|----------------|---------|
|                           | pk              | Qpk/Avg |                              |                               | pk                          | Qpk/Avg | pk                | Qpk/Avg | pk             | Qpk/Avg |
| High Channel = 922.73 MHz |                 |         |                              |                               |                             |         |                   |         |                |         |
| 2768.19                   | 60.82           | 59.07   | H                            | -3.22                         | 57.60                       | 39.37   | 74.0              | 54.0    | 16.4           | 14.6    |
| 2768.19                   | 55.48           | 52.87   | V                            | -3.22                         | 52.26                       | 33.17   | 74.0              | 54.0    | 21.7           | 20.8    |
| 3690.92                   | 46.31           | 38.13   | H                            | 0.38                          | 46.69                       | 22.03   | 74.0              | 54.0    | 27.3           | 32.0    |
| 3690.92                   | 44.32           | 35.04   | V                            | 0.38                          | 44.70                       | 18.94   | 74.0              | 54.0    | 29.3           | 35.1    |
| 4613.65                   | 53.85           | 50.91   | H                            | 2.62                          | 56.47                       | 37.05   | 74.0              | 54.0    | 17.5           | 16.9    |
| 4613.65                   | 57.65           | 55.71   | V                            | 2.62                          | 60.27                       | 41.85   | 74.0              | 54.0    | 13.7           | 12.1    |
| 7381.84                   | 44.48           | 34.03   | H                            | 9.25                          | 53.73                       | 26.80   | 74.0              | 54.0    | 20.3           | 27.2    |
| 7381.84                   | 44.13           | 33.09   | V                            | 9.25                          | 53.38                       | 25.86   | 74.0              | 54.0    | 20.6           | 28.1    |
| 8304.57                   | 48.35           | 43.69   | H                            | 10.28                         | 58.63                       | 37.50   | 74.0              | 54.0    | 15.4           | 16.5    |
| 8304.57                   | 50.84           | 47.10   | V                            | 10.28                         | 61.12                       | 40.91   | 74.0              | 54.0    | 12.9           | 13.1    |

**Notes:**

All emissions above 8.3 GHz were attenuated below the limits and the noise floor of the measurement equipment.

The average measurements were further corrected using a duty cycle correction factor of  $20 \times \log(15/100) = -16.48$  dB.

**7.4.3.4 Sample Calculation:**

$$R_C = R_U + CF_T$$

Where:

|                 |   |   |
|-----------------|---|---|
| CF <sub>T</sub> | = | Total Correction Factor (AF+CA+AG)-DC (Average Measurements Only) |
| R <sub>U</sub>  | = | Uncorrected Reading   |
| R <sub>C</sub>  | = | Corrected Level   |
| AF              | = | Antenna Factor  |
| CA              | = | Cable Attenuation   |
| AG              | = | Amplifier Gain  |
| DC              | = | Duty Cycle Correction Factor                                      |

**Example Calculation: Peak**

Corrected Level: 60.51 + (-3.24) = 57.27 dB $\mu$ V/m

Margin: 74 dB $\mu$ V/m - 57.27 dB $\mu$ V/m = 16.7 dB

**Example Calculation: Average**

Corrected Level: 55.79 + (-3.24) -16.48 = 36.07 dB $\mu$ V/m

Margin: 54 dB $\mu$ V/m - 36.07 dB $\mu$ V/m = 17.9 dB

## 7.5 Power Spectral Density - FCC Section 15.247(e); ISED Canada: RSS-247 5.2(b)

### 7.5.1 PSD Measurement Procedure (Conducted Method)

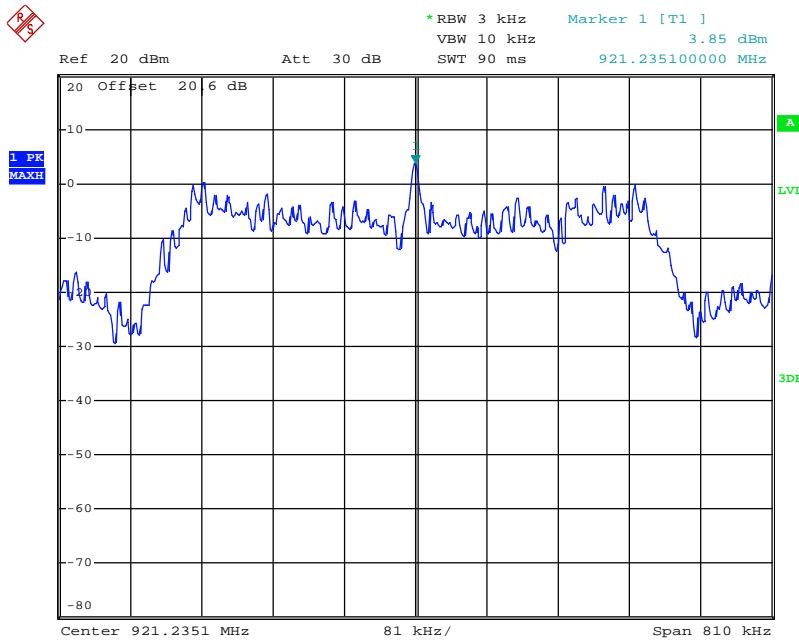
The power spectral density was measured in accordance with the FCC KDB 558074 D01 DTS Meas Guidance v04 Section 10.2 Method PKPSD (peak PSD). The RF output port of the EUT was directly connected to the input of the spectrum analyzer. Offset values were input for cable and external attenuation. The spectrum analyzer RBW was set to 3 kHz and VBW 10 kHz. Span was adjusted to 1.5 times the 6 dB bandwidth and the sweep time was set to auto.

### 7.5.2 Measurement Results

Performed by: Thierry Jean-Charles

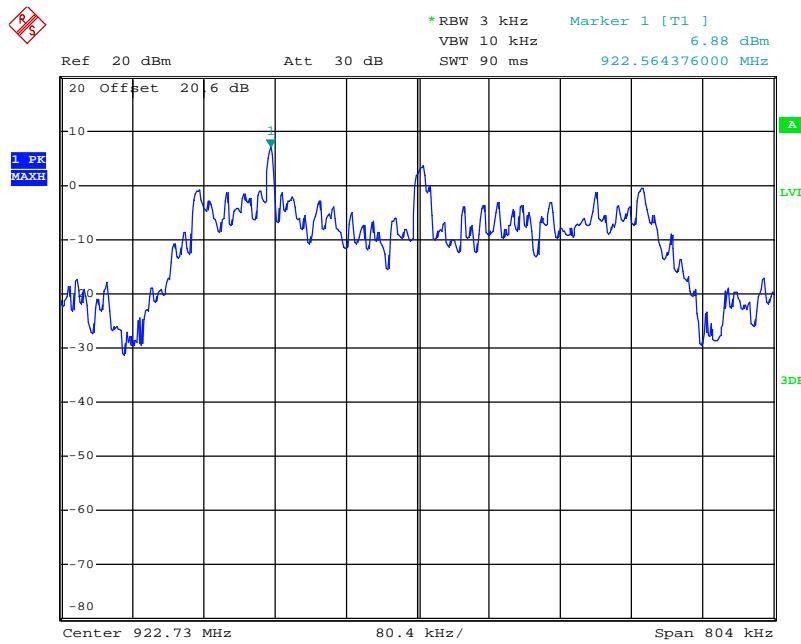
Table 7.5.2-1: Power Spectral Density

| Frequency [MHz] | PSD [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------|-------------|-------------|
| 921.2351        | 3.85      | 8.0         | 4.15        |
| 922.73          | 6.88      | 8.0         | 1.12        |



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Figure 7.5.2-1: Power Spectral Density – Low Channel



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**Figure 7.5.2-2: Power Spectral Density – High Channel**

## 8 MEASUREMENT UNCERTAINTIES

The expanded laboratory measurement uncertainty figures ( $U_{\text{Lab}}$ ) provided below correspond to an expansion factor (coverage factor)  $k = 1.96$  which provide confidence levels of 95%.

**Table 8-1: Measurement Uncertainties**

| Parameter                             | $U_{\text{lab}}$                     |
|---------------------------------------|--------------------------------------|
| Occupied Channel Bandwidth            | $\pm 0.009 \%$                       |
| RF Conducted Output Power             | $\pm 1.15 \text{ dB}$                |
| Power Spectral Density                | $\pm 1.15 \text{ dB}$                |
| Antenna Port Conducted Emissions      | $\pm 1.15 \text{ dB}$                |
| Radiated Emissions $\leq 1\text{GHz}$ | $\pm 5.86 \text{ dB}$                |
| Radiated Emissions $> 1\text{GHz}$    | $\pm 4.65 \text{ dB}$                |
| Temperature                           | $\pm 0.860 \text{ }^{\circ}\text{C}$ |
| Radio Frequency                       | $\pm 2.832 \times 10^{-8}$           |
| AC Power Line Conducted Emissions     | $\pm 3.72 \text{ dB}$                |

**9 CONCLUSION**

In the opinion of TÜV SÜD America, Inc., the model EA071 manufactured by JL Marine Systems, Inc. meets the requirements of FCC Part 15 subpart C and Innovation, Science and Economic Development Canada's Radio Standards Specification RSS-247 for the test procedures documented in the test report.

**END REPORT**