



Test Report - RF Exposure Evaluation Report for SAR Exclusion

Applicant: JI Marine Systems Inc.

Signature:

A handwritten signature in black ink, appearing to read "Tim Royer", is written over a horizontal line.

Sr. EMC Engineer
EMC-003838-NE



Name & Title: Tim Royer, Lab Manager

Date of Signature 9/3/2025

This test report relates only to the items tested as identified and is not valid for any subsequent changes or modifications made to the equipment under test.

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1. Applicant Information

Applicant: JI Marine Systems Inc.
Address: 9010 Palm River Rd.
Tampa, FL, 33619, United States

2. Location of Testing

2.1 Test Laboratory

IIA Lab Services LLC. is a subsidiary of Industrial Inspection & Analysis, Inc. ("IIA"). Testing was performed at IIA's permanent laboratory located at 13146 NW 86th Drive, Suite 400, Alachua, Florida 32615.

FCC test firm # 578780
FCC Designation # US1070
FCC site registration is under A2LA certificate # 0955.01
ISED Canada test site registration # 2056A
EU Notified Body # 1177
For all designations see A2LA scope # 0955.01

3. Test Sample(s) (EUT/DUT)

The test sample was received: 8/20/2025

Dates of Testing: 6/26/2025 – 8/7/2025

3.1 Description of the EUT

A description as well as unambiguous identification of the EUT(s) tested. Where more than one sample is required for technical reasons (such as the use of connected units for the purpose of conducted output power testing where the product units will have integral antennas), each specific test shall identify which unit was tested.

900MHz

Identification	
FCC ID:	A7FEA145
Brief Description	N/A
Model(s) #	Inception
Firmware version	EA145

Technical Characteristics	
Frequency Range	921.25 MHz
RF O/P Power (Max.)	9.46 dBm/ 0.008830799 W
Number of Channels	1
Duty Cycle	100%
Voltage Rating (AC or Batt.)	DC

Antenna Characteristics			
Antenna	Frequency Range	Mode / BW	Antenna Gain
1	n/a	n/a	0 dBi

- Note: Information such as antenna gain, firmware/software numbers are provided by manufacturer and cannot be validated by the test lab.

2GHz

Identification	
Certified Module FCC ID:	SQGBL653
FCC ID:	A7FEA145
Brief Description	N/A
Model(s) #	Inception
Firmware version	EA145

Technical Characteristics	
Frequency Range	2400 MHz- 2483.5 MHz and 921.25
RF O/P Power (Max.)	-5.09 dBm/ 0.00031 W
Modulation	N/A
Bandwidth & Emission Class	N/A
Number of Channels	N/A
Duty Cycle	100%
Antenna Connector	N/A
Voltage Rating (AC or Batt.)	DC

Antenna Characteristics			
Antenna	Frequency Range	Mode / BW	Antenna Gain
1	n/a	n/a	0 dBi

- Note: Information such as antenna gain, firmware/software numbers are provided by manufacturer and cannot be validated by the test lab.

SAR EXCLUSION CALCULATION:

Section 4.3.1 General SAR test exclusion guidance

Equation:

For 100 MHz to 6 GHz and *test separation distances* ≤ 50 mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f_{(\text{GHz})}}] \leq 3.0$ for 1-g SAR, and ≤ 7.5 for 10-g extremity SAR,³⁰ where

- $f_{(\text{GHz})}$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation³¹
- The result is rounded to one decimal place for comparison
- The values 3.0 and 7.5 are referred to as *numeric thresholds* in step b) below

RSS 102 Issue 6 Section 6.3 Exemption Limits for Routine Evaluation

Equation:

Frequency (MHz)	≤ 5 mm (mW)	10 mm (mW)	15 mm (mW)	20 mm (mW)	25 mm (mW)	30 mm (mW)	35 mm (mW)	40 mm (mW)	45 mm (mW)	> 50 mm (mW)
≤ 300	45	116	139	163	189	216	246	280	319	362
450	32	71	87	104	124	147	175	208	248	296
835	21	32	41	54	72	96	129	172	228	298
1900	6	10	18	33	57	92	138	194	257	323
2450	3	7	16	32	56	89	128	170	209	245
3500	2	6	15	29	50	72	94	114	134	158
5800	1	5	13	23	32	41	54	74	102	128

Conclusion: SAR testing is not required

900MHz

MPE

Frequency Band	Separation Distance (mm)	Max Power + Tolerance (dBm)	Max Power + Tolerance (mW)	SAR Exclusion Value	Limit for 1-g SAR	Limit for 10-g SAR (Extremities)	SAR Exclusion
921.25-921.25 MHz	5	9.46	8.83	1.70	3.0	7.5	SAR EXEMPT

2GHz

MPE

Frequency Band	Separation Distance (mm)	Max Power + Tolerance (dBm)	Max Power + Tolerance (mW)	SAR Exclusion Value	Limit for 1-g SAR	Limit for 10-g SAR (Extremities)	SAR Exclusion
2400-2483.5 MHz	5	-5.09	0.31	0.10	3.0	7.5	SAR EXEMPT

Simultaneous SAR

SAR was evaluated per KDB 447498 D01 Section 4.3.2.

MPE

Frequency Band	Separation Distance (mm)	Max Power + Tolerance (dBm)	Max Power + Tolerance (mW)	SAR Exclusion Value	Limit for 1-g SAR	Limit for 10-g SAR (Extremities)	SAR Exclusion
921.2 MHz and 2400-2483.5Mhz	5	9.46	8.83	1.80	3.0	7.5	SAR EXEMPT

4. History of Test Report Changes

Test Report #	Revision #	Description	Date of Issue
TR_23049-25_RF Exp SAR Exclusion_	1	Initial release	9/3/2025
	2	Changes in page 7	11/19/2025

END OF TEST REPORT
