

Wibotic, Inc.

RF Exposure Exhibit

SCOPE OF WORK

EMC TESTING – Onboard Charger, Model: OC-1000-36-ST

REPORT NUMBER

106081003MPK-011

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**RF Exposure Exhibit
(mobile devices)**

Report Number: 106081003MPK-011

Project Number: G106081003

Report Issue Date: June 05, 2025

**Product Designation: Onboard Charger
Model Tested: OC-1000-36-ST**

to

**47CFR 2.1091
RSS-102 Issue 6**

for

Wibotic, Inc.

Test Performed by:

Intertek
1365 Adams Court
Menlo Park, CA 94025 USA

Test Authorized by:

Wibotic, Inc.
9706 4th Ave NE, Suite 403
Seattle, WA 98115 USA

Prepared by: _____



Kenneth Tutor

Date: June 05, 2025

Reviewed by: _____



Minh Ly

Date: June 05, 2025

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Report No. 106081003MPK-011	
Equipment Under Test:	Onboard Charger
Trade Name:	Wibotic
Model(s) Tested:	OC-1000-36-ST
Applicant:	Wibotic, Inc.
Contact:	Patrick Vilbrandt
Address:	Wibotic, Inc. 9706 4th Ave NE, Suite 403. Seattle, WA 98115
Country:	USA
Tel. Number:	(614) 330-7193
Email:	patrick.vilbrandt@wibotic.com
Applicable Regulation:	47CFR 2.1091 RSS-102 Issue 6

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1.0 RF Exposure Summary

Test	Reference FCC	Reference Industry Canada	Result
Radio frequency Radiation Exposure Evaluation	47 CFR§2.1091	RSS-102 Issue 6	Complies

2.0 RF Exposure Limits

In this document, we evaluate the RF Exposure to human body due the intentional transmission from the transmitter (EUT). The limits for Maximum Permissible Exposure (MPE) specified in FCC 1.1310 and RSS-102 are followed.

2.1 FCC Limits

According to FCC 1.1310 table 1: The criteria listed in the following table shall be used to evaluate the environmental impact of human exposure to radio-frequency (RF) radiation as specified in 1.1307(b)

LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Average Time (minutes)
(A)Limits For Occupational / Control Exposures				
0.3 – 3.0	614	1.63	*100	6
3.0 – 30	1842/f	4.89/f	*900/f ²	6
30-300	61.4	0.163	1.0	6
300 - 1500	...	...	F/300	6
1500 - 100,000	...	...	5	6
(B)Limits For General Population / Uncontrolled Exposure				
0.3 – 1.34	614	1.63	*100	30
1.34 – 30	824/f	2.19/f	*180/f ²	30
30 – 300	27.5	0.073	0.2	30
300 - 1500	...	...	F/1500	30
1500 - 100,000	...	...	1.0	30

F = Frequency in MHz

* = plane wave equivalent density

2.2 Industry Canada Limits

According to RSS-102, Industry Canada has adopted the SAR and RF field strength limits established in Health Canada's RF exposure guideline, Safety Code 6.

Table 4: RF Field Strength Limits for Devices Used by the General Public (Uncontrolled Environment)				
Frequency Range	Electric Field	Magnetic Field	Power Density	Reference Period
(MHz)	(V/m rms)	(A/m rms)	(W/m ²)	(minutes)
0.003-10	83	90	-	Instantaneous*
0.1-10	-	$0.73/f$	-	6**
1.1-10	$87/f^{0.5}$	-	-	6**
10-20	27.46	0.0728	-2	6
20-48	$58.07/f^{0.25}$	$0.1540/f^{0.25}$	$8.944/f^{0.5}$	6
48-300	22.06	0.05852	1.291	6
300-6000	$3.142 f^{0.3417}$	$0.008335 f^{0.3417}$	$0.02619 f^{0.6834}$	6
6000-15000	61.4	0.163	10	6
15000-150000	61.4	0.163	10	$616000/f^{1.2}$
150000-300000	$0.158 f^{0.5}$	$4.21 \times 10^{-4} f^{0.5}$	$6.67 \times 10^{-5} f$	$616000/f^{1.2}$
Note: f is frequency in MHz. * Based on nerve stimulation (NS). ** Based on specific absorption rate (SAR).				

3.0 Test Results (Mobile Configuration)

3.1 Classification

Radio is installed inside a mobile host device. The antenna of the product, under normal use condition, is installed at least 30cm away from the body of the user and accessible to the end user. Warning statement to the user for keeping at least 30cm* or more separation distance with the antenna should be included in user's manual.

Note*: Per manufacturer, a distance of 30cm distance area marked around the charging station when the device is in use as per regulatory RF Exposure standards.

3.2 EIRP calculations

The EIRP calculations were derived from the maximum field strength measurements.

3.3 Maximum Field Strength

Frequency Range (MHz)	Maximum Field Strength at 3m dB(μV/m)	Note
2433.0 – 2481.65 MHz	92.6	Maximum field strength measurements were taken from Report # 106081003MPK-003.

3.4 RF Exposure Calculation

3.4.1 RF Exposure calculation.

Calculations for this report are based on highest power measured for each band.

Frequency Range (MHz)	Maximum Field Strength at 3m dB(μV/m)	EIRP ¹ (dBm)	EIRP ¹ (mW)	Power Density (mW/cm ²) @20cm	FCC Limit (mW/cm ²)
OC-1000-36-ST					
2433-2481.65	92.6	-2.62	0.547	0.000109	1

Frequency Range (MHz)	Maximum Field Strength at 3m dB(μV/m)	EIRP ¹ (dBm)	EIRP ¹ (mW)	Power Density (W/m ²) @20cm	RSS Limit (W/m ²)
OC-1000-36-ST					
2433-2481.65	92.6	-2.62	0.547	0.00109	5.469

Note¹: E.I.R.P. [dBm] = E[dBuV/m] + 20log(d[m]) - 104.77

Where:

E is electric field strength in dBuV/m
d is measurement distance in meters.

Power Density Calculation

The Power Density can be calculated using the formula

$$S = \text{EIRP} / 4\pi D^2$$

Where: S is Power Density in mW/cm²

D is the distance from the antenna in cm.

Test Result:	The EUT COMPLIED.
	<p>Wibotic recommends a distance of 30cm distance area marked around the charging station when the device is in use as per regulatory RF Exposure standards.</p> <p>Client conforms to include 30cm as minimum safe distance for general public. This statement will be included in installation and User manuals</p>

Document History

Revision/ Job Number	Writer Initials	Reviewers Initials	Date	Change
1.0/ G106081003	KT	ML	June 05, 2025	Original document