

RF Exposure Evaluation Report

Product : WMS2 Wireless Microsensor
Trade mark : N/A
Model/Type reference : WMS2(VLSW2)
Serial Number : N/A
Report Number : EED32N80400302
FCC ID : 2AVOR-WMS2
Date of Issue : Nov. 19, 2021
Test Standards : 47 CFR Part 1.1307
47 CFR Part 2.1091
KDB447498D01v06
Test result : PASS

Prepared for:

Retail Aware, Inc
808 Conagra Dr ; Ste 401 ; Omaha, Ne 68102

Prepared by:

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Nov. 19, 2021

Check No.: 8807260521



2 Version

Version No.	Date	Description
00	Nov. 19, 2021	Original

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3.1 Client Information

Applicant:	Retail Aware, Inc
Address of Applicant:	808 Conagra Dr ; Ste 401 ; Omaha, Ne 68102
Manufacturer:	Retail Aware, Inc
Address of Manufacturer:	808 Conagra Dr ; Ste 401 ; Omaha, Ne 68102
Factory:	Retail Aware, Inc
Factory of Manufacturer:	808 Conagra Dr ; Ste 401 ; Omaha, Ne 68102

3.2 General Description of EUT

Product Name:	WMS2 Wireless Microsensor
Mode No.(EUT):	WMS2(VLSW2)
Trade mark:	N/A
Product Type:	☐ Mobile ☐ Portable ☒ Fix Location
Operation Frequency:	902 MHz~928MHz
Device Type:	DTS
Number of Channel:	1
Antenna Type:	Internal antenna
Antenna Gain:	-3dBi
Power Supply:	DC 3V Lithium battery
Sample Received Date:	Oct. 14, 2021
Sample tested Date:	Oct. 14, 2021 to Oct. 17, 2021

3.3 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd

Building C, Hongwei Industrial Park Block 70, Bao'an District, Shenzhen, China

Telephone: +86 (0) 755 33683668 Fax: +86 (0) 755 33683385

No tests were sub-contracted.

FCC Designation No.: CN1164

3.4 Deviation from Standards

None.

3.5 Abnormalities from Standard Conditions

None.

3.6 Other Information Requested by the Customer

None.

4 RF Exposure Evaluation

4.1 RF Exposure Compliance Requirement

Maximum exposure limits from CFR 47, FCC Part 1.1310:

Table 1—Limits for Maximum Permissible Exposure (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposure				
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
300-1,500			f/300	6
1,500-100,000			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
300-1,500			f/1500	30
1,500-100,000			1.0	30

The power density is calculated as shown below:

$$S = (P \times G) / (4 \times \pi \times d^2) - \text{used to calculate exposure at 20 cm}$$

$$d = \sqrt{(S / (P \times G) \times 4 \times \pi)} - \text{used to calculate minimum distance to meet limits}$$

S= power density

P = transmitter conducted power (in mW)

G = antenna numeric gain

d = distance to radiation center

Table 2 – Power Density Calculations

Frequency (MHz)	Output power (dBm)	Output power (mW)	Antenna Gain (dBi)	Antenna Gain (numeric)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
915	12.20	16.596	-3	0.5012	20	0.0017	0.6099

915 MHz Antenna gain set to 0.5012 because all power measurements were performed as radiated/EIRP.

Note: This equipment is not intended to be operated by hand. It is expected that a 20cm separation will be maintained at all times.

PHOTOGRAPHS OF EUT Constructional Details

Refer to Report No. EED32N80400301 for EUT external and internal photos.

The test report is effective only with both signature and specialized stamp, The result(s) shown in this report refer only to the sample(s) tested. Without written approval of CTI, this report can't be reproduced except in full.

*** End of Report ***