RF Exposure Evaluation Declaration

FCC ID:	2ASC3WA0867B
APPLICANT:	Positec Technology (China) Co., Ltd.
Application Type:	Certification
Product:	Node
Model No.:	WA0867.B
Brand Name:	WORX
FCC Classification:	Digital Transmission System (DTS)
Test Procedure(s):	KDB 447498 D01v06
Test Date:	December 27, 2019

Reviewed By: (Kevin Guo)

Approved By: (Robin Wu)

Revision History

Report No.	Version	Description	Issue Date	Note
1908RSU054-U2	Rev. 01	Initial Report	02-27-2020	Valid

1. PRODUCT INFORMATION

1.1. Equipment Description

Product Name:	Node
Model No.:	WA0867.B
Brand Name:	WORX
Operating Frequency:	911MHz
Working Voltage:	DC 5V by Robotic mowers

1.2. Product Specification Subjective to this Report

Operating Frequency:	911MHz
Type of Modulation:	ASK
Channel Number:	1
Antenna Type:	Matel Antenna
Antenna Gain:	-0.5dBi

2. RF Exposure Evaluation

2.1. Limits

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment 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				
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6
(B) Limits for General Population/ Uncontrolled Exposures				
300-1500	--	--	f/1500	6
1500-100,000	--	--	1	30

f= Frequency in MHz

Calculation Formula: $Pd = (Pout*G)/(4*pi*r^2)$

Where
Pd = power density in mW/cm^2
Pout = output power to antenna in mW
G = gain of antenna in linear scale
Pi = 3.1416
r = distance between observation point and center of the radiator in cm

Pd is the limit of MPE, 1mW/cm². If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

2.2. Test Result of RF Exposure Evaluation

Product	Node
Test Item	RF Exposure Evaluation

Test Mode	Frequency Band (MHz)	Maximum EIRP (dBm)	Power Density at R = 20 cm (mW/cm^2)	Limit (mW/cm^2)
ASK	911	7.02	0.0010	0.6073

CONCLUSION:

The max Power Density (R=20cm) is 0.0010 mW/cm^2 < 0.6073 mW/cm^2.

Therefore, the Min Safety Distance is 20cm.

The End

Appendix A – EUT Photograph

Refer to “1908RSU054-UE” file.