RF Exposure Evaluation Declaration

FCC ID:	2AHXJ-TC-SENSOR
APPLICANT:	Mopeka Products, LLC

Application Type:	Certification
Product:	TankCheck
Model No.:	M1001300
Brand Name:	LPG Tank Check
FCC Classification:	Digital Transmission System (DTS)
Test Date:	April 26 ~ May 05, 2016

Reviewed By : Robin Wu
(Robin Wu)

Approved By : Marlin Chen
(Marlin Chen)

Revision History

Report No.	Version	Description	Issue Date
1604RSU02102	Rev. 01	Initial report	05-07-2016

1. PRODUCT INFORMATION

Product Name	TankCheck
Model No.	M1001300
Brand Name	LPG Tank Check
Bluetooth Version	v4.0
Antenna Type	PCB Antenna
Antenna Gain	3.3dBi

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, $1mW/cm^2$. 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	TankCheck
Test Item	RF Exposure Evaluation

Test Mode	Frequency Band (MHz)	Maximum Peak Output Power (dBm)	Power Density at R = 20 cm (mW/cm^2)	Limit (mW/cm^2)
BLE	2402 ~ 2480	-0.389	0.0004	1

CONCULISON:

The Max Power Density at R (20 cm) = 0.0004mW/cm^2 < 1mW/cm^2.
So the EUT complies with the requirement.

The End