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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	and the second s	
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	-	(Marlin Chen)	"Internation	TESTING LABORATORY CERTIFICATE #3628.01

The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standards through the calibration of the equipment and evaluated measurement uncertainty herein.

The test report shall not be reproduced except in full without the written approval of MRT Technology (Suzhou) Co., Ltd.

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)

Frequency Range	Electric Field	Magnetic Field	Power Density	Average Time
(MHz)	Strength (V/m)	Strength (A/m)	(mW/cm ²)	(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

LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

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	TankCheck	
Test Item	RF Exposure Evaluation	

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

CONCULISON:

The Max Power Density at R (20 cm) = 0.0004 mW/cm² < 1mW/cm². So the EUT complies with the requirement.