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# RF Exposure Evaluation Declaration

Product Name: Drivewell Tag SVR

Model No. : XS-S1 VER4.0

FCC ID : 2AFGD-0003

Applicant : Cambridge Mobile Telematics

Address : 101 Main Street, 14th Floor, Cambridge, MA 02142, USA

Date of Receipt: Apr. 11th, 2017

Test Date : Apr. 11th, 2017~ May. 03rd, 2017

Issued Date : May. 10th, 2017

Report No. : 1742033R-RF- US- P20V01

Report Version: V1.0

The test results relate only to the samples tested.

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

This report must not be used to claim product endorsement by CNAS, TAF or any agency of the government. The test report shall not be reproduced without the written approval of DEKRA Testing & Certification (Suzhou) Co., Ltd.



# **Test Report Certification**

Issued Date: May. 10th, 2017

Report No.: 1742033R-RF-US-P20V01



Product Name : Drivewell Tag SVR

Applicant : Cambridge Mobile Telematics

Address : 101 Main Street, 14th Floor, Cambridge, MA 02142, USA

Manufacturer : Cambridge Mobile Telematics

Address : 101 Main Street, 14th Floor, Cambridge, MA 02142, USA

Model No. : XS-S1 VER4.0 FCC ID : 2AFGD-0003 EUT Voltage : DC 3.3V

Test Voltage : AC 120V/60Hz

Applicable Standard : KDB 447498D01V06

FCC Part1.1310

Test Result : Complied

Performed Location : DEKRA Testing & Certification (Suzhou) Co., Ltd.

No.99 Hongye Rd., Suzhou Industrial Park, Suzhou, 215006,

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FCC Registration Number: 800392

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#### 1. RF Exposure Evaluation

#### 1.1. 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/cm2)	Average Time (Minutes)				
(A) Limits for C	(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

Friis Formula

Friis transmission formula: Pd = (Pout\*G)/(4\*pi\*r2)

Where

Pd = power density in mW/ cm<sup>2</sup>

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, 1 mW/cm<sup>2</sup>. 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.

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#### 1.2. Test Procedure

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

The temperature and related humidity: 18°C and 78% RH.

## 1.3. Test Result of RF Exposure Evaluation

Product	:	Drivewell Tag SVR
Test Item	:	RF Exposure Evaluation
Test Site	:	AC-6

#### Antenna Information

Model No.	N/A						
Antenna manufacturer	N/A						
Antenna Delivery		1*TX+1*RX				3*TX+3*RX	
Antenna technology							
		МІМО		Basic			
				CDD			
				Sectorized			
				Beam-forming			
Antenna Type		External		Dipole			
				Sectorized			
	$\boxtimes$	Internal		PIFA			
				PCB			
			$\boxtimes$	Ceramic Chip Antenna			
				Metal plate type F antenna			
Antenna Technology	Ant Gain						
	(dBi)						
⊠siso	2.2						

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### • Power Density

#### **Standlone modes:**

Test Mode	Frequency Band (MHz)	EIRP (dBm)	Power Density at $R = 20 \text{ cm}$ $(mW/cm^2)$	Limit of Power  Density  S(mW/cm²)
BLE	2405 ~ 2480	8.540	0.00142	1

Note: The standione transmission power density is 0.00142 mW/cm for Drivewell Tag SVR	
without any other radio equipment.	
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