



## **FCC RF EXPOSURE REPORT**

*For*

**Solar Powered Trailer and Assret Tracker**

**MODEL NUMBER: TT601-LM0Q-GL**

**FCC ID: 2AP3P2018TT600**

**REPORT NUMBER: 4788458567-3**

**ISSUE DATE: June 14, 2018**

*Prepared for*

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Revision History

Rev.	Issue Date	Revisions	Revised By
--	06/14/2018	Initial Issue	



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## 1. ATTESTATION OF TEST RESULTS

### Applicant Information

Company Name: Flextronics (Shanghai) Co., Ltd  
Address: 4F, Bldg. 10, No. 3000 Longdong Ave., Pudong New District, Shanghai 201203

### Manufacturer Information

Company Name: Flex Industrial, Ltd.  
Address: Level 3, Alexander House, 35 Cybercity, Ebene, Mauritius

### Factory Information

Company Name: Flextronics Technology (Nanjing) Co., Ltd  
Address: No.99 Zhuang Pai Rd., Jiangning Development Zone, Nanjing, Jiangsu, China · 211100

### EUT Description

EUT Name: Solar Powered Trailer and Asset Tracker  
Model: TT601-LM0Q-GL  
Series Model: TT600-LM0Q-GL/TT603-LM0Q-GL  
Model Different: TT600-LM0Q-GL: without connector, with Bluetooth, no ultracap  
TT601-LM0Q-GL: with connector, with Bluetooth, no ultracap  
TT603-LM0Q-GL: with connector(different pins with TT601-LM0Q-GL), with Bluetooth, no ultracap  
Brand Name: /  
Sample Status: Normal  
Sample Received Date: June 04, 2018  
Date of Tested: June 05, 2018 ~ June 11, 2018

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
FCC 47CFR§2.1091	Complies



Tested By:

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Laboratory Leader



## 2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091.

## 3. FACILITIES AND ACCREDITATION

Accreditation Certificate	<p><b>A2LA (Certificate No.: 4102.01)</b> UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with A2LA.</p> <p><b>IAS (Lab Code: TL-702)</b> UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has demonstrated compliance with ISO/IEC Standard 17025:2005, General requirements for the competence of testing and calibration laboratories</p> <p><b>FCC (FCC Designation No.: CN1187)</b> UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. Has been recognized to perform compliance testing on equipment subject to the Commission's Declaration of Conformity (DoC) and Certification rules</p> <p><b>IC(Company No.: 21320)</b> UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been registered and fully described in a report filed with Industry Canada. The Company Number is 21320.</p> <p><b>VCCI (Registration No.: G-20019, R-20004, C-20012 and T-20011)</b> UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with VCCI, the Membership No. is 3793.</p> <p>Facility Name: Chamber D, the VCCI registration No. is G-20019 and R-20004 Shielding Room B , the VCCI registration No. is C-20012 and T-20011</p>
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## 4. REQUIREMENT

### LIMIT AND CALCULATION METHOD

Systems operating under the provisions of FCC 47 CFR section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as mobile device whereby a distance of 0.2m normally can be maintained between the user and the device, and below RF Permissible Exposure limit shall comply with.

Limits for General Population/Uncontrolled Exposure

### RF EXPOSURE LIMIT

Frequency Range (MHz)	E-field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time  E  <sup>2</sup> ,  H  <sup>2</sup> or S (Minutes)
0.3 -- 1.34	614	1.63	(100)*	30
1.34 -- 30	824/f	2.19/f	(180/f <sup>2</sup> )*	30
30 -- 300	27.5	0.073	0.2	30
300 -- 1500	--	--	f/1500	30
1500 -- 100,000	--	--	1.0	30

### CALCULATION METHOD

$$S = PG / 4\pi R^2$$

Where:

S=power density

P=power input to antenna

G=power gain of the antenna in the direction of interest relative to an isotropic radiator

R=distance to the center of radiation of the antenna



### **CALCULATED RESULTS**

BLE Mode					
Frequency	Output Power	Output Power	Power Density	Limit	Test Result
MHz	dBm	mW	mW/cm <sup>2</sup>	mW/cm <sup>2</sup>	--
2402~2480	7.5	5.62	0.0021	1.0	Complies

GPRS Mode					
Band	Output Power	Output Power	Power Density	Limit	Test Result
/	dBm	mW	mW/cm <sup>2</sup>	mW/cm <sup>2</sup>	--
GPRS 850MHz	25.9	389.05	0.1945	0.55	Complies

Note: 1. Antenna Gain=2.80dBi (Numeric 1.91) for BT; Antenna Gain=4dBi (Numeric 2.51) for GPRS 850,  $\pi=3.141$ .

2. The Power comes from turn up power which declared by customer.

3. The minimum separation distance of the device is greater than 20 cm.

4. All of transmitter function can Tx simultaneously for the EUT, so the combined Power Density is  $0.1945+0.0021=0.1966\text{mW/cm}^2$  less than 0.55.

5. Calculate by WORST-CASE mode.

**END OF REPORT**