





# RF EXPOSURE EVALUATION REPORT

**APPLICANT** : CUSTOM ACCESSORIES INC  
**PRODUCT NAME** : Bluetooth FM Transmitter & Car charger  
**MODEL NAME** : 18843(C30S)/BT70/BT719S/BT74  
**BRAND NAME** : GOXT  
**FCC ID** : 2ADMQ-18843  
**STANDARD(S)** : 47CFR 2.1093  
KDB 447498 D01 General RF Exposure Guidance v06  
**ISSUE DATE** : 2017-11-09

Tested by:   
Peng Fuwei (Test engineer)

Approved by:   
Peng Huarui (Supervisor)

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Change History		
Issue	Date	Reason for change
1.0	2017-11-09	First edition



# 1. Technical Information

**Note:** Provide by manufacturer.

## 1.1. Applicant and Manufacturer Information

<b>Applicant:</b>	CUSTOM ACCESSORIES INC
<b>Applicant Address:</b>	5900 AMI DRIVE RICHMOND IL 60071
<b>Manufacturer:</b>	SAGE HUMAN ELECTRONICS INTERNATIONAL CO.,LTD
<b>Manufacturer Address:</b>	401RM, 4th FLR, A Bld, Rongli Industrial Park, Miaoxi Industrial Zone, Xinhua Community, Guanlan Town, Longhua New District, Shenzhen, China 51800

## 1.2. Equipment Under Test (EUT) Description

<b>EUT Type:</b>	Bluetooth FM Transmitter & Car charger
<b>Hardware Version:</b>	N/A
<b>Software Version:</b>	N/A
<b>Frequency Bands:</b>	Bluetooth2.1+EDR:2402-2480MHz; FM;
<b>Modulation Mode:</b>	Bluetooth: FHSS (GFSK(1Mbps), $\pi/4$ -DQPSK(EDR 2Mbps)) FM: 88.1MHz-107.9MHz ;
<b>Antenna type:</b>	PCB Antenna

**Note :** The terminal product 18843(C30S) /BT70 /BT719S /BT74 has the same hardware and software, the same Bluetooth module. The main differences are that they have different model number.

### 1.3. Photographs of the EUT

1. EUT front view



2. EUT rear view





### 1.3.1. Identification of all used EUT

The EUT identity consists of numerical and letter characters, the letter character indicates the test sample, and the following two numerical characters indicate the software version of the test sample.

<b>EUT Identity</b>	<b>Hardware Version</b>	<b>Software Version</b>
1#	N/A	N/A

### 1.4. Applied Reference Documents

Leading reference documents for testing:

<b>No.</b>	<b>Identity</b>	<b>Document Title</b>
1	<b>47 CFR§2.1093</b>	Radiofrequency Radiation Exposure Evaluation: portable devices
2	<b>KDB 447498 D01v06</b>	General RF Exposure Guidance



## 2. DEVICE CATEGORY AND RF EXPOSURE LIMIT

Per user manual, this device is a Game pad. Based on 47CFR 2.1093, this device belongs to portable device category with General Population/Uncontrolled exposure.

### **Portable Devices:**

47CFR 2.1093(b)

For purposes of this section, a portable device is defined as a transmitting device designed to be used so that the radiating structure(s) of the device is/are within 20 centimeters of the body of the user.

### **GENERAL POPULATION / UNCONTROLLED EXPOSURE**

47CFR 2.1093(d) (2)

Limits for General Population/Uncontrolled exposure: 0.08 W/kg as averaged over the whole-body and spatial peak SAR not exceeding 1.6 W/kg as averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube). Exceptions are the hands, wrists, feet and ankles where the spatial peak SAR shall not exceed 4 W/kg, as averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube). General Population/Uncontrolled limits apply when the general public may be exposed, or when persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or do not exercise control over their exposure. Warning labels placed on consumer devices such as cellular telephones will not be sufficient reason to allow these devices to be evaluated subject to limits for occupational/controlled exposure in paragraph (d)(1) of this section.



### 3. MEASUREMENT OF CONDUCTED PEAK OUTPUT POWER

1. Bluetooth average output power

Band	Channel	Frequency (MHz)	Output Power(dBm)	
			GFSK	$\pi/4$ -DQPSK
BT2.1+EDR	0	2402	-6.42	-5.78
	39	2441	-6.37	-5.68
	78	2480	-5.81	-5.44



## 4. RF EXPOSURE EVALUATION

The device is a Car Charger with Bluetooth and FM transmitter, and FM Supports TX function, so standalone SAR evaluation is required for Bluetooth and FM.

Standalone transmission SAR evaluation

According to KDB 447498 section 4.3.1, the 1-g SAR test exclusion thresholds at test separation Distances  $\leq 50$  mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$

The BT2.1+EDR maximum tune-up limit power is **0.316mW @ 2.480GHz**

When Car charger is used on the hand, so use **5mm** as the most conservative minimum test separation distance,

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] = \mathbf{0.098} \leq 3.0$

So SAR evaluation is not required for this device.

This device FM Electric strength is 68dB $\mu$ V/m lower than Limit for MPE (614 dB $\mu$ V/m), so it is not require for SAR test.

In summary, Bluetooth+FM simultaneously transmission SAR measurement is not necessary.





## Annex A General Information

### 1. Identification of the Responsible Testing Laboratory

Company Name:	Shenzhen Morlab Communications Technology Co., Ltd.
Department:	Morlab Laboratory
Address:	FL.3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China
Responsible Test Lab Manager:	Mr. Su Feng
Telephone:	+86 755 36698555
Facsimile:	+86 755 36698525

### 2. Identification of the Responsible Testing Location

Name:	Shenzhen Morlab Communications Technology Co., Ltd. Morlab Laboratory
Address:	FL.3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China

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