



**No. I16N00808-EMF**

**for**

**Silicon Application Corp.**

**Bluetooth GPS MODEL**

**Model Name: LINKIT2523HDK**

**FCC ID: 2AINMLINKIT2523HDK**

**Classification of test: Non-Type Approval**

**With**

**Hardware Version: ELINK-T100-V2**

**Software Version: MT2523G\_iot\_sdk\_dev\_HDK\_E2**

**Issued Date: 2016-08-29**

**Note:**

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of CTTL.

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## **CONTENTS**

<b>1. TEST LABORATORY .....</b>	<b>3</b>
<b>1.1. TESTING LOCATION .....</b>	<b>3</b>
<b>1.2. TESTING ENVIRONMENT .....</b>	<b>3</b>
<b>1.3. PROJECT DATA .....</b>	<b>3</b>
<b>1.4. SIGNATURE .....</b>	<b>3</b>
<b>2. CLIENT INFORMATION .....</b>	<b>4</b>
<b>2.1. APPLICANT INFORMATION .....</b>	<b>4</b>
<b>2.2. MANUFACTURER INFORMATION .....</b>	<b>4</b>
<b>3. EQUIPMENT UNDER TEST (EUT) AND ANCILLARY EQUIPMENT (AE) .....</b>	<b>5</b>
<b>3.1. ABOUT EUT .....</b>	<b>5</b>
<b>3.2. INTERNAL IDENTIFICATION OF EUT .....</b>	<b>5</b>
<b>3.3. INTERNAL IDENTIFICATION OF AE .....</b>	<b>5</b>
<b>4. REFERENCE DOCUMENTS .....</b>	<b>6</b>
<b>5. RESULTS.....</b>	<b>6</b>
<b>6. CONCLUSION .....</b>	<b>6</b>

## **1. Test Laboratory**

### **1.1. Testing Location**

Company Name: CTTL(Shenzhen)  
Address: TCL International E City No.1001 Zhongshanyuan Road, Nanshan District, Shenzhen, Guangdong Province P.R.China

### **1.2. Testing Environment**

Normal Temperature: 18-25℃  
Relative Humidity: 30-70%

### **1.3. Project data**

Project Leader: Cao Junfei  
Test Engineer: Zhang Yunzhuan  
Testing Start Date: 2016-08-29  
Testing End Date: 2016-08-29

### **1.4. Signature**

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**Zhang Yunzhuan**  
**(Prepared this test report)**

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**Cao Junfei**  
**(Reviewed this test report)**

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**Zhang Bojun**  
**Deputy Director of the laboratory**  
**(Approved this test report)**



## **2. Client Information**

### **2.1. Applicant Information**

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### **2.2. Manufacturer Information**

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### **3. Equipment Under Test (EUT) and Ancillary Equipment (AE)**

#### **3.1. About EUT**

Description	Bluetooth GPS MODEL
Model name	LINKIT2523HDK
Operation mode	BT
Tested Tx Frequency	2402~2480MHz

#### **3.2. Internal Identification of EUT**

<b>EUT ID*</b>	<b>SN or IMEI</b>	<b>HW Version</b>	<b>SW Version</b>
S1	/	ELINK-T100-V2	MT2523G_iot_sdk_dev_HDK_E2

\*EUT ID: is used to identify the test sample in the lab internally.

#### **3.3. Internal Identification of AE**

<b>AE ID*</b>	<b>Description</b>	<b>Model</b>	<b>SN</b>	<b>Manufacturer</b>
AE1	/	/	/	/

\*AE ID: is used to identify the test sample in the lab internally.

#### 4. Reference Documents

FCC KDB publication 447498 D01 General RF Exposure Guidance v06: Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies.

#### 5. Results

KDB 447498D01(v06) has the following exclusion for portable devices: The 1g and 10g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances  $\leq 50\text{mm}$  are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$  for 1-g SAR and  $\leq 7.5$  for 10-g extremity SAR, where

- $f(\text{GHz})$  is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is  $\leq 50\text{ mm}$  and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is  $< 5\text{ mm}$ , a distance of 5 mm is applied to determine SAR test exclusion.

This device has  $f = 2.48\text{ GHz}$  and distance = 5 mm (minimum separation distance: 5 mm was used in the calculation) and the maximum average output power (Timed average power (Frame power)) were 2.8dBm (BT classic mode) and -1dBm (BT BLE mode).

So for this device:

BT Mode	Frequency (MHz)	Target Power W/tolerance(dBm)	Max tune up power(dBm)	Max tune up power(mW)	Separation distance(mm)	RF exposure
Classic mode	2480	1.8 $\pm$ 1.0	2.8	1.91	5	0.602
BLE mode	2480	-3 $\pm$ 2	-1	0.79	5	0.249

\*This is less than 3.0, so no SAR is required.

#### 6. Conclusion

The SAR test exclusion threshold is less than 3, so the device meets the RF Exposure Requirement and excluded SAR Test.

\*\*\*END OF REPORT\*\*\*