



Report No.: SHCR221100238102

Page: 1 of 7

## 1 Cover Page

# RF MPE REPORT

**Application No.:** SHCR2211002381AT  
**FCC ID:** 2A92M-E310B  
**Applicant:** Shanghai Inlay Link Inc.  
**Address of Applicant:** No.164, XuanChun Road, Pudong New Area,Shanghai, China  
**Manufacturer:** Shanghai Inlay Link Inc.  
**Address of Manufacturer:** No.164, XuanChun Road, Pudong New Area,Shanghai, China  
**Factory:** Shanghai Inlay Link Inc.  
**Address of Factory:** No.164, XuanChun Road, Pudong New Area,Shanghai, China  
**Equipment Under Test (EUT):**  
**EUT Name:** RFID Module  
**Model No.:** E310B  
**Trade mark:** Inlaylink  
**Standard(s) :** FCC Rules 47 CFR §2.1091  
KDB447498 D01 General RF Exposure Guidance v06  
**Date of Receipt:** 2022-11-03  
**Date of Test:** 2022-11-03 to 2023-01-05  
**Date of Issue:** 2023-01-11

<b>Test Result:</b>	<b>Pass*</b>
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\* In the configuration tested, the EUT complied with the standards specified above.

Parlam Zhan

Parlam Zhan  
Laboratory Manager

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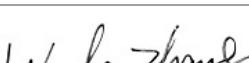
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Revision Record			
Version	Description	Date	Remark
00	Original	2023-01-11	/

<b>Authorized for issue by:</b>			
	 <hr data-bbox="585 819 1041 821"/> <b>Wade Zhang/Project Engineer</b>		
	 <hr data-bbox="585 965 1041 967"/> <b>Parlam Zhan/Reviewer</b>		

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### 3 General Information

#### 3.1 General Description of E.U.T.

Power supply:	DC 5V from USB port
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#### 3.2 Technical Specifications

##### RFID

Operation Frequency:	902.75MHz ~ 927.25MHz
Spectrum Spread Technology:	Frequency Hopping Spread Spectrum(FHSS)
Modulation Type:	GFSK
Number of Channels:	50
Channel Spacing:	500KHz
Antenna Type:	PCB Antenna
Antenna Gain:	-15dBi

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### **3.3 Test Location**

All tests were performed at:

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. E&E Lab

588 West Jindu Road, Xinqiao, Songjiang, 201612 Shanghai, China

Tel: +86 21 6191 5666      Fax: +86 21 6191 5678

No tests were sub-contracted.

Note:

1. SGS is not responsible for wrong test results due to incorrect information (e.g. max. clock frequency, highest internal frequency, antenna gain, cable loss, etc ) is provided by the applicant. (if applicable).
2. SGS is not responsible for the authenticity, integrity and the validity of the conclusion based on results of the data provided by applicant. (if applicable).

### **3.4 Test Facility**

The test facility is recognized, certified, or accredited by the following organizations:

- A2LA (Certificate No. 6332.01)**

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. is accredited by the American Association for Laboratory Accreditation(A2LA).

- FCC (Designation Number: CN1301)**

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been recognized as an accredited testing laboratory.

- ISED (CAB Identifier: CN0020)**

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. EMC Laboratory has been recognized by Innovation, Science and Economic Development Canada (ISED) as an accredited testing laboratory Company Number: 8617A

- VCCI (Member No.: 3061)**

The 3m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-13868, C-14336, T-12221, G-10830 respectively.

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## 4 Test Standards and Limits

### 4.1 FCC Radiofrequency radiation exposure limits:

According to §1.1310, the limit for general population/uncontrolled exposures

Frequency	Power density(mW/cm <sup>2</sup> )	Averaging time(minutes)
300MHz~1.5GHz	f/1500	30
1.5GHz~100GHz	1.0	30

For RFID (902-928MHz) band, the limit of worse case is 0.601 mW/cm<sup>2</sup>

## 5 Measurement and Calculation

### 5.1 Maximum transmit power

The Power Data is based on the RF Test Report SHCR221100238101.

TestMode	Test Frequency (MHz)	Output Power (dBm)	Reading Power (mW)
RFID	902.75	27.042	506.06
	915.25	27.370	545.76
	927.25	27.130	516.42

### 5.2 MPE Calculation

According to the formula  $S=P/4\pi R^2$ , we can calculate S which is MPE.

Note:

- 1) P (mW)
- 2) R = distance to the center of radiation of antenna (in meter) = 20cm
- 3) MPE limit = 0.601 mW/cm<sup>2</sup> (RFID 902-928MHz)

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For RFID:

The max. antenna gain is -15 dBi

Max. Conducted Power P(mW)	Gain in Linear Scale G	Operation Distance R(cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )	Result
545.76	0.032	20	0.00343	0.601	Pass

So the device is exclusion from SAR test.

**--End of the Report--**

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