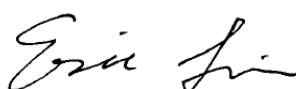


**1 Cover Page*****RF Exposure Evaluation Report***

<b>Application No.:</b>	KSCR2208001370AT
<b>FCC ID:</b>	2A8CZ000077GB000001
<b>Applicant:</b>	Nova Electronics (Shanghai) Co., LTD
<b>Address of Applicant:</b>	Zone A, 6th Floor, 1st Building, No. 601, Jinyuan fifth road, Jiading District, Shanghai, P.R.China
<b>Manufacturer:</b>	Nova Electronics (Shanghai) Co., LTD
<b>Address of Manufacturer:</b>	Zone A, 6th Floor, 1st Building, No. 601, Jinyuan fifth road, Jiading District, Shanghai, P.R.China
<b>Factory:</b>	Nova Electronics (Shanghai) Co., LTD
<b>Address of Factory:</b>	Zone A, 6th Floor, 1st Building, No. 601, Jinyuan fifth road, Jiading District, Shanghai, P.R.China
<b>Equipment Under Test (EUT):</b>	
<b>EUT Name:</b>	77GHz millimeter-wave radar
<b>Model No.:</b>	NOVA77GB-A
<b>Standard(s) :</b>	FCC Rules 47 CFR §2.1091 KDB447498 D01 General RF Exposure Guidance v06
<b>Date of Receipt:</b>	2022-08-05
<b>Date of Test:</b>	2022-08-15 to 2022-08-31
<b>Date of Issue:</b>	2022-09-01
<b>Test Result:</b>	<b>Pass*</b>

\* In the configuration tested, the EUT complied with the standards specified above.



Eric Lin  
Laboratory Manager



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## Compliance Certification Services (Kunshan) Inc.

Report No.: KSCR220800137002

Page: 2 of 7

Revision Record			
Version	Description	Date	Remark
00	Original	2022-09-01	/

Authorized for issue by:			
		Pawn. Lin	
		<b>Pawn Liu / Project Engineer</b>	
		Eric Lin	
		<b>Eric Lin / Reviewer</b>	

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### 3 General Information

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

Power supply:	DC 12-24V
---------------	-----------

#### 3.2 Technical Specifications

Frequency band:	76.0 GHz – 77.0 GHz
Type of modulation:	FMCW
Center Frequency:	76.48GHz
Channel Number:	1
Antenna Type:	PCB antenna
Antenna Gain:	16dBi (Provided by the manufacturer)
Serial Number:	072722A0060
Software version:	V0.83



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### 3.3 Test Location

All tests were performed at:

Compliance Certification Services (Kunshan) Inc.

No.10 Weiye Rd, Innovation park, Eco&Tec, Development Zone, Kunshan City, Jiangsu, China.

Tel: +86 512 5735 5888 Fax: +86 512 5737 0818

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:

- **CNAS**

Compliance Certification Services (Kunshan) Inc. is accredited by the China National Accreditation Service for Conformity Assessment (CNAS). Registration No. CNAS L4354

- **A2LA**

Compliance Certification Services (Kunshan) Inc. is accredited by the American Association for Laboratory Accreditation (A2LA). Certificate No. 2541.01.

- **FCC**

Compliance Certification Services (Kunshan) Inc. has been recognized as an accredited testing laboratory. Designation Number: CN1172.

- **ISED**

Compliance Certification Services (Kunshan) Inc. has been recognized by Innovation, Science and Economic Development Canada (ISED) as an accredited testing laboratory. Company Number: 2324E

- **VCCI**

The 3m and 10m Semi-anechoic chamber and Shielded Room of Compliance Certification Services (Kunshan) Inc. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-20134, R-11600, C-11707, T-11499, G-10216 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



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## 5 Measurement and Calculation

### 5.1 Maximum transmit power

The Power Data is based on the RF Test Report KSCR220800137001

Frequency (GHz)	dBuV/m @ 0.15m	E.I.R.P. Power (dBm)	E.I.R.P. Power (mW)
76.48	122.47	1.22	1.32
	121.97	0.72	1.18
	135.26	14.01	25.18
	134.31	13.06	20.23

Remark:

$E[\text{dB}\mu\text{V}/\text{m}] = \text{EIRP}[\text{dBm}] - 20 \log(d[\text{meters}]) + 104.77$ , where  $E$  = field strength and  $d$  = distance at which field strength limit is specified in the rules

$\text{EIRP}[\text{dBm}] = E[\text{dB}\mu\text{V}/\text{m}] + 20 \log(d[\text{meters}]) - 104.77$

### 5.2 MPE Calculation

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

Note:

- 1)  $P$  (mW)
- 2)  $G$  (Antenna gain in numeric)
- 3)  $R$  = distance to the center of radiation of antenna (in meter) = 20cm
- 4) MPE limit = 1mW/cm<sup>2</sup>

$$S = \frac{PG}{4R^2\pi} = \frac{25.18}{4 \times 400 \times 3.14} = 0.005 \text{ mW/cm}^2 < 1 \text{ mW/cm}^2$$

So the device is exclusion from SAR test.

--End of the Report--



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