



# **RF EXPOSURE REPORT**

For

# Fujian LANDI Commercial Equipment Co.,Ltd.

Building 17, Section A, Software Park, No. 89 Software Road, Gulou District, Fuzhou Municipality, Fujian Province, China

# FCC ID: 2AG6N-C20PROA1

Report Type:		Product Name:
Original Report		POS Terminal
Report Number:	2407T77013E-I	RF-02
Report Date:	2024-09-27	
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# **REPORT REVISION HISTORY**

Number of Revisions	Report No.	Version	Issue Date	Description	
0	2407T77013E-RF-02	R1V1	2024-09-27	Initial Release	

§1.1307(b)(1) & §2.1091

#### Applicable Standard

According to subpart §1.1310, systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline.

Limits for Maximum Permissible Exposure (MPE)

(B) Limits for General Population/Uncontrolled Exposure							
Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm²)	Averaging Time (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			

f = frequency in MHz; \* = Plane-wave equivalent power density; According to \$1.1310 & \$2.1091 RF exposure is calculated.

### **Calculated Formulary:**

Predication of MPE limit at a given distance

 $S = PG/4\pi R^2$  = power density (in appropriate units, e.g. mW/cm<sup>2</sup>);

P = power input to the antenna (in appropriate units, e.g., mW);

G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain;

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm);

For simultaneously transmit system, the calculated power density should comply with:

$$\sum_{i} \frac{S_i}{S_{Limit,i}} \leq 1$$

## **EUT Information**

# **Configuration 6**

Operation Modes Operation Frequency (MHz)		Max Conducted output power including Tune-up Tolerance (dBm)	Maximum Antenna Gain (dBi)		
2.4G WLAN	2412-2462	20.5	0.84		
Bluetooth	2402-2480	14	0.84		
BLE	2402-2480	3	0.84		
WLAN 5.2G	5180-5240	16	0.69		
WLAN 5.3G	5260-5320	16	0.74		
WLAN 5.5G	5500-5720	17	0.95		
WLAN 5.8G	5745-5825	18	0.95		
NFC	13.56	-46.0	0		

ote:

The maximum NFC field strength is configuration 10.
The above parameters were provided by the manufacturer.

Please refer to the FCC ID: 2AG6N-SNM927WF4MG for power about the certified module.

# **Configuration 3**

Operation Frequency (MHz)	Max Conducted output power including Tune-up Tolerance (dBm)	Maximum Antenna Gain (dBi)		
2412-2462	19	0.84		
2402-2480	15	0.84		
2402-2480	4	0.84		
5180-5240	17	0.69		
5260-5320	17	0.74		
5500-5720	17	0.95		
5745-5825	17	0.95		
1850-1910	25	1.82		
1710-1755	25	2.85		
824-849	25	2.39		
1850-1910	25.7	1.82		
1710-1755	25.7	2.85		
824-849	25.7	2.39		
2500-2570	25.7	3.36		
699-716	25.7	0.62		
777-787	25.7	0.58		
788-798	25.7	-0.34		
704-716	25.7	0.6		
1850-1915	25.7	1.82		
814-849	25.7	2.39		
2496-2690	25.7	3.82		
1710-1780	25.7	2.85		
663-698	25.7	0.96		
13.56	-46.0	0		
	2412-2462       2402-2480       2402-2480       5180-5240       5260-5320       5500-5720       5745-5825       1850-1910       1710-1755       824-849       1850-1910       1710-1755       824-849       2500-2570       699-716       777-787       788-798       704-716       1850-1915       814-849       2496-2690       1710-1780       663-698	2412-2462     19       2402-2480     15       2402-2480     4       5180-5240     17       5260-5320     17       5500-5720     17       5745-5825     17       1850-1910     25       1710-1755     25       824-849     25       1850-1910     25.7       1710-1755     25.7       824-849     25.7       2500-2570     25.7       699-716     25.7       777-787     25.7       788-798     25.7       704-716     25.7       814-849     25.7       814-849     25.7       814-849     25.7       1710-1780     25.7       663-698     25.7		

The above parameters were provided by the manufacturer. Please refer to the FCC ID: 2AG6N-SLM927AM4MG for power about the certified module.

## **Calculated Data:**

# **Configuration 6**

Mode Frequency (MHz)	Antenna Gain		Tune-up Output Power		Evaluation Distance	Power Density	MPE Limt	
	(dBi)	(numeric)	(dBm)	(mW)	(cm)	$(mW/cm^2)$	$(\mathbf{mW/cm}^2)$	
2.4G Wi-Fi	2412-2462	0.84	1.21	20.5	112.20	20	0.0270	1
BLE	2402-2480	0.84	1.21	3	2.00	20	0.0005	1
ВТ	2402-2480	0.84	1.21	14	25.12	20	0.0060	1
5.2G Wi-Fi	5180-5240	0.69	1.17	16	39.81	20	0.0093	1
5.3G Wi-Fi	5260-5320	0.74	1.19	16	39.81	20	0.0094	1
5.5G Wi-Fi	5500-5720	0.95	1.24	17	50.12	20	0.0124	1
5.8G Wi-Fi	5745-5825	0.95	1.24	18	63.10	20	0.0156	1
NFC	13.56	0	1.00	-46.0	0.00002	20	<< 0.0001	0.98

Note: 1. The Tune-up output power was declared by the Manufacturer. 2. The device contains a certificated module, FCC ID: 2AG6N-SNM927WF4MG.

Mode Frequency		Antenna Gain		Tune-up Output Power		Evaluation Distance	Power Density	MPE Limt
moue	(MHz)	(dBi)	(numeric)	(dBm)	( <b>mW</b> )	(cm)	$(\mathrm{mW/cm}^2)$	$(\mathrm{mW/cm}^2)$
2.4G WLAN	2412-2462	0.84	1.21	19	79.43	20	0.0191	1.000
BLE	2402-2480	0.84	1.21	4	2.51	20	0.0006	1.000
BT	2402-2480	0.84	1.21	15	31.62	20	0.0076	1.000
5.2GHz Wi-Fi	5180-5240	0.69	1.17	17	50.12	20	0.0117	1.000
5.3GHz Wi-Fi	5260-5320	0.74	1.19	17	50.12	20	0.0119	1.000
5.5GHz Wi-Fi	5500-5720	0.95	1.24	17	50.12	20	0.0124	1.000
5.8GHz Wi-Fi	5745-5825	0.95	1.24	17	50.12	20	0.0124	1.000
WCDMA B2	1850-1910	1.82	1.52	25	316.23	20	0.0956	1.000
WCDMA B4	1710-1755	2.85	1.93	25	316.23	20	0.1214	1.000
WCDMA B5	824-849	2.39	1.73	25	316.23	20	0.1088	0.549
LTE B2	1850-1910	1.82	1.52	25.7	371.54	20	0.1124	1.000
LTE B4	1710-1755	2.85	1.93	25.7	371.54	20	0.1425	1.000
LTE B5	824-849	2.39	1.73	25.7	371.54	20	0.1281	0.549
LTE B7	2500-2570	3.36	2.17	25.7	371.54	20	0.1602	1.000
LTE B12	699-716	0.62	1.15	25.7	371.54	20	0.0852	0.466
LTE B13	777-787	0.58	1.14	25.7	371.54	20	0.0843	0.525
LTE B14	788-798	-0.34	0.92	25.7	371.54	20	0.0683	0.518
LTE B17	704-716	0.6	1.15	25.7	371.54	20	0.0849	0.469
LTE B25	1850-1915	1.82	1.52	25.7	371.54	20	0.1124	1.000
LTE B26	814-849	2.39	1.73	25.7	371.54	20	0.1281	0.543
LTE B41	2496-2690	3.82	2.41	25.7	371.54	20	0.1781	1.000
LTE B66	1710-1780	2.85	1.93	25.7	371.54	20	0.1425	1.000
LTE B71	663-698	0.96	1.25	25.7	371.54	20	0.0922	0.442
NFC	13.56	0	1.00	-46.0	0.00002	20	<< 0.0001	0.98

# **Configuration 3**

Note: 1. The Tune-up output power was declared by the Manufacturer. 2. The device contains a certificated module, FCC ID: 2AG6N-SLM927AM4MG.

3. NFC field strength is 48.50dB $\mu$  V/m @ 3m = -46.7 dBm(0.00002mW) EIRP. That equal to antenna gain is 0dBi and used the EIRP value as conducted power.

#### Simulatneous transmission:

#### **For Configuration 6:**

Wifi, WWAN, NFC cans transmissions simultaneously:

$$\sum_{i} \frac{S_{i}}{S_{Lindi,i}} \leq 1$$

#### For Configuration 6 & 10:

 $= S_{2.4G \text{ Wifi}}/S_{\text{limit-2.4G Wifi}} + S_{\text{NFC}}/S_{\text{limit-NFC}}$ 

=0.0270/1+0.0001/0.98

=0.2711

< 1.0

#### **For Configuration 3:**

 $= S_{2.4G \ Wifi}/S_{limit-2.4G \ Wifi} + S_{WWAN}/S_{limit-WWAN} + S_{NFC}/S_{limit-NFC}$ 

 $=\!0.0191/1\!+\!0.1281/0.543\!+\!0.0001/0.98$ 

=0.2553

<1.0

**Result:** The device meets MPE at distance 20cm.

### Declarations

1. Bay Area Compliance Laboratories Corp. (Xiamen) is not responsible for authenticity of any information provided by the applicant. Information from the applicant that may affect test results are marked with an asterisk " $\star$ ".

2. Unless otherwise stated, the results shown in this test report refer only to the sample(s) tested.

3. Unless required by the rule provided by the applicant or product regulations, then decision rule in this report did not consider the uncertainty.

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