

# RF EXPOSURE EVALUATION REPORT

FCC ID : 2AZUL-RS8682  
Equipment : 5G n48 RRU 4x4 5W/Ch Outdoor  
Brand Name : LIONS  
Model Name : RS8682  
Applicant : LIONS Taiwan Technology Inc.  
3F.-2, No. 120, Sec. 2, Gongdao 5th Rd., East Dist., Hsinchu  
City 300031 , Taiwan (R.O.C.)  
Manufacturer : LIONS Taiwan Technology Inc.  
3F.-2, No. 120, Sec. 2, Gongdao 5th Rd., East Dist., Hsinchu  
City 300031 , Taiwan (R.O.C.)  
Standard : 47 CFR Part 2.1091

We, SPORTON INTERNATIONAL INC has been evaluated this product in accordance with 47 CFR Part2.1091 and it complies with applicable limit.

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code: 3786) and the FCC designation No. TW3786 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC evaluation.

The results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. Laboratory, the test report shall not be reproduced except in full



Approved by: Cona Huang / Deputy Manager



**SPORTON INTERNATIONAL INC. Wensan Laboratory**

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## History of this test report

Report No.	Version	Description	Issued Date
FA3N0925-06	Rev. 01	Initial issue of report	Feb. 20, 2025

**1. Description of Equipment Under Test (EUT)**

Product Feature & Specification	
EUT Type	5G n48 RRU 4x4 5W/Ch Outdoor
Brand Name	LIONS
Model Name	RS8682
FCC ID	2AZUL-RS8682
Wireless Technology and Frequency Range	5G NR n48: 3550 MHz – 3700 MHz
Mode	5G NR: QPSK/16QAM/64QAM/256QAM
SW version	V2.0.2.4.4

**Reviewed by: Jason Wang****Report Producer: Daisy Peng****2. Maximum RF average output power among production units**

5G NR n48	Maximum EIRP Power (dBm)
	54.80

### **3. RF Exposure Limit Introduction**

According to ANSI/IEEE C95.1-1992, the criteria listed in Table 1 shall be used to evaluate the environmental impact of human exposure to radio frequency (RF) radiation as specified in §1.1310.

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)
<b>(A) Limits for Occupational/Controlled Exposures</b>				
0.3-3.0	614	1.63	*(100)	6
3.0-30	1842/f	4.89/f	*(900/f <sup>2</sup> )	6
30-300	61.4	0.163	1.0	6
300-1500			f/300	6
1500-100,000			5	6
<b>(B) Limits for General Population/Uncontrolled Exposure</b>				
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

The MPE was calculated at 160 cm to show compliance with the power density limit.

The following formula was used to calculate the Power Density:

$$S = \frac{PG}{4\pi R^2}$$

Where:

S = Power Density

P = Output Power at Antenna Terminals

G = Gain of Transmit Antenna (linear gain)

R = Distance from Transmitting Antenna

### **4. Radio Frequency Radiation Exposure Evaluation**

Band	Maximum EIRP (dBm)	Maximum PG (mW)	Power Density at 160cm (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
n48	54.80	301995.17	0.939	1.000

### **Conclusion:**

According to 47 CFR §2.1091, the RF exposure analysis concludes that the RF Exposure is FCC compliant.