



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

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Approved by: Cona Huang / Deputy Manager



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History of this test report



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 ²) | Averaging time (minutes) |
|--|-------------------------------|-------------------------------|-------------------------------------|--------------------------|
| (A) Limits for Occupational/Controlled Exposures | | | | |
| 0.3-3.0 | 614 | 1.63 | *(100) | 6 |
| 3.0-30 | 1842/f | 4.89/f | *(900/f ²) | 6 |
| 30-300 | 61.4 | 0.163 | 1.0 | 6 |
| 300-1500 | | | f/300 | 6 |
| 1500-100,000 | | | 5 | 6 |
| (B) Limits for General Population/Uncontrolled Exposure | | | | |
| 0.3-1.34 | 614 | 1.63 | *(100) | 30 |
| 1.34-30 | 824/f | 2.19/f | *(180/f ²) | 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 ²) | Limit (mW/cm ²) |
|------|--------------------|-----------------|--|-----------------------------|
| 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.