MRT Technology (Taiwan) Co., Ltd
Phone: +886-3-3288388
Fax: +886-3-3288918
Web: www.mrt-cert.com

Report No.: 2506TWQ801-U3
Report Version: 1.0
Issue Date: 2025-08-06

# RF Exposure Evaluation

| | | |
|---|---|---|
| **FCC ID** | : | **2A348SPARKLINKXLR** |
| **APPLICANT** | : | **Positive LLC** |
| **Product** | : | **Wireless System XLR** |
| **Model No.** | : | **Spark LINK XLR** |
| **Brand Name** | : | **Positive Grid** |
| **FCC Rule Part(s):** | : | **Part 2.1093 (Portable)** |
| **Received Date** | : | **June 16, 2025** |

**Tested By** : Fran Chen
( Fran Chen )

**Reviewed By** : Paddy Chen
( Paddy Chen )

**Approved By** : Chenz Ker
( Chenz Ker)

Testing Laboratory
3261

# Revision History

| Report No. | Version | Description | Issue Date | Note |
|---|---|---|---|---|
| 2506TWQ801-U3 | 1.0 | Original Report | 2025-08-06 | |

# 1. PRODUCT INFORMATION

## 1.1. Equipment Description

| | |
|---|---|
| Product Name | Wireless System XLR |
| Model No. | Positive Grid |
| Brand Name | Spark LINK XLR |
| Supports Radios Spec. | **WPAN:**<br>SRD 2.4G |

## 1.2. Antenna Description

| No. | Brand | Part No. | Antenna Type | Peak Gain |
|---|---|---|---|---|
| 1 | WISVATION | WS105 | IFA | 1.6dBi |

# 2. RF Exposure Evaluation

## 2.1. FCC Limits

According to FCC KDB 447498 D04V01 - SAR-Based Exemption

This method shall only be used at separation distances from 0.5 cm to 40 cm and at frequencies from 0.3 GHz to 6 GHz (inclusive). Pth is given by Formula .

$$P_{\text{th}}\ (\text{mW}) = \begin{cases} ERP_{20\ \text{cm}}(d/20\ \text{cm})^{x} & d \le 20\ \text{cm} \\ ERP_{20\ \text{cm}} & 20\ \text{cm} < d \le 40\ \text{cm} \end{cases}$$

where

$$x = -\log_{10}\left(\frac{60}{ERP_{20\ \text{cm}}\sqrt{f}}\right)$$

and f is in GHz, d is the separation distance (cm), and $ERP_{20cm}$ is per Formula.

$$P_{\text{th}}\ (\text{mW}) = ERP_{20\ \text{cm}}\ (\text{mW}) = \begin{cases} 2040f & 0.3\ \text{GHz} \le f < 1.5\ \text{GHz} \\ 3060 & 1.5\ \text{GHz} \le f \le 6\ \text{GHz} \end{cases}$$

The example values shown as below are for illustration only.

Example Power Thresholds (mW)

| Frequency (MHz) | Distance (mm) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| 300 | 39 | 65 | 88 | 110 | 129 | 148 | 166 | 184 | 201 | 217 |
| 450 | 22 | 44 | 67 | 89 | 112 | 135 | 158 | 180 | 203 | 226 |
| 835 | 9 | 25 | 44 | 66 | 90 | 116 | 145 | 175 | 207 | 240 |
| 1900 | 3 | 12 | 26 | 44 | 66 | 92 | 122 | 157 | 195 | 236 |
| 2450 | 3 | 10 | 22 | 38 | 59 | 83 | 111 | 143 | 179 | 219 |
| 3600 | 2 | 8 | 18 | 32 | 49 | 71 | 96 | 125 | 158 | 195 |
| 5800 | 1 | 6 | 14 | 25 | 40 | 58 | 80 | 106 | 136 | 169 |

Note: when 10-g extremity SAR applies, SAR test exemption may be considered by applying a factor of 2.5 to the SAR-based exemption thresholds.

## 2.2. Test Result of RF Exposure Evaluation

| Mode | Frequency Band (MHz) | Average Output Power (dBm) | Output Power (mW) | Antenna Gain (dBi) | ERP (mW) | FCC SAR Test Exclusion Threshold (mW) |
|---|---|---|---|---|---|---|
| SRD 2.4G | 2408~2477 | 5.99 | 3.97 | 1.6 | 3.50 | 7.5 |

So, this device can complies the SAR test exclusion.

The End