

Transmitter Solutions  
2480 South 3850 West, Suite B Salt Lake City UT 84120 United States

Federal Communications Commission  
Authorization and Evaluation Division  
Equipment Authorization Branch  
7435 Oakland Mills Road  
Columbia, MD 21046

### **Applicant's declaration concerning RF Radiation Exposure**

We hereby indicate that the product  
Product description: Reign - Safety Edge Receiver  
Model No: XER-100

The equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. The integral antennas used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter within the host device.

A safety statement concerning minimum separation distances from enclosure of the Product : Reign - Safety Edge Receiver will be integrated in the user's manual to provide end-users with transmitter operating conditions for satisfying RF exposure compliance.

The appropriate information can be drawn from the test report no: W6M21910-19422-C-1 and the accompanying calculations.

Company: Transmitter Solutions  
Address: 2480 South 3850 West, Suite B Salt Lake City UT 84120 United States

Date: 2019-10-28

Signature

A handwritten signature in black ink, consisting of a stylized 'T' followed by a series of loops and a long horizontal stroke.



Registration number: W6M21910-19422-C-1

FCC ID: 2ASPOXER100

## 3.2 RF Exposure Compliance Requirements

FCC Rule: 15.247(b)(3)

EIRP = max. conducted output power + antenna gain

EIRP = 12.58 dBm + (3.32 dBi) = 15.90 dBm = 38.90 mW

Test equipment used: ETSTW-RE 055

## 3.3 Exemption Limits for Routine Evaluation according to 47 CFR FCC Part 2 Subpart J, section 2.1091

FCC OET Bulletin 65 Edition 97.01 determines the equations for predicting RF fields and applicable limits.

The prediction for power density in the far-field but will over-predict power density in the near field, where it could be used for walking a “worst case” or conservative prediction.

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess limit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as a mobile device whereby a distance of 20 cm normally can be maintained between the user and the device.

### MPE Calculation Method

#### (A) Limits for Occupational/Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time ( E  <sup>2</sup> ,  H  <sup>2</sup> or S (minutes)
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) Limits for General Population/Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time ( E  <sup>2</sup> ,  H  <sup>2</sup> or S (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

E = Electric field (V/m) P = output power (W) G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m)

The formula can be changed to  $P_d = \frac{30 \times P \times G}{377 \times d^2}$  mW/cm<sup>2</sup>.



## **Worldwide Testing Services(Taiwan) Co., Ltd.**

Registration number: W6M21910-19422-C-1

FCC ID: 2ASPOXER100

Established separation distance is 20 cm.

Operating frequency band: 902-928 MHz,

The product meets RF exposure requirement.

Because the power density of  $0.0077 \text{ mW/cm}^2$  at 902.25 MHz is below the power density limit of  $0.6015 \text{ mW/cm}^2$ .

Limits:

<b>Limit for General Population / Uncontrolled Exposure</b>	
Frequency (MHz)	Power Density (mW/cm <sup>2</sup> )
902.25	0.6015