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## RF Exposure Evaluation Report

<b>APPLICANT</b>	Enterprise Electronics Corporation 128 South Industrial Blvd. Enterprise Alabama 36330 USA
<b>FCC ID</b>	BUVRANGERX5
<b>MODEL NUMBER</b>	RANGER X5
<b>PRODUCT DESCRIPTION</b>	Ranger-X5 RADAR
<b>STANDARD APPLIED</b>	CFR 47 Part 2.1091
<b>PREPARED BY</b>	Cory Leverett

We, TIMCO ENGINEERING, INC. would like to declare that the device has been evaluated in accordance with 47 CFR Part 2.1091 and meets the requirements.

The attached report shall not be reproduced except in full without the written approval of TIMCO ENGINEERING, INC.

## GENERAL REMARKS

### Attestations

This equipment has been evaluated in accordance with the standards identified in this report. To the best of my knowledge and belief, these evaluations were performed using the procedures described in this report.

I attest that the necessary evaluations were made, under my supervision, at:

**Timco Engineering Inc.**  
**849 NW State Road 45**  
**Newberry, FL 32669**



### Authorized Signatory Name:

Cory Leverett,  
Engineering Project Manager

**Date: 3/10/2017**

## RF Exposure Requirements

### General information

Device type: Ranger-X5 RADAR

### MPE Calculation:

The minimum separation distance is calculated as follows:

$$E(V/m) = \frac{\sqrt{30 \times P \times G}}{d} \quad \text{Power density: } P_d (mW/cm^2) = \frac{E^2}{3770}$$

The limit for general uncontrolled exposure environment is shown in FCC rule Part 1.11310, Table 1.

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**Minimum Separation Distance for Mobile or Fixed Devices  
Controlled Exposure**

**Insert values in yellow highlighted boxes to determine Minimum Separation Distance**

Max Power	1200	W	<i>equals</i>	Max Power	1200000	mW
Duty Cycle	1	%	<i>equals</i>	Duty Factor	0.01	numeric
Antenna Gain	45	dBi	<i>equals</i>	Gain numeric	31622.7766	numeric
Waveguide Loss	0.8	dB		Gain - Coax Loss	26332.97944	numeric
Power Density	5	mW/cm <sup>2</sup>				
<b>Enter power Density from the chart to the right</b>						
Frequency	9275	MHz				

**Rule Part 1.1310, Table 1 (A)**

Freq range	Power density	Enter this value
MHz	mW/cm <sup>2</sup>	mW/cm <sup>2</sup>
0.3 - 3	100	100
3 - 30	900/f <sup>2</sup>	0.0
30-300	1	1
300-1,500	f/300	30.9
1,500-100,000	5	5

f = frequency in MHz

<b>Minimum Separation Distance</b>	<b>2243 cm</b>	<b>22.43 m</b>
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Minimum Separation in Inches      882.2365 Inches

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