TIMCO ENGINEERING, Inc.
www.timcoengr.com

849 NW STATE ROAD 45
NEWBERRY, FL 32669 USA
PH: 888.472.2424 OR 352.472.5500
FAX: 352.472.2030
EMAIL: INFO@TIMCOENGR.COM
HTTP://WWW.TIMCOENGR.COM

RF Exposure Evaluation Report

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

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:

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

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	*equals*	Max Power	1200000	mW
Duty Cycle	1	%	*equals*	Duty Factor	0.01	numeric
Antenna Gain	45	dBi	*equals*	Gain numeric	31622.7766	numeric
Waveguide Loss	0.8	dB		Gain - Coax Loss	26332.97944	numeric
Power Density	5	mW/cm^2				

Enter power Density from the chart to the right

Frequency 9275 MHz

Rule Part 1.1310, Table 1 (A)

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

f = frequency in MHz

Minimum Separation Distance	**2243 cm**	**22.43 m**

Minimum Seperation in Inches 882.2365 Inches

Applicant: Enterprise Electronics Corporation
FCC ID: BUVRANGERX5
Report: V:\E\ENTERPRISE\214AUT17\EXTRA214AUT17\214AUT17RF EXP MPE RPT_REV2.DOCX