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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.

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

Applicant: Enterprise Electronics Corporation

FCC ID: BUVRANGERX5

Report: V:\E\ENTERPRISE\214AUT17\EXTRA214AUT17\214AUT17RF EXP MPE
RPT_REV2.DOCX

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 | 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 |
| 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 Separation in Inches 882.2365 Inches

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