TIMCO ENGINEERING, Inc.
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RF Exposure Evaluation Report

APPLICANT	KELVIN HUGHES LIMITED
	VOLTAGE, MOLLISON AVENUE ENFIELD EN3 7XQ UNITED KINGDOM
FCC ID	CICSXV-A1
IC	1493A-SXVA1
MODEL NUMBER	SXV-A1-10-ADBD
PRODUCT DESCRIPTION	X BAND RADAR
STANDARD APPLIED	CFR 47 Part 2.1091, ISED RSS-102
PREPARED BY	TIM ROYER

We, TIMCO ENGINEERING, INC. would like to declare that the device has been evaluated in accordance with 47 CFR Part 2.1091 and ISED RSS-102 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:

Tim Royer, Engineer

Date: 6/27/2017

RF Exposure Requirements

General information

Device type: X BAND RADAR

Antenna

Configuration	Antenna p/n	Type	Max. Gain (dBi)
Fixed mounted	Any	Linear Array	20-22 dBi

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 1.1310, Table 1.

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Insert values in yellow highlighted boxes to determine Minimum Separation Distance						
Max Power	103.8	W	*equals*	Max Power	103800	mW
Duty Cycle	6.942	%	*equals*	Duty Factor	0.06942	numeric
Antenna Gain	22	dBi	*equals*	Gain numeric	158.4893	numeric
Coax Loss	0	dB		Gain - Coax Los	158.4893	numeric
Power Density	1	mW/cm^2				

Enter power Density from the chart to the right

Frequency	9400	MHz

Rule Part 1.1310, Table 1 (B)

Frequency ran	Power den	Enter this value
MHz	**mW/cm^2**	**mW/cm^2**
0.3-1.34	100	**100**
1.34-30	$180/f^2$	**0.0**
30-300	0.2	**0.2**
300-1,500	f/1500	**6.3**
1,500-100,000	1	**1**

f = frequency in MHz

Minimum Separation Distance	**301 cm**	**3.01 m**

Minimum Seperation in Inches	118.5961	Inches

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