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RF Exposure Evaluation Report

APPLICANT	NAVICO RBU ITALIA S.R.L. VIA ROMITA 26 50025 MONTAGNANA V.P. MONTEPERTOLI (FI) ITALY
FCC ID	2AJJ3SRTLAN12U6X
IC	21849-SRTLAN12U6X
MODEL NUMBER	12 KW SRT X-BAND LAN TRANSCEIVER
PRODUCT DESCRIPTION	12 kw X-BAND RADAR SYSTEM
STANDARD APPLIED	CFR 47 Part 2.1091
PREPARED BY	Christian Pawlak

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.

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Report: V:\N\NAVICO RBU ITALIA\1664AUT16\1664AUT16RF EXP MPE RPT.DOCX

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:

Christian Pawlak

Engineering Project Manager

Date: 11 / 30 / 2016

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RF Exposure Requirements

General information

Device type: 12 kw X-BAND RADAR SYSTEM

Antenna

Configuration	Antenna p/n	Type	Max. Gain (dBi)
6' X Band antenna	Any	X band	29 dB

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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Insert values in yellow highlighted boxes to determine Minimum Separation Distance					
Max Power	6.17	W	<i>equals</i>	Max Power	6170 mW
Duty Cycle	100	%	<i>equals</i>	Duty Factor	1 numeric
Antenna Gain	29	dBi	<i>equals</i>	Gain numeric	794.3282 numeric
Coax Loss	0	dB		Gain - Coax Loss	794.3282 numeric
Power Density	1	mW/cm ²			
Enter power Density from the chart to the right			Rule Part 1.1310, Table 1 (B)		
Frequency	9500	MHz		Frequency range	Power density
				MHz	mW/cm ²
				0.3-1.34	100
				1.34-30	180/f ²
				30-300	0.2
				300-1,500	f/1500
				1,500-100,000	1
				f = frequency in MHz	
Minimum Separation Distance			625 cm	6.25 m	
Minimum Separation in Inches	245.6812		Inches		