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RF Exposure Evaluation Report

APPLICANT	BARON SERVICES INC.
	4930 Research Dr. Huntsville, Alabama 35805
FCC ID	NX5-GEN3-350CM
MODEL NUMBER	GEN3-350CM
PRODUCT DESCRIPTION	S BAND RADAR
STANDARD APPLIED	CFR 47 Part 2.1091
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 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:



Sr. EMC Engineer
EMC-003838-NE



Tested by:

Name and Title: Tim Royer, Project Manager/Testing Engineer

Date: 02/26/2018

Applicant: BARON SERVICES INC.
FCC ID: NX5-GEN3-350CM
Report: 1676AUT17RF EXP MPE RPT.DOCX

RF Exposure Requirements

General information

Device type: S BAND 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 1.1310, Table 1.

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Minimum Separation Distance for Mobile or Fixed Devices General Population/Uncontrolled Exposure						
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Insert values in yellow highlighted boxes to determine Minimum Separation Distance

Max Power	350000	W	equals	Max Power	350000000	mW
Duty Cycle	0.07	%	equals	Duty Factor	0.0007	numeric
Antenna Gain	45	dBi	equals	Gain numeric	31622.7766	numeric
Coax Loss	2.5	dB		Gain - Coax Lo	17782.7941	numeric
Power Density	1	mW/cm ²				

Enter power Density from the chart to the right

Rule Part 1.1310, Table 1 (B)

Frequency	Frequency ran	Power density	Enter this value
	MHz	mW/cm ²	mW/cm ²
	0.3-1.34	100	100
5800	1.34-30	180/f ²	0.0
	30-300	0.2	0.2
	300-1,500	f/1500	3.9
	1,500-100,000	1	1

f = frequency in MHz

Minimum Separation Distance	18620 cm	186.20 m
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Minimum Separation in Inches 7325.082 Inches