TIMCO ENGINEERING, Inc.
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RF Exposure Evaluation Report

APPLICANT	AIRNETIX, LLC
	2218 EDGARTOWN LANE SMYRNA GA 30080 USA
FCC ID	2AB8BSTS170RADIO
MODEL NUMBER	STS-170-RADIO
PRODUCT DESCRIPTION	RADIO MODULE
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.

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:

Tested I 

Sr. EMC Engineer
EMC-003838-NE

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

Date: 4/6/2018

RF Exposure Requirements

General information

Device type: RADIO MODULE

Antenna

Configuration	Antenna p/n	Type	Max. Gain (dBi)
Fixed mounted	Any	Yagi	14 dBi

Operating configuration and exposure conditions:

The conducted output power is shown in the table below. Typical use qualifies for a maximum duty cycle factor of 100%.

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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Minimum Separation Distance for Mobile or Fixed Devices
General Population/Uncontrolled Exposure

Insert values in yellow highlighted boxes to determine Minimum Separation Distance

Max Power	0.15595	W	*equals*	Max Power	155.95	mW
Duty Cycle	100	%	*equals*	Duty Factor	1	numeric
Antenna Gain	14	dBi	*equals*	Gain numeric	25.11886	numeric
Coax Loss	0	dB		Gain - Coax Los	25.11886	numeric
Power Density	0.6	mW/cm^2				

Enter power Density from the chart to the right

Frequency	914	MHz

Rule Part 1.1310, Table 1 (B)

Frequency rang	Power de	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	**0.6**
1,500-100,000	1	**1**

f = frequency in MHz

Minimum Separation Distance	22.79356	cm

Minimum Separation Distance	**23 cm**	**0.23 m**

Minimum Seperation in Inches	8.96952	Inches

Applicant: AIRNETIX, LLC
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Report: 240AUT18RF EXP MPE RPT.DOCX