849 NW STATE ROAD 45
NEWBERRY, FL 32669 USA
PH: 888.472.2424 OR 352.472.5500
FAX: 352.472.2030
EMAIL: INFO@TIMCOENGR.COM
HTTP://WWW.TIMCOENGR.COM

T I M C O
E N G I N E E R I N G , I n c .
www.timcoengr.com

RF Exposure Evaluation Report

APPLICANT	ELK PRODUCTS, INC.
	3266 US Highway 70 West Hildebran NC 28637 USA
FCC ID	TMAELK-M1XRFTWM
MODEL NUMBER	ELK-M1XRFTWM
PRODUCT DESCRIPTION	INTERFACE TRANSCEIVER
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: 7/26/2016

RF Exposure Requirements

General information

Device type: INTERFACE TRANSCEIVER

Antenna

The manufacturer does not specify an antenna, but a typical antenna has a gain of 0 dBi.

Configuration	Antenna p/n	Type	Max. Gain (dBi)
Fixed mounted	Any	Chip	-1 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 1.11310, Table 1.

Insert values in yellow highlighted boxes to determine Minimum Separation Distance

Max Power	0.004	W	equals	Max Power	4	mW
Duty Cycle	100	%	equals	Duty Factor	1	numeric
Antenna Gain	-1	dBi	equals	Gain numeric	0.794328	numeric
Coax Loss	0	dB		Gain - Coax Lo	0.794328	numeric
Power Density	0.6	mW/cm^2				

Enter power Density from the chart to the right

Rule Part 1.1310, Table 1 (B)

Frequency	927	MHz

Frequency ran	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	**0.6 cm**	**0.01 m**

Minimum Seperation in Inches	0.255378	Inches

Applicant: ELK PRODUCTS, INC.
FCC ID: TMAELK-M1XRFTWM
Report: E\ELK_TMA\576AUT16\576AUT16TestReport.docx