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## RF Exposure Evaluation Report

<b>APPLICANT</b>	ELK PRODUCTS, INC.
	3266 US Highway 70 West Hildebran NC 28637 USA
<b>FCC ID</b>	TMAELK-M1XRFTWM
<b>MODEL NUMBER</b>	ELK-M1XRFTWM
<b>PRODUCT DESCRIPTION</b>	INTERFACE TRANSCEIVER
<b>STANDARD APPLIED</b>	CFR 47 Part 2.1091
<b>PREPARED BY</b>	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**

Applicant: ELK PRODUCTS, INC.  
FCC ID: TMAELK-M1XRFTWM  
Report: V:\E\ELK\_TMA\576AUT16\576AUT16RF EXP MPE RPT\_REV3.DOCX

# 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:

$$E(V/m) = \frac{\sqrt{30 \times P \times G}}{d}$$

$$\text{Power density: } P_d(mW/cm^2) = \frac{E^2}{3770}$$

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 <sup>2</sup>				

Enter power Density from the chart to the right

Frequency 927 MHz

Rule Part 1.1310, Table 1 (B)

Frequency range	Power density	Enter this value
MHz	mW/cm <sup>2</sup>	mW/cm <sup>2</sup>
0.3-1.34	100	100
1.34-30	180/f <sup>2</sup>	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

<b>Minimum Separation Distance</b>	<b>0.6 cm</b>	<b>0.01 m</b>
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Minimum Separation in Inches 0.255378 Inches