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## RF Exposure Evaluation Report

<b>APPLICANT</b>	RELM WIRELESS CORP. – BK RADIO
	7100 TECHNOLOGY DRIVE WEST MELBOURNE, FLORIDA 32904 USA
<b>FCC ID</b>	K95KNGM150LP
<b>MODEL NUMBER</b>	KNG-M150LP
<b>PRODUCT DESCRIPTION</b>	MIBILE VHF LAND MOBILE 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: 6/21/2016**

Applicant: RELM WIRELESS CORP. - BK RADIO

FCC ID: K95KNGM150LP

Report: W:\RELK\_K95\1079XUT15\1079XUT15 RF EXP MPE RPT REV2.DOCX

## RF Exposure Requirements

### General information

Device type: MOBILE VHF LAND MOBILE 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	omni	0

### 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**

**Insert values in yellow highlighted boxes to determine Minimum Separation Distance**

Max Power	58.5	W	<i>equals</i>	Max Power	58500	mW
Duty Cycle	50	%	<i>equals</i>	Duty Factor	0.5	numeric
Antenna Gain	0	dBi	<i>equals</i>	Gain numeric	1	numeric
Coax Loss	0	dB		Gain - Coax Loss	1	numeric
Power Density	0.2	mW/cm <sup>2</sup>				
<b>Enter power Density from the chart to the right</b>						
Frequency	174	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	0.1
1,500-100,000	1	1

f = frequency in MHz

**Minimum Separation Distance**

**108 cm**

**1.08 m**

Minimum Separation in Inches      42.44019 Inches

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