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RF Exposure Evaluation Report

APPLICANT	KP ELECTRONIC SYSTEMS LTD.
	P.O. BOX 42 TEFEN INDUSTRIAL PARK 24959 ISRAEL
FCC ID	H78KPMT2W
MODEL NUMBER	MT2W
PRODUCT DESCRIPTION	VHF AUTOMATIC METER READING TRANSCEIVER W/ 2.4 GHz TX
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: 3/1/2017

Applicant: KP ELECTRONIC SYSTEMS LTD.

FCC ID: H78KPMT2W

Report: V:\K\KP H78\61AUT17\61AUT17RF EXP MPE RPT.DOCX

RF Exposure Requirements

General information

Device type: VHF AUTOMATIC METER READING TRANSCEIVER W/ 2.4 GHz TX

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 1.11310, 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	<input type="text" value="2"/>	W	<i>equals</i>	Max Power	<input type="text" value="2000"/>	mW
Duty Cycle	<input type="text" value="100"/>	%	<i>equals</i>	Duty Factor	<input type="text" value="1"/>	numeric
Antenna Gain	<input type="text" value="0"/>	dBi	<i>equals</i>	Gain numeric	<input type="text" value="1"/>	numeric
Coax Loss	<input type="text" value="0"/>	dB		Gain - Coax Los	<input type="text" value="1"/>	numeric
Power Density	<input type="text" value="0.2"/>	mW/cm ²				
Frequency	<input type="text" value="173.5"/>	MHz				

Enter power Density from the chart to the right

Rule Part 1.1310, Table 1 (B)

Frequency rang	Power den	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	0.1
1,500-100,000	1	1

f = frequency in MHz

Minimum Separation Distance	28 cm	0.28 m
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Minimum Separation in Inches 11.09761 Inches