TIMCO ENGINEERING, Inc.
www.timcoengr.com

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

RF Exposure Evaluation Report

APPLICANT	FUNK-ELECTRONIC PICIORGROS GMBH
	Claudiastr. 5 * 51149 Cologne 51145 GERMANY
FCC ID	TO9TMO-100
IC	10682A-TMO100B
MODEL NUMBER	TMO-100
PRODUCT DESCRIPTION	800 MHZ TETRA RADIO
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.

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: 2/14/2017

RF Exposure Requirements

General information

Device type: 800 MHZ TETRA RADIO

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	13

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 1.11310, 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	1.8	W	*equals*	Max Power	1800	mW
Duty Cycle	100	%	*equals*	Duty Factor	1	numeric
Antenna Gain	13	dBi	*equals*	Gain numeric	19.95262	numeric
Coax Loss	0	dB		Gain - Coax Los	19.95262	numeric
Power Density	0.6	mW/cm^2				

Enter power Density from the chart to the right

Frequency 869 MHz

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	**0.6**
1,500-100,000	1	**1**

f = frequency in MHz

Minimum Separation Distance	**69 cm**	**0.69 m**

Minimum Seperation in Inches 27.15126 Inches

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Report: 36AUT17 RF Exp MPT Rpt.docx