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

www.timcoengr.com

RF Exposure Evaluation Report

APPLICANT	FIPLEX COMMUNICATIONS INC.
	2101 NW 79th Ave. MIAMI FL 33122 USA
FCC ID	P3TDH140-R
MODEL NUMBER	DH140-R
PRODUCT DESCRIPTION	VHF DIGITAL REMOTE UNIT
STANDARD APPLIED	CFR 47 Part 2.1091
PREPARED BY	Franklin Rose

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:

Franklin Rose, Engineering Project Manager

Date: 2/16/2018

Applicant: FIPLEX COMMUNICATIONS INC.
FCC ID: P3TDH140-R
Report: 179AUT18RF EXP MPE RPT Rev.DOCX

RF Exposure Requirements

General information

Device type: VHF DIGITAL REMOTE UNIT

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

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 1.1310, Table 1.

Applicant: FIPLEX COMMUNICATIONS INC.
FCC ID: P3TDH140-R
Report: 179AUT18RF EXP MPE RPT Rev.DOCX

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	10	W	*equals*	Max Power	10000	mW
Duty Cycle	100	%	*equals*	Duty Factor	1	numeric
Antenna Gain	0	dBi	*equals*	Gain numeric	1	numeric
Coax Loss	3	dB		Gain - Coax Loss	0.501187	numeric
Power Density	0.2	mW/cm^2				

Enter power Density from the chart to the right

Frequency	162	MHz

Rule Part 1.1310, Table 1 (B)

Frequency range	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   44.65603 cm

Minimum Separation Distance	**45** cm	**0.45** m

Minimum Seperation in Inches   17.56768 Inches

Applicant: FIPLEX COMMUNICATIONS INC.
FCC ID: P3TDH140-R
Report: 179AUT18RF EXP MPE RPT Rev.DOCX