



# RF Exposure Evaluation Report

<b>APPLICANT</b>	FIPLEX COMMUNICATIONS INC.
<b>ADDRESS</b>	2101 NW 79th Ave. MIAMI FL 33122 USA
<b>FCC ID</b>	P3TTXPA220
<b>MODEL NUMBER</b>	TXPA220
<b>PRODUCT DESCRIPTION</b>	MTA-PTC POWER AMPLIFIER
<b>DATE SAMPLE RECEIVED</b>	08/09/2018
<b>FINAL TEST DATE</b>	08/15/2018
<b>PREPARED BY</b>	Franklin Rose
<b>TEST RESULTS</b>	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL

Report Number	Report Version	Description	Issue Date
1229AUT18 MPE_TestReport_	Rev1	Initial Issue	08/17/2018

**THE ATTACHED REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL WITHOUT THE WRITTEN APPROVAL OF TIMCO ENGINEERING, INC.**



## TABLE OF CONTENTS

GENERAL REMARKS.....	2
GENERAL INFORMATION .....	3
ANTENNA INFORMATION.....	4
MPE CALCULATION .....	5

## GENERAL REMARKS

### Summary

The device under test does:

- ☒ Fulfill the general approval requirements as identified in this test report and was selected by the customer.
- ☐ Not fulfill the general approval requirements as identified in this test report

### Attestations

This equipment has been tested in accordance with the standards identified in this test report. To the best of my knowledge and belief, these tests were performed using the measurement procedures described in this report.

All instrumentation and accessories used to test products for compliance to the indicated standards are calibrated regularly in accordance with ISO 17025 requirements.

I attest that the necessary measurements were made at:

**Timco Engineering Inc.**  
**849 NW State Road 45**  
**Newberry, FL 32669**  
**Designation #: US1070**

**Prepared by:**



<b>Name and Title</b>	Franklin Rose, Project Manager / EMC Testing Technician
<b>Date</b>	08/17/2018

## GENERAL INFORMATION

<b>EUT Description</b>	MTA-PTC POWER AMPLIFIER
<b>Model Number</b>	TXPA220
<b>EUT Power Source</b>	<input type="checkbox"/> 110–120Vac/50– 60Hz
	<input checked="" type="checkbox"/> DC Power (13.8 V)
	<input type="checkbox"/> Battery Operated Exclusively
<b>Test Item</b>	<input type="checkbox"/> Prototype
	<input checked="" type="checkbox"/> Pre-Production
	<input type="checkbox"/> Production
<b>Type of Equipment</b>	<input checked="" type="checkbox"/> Fixed
	<input type="checkbox"/> Mobile
	<input type="checkbox"/> Portable
<b>Antenna Connector</b>	Precision N-Connector
<b>Test Conditions</b>	The temperature was 26°C Relative humidity of 50%.
<b>Modification to the EUT</b>	The EUT does not include an antenna; uses an N-type connector for conducted power output measurement.
<b>Applicable Standards</b>	FCC CFR 47 Part 2.1091; RSS-102 Issue 5
<b>Test Facility</b>	Timco Engineering Inc. at 849 NW State Road 45 Newberry, FL 32669 USA. Designation #: US1070

## ANTENNA INFORMATION

The following antenna information was provided by the Manufacturer:

Manufacturer Provides Antenna	Type	Max Gain (dBi)
No	Unspecified	2.2

## MPE CALCULATION

The minimum separation distance is calculated as follows:

$$E(V/m) = \frac{\sqrt{30 \times P \times G}}{d} \quad \text{Power density: } P_d(mW/cm^2) = \frac{E^2}{3770}$$

1. **FCC: General Population/Uncontrolled Exposure Environment:** The limit for General Uncontrolled Exposure Environment is calculated as shown in Part 1.1310, Table 1 (B):

Variable	Value
Max Power	20 W
Highest Tx Frequency	219.00 MHz
Duty Cycle (at full power)	100%
Max Antenna Gain	2.2 dBi
Coax Loss	0 (unspecified)
Power Density	0.2 mW/cm <sup>2</sup>
Minimum Separation Distance	114.92 cm