849 NW STATE ROAD 45
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TIMCO ENGINEERING, Inc.

An IIA Company

RF Exposure Evaluation Report

APPLICANT	FIPLEX COMMUNICATIONS INC.
ADDRESS	2101 NW 79th Ave. MIAMI FL 33122 USA
FCC ID	P3TDH7S-00XA
MODEL NUMBER	DH7S-00X
PRODUCT DESCRIPTION	700/800 MHZ DUAL BAND INDUSTRIAL BOOSTER
DATE SAMPLE RECEIVED	12/13/2019
FINAL TEST DATE	01/16/2020
PREPARED BY	Franklin Rose
TEST RESULTS	☒ PASS ☐ FAIL

Report Number	Report Version	Description	Issue Date
747UT20 MPE_TestReport_	Rev1	Initial Issue	03/19/2019

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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:

Name and Title	Franklin Rose, Project Manager / EMC Specialist
Date	03/19/2019

GENERAL INFORMATION

EUT Description	700/800 MHZ DUAL BAND INDUSTRIAL BOOSTER		
Model Number	DH7S-00X		
EUT Power Source	☒110–120Vac, 50–60Hz	☐ DC Power	☐ Battery Operated
Test Item	☐ Engineering Prototype	☒ Pre-Production	☐ Production
Type of Equipment	☒ Fixed	☐ Mobile	☐ Portable
Antenna Connector	2 external N Type		
Test Conditions	The temperature was 26ºC Relative humidity of 50%.		
Modification to the EUT	No Modification to EUT.		
Applicable Standards	FCC CFR 47 Part 2.1091		
Test Facility	Timco Engineering Inc. at 849 NW State Road 45 Newberry, FL 32669 USA. Designation #: US1070		

ANTENNA INFORMATION

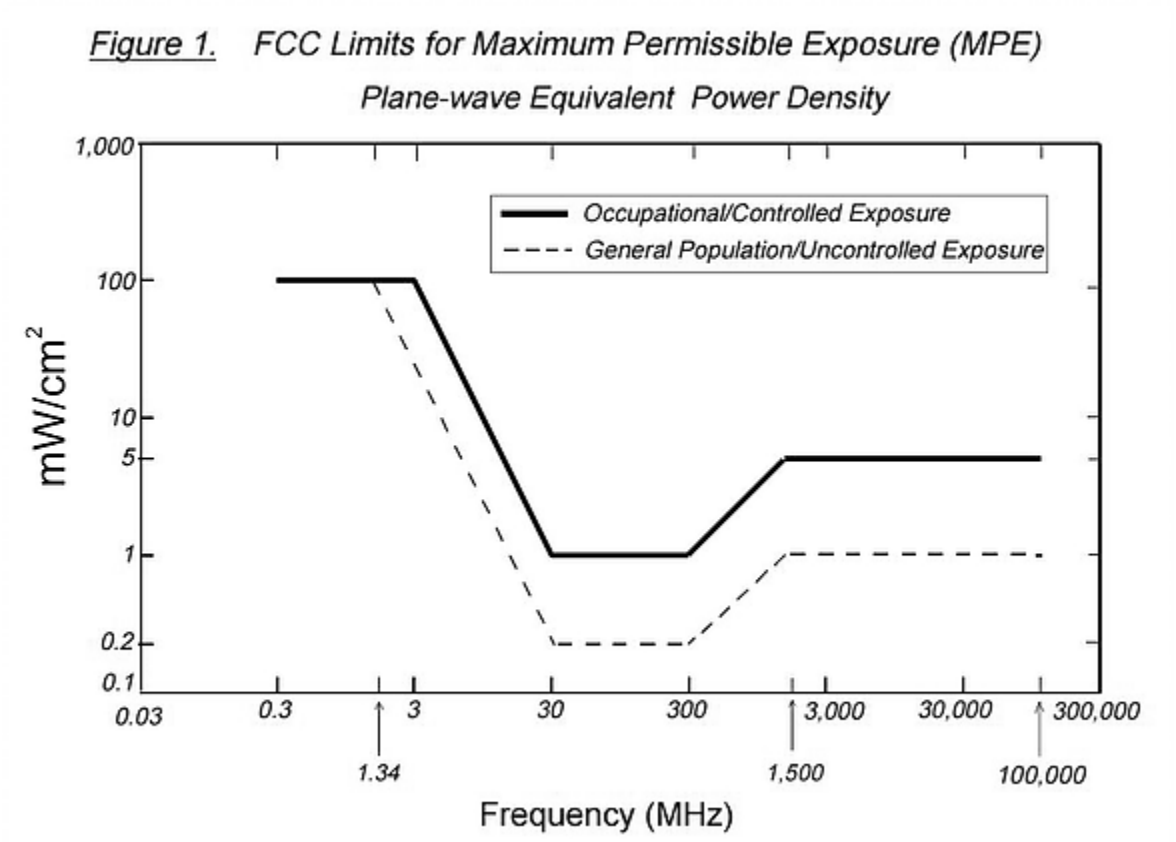
Manufacturer Provides Antenna	Type	Max Gain (dBi)
No	Unspecified	**0 dBi**

MPE CALCULATION

The minimum separation distance is calculated as follows:

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

MPE LIMITS



MPE SEPARATION

EUT Parameters		
Parameter	*Value*	*Unit*
EUT Form Factor	Fixed	
Lowest Frequency	768.000	MHz
Highest Frequency	869.000	MHz
Maximum Power	33.000	dBm
Tune Up Tolerance	2.000	+/- dBm
Duty Cycle	100%	%
Antenna Gain	0.000	dBi EIRP
Coax Loss	0.000	dB
EIRP	3.162	*W*

Uncontrolled Public RF Exposure/MPE Guideline	
Separation Distance (cm)	22.17 cm
Power Density (mW/cm^2)	0.512 mW/cm2

Controlled Occupational RF Exposure/MPE Guideline	
Separation Distance (cm)	20 cm
Power Density (mW/cm^2)	0.629 mW/cm2

MPE CALCULATION

Calculations

RF Exposure Field Strength Limits

Public Persons may be exposed up to:

Worst-Case RF Field Strength Limit for the General Public (Uncontrolled Environment)	**0.512 mW/cm2**

Occupational Persons may be exposed up to:

Worst-Case RF Field Strength Limit for Controlled Use (Controlled Environment)	**2.56 mW/cm2**

Separation Distance

Mandatory distance from radiating element:

Calculation Method	**Distance from Radiating Element (cm) = SQRT (P(mW) / 4π S(mW/cm^2))**
Uncontrolled Sep. Distance @ 0.512 mW/cm2	**22.17 cm**
Controlled Sep. Distance @ 2.56 mW/cm2	**9.91 cm**

EUT Power Density at 20 cm

Calculation Method	**Power Density (mW/cm^2) = P(mW) / 4π R(cm)^2**
EUT Power Density @ 20 cm	**0.629 mW/cm2**