849 NW STATE ROAD 45
NEWBERRY, FL 32669 USA

PHONE: 888.472.2424 OR 352.472.5500
EMAIL: INFO@TIMCOENGR.COM
WEB: HTTP://WWW.TIMCOENGR.COM

TIMCO ENGINEERING, Inc.

An IIA Company

RF Exposure Evaluation Report

APPLICANT	CRESCEND TECHNOLOGIES, LLC
ADDRESS	140 E. State Parkway SCHAUMBURG IL 60173 USA
FCC ID	CWWP10XXFA4
MODEL NUMBER	P10-1FA2-C5-001
PRODUCT DESCRIPTION	POWER AMPLIFIER
PREPARED BY	Franklin Rose
TEST RESULTS	☒ PASS ☐ FAIL

Report Number	Report Version	Description	Issue Date
280AUT18 MPE_TestReport_	Rev1	Initial Issue	06/26/2018
280AUT18 MPE_TestReport_	Rev2	Revised Report	07/10/2018

TABLE OF CONTENTS

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 Testing Technician
Date	06/26/2018

GENERAL INFORMATION

EUT Description	POWER AMPLIFIER
Model Number	P10-1FA4-C5-001
EUT Power Source	☒ 110–120Vac/50– 60Hz
	☐ DC Power (48.0 V)
	☐ Battery Operated Exclusively
Test Item	☐ Prototype
	☒ Pre-Production
	☐ Production
Type of Equipment	☒ Fixed
	☐ Mobile
	☐ Portable
Antenna Connector	BNC
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	**-13.00**

MPE CALCULATION

The minimum separation distance is calculated as follows:

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

1. **General <u>Uncontrolled</u> Exposure Environment**: The limit for General Uncontrolled Exposure Environment is calculated as shown in FCC CFR 47 Part 1.1310, Table 1(b).

Variable	Value
Max Power	100 W
Duty Cycle (at full power)	100%
Max Antenna Gain	-13.00 dBi
Coax Loss	0 (unspecified)
Maximum Transmit Frequency	222 MHz
Power Density	0.2 mW/cm^2
Minimum Separation Distance	45 cm