

Compliance Testing, LLC

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Test Report

Prepared for: Bird Technologies

Model: 3-25999-XX

Description: 800MHz Public Safety/CMRS Class B Signal Booster Module

Serial Number: N/A

FCC ID: EZZ25999

To

FCC Part 1.1310

Date of Issue: August 26, 2016

On the behalf of the applicant: Bird Technologies

30303 Aurora Road Cleveland, OH 44139

Attention of: Tim O'Brien, Technical Product Manager

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Project No: p1680007

Alex Macon

Project Test Engineer

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Test Report Revision History

Revision	Date	Revised By	Reason for Revision
1.0	August 17, 2016	Alex Macon	Original Document



ILAC / A2LA

Compliance Testing, LLC, has been accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer joint ISO-ILAC-IAF Communiqué dated January 2009)

The tests results contained within this test report all fall within our scope of accreditation, unless below

Please refer to http://www.compliancetesting.com/labscope.html for current scope of accreditation.

Testing Certificate Number: 2152.01



FCC Site Reg. #349717

IC Site Reg. #2044A-2

Non-accredited tests contained in this report:

N/A

EUT Description Model: 3-25999-XX

Description: 800MHz Public Safety/CMRS Class B Signal Booster Module

Firmware: N/A Serial Number: N/A **Additional Information:**

The EUT is classified as a Part 90 PS Class B industrial signal booster.

The EUT is a Bi-directional Amplifier that operates from 806 – 817 MHz (Mobile to Base) and 851 – 862 MHz (Base to Mobile).

System Power is 120 VAC @ 60 Hz. The device also has a selection for battery backup at 12 VDC

MPE calculations were using an antenna with 0 dBi gain.

MPE calculations were performed at the manufacturer's rated output power +20% using an antenna with 0 dBi gain.

The lowest frequency and highest measured power are used to calculate the power density

Average Power calculations

Average Power = Peak Power * duty-cycle%

Tuned Frequency (MHz)	Conducted Peak Output Power (mW)	Duty Cycle (%)	Average Power (mW)	
811	4090	100	4090mW	
856	2610	100	2610 mW	

MPE Evaluation

This is a Fixed device used in an **Uncontrolled** Exposure environment.

Limits Uncontrolled Exposure 47 CFR 1.1310 Table 1, (B)

0.3-1.234 MHz:	Limit [mW/cm ²] = 100
1.34-30 MHz:	Limit $[mW/cm^2] = (180/f^2)$
30-300 MHz:	Limit $[mW/cm^2] = 0.2$
300-1500 MHz:	Limit [mW/cm ²] = f/1500
1500-100,000 MHz	Limit [mW/cm ²] = 1.0

Test Data

Test Frequency, MHz	806
Power, Conducted, mW (P)	4908
Antenna Gain Isotropic	0 dBi
Antenna Gain Numeric (G)	1
Antenna Type	
Distance (R)	20 cm

$S = \frac{P * G}{4\pi r^2}$	
Power Density (S) mw/cm ²	
	0.976

Power Density (S) =0.98	
Limit =(from above table) = 0.537	

EUT does not meet the power density requirements at 20 cm, so the minimum safe distance was calculated below.

formula R=√(PG/4πL)			
Distance (R) (cm)	Power (mW)	Numeric Gain (G)	Limit (mW/cm)
26.97555039	4908	1	0.537

The minimum safe distance is 27cm

END OF TEST REPORT