



Test Report

Prepared for: G-Wave Incorporated

Model: BDA-LTE/LABC-33/33-90-R3U15

Description: Bi-Directional Amplifier

Serial Number: 18091001

FCC ID: Q8KLABC3390R

To

FCC Part 1.1310

Date of Issue: October 9, 2018

On the behalf of the applicant:

G-Way Incorporated
38 Leuning St.
South Hackensack, NJ 07606

Attention of:

Greg David, VP of Engineering
Ph: (201)343-6388
E-Mail: tech-support@gwaverf.com

Prepared By
Compliance Testing, LLC
1724 S. Nevada Way
Mesa, AZ 85204
(480) 926-3100 phone / (480) 926-3598 fax
www.compliancetesting.com
Project No: p1890002

Christian Pawlak
Project Test Engineer

This report may not be reproduced, except in full, without written permission from Compliance Testing
All results contained herein relate only to the sample tested



Test Report Revision History

Revision	Date	Revised By	Reason for Revision
1.0	September 17, 2018	Christian Pawlak	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: BDA-LTE/LABC-33/33-90-R3U15

Description: 700 MHz Industrial LTE Booster

Serial Number: 18091001

Additional Information: The EUT is a Part 27 industrial signal booster.

Antennas specified for the EUT:

Port	Frequency Range (MHz)	Antenna Model	Gain (dBi)	Gain (unitless)
Uplink	698 - 716	TDJ-700/2500YG	7.5	5.6
Downlink	728 – 746	TQI-4FC-5	2.0	1.6

EUT Operation during Tests

Uplink MPE calculations were performed at the manufacturer's rated output of +33 dBm using an antenna with 7.5 dBi gain.

Downlink MPE calculations were performed at the manufacturer's rated output of +33 dBm using an antenna with 2 dBi gain.

The lowest frequency in each band was used to compute the "worst case" limit.



Minimum Safe Distance Evaluation - Limits

This is a Fixed device used in Uncontrolled Exposure environment.

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

Frequency Range (MHz)	Limit (mW/cm ²)
0.3-1.234	100
1.34-30	180/f ²
30-300	0.2
300-1500	f/1500
1500-100,000	1.0

Minimum Safe Distance Evaluation - Uplink

$$r = \sqrt{\frac{PG}{4\pi S}} = \sqrt{\frac{(2000)(5.6)}{4\pi(\frac{698}{1500})}} = 43.8 \text{ cm}$$

For the maximum rated output power and highest gain antenna, the minimum safe distance is **44 cm**.

Minimum Safe Distance Evaluation - Downlink

$$r = \sqrt{\frac{PG}{4\pi S}} = \sqrt{\frac{(2000)(1.6)}{4\pi(\frac{728}{1500})}} = 22.9 \text{ cm}$$

For the maximum rated output power and highest gain antenna, the minimum safe distance is **23 cm**.

END OF TEST REPORT