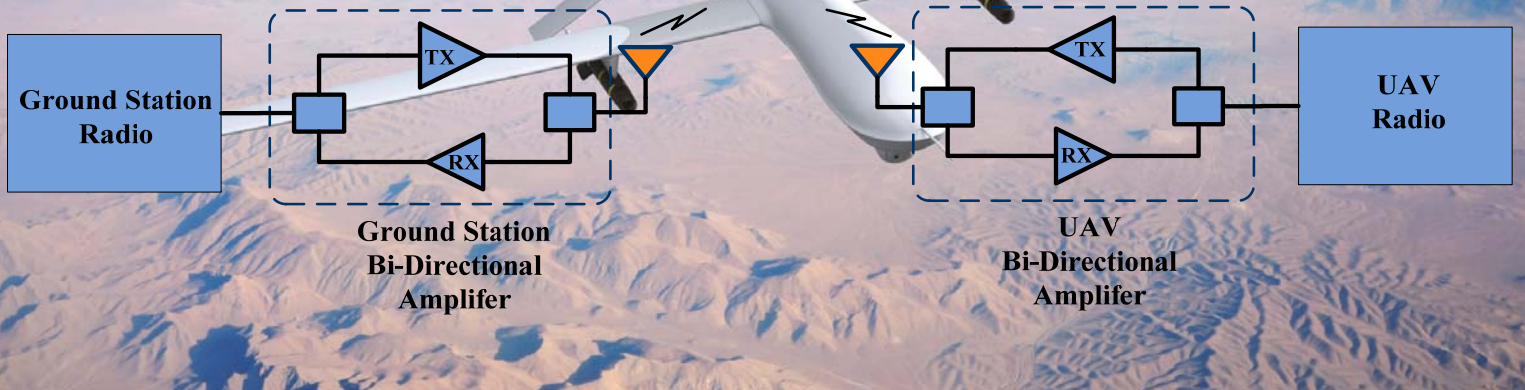


2015 Power Amp Systems that Perform

RF Bi-Directional Amplifiers and Subsystems for UAVs and UGVs

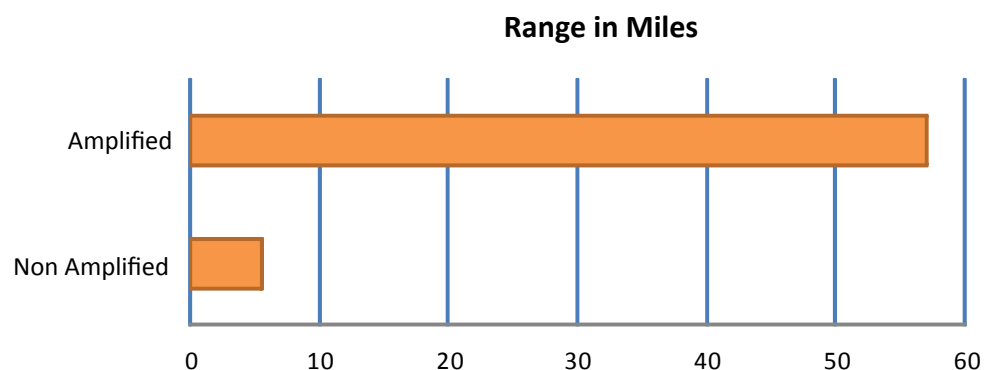


Bi-Directional Amplifier (BDA) Features:

- Available Frequency Bands from **30 MHz to 5.9 GHz**
- Output up to **50W Peak Power** in the Transmit (TX) Chain
- Low Noise Amplifier with NF less than 2 dB typ. in the Receive (RX) Chain
- 11 dB typ. Receive Gain to Improve Receiver Sensitivity
- Small Size and Light Weight, less than 6 oz. typ.
- Manual or Auto Switching between TX and RX (Depends on Radio)
- Complex Programmable Logic Device (CPLD) Control for Timing



**Increase the
Distance of your
Data Link Over
10X!**



BDA Technical Specifications

General Information

- Transmit powers up to 50W peak
- Receive gain of 11 dB, Noise Figure (NF) of 2 dB*
- Complex Programmable Logic Device (CPLD) control for timing
- Switching speed between TX and RX < 2 μsec
- Signal Agnostic. Will amplify **GMSK, C-OFDM; BPSK, QPSK, 16-QAM, 64-QAM**
- +28 VDC Typ. Higher frequency models typically use +12 VDC
- **DUAL** and **QUAD** models available for Multiple Input and Multiple Output (MIMO) architectures
- Auto-switching (0 dBm typ. input power) or Manual-switching (TTL signal typ.) between TX and RX
- Bypass entire unit when in close range (in development)

Mechanical Information

- Typical sizes: (Length x Width x Height)

3.25 x 2.0 x 0.71 in.	82.55 x 50.8 x 18.03 mm
3.33 x 2.91 x .65 in.	83.82 x 73.91 x 16.51 mm
5.3 x 3.25 x .57 in.	134.62 x 82.55 x 14.48 mm
- Weight: 5 oz. to 13 oz. depending on Model. These weights are without heatsinks which are typically required to keep the unit in spec.
- RF Connectors: Female SMA
- DC Connector: Micro D-Sub or Hirose LF Series Circular Connector

Frequency Bands Available

If your band of interest is not shown below, please contact our sales department.

Low Band	Frequency Band
UHF	400 - 450 MHz **
ISM 900	902 - 928 MHz ***
L-Band 1	960 - 1170 MHz ****
L-Band 2	1350 - 1390 MHz****
Broadcast A	1980 - 2200 MHz
Broadcast B	2025 - 2110 MHz
Federal 'S'	2200 - 2300 MHz
ISM2400	2400 - 2483 MHz
2.4GHZ ISM	2200 - 2500 MHz

High Band	Frequency Band
C-1 Band	4400 - 4700 MHz
C-2 Band	4700 - 5000 MHz
C-3 Band	5030 - 5100 MHz
C-4 Band	5725 - 5875 MHz
UNII-1 Band	5150 - 5250 MHz

* Typical for L and S-Band. 3 dB for C-Band and higher

** Available Summer 2015

*** Available in lower power version that operates from 30 MHz to 3000 MHz

**** Notches for GPS type systems available

Block Diagram (Auto Switching Version)

