



# 225 MHz~3 GHz Bi-directional Amplifier

**Item # 70-160**  
**20 Watt Output**

## Shireen's Low SWaP Series of Bi-directional Amplifiers

This miniature 20 Watt amplifier is a wide band amplifier that covers 225 MHz through 3 GHz band, making it ideal for SDR based applications.

Equipped with high-speed switching circuit, the unit allows use of high-speed radios. Key features include:

- Failsafe bypass (during power failure)
- 5V TTL bypass optional
- Temperature sensor readings available
- Manual switching option via 3V / 5V TTL

Also offered in OEM package for system integration and developers.



PT2 Connector with Integrated DC-DC Converter  
Also Available with MD9 Connector

## Specifications

### Electrical:

Operating Range	225 - 3000 MHz
Operating Mode	TDD (Time Division Duplex)
Transmit Peak Power	43 dBm
Transmit Gain	12 dB (+/- 2)
Transmit Input Power	5 dBm min, 34 dBm max
T/R Switching	Auto switching at <1 $\mu$ s; Optional: manual 3V / 5V TTL
Receive Gain	12 dB (+/- 2)
Noise Figure	<5 dB
LED Indicators	Red for Receive (default mode), Green for Transmit
DC Power	10-36 V <sub>DC</sub> with integrated DC-DC converter; Optional: 48 V <sub>DC</sub>
Power Consumption	With 48 V <sub>DC</sub> , 110 mA Rx, 1.6 A @ 10W Tx
Operating Temperature	-40 °C to +70 °C (158 °F) with appropriate heatsinking
Temp Sensor	Optional per customer needs

### Mechanical:

Dimensions	3.26" (82.8mm) x 2.4" (60.7mm) x 1.39" (35.3mm) w/ DC-DC converter 3.26" (82.8mm) x 2.4" (60.7mm) x 1.07" (27.2mm) w/o DC-DC converter
Weight	6.5 Oz (184.3 g) w/o integrated DC-DC converter 10.2 Oz (289.2 g) w/ DC-DC converter

