

# Model AMP2440-I

## Indoor 2.4 GHz Remote Bi-directional Power Amplifiers



*AMP2440 Amplifier Kit*

The Model AMP2440-I is a bi-directional indoor amplifier for use with 2.4 GHz Spread Spectrum radio modems and wireless LAN equipment. Consisting of a low noise receiver pre-amplifier and transmit power amplifier, the AMP2440-I offers significant increases in operating range and performance. The unit is ideal for use with 2.4 GHz Frequency Hopping or Direct Sequence Spread Spectrum radio modems and Wireless LAN devices.

This version of the amplifier is ideal for use in any application where the total cable length from the radio coax to the antenna is short, but amplification is needed.

### Applications include:

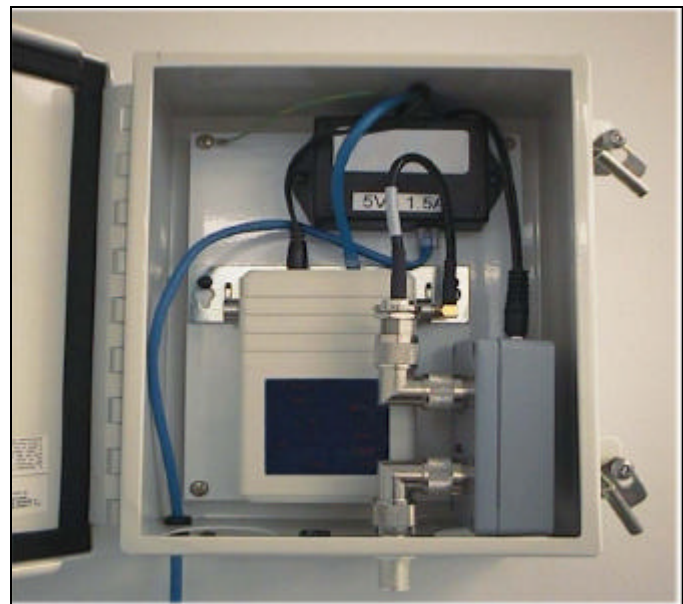
- Mobile installations where 12VDC battery voltage is available.
- Installations where the radio and the amplifier are both mounted in a weatherproof outdoor enclosure located near the antenna.
- Indoor installations where some extra gain is needed but the outdoor pole mounted amplifier is not practical.
- Installations where the antenna cable is short and the amp is protected from the weather.

### Amplifier Features:

- Transmit input levels from 10mW to 100mW
- 10 dB transmitter power gain
- Low noise receiver pre-amp with 12 dB gain
- No DC injector needed
- DC Power jack on the amplifier itself
- Power and Transmit LEDs on the amp
- Built-in Lightning Protection
- DC Surge Protection
- Heavy Duty "N" Connectors
- 1 Year Warranty
- Made in the USA

### Each Amplifier Kit Includes:

- Indoor version of the Bi-directional Amplifier
- 110/220 VAC Power Supply
- Manual



*Sample installation showing amplifier and radio in a weatherproof enclosure*

### Ordering Information

AMP2440-RNF-I

# Model AMP2440-I

## Indoor 2.4 GHz Remote Bi-directional Power Amplifiers

### General Specifications

**Operating Range:** 2400-2483 MHz

**Operating Mode:** Bi-directional, half-duplex.  
Senses RF carrier from transmitter and automatically switches from

**Connectors:** N-female

**Indicators:** TX and RX LEDs

#### **Lightning**

**Protection:** Direct DC ground at antenna

#### **DC Surge**

**Protection:** 600 Watt TVS at 12 VDC input

### Transmitter Amplifier

**Transmit Gain:** 10 dB nominal

#### **Frequency**

**Response:** +/-1 dB over operating range

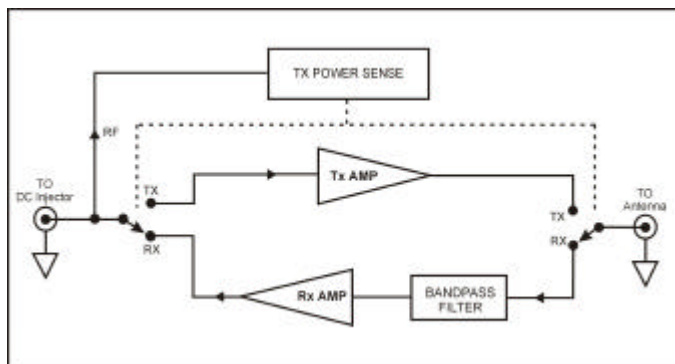
#### **Transmit Output**

**Power:** Up to 400 mW (+27 dBm) for DSSS radios  
500 mW (+27 dBm) min for

#### **Transmit Input**

**Power:** 3 mW-100 mW (max)

**Model 2440-I Functional Block Diagram**



### Receiver Low Noise Amplifier (LNA)

**Receive Gain:** 12 dB nominal

#### **Frequency**

**Response:** +/-1 dB over operating range

**Noise Figure:** 2.8 dB typical, 3.8 dB max

### Mechanical and Environmental

#### **Operating**

**Temperature:** -20°C to +60°C

**Power:** See Amp Manual

**Power Connector:** Female barrel jack, 2.1mm, ID, center pin positive

#### **Amplifier**

**Dimensions:** 4.55" x 2.68" x 1.20"

#### **Mounting**

**For Amplifier:** Tapped screw holes on bottom of enclosure

**Kit Weight:** Approx. 1.0 lb.

**NOTE:** This device cannot be legally used in the United States unless it has been certified for operation with specific make and model radios and antennas. For a list of FCC Certified Systems that use this amplifier, visit our Web Site at:

**[www.ydi.com](http://www.ydi.com)**



Normally, the DC power jack is on the top side of the enclosure, but with the -IR option, the DC power jack is located on the right side.