



A2440-RF

Outdoor Bi-Directional Amplifier, 2.4 GHz



**A2440-RF
and
DC Injector**

APPLICATIONS

- To extend the range of 2.4 GHz radios by putting the maximum allowable Tx power right at the antenna
- To boost the Rx signals which compensates the loss introduced by the coax cable between the antenna and the radio

Description

The A2440-RF is a 2.4 GHz waterproof bi-directional pole-mounted amplifier. It is designed for use with 2.4 GHz Spread Spectrum radio modems and wireless LAN equipment. Consisting of a low noise receiver pre-amplifier and full transmit power amplifier, the A2440 offers significant increases in operating range and performance. The unit is ideal for use with any 2.4 GHz Frequency Hopping or Direct Sequence Spread Spectrum Wireless LAN devices or radio modems. When used with 24 dB gain grid dish antennas and the proper radios, ranges up to 50 miles (80 Km) line-of-sight can be achieved!

The remote mounting capability allows it to be located right next to the antenna which places the full transmit power where it is most effective. The receiver pre-amplifier boosts the received signal at the antenna. The latest low-noise amplifier (LNA) technology is used, improving the receiver sensitivity by several dB. This gain also compensates for the cable loss from the amplifier to the radio modem. The amplifier automatically switches between receive and transmit amplification modes. Using the A2440 allows for the use of inexpensive transmission cable of up to 300 feet between the radio modem and the pole mounted amplifier. Its waterproof enclosure will provide years of reliable operation.

The amplifier gets its DC power through the coax cable using the DC Power Injector which is located indoors near the radio modem. No separate power cable is needed for the amp.

Key Features

- Transmit input levels from 3.2 mW to 100 mW
- Up to 16 dB transmitter power gain
- 100% weather and waterproof cast aluminum case
- Polyurethane gasket for watertight seal
- Amplifier mountable on poles from 3/4 through 3 in. diameter
- DC Power carried up through the coax cable
- Power and Transmit LEDs on both the amp and the DC power injector
- Built-in lightning protection
- DC surge protection
- Heavy duty "N" connectors



The A2440-RF amplifier mounted on a pole next to a grid dish antenna.

About Proxim Wireless

Proxim Wireless is a global leader in networking equipment for Wi-Fi and broadband wireless networks. Proxim provides solutions for mobile enterprise applications, security and surveillance, last mile access, voice and data backhaul, public hot spots, and metropolitan area networks. Product families include ORiNOCO Wi-Fi products, Tsunami Ethernet bridges, and Lynx point-to-point digital radios.

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A2440-RF Specifications

GENERAL	
Operating Range	2400 - 2483 MHz
Operating Mode	Bi-directional Time Division Duplex (TDD) .Senses RF carrier on transmitter and automatically switches from receive to transmit mode
Connectors	N-female
Indicators	TX and RX LEDs on both the amplifier and the DC power injector
Lightning Protection	Direct DC ground at antenna connector and in the DC injector
DC Surge Protection	600 Watt TVS at 12 VDC input from transmission cable
TRANSMIT AMPLIFIER	
Transmit Gain	14 dB nominal
Frequency Response	+/-1 dB over operating range
Max Transmit Output Power	500 mW (+27 dBm) linear operation with 20 mW input
Transmit Input Power	3.2 mW min, 100 mW max
RECEIVE AMPLIFIER	
Receive Gain	16 dB typical
Frequency Response	+/-1 dB over operating range
Noise Figure	3.5 dB typical
MECHANICAL AND ENVIRONMENTAL	
Operating Temperature	-40°F to +140°F (-40°C to +60°C)
Power	11 to 14 VDC @ 800 mA (400 mA average)
Amplifier Dimensions	4.53 x 2.55 x 1.20 in. (115 x 65 x 30 mm)
DC Power Injector	
Dimensions	4.42 x 2.40 x 1.22 in. (112 x 61 x 31 mm)
Mounting Bracket For amplifier	Accommodates pole or mast diameters from 3/4 to 3 in.
Kit Weight	Approx. 1.5 lb. (680 gms) with U-bolts
Relative Humidity	>45 dB
Dimensions (H x W x D)	48.3 x 36.8 x 36.8 cm (19 x 14.5 x 14.5 in.)
Weight	9.3 kg (20.5 lbs)
Mounting	Standard Outdoor Mount (4 to 4.5 pole)

For detailed technical specifications, please go to <http://www.proxim.com/>



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