



Description

The **Model AMP2440** 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 transmit power amplifier, the AMP2440 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-amp 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 amp to the radio modem. The amplifier automatically switches between the receive and transmit amplification modes. Using the AMP2440 allows for the use of inexpensive transmission cable up to 300 feet between the radio modem and the pole mounted amp! 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.

Amplifier Features

- Transmit input levels from 3.2 mW to 100 mW
- Up to 16dB transmitter power gain
- 100% weatherproof cast aluminum case
- Polyurethane gasket for watertight seal
- Amp 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
- 1 year warranty
- Made in the USA

Each Amplifier Kit Includes

- Bi-directional Amplifier
- DC Power Injector
- 110/220 VAC to 12 VDC Power Supply
- U-Bolts and Mounting Hardware
- Installation Manual



The pole mounted amplifier shown installed with a Terabeam PT2424 Grid Dish antenna.

Specifications subject to change without notice

8000 Lee Highway, Falls Church VA 22042
Tel: (703) 205-0600 Fax: (703) 205-0610
Sales: 1-888-297-9090

www.terabeam.com

990 Almanor Avenue, Sunnyvale, CA 94085
Tel: (408) 617-8150 Fax: (408) 617-8151
Sales: 1-800-664-7060

General Specifications

Operating Range 2400-2483 MHz

Operating Mode Bi-directional Time Division Duplex. Senses RF carrier from 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

Transmitter Amplifier

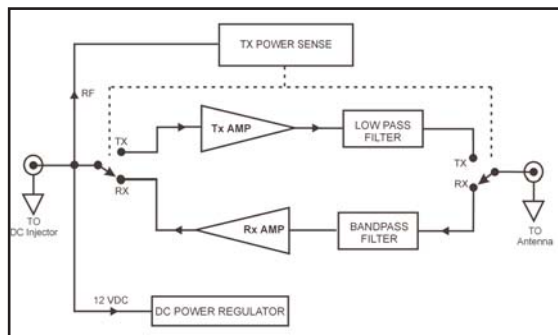
Transmit Gain 14 dB nominal for - RF
16 dB for - R2 and - R5 versions

Frequency Response +/-1 dB over operating range

Max Transmit Output Power 500 mW (+27 dBm) for the - RF (linear operation) with 20 mW input
250 mW (+24 dBm) for the - R2 with 6 mW input
500 mW (+27 dBm) for the - R5 with 12 mW input

Transmit Input Power 3.2 mW min, 100 mW max

AMP2440 Functional Block Diagram



Receiver Low Noise Amplifier (LNA)

Receive Gain 16 dB typical

Frequency Response +/-1 dB over operating range

Noise Figure 3.5 dB typical

Mechanical and Environmental

Operating Temperature -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.

DC Power Injector Dimensions 4.42 x 2.40 x 1.22 in.

Mounting Bracket For amplifier Accommodates pole/mast diameters from 3/4 to 3 in.

Kit Weight Approx. 1.5 lb. with U-bolts



Model AMP2440 and DC Injector.
The amp mounts on a pole near the antenna.

Ordering Information

Description	Terabeam P/N
AMP2440 - RF	302-900001-001
AMP2440 - R2	302-900001-002
AMP2440 - R5	302-900001-004

To comply with FCC part 15 rules in the United States, this Amplifier must only be used in systems that have been FCC certified. The system must also be professionally installed to ensure compliance with the Part 15 certification. It is the responsibility of the operator and professional installer to ensure that only certified systems are deployed in the United States. The use of the amplifier in any other combination is expressly forbidden in accordance with FCC rules CFR47 Part 15.204. Please visit our web site (<http://www.TerabeamWireless.com/fccinfo.asp>) or contact our sales department to learn more about Terabeam Wireless systems certified by the FCC.

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