8 PRODUCT DESCRIPTION

8.1 GENERAL PRODUCT DESCRIPTION

AMP2400SS is a new bi-directional antenna-mount amplifier that consists of an intelligent algorithm and Automatic Gain Controlled (AGC) circuits to maintain the output power and prevent transmit signal saturation. The input transmit power level is sensed by the Radio Frequency (RF) sensor and the gain is automatically adjusted to minimize the signal distortion so that the desired signal quality can be assured. Thus full RF output is delivered at wide input range (2mW to 200mW). Due to these advance features any cable length between 10 inch and 250 foot can be used a part of FCC certified setup without compromising the signal strength.

The built-in attenuator triggers and controls the input signal when the power increases a certain threshold. Thus the amplifier never goes to saturation and stays in linear operating mode at all input levels to a maximum of 23 dBm.

The temperature compensatory circuitry further compensates for any changes to the signal due to temperature variations.

Each Amplifier Kit Includes:

- Bi-directional Amplifier, AMP2400S-250 or AMP2400S-500
- DC Power Injector
- 5ft. LMR-400 cable (N-male to N-female)
- 2 N-male to N-male adapters
- 100/250 VAC to 7.5VDC Power Supply
- Stainless Steel U-Bolt and mounting hardware
- Vapor wrap coaxial connector sealing tape
- Installation Manual

8.2 SPECIFICATIONS

Operating Range	2400 ~ 2500 MHz
Operating Mode	Bi-directional TDD
Transmit Output Power	+27. dBm at the output connector (500mW)
Transmit Input Power	0 dB min, 23 dB max.
Transmit Gain	Automatically adjusts up to 26dB
Receive Gain	14 dB
Frequency Flatness	±1.0 dB
Noise Figure	3.5 dB
Lightening Protection	Direct DC ground at antenna port
DC Surge Protection	At 7.5 V DC input
LED indicators on Amp	Tx: Green, Rx: Red
Operating Temperature	-40 °C ~ + 70 °C
Power Supply	7.5 V DC at 0.7 amp
RF Connectors	Type N, Female

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8.3 PRODUCT DESCRIPTION FOR THE DC POWER INJECTOR

"TO DC Injector" Connection	This "N" Female connector is connected to the DC Power Injector via the transmission cable

DC Power Injector Connections and Indicators
A DC Power Injector is an in-line device which "injects" the DC power necessary to operate the amplifier onto a transmission line. This allows the cable to carry both RF signals and DC power to the mast-mounted amplifier.

LED	Green LED indicates DC power on.
"To Radio" Connection:	This "N" Female connector is connected to the radio modem via a short jumper RF cable.
"To Amplifier" Connection:	This "N" Female connector connects to the amplifier on the mast via the transmission cable.
12 VDC:	DC power input for the injector with standard 2.5mm barrel jack. +7.5VDC should be applied with center positive. For product description of the TU refer to "funtional_description_block-diagram file.