

Bi-Directional Amplifier

Electrical Specifications

FCC Classification	Class B Booster
Frequency Band	150-174 MHz
Passband Width	≤ 2 MHz
Stopband Width	≥ 3 MHz
Amplifier Gain (Typ.)	75 dB
System Gain (Typ.)	60 dB
Amplifier Output Power (Max.)	+37 dBm
System Output Power	Note 1
Amplifier Noise Figure	3.0 dB
Amplifier Bias Voltage	13.6 VDC
Power Control Dynamic Range	+37 dBm
Power Control PA Setpoint	+37 dBm
IP3	+50 dBm
System NF (Typ.)	Note 2
VSWR (Max.)	1.35:1
System Voltage	115 VAC (Optional 220 VAC, 12 / 24 / 48 VDC)
Impedance (Nom.)	50 Ω
RF Connectors	N Female
UPS Battery Backup	Optional Upgrade

Mechanical Specifications

Finish	Red
Enclosure Type	NEMA 4
Overall Size (HxWxD)	18.5" x 13.75" x 7.25" (470 x 349 x 184 mm)
Net Weight	35 lbs (15.9 kg)
Ship Weight	40 lbs (18.1 kg)

Environmental Specifications

Operating Temp. Range	-22 to 140 °F (-30 to +60 °C)
Operating Humidity Range	0-90% non-condensing

Notes

Note 1: System output power is a function of the number of carriers incident on the system, the signal level of these carriers to the signal enhancement system, gain of the PA's, and the insertion loss of the filters within the bidirectional system.

Note 2: System Noise Figure is the sum of the amplifier NF and the filter losses prior to the amplifier. The filter losses are dependent on the passband width for the uplink frequencies, the passband width for the downlink frequencies, and the stop band between them.

WARNING: This is NOT a CONSUMER device. It is designed for installation by FCC LICENSEES and QUALIFIED INSTALLERS. You MUST have an FCC LICENSE or express consent of an FCC Licensee to operate this device. You MUST register Class B signal boosters (as defined in 47 CFR 90.219) online at www.fcc.gov/signal-boosters/registration. Unauthorized use may result in significant forfeiture penalties, including penalties in excess of \$100,000 for each continuing violation.

EMR Bi-Directional Amplifiers (BDAs) provide two way (uplink and downlink) filtering and amplification of RF signals in buildings, tunnels or areas that are shaded from adequate RF signal coverage. In addition to the BDA, other devices needed for a distribution system include transmission line, power splitters, hybrid & directional couplers and indoor antennas. The use of radiating cable can also be used, particularly in tunnels and long corridors. The choice of distribution method depends on the nature of the structure in which signal enhancement is required.

Optional System Upgrades

- Fiber Optic DAS
- Alarm & Monitoring
- Battery Backup 12, 24 hour
- Higher gain

