



HPA Series Microwave Linear RF Amplifier



- ❑ High Performance Microwave Amplifier
- ❑ Solid State
- ❑ Input/Output Short Circuit Protection
- ❑ L-Band through C-Band models
- ❑ Small Signal Gain – >10 dB
- ❑ Reverse Polarity Protection
- ❑ 12 Vdc Operation
- ❑ Rugged Packaging

HPA-Series RF PA

HPA Series Microwave RF Amplifier

The HPA Series brings a new level of performance and reliability to high-power microwave transmission. HPA-Series provides 10W (+40 dBm) minimum output power. Packaged in a rugged aluminum housing, the construction lends the HPA Series to applications where severe environmental conditions are the norm. The HPA Series is a saturated amplifier designed for FM video applications and will produce full rated power with 2W (+33 dBm) drive. A special model is available that will provide full rated output power with as little as 0.25W (+24 dBm). Input and Output short circuit protection is provided and VSWR is better than 1.5:1 to provide excellent matching into filters. Reverse polarity, short circuit, and over voltage are standard features. The HPA Series amplifier is well suited for applications in surveillance, law enforcement, military UAV and RPV, and airborne data/telemetry.

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Technical Specifications

Electrical:

- Frequency Range
 - HPA-L40 – 1.7 to 1.9 GHz
 - HPA-S40 – 1.9 to 2.7 GHz
 - HPA-C140 – 3.2 to 3.5 GHz
 - HPA-C240 – 4.4 to 5.0 GHz
- Input / Output Protection – Open and Short Circuit
- VSWR – \geq -14 dB Return Loss Input and Output
- Class – AB
- Reverse Polarity Protection
- Over Voltage Protection
- Short Circuit Protection
- Supply Voltage – +12 Vdc
- Supply Current – 8 Amps max.
- Non-Harmonic Spurious Output – $>$ -60 dBc Typ.
- Input Drive – +33 dBm absolute maximum
- P₁dB – 40 dBm minimum
- Gain Flatness – $<$ 1 dB across band
- Small Signal Gain – +7 dB minimum
- Power Output – 10W Min. (+40 dBm)

Environmental:

- Operating temperature: -10 to +65 °C
- Relative Humidity: 0 to 95%, non-condensing

Mechanical:

- DC Input Connector – PTO 4 pin
- Dimensions – L: 7.9" W: 5.0" H: 1.17"
- RF Input – SMA female
- Housing – milled aluminum
- Weight – 3.0 lbs. nominal
- RF Output – SMA female

Accessoires:

Feedline: Custom RF interconnect cables available to meet specific installation requirements.

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