HD Communications Solid State Broadband High Power RF Amplifier

HD17491

1000 - 2000 MHz / 25 WATTS

Designed for broadband linear applications, this amplifier utilizes high power GaAsFET devices that provide excellent linearity, high gain, and wide dynamic range. Exceptional performance, long term reliability, and high efficiency are achieved by employing advanced broadband RF matching networks and combining techniques, built in high quality power supply, EMI/RFI filters, custom-machined housing, and qualified components. Each unit undergoes extensive burn-in prior to final inspection.

FEATURES
- Wide frequency band
- Built-in power supply
- Universal AC input
- Standard 19" rack mount enclosure
- Low distortion and noise figure
- Small and lightweight
- Built-in cooling system

APPLICATIONS
- TWT replacement
- EMI/RFI susceptibility testing
- Lab and equipment testing
- Antenna ranges
- PCS, WLL applications
- Satellite ground station
- Laser modulation
- ECM/EW systems

SPECIFICATIONS

Characteristics	Range	Limit
Frequency Response	1000 - 2000 MHz	Min
Power Output CW	25 Watts	Min
Power Output @ 1 dB comp.	20 Watts	Min
Small Signal Gain	44 dB	Min
Small Signal Gain Flatness	±1.5 dB	Max
Third Order Intercept Point	+55 dBm	Typ
Input/Output VSWR	2:1	Max
AC Power Consumption	200 Watts	Max
Dimensions	19"x3.5"x18"	Max
Weight	30 lb.	Max

ELECTRICAL CHARACTERISTICS

Input/Output Impedance: 50 Ohm
AC Input: 100 - 240 VAC, single phase
RF Input Overdrive: +10 dB over 1dB comp.
RF Input Signal Format: CW/AM/FM/PM/Pulse
Noise Figure: 10 dB max.
Harmonics: -20 dBc typical at 1 dB comp.
Spurious Signals: >60 dBc
Class of Operation: A linear
Connectors Type: Type-N
Cooling: Internal forced-air

ENVIRONMENTAL CHARACTERISTICS

Operating Temperature: 0°C to +50°C
Non-operating Temperature: -40°C to +85°C
Humidity: 95% relative without condensation
Altitude: 10,000 feet
Shock and Vibration: Normal truck transport

CIRCUIT PROTECTIONS
- Infinite Load VSWR
- RF Input Overdrive
- Thermal Overload

AVAILABLE OPTIONS
- Front or Rear Panel Connectors
- Rack Mounting Slide
- Custom Case Style
- Extended Temperature Range
- LCD Digital Display
  - Forward and Reverse indication
  - Gain Adjustment
  - Automatic Level Control
  - Standby Mode
  - Fault indication
  - IEEE-488.2 GPIB interface

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