

The HD19456 is suitable for high power broadband and band specific linear applications. This amplifier utilizes push-pull MOSFET power devices that provide wide frequency response and dynamic range, high gain, low distortions, and good linearity. Employing advanced broadband RF matching networks and combining techniques, EMI/RFI filters, and all qualified components achieve exceptional performance, and high efficiency. The system includes a universal voltage, single phase, power supply and a built in forced air-cooling system.



- Solid-state linear design
- Instantaneous ultra broadband
- Small and lightweight
- Standard front panel manual gain adjust
- Suitable for CW/FM/PM/AM/Pulse/Digital modulation
- 50 Ohm Input/Output impedance
- High reliability and ruggedness

**ELECTRICAL SPECIFICATIONS @ T=25°C, 50 System**

Parameter	Symbol	Min	Typ	Max	Unit
Operating Frequency	BW	400		1000	MHz
Output Power CW	P <sub>Sat</sub>	25	30		Watts
Output Power @ 1dB G.C.P	P <sub>1dB</sub>	15	20		Watts
Power Gain @ 1dB G.C.P	G <sub>1dB</sub>	44			dB
Input Power for Nominal Pout	P <sub>in</sub>		0		dBm
Small Signal Gain Flatness	G			±1.5	dB
Gain Adjustment Range	FGA	25			dB
Input/Output VSWR	S11/S22	-10			dB
Noise Figure @ max. gain	NF		7	10	dB
Third Order Intercept Point	IP3		+52		dBm
Harmonics @ 1dB G.C.P	H		-20		dBc
Spurious Signals	Spur		-70	-60	dBc
Operating Voltage (single phase)	VAC	100		240	VAC
AC Power Consumption @ 25W CW	Pd		-	150	Watts

**ENVIRONMENTAL CHARACTERISTICS**

Parameter	Symbol	Min	Typ	Max	Unit
Operating Temperature	T <sub>c</sub>	0		+50	°C
Non-operating Temperature	T <sub>stg</sub>	-40		+85	°C
Relative humidity w/o condensation	RH	95			%
Altitude	ALT	10,000	30,000		Feet
Shock and Vibration	SV		Airborne		

**MECHANICAL SPECIFICATIONS**

Parameter	Value	Units	Limits
Dimensions	8.5 x 3.5 x 16	Inch	Max
Weight	20	lb.	Max
RF Connectors Input/Output	Type-N female		
Cooling	Built in internal forced air cooling system		

**PROTECTIONS**

Input Overdrive	+10 dBm		Max
Load VSWR	Infinite @ any angle & magnitude		Nom
Thermal Overload	85°C shutdown		Max

# HD Communications Corp.

Ronkonkoma, NY USA

Home of RF Amplifiers.com

## Solid State Broadband High Power RF Amplifier

### HD19456

### 400 – 1000 MHz / 25 Watt

#### AVAILABLE OPTIONS (Refer to table for systems options)

Option	Number	Description	Price
FGA	061	Front panel 10 turns manual gain adjustment.	Standard
LCD	062	Touchscreen Digital Display, including Fwd/Rev Power indication (dB or Watt scale), Gain Adjustment, ALC Fast/Slow, On/Off, Standby mode, Fault indication, Rear panel HPIB IEEE-488.2 or Full Duplex RS232 remote interface.	3,500
FCN	051	Front Panel Type-N female	N/C
RCN	052	Rear Panel Type-N female	N/C

Available Option Packages: 01, 02, 03, 04, 05, 06

SYSTEM OUTLINE SHOWN WITH OPTION PACKAGE 01

