

HD Communications Corp.

1 Comac Loop
Ronkonkoma, NY 11779
Home of RF Amplifiers.com

Solid State Broadband High Power RF Amplifier

HD18447

10 – 110 MHz / 1000 Watt

E-mail: sales@rfamplifiers.com

Web: <http://www.rfamplifiers.com>

The HD18447 was designed for broadband high power linear applications utilizing HD Communications Corp.'s advanced MOSFET technology. This rack mount amplifier provides high gain, wide dynamic range, low distortions and good linearity. 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, machined housings and all qualified components. Each system undergoes extensive burn-in prior to final test and inspection

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

ELECTRICAL SPECIFICATIONS @ T=25°C

Parameter	Symbol	Min	Typ	Max	Unit
Operating Frequency	BW	10		110	MHz
Power Output CW	Psat	1000			Watts
Power Output @ 1 dB comp.	P1dB	700			Watts
Input Power for 1000W	Pin		0		dBm
RF Input Overdrive	Pod			+10	dBm
Small Signal Gain	SSG		62		dB
Small Signal Gain Flatness	Gr			±1.5	dB
Input/Output VSWR	S11/S22	-10			dB
Third Order Intercept Point	IP3		+65		dBm
Harmonics @ 1 dB compression	H		-20		dBc
Noise Figure	NF		10		dB
Load VSWR @ 1000 W CW					-
Spurious Signals	Spur		-70	-60	dBc
Operating Voltage (single phase)	VAC	180		260	VAC
AC Power Consumption @ 1000 W CW	Pd		2500	3000	Watts

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Limits
Dimensions	19 x 8.75 x 22	Inch	Max
Weight	80	lb.	Max
RF Connectors Input/Output	Type-N female		
Cooling	Built in internal forced air cooling system		

ENVIRONMENTAL CHARACTERISTICS

Parameter	Symbol	Min	Typ	Max	Unit
Operating Temperature	Tc	0		+50	°C
Non-operating Temperature	Tstg	-40		+85	°C
Relative humidity w/o condensation	RH	95			%
Altitude	ALT	10,000			Feet
Shock and Vibration	SV	GR-487			

PROTECTIONS

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

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AVAILABLE 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.	Standard
FCN	051	Front Panel Type-N female	N/C
RCN	052	Rear Panel Type-N female	N/C
DCC	043	28 VDC input voltage	

OUTLINE DRAWING SHOWN WITH CONNECTORS ON THE FRONT PANEL

