HD Communications Corp.
Ronkonkoma, NY USA

Home of RFAmplifiers.com

Solid State Broadband High Power RF Amplifier

HD19455

1 – 500 MHz / 30 Watt

The HD19455 is suitable for ultra broadband high power 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, 50Ω System

Parameter	Symbol	Min	Typ	Max	Unit
Operating Frequency	BW	1		500	MHz
Output Power CW	P_{Sat}	30	35		Watts
Output Power @ 1dB G.C.P	P_{1dB}	20	25		Watts
Power Gain @ 1dB G.C.P	G_{1dB}	44			dB
Input Power for nominal Pout	P_{in}		0		dBm
Small Signal Gain Flatness	ΔG			±1.5	dB
Gain Adjustment Range	FGA	25			dB
Input/Output VSWR	S11/S22	-10			dB
Noise Figure	NF		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 @ 30 Watt CW	Pd		-	220	Watts

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	30,000		Feet
Shock & Vibration	SH / VI		Airborne		

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Limits
Dimensions	8.5 x 3.5 x 16	Inch	Max
Weight	15	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

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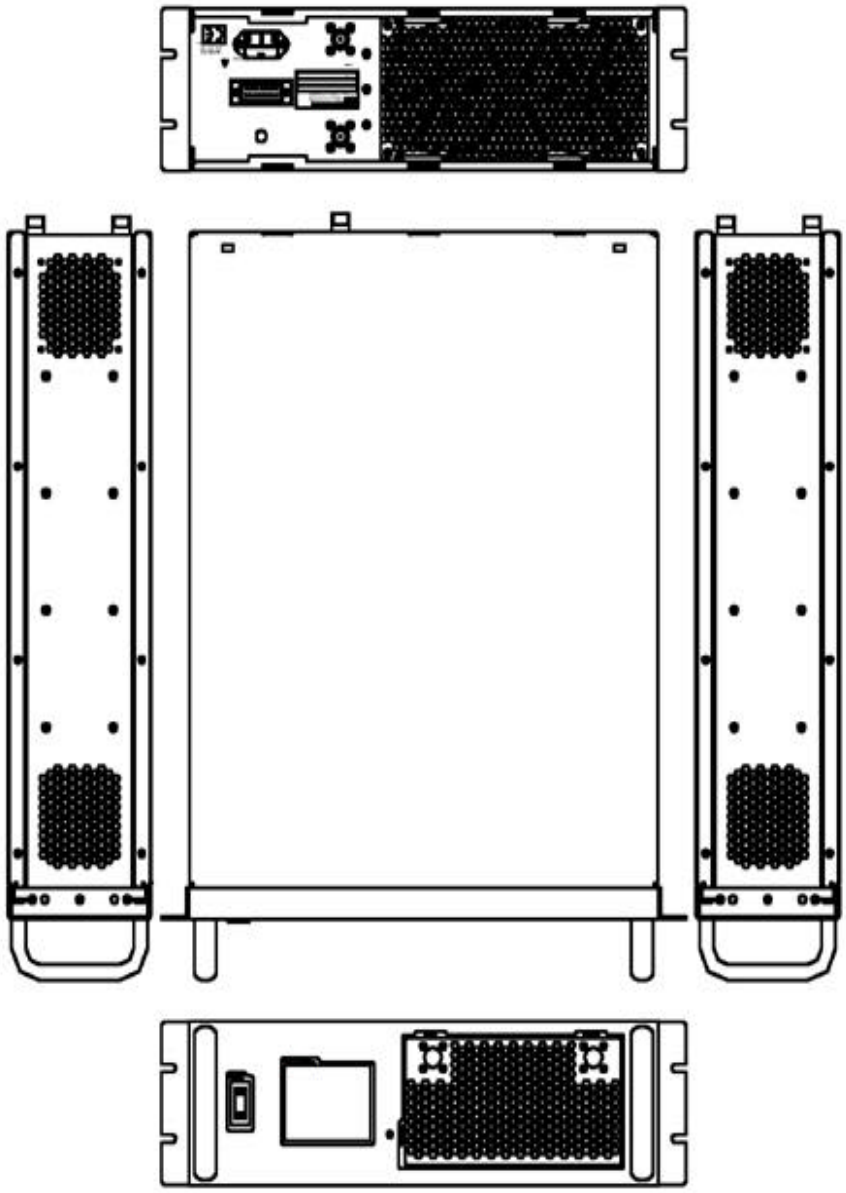
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AVAILABLE OPTIONS (Refer to table for systems options)

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 09



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