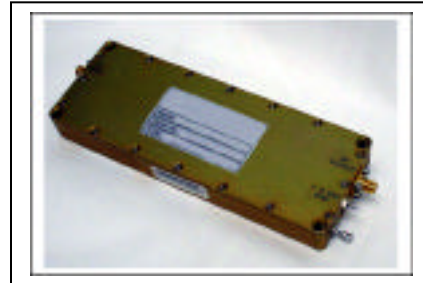


The HD19166 is suitable for broadband and band specific high power linear applications. This amplifier utilizes push-pull MOSFET power devices that provide high gain, wide dynamic range, low distortions, and good linearity. Exceptional performance, long term reliability and high efficiency are achieved by employing advanced broadband RF matching networks and combining techniques, EMI/RFI filters, machined housings and qualified components.



- Solid-state Class AB linear design
- Instantaneous ultra broadband
- Small and lightweight
- Suitable for all modulation types
- Excellent Phase Linearity and Group Delay Characteristics
- 50 Ohm Input/Output impedance
- High reliability and ruggedness

ELECTRICAL SPECIFICATIONS @ T=25°C, VDD=+28VDC; 50 System

Parameter	Symbol	Min	Typ	Max	Unit
Operating Frequency	BW	100		500	MHz
Power Output CW	P _{Sat}	100	120		Watts
Power Output @ 1dB G.C.P	P _{1dB}	60	-		Watts
Power Gain @ 1dB G.C.P	G _{1dB}	50			dB
Input Power for Rated Output	P _{in}		0		dBm
Small Signal Gain Flatness	G		±1.0	±1.5	dB
Input/Output VSWR	S11/S22			2:1	-
Noise Figure @ minimum attenuation	NF		7	10	dB
Third Order Intercept Point	IP3		+58		dBm
Harmonics @ 1dB G.C.P	H		-20		dBc
Spurious Signals	Spur		-70	-60	dBc
Operating Voltage	VDD	24	28	32	VDC
Current Consumption	IDD		12	16	Amp

ENVIRONMENTAL CHARACTERISTICS

Parameter	Symbol	Min	Typ	Max	Unit
Operating Case Temperature	T _c	0		+50	°C
Storage Temperature	T _{stg}	-40		+85	°C
Relative humidity w/o condensation	RH	95			%
Altitude	ALT	10,000			Feet
Shock & Vibration	SH / VI	Air-Borne			

MECHANICAL SPECIFICATIONS

Parameter	Value	Units
Dimensions	6.4 x 3.4 x 1.1	Inch
Weight	1.0	lb.
RF Connectors In/Out	SMA female	
DC Connectors	Feed Thru	
Cooling	External Heatsink	

PROTECTIONS

Input Overdrive	P _{OD}	+10 dBm	Max
Load VSWR programmable response		Infinite @ all load phase and amplitude	Nom
Thermal Overload	T _{OL}	85°C shutdown	Max

HD Communications Corp.

Ronkonkoma, NY USA

Home of RFamplifiers.com

Solid State Broadband High Power Amplifier

HD19166

100 – 500 MHz / 100 Watt

