

The HD20089 is suitable for L-Band broadband and band specific power applications. This amplifier utilizes linear GaAsFET power devices that provide high gain, wide dynamic range and excellent 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 A design
- Instantaneous broadband
- Small and lightweight
- Suitable for all modulations CW/FM/PM/AM/Pulse/Digital
- 50 Ohm Input/Output impedance
- High reliability and ruggedness

**ELECTRICAL SPECIFICATIONS @ T=25°C, VDD=+13VDC, 50 System**

Parameter	Symbol	Min	Typ	Max	Unit
Operating Frequency	BW	1000		2000	MHz
Power Output CW	P <sub>sat</sub>	50			Watt
Power Output @ 1dB G.C.P.	P <sub>1dB</sub>	40			Watt
Gain @ 1dB G.C.P	G <sub>1dB</sub>	46			dB
Input Power for Rated Output	P <sub>in</sub>		0		dBm
Gain Flatness	G			±1.5	dB
Input/Output VSWR @ 50	S11/S22			2:1	
Noise Figure	NF			10	dB
Third Order Intercept Point	IP3		+58		dBm
Harmonics @ 1dB G.C.P	H		-30	-20	dBc
Spurious Signals	Spur		-70	-60	dBc
Operating Voltage	V <sub>DD</sub>	12	13	15	Volt
Current Consumption	I <sub>DD</sub>		17	19	Amp

**MECHANICAL SPECIFICATIONS**

Parameter	Value	Units	Limits
Dimensions	Heatsink Assembly	Inch	Max
Weight including heatsink	10	lb.	Max
RF Connectors In/Out	SMA female		
DC / Shutdown Connectors	Terminal Block		
Cooling	External forced-air		

**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	SH / VI		Airborne		

**PROTECTIONS**

Load VSWR	Infinite @ all load phase & amplitude	Nom
Thermal Overload	85°C shutdown	Max

OUTLINE DRAWING

