

PRELIMINARY DATA

The HD20325 is suitable for broadband UHF high power linear applications. This amplifier utilizes push-pull LDMOS 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 linearized design
- Instantaneous broadband
- Built in optional control circuit.
- Small and lightweight
- Suitable for all modulation types
- 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	500		1000	MHz
Power Output CW	P _{out}	100	150		Watts
Power Output @ 1dB G.C.P	P _{1dB}	80	120		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			±1.5	dB
Input/Output VSWR	S11/S22			2:1	-
Noise Figure	NF		7	10	dB
Harmonics @ P1dB G.C.P.	H		-25		dBc
Third Order Intercept Point	IP3		+61		dBm
Spurious Signals	Spur		-70	-60	dBc
Operating Voltage	VDD	24	28	32	VDC
Supply Current @ 100W output	IDD			15	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	30,000		Feet
Shock / Vibration	SH / VI		Airborne		

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Limits
Dimensions	9.8 x 6.4 x 1.0	Inch	Max
Weight without	6.0	lb.	Max
RF Connectors In/Out	SMA female		
DC Connectors	Feed Thru		
Cooling	External Heatsink		

PROTECTIONS

Input Power Overdrive	P _{OL}	+7dBm	Max
Load VSWR @ 100W output		Infinite @ all load phase and amplitude	Nom
Thermal Overload	T _{OL}	85°C shutdown	Max