HD31897
SOLID STATE HIGH POWER AMPLIFIER

FEATURES

Class AB linear LDMOS design
High power narrow band L-Band frequency
Suitable for all single channel modulation standards
Built-in monitoring and protection circuits
High reliability and ruggedness
Small form factor, high power density



ELECTRICAL SPECIFICATIONS: 50Ω, 25°C

Parameter	Specification	Notes
Operating Frequency Range	1.65 - 1.7 GHz	
Power Output Psat	400 Watt Min	CW
Power Gain	56 dB Nom	
Input Return Loss	-10 dB Max	Relative to 50 Ohm
2-Tone Intermodulation (IMD)	-30 dBc Typ	46dBm/Tone, Δ = 1MHz
Harmonics	-30 dBc Typ	At rated Pout
Spurious	-60 dBc Max	Non-harmonics
Operating Voltage	50 VDC Nom	
Current Consumption	30 Amp Max	At rated Pout
Input Power Protection	+8 dBm Max	<10 Sec without damage
Load VSWR Protection	5 : 1 Max	<1 minute at rated Pout

ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification	Notes
Operating Case Temperature	-20 to +75 °C	
Storage Temperature	-40 to +85 °C	
Relative Humidity	5 to 95 %	Non-condensing

MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions	250 x 200 x 27 mm	Excluding Connectors
Weight	-	
RF Connectors In/Out	SMA female / Type-N female	
DC Power / Interface Connector	7-Pin Hybrid D-Sub	
Cooling	External Heatsink	Forced air required

D-SUB CONNECTOR PIN ASSIGNMENT

Pin	Function	Description
1	FWD	NA
2	VVA	NA
3	CURRENT SENSOR	I_D@20mV/100mA Typ
4	TEMP SENSOR	V_T@10mV/°C + 500mV Typ
5	SHUTDOWN	TTL
A1	VDD	50VDC
A2	GND	Ground

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OUTLINE DRAWING

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