

AMP5049 SOLID STATE HIGH POWER AMPLIFIER

FEATURES

- Class AB linear LDMOS design
- Single 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

Parameter	Specification	Notes
Operating Frequency Range	1.65 - 1.70 GHz	
Power Output Psat	400 Watt Min	CW
Power Gain	56 dB Nom	
Input Return Loss	10 dB Min	Relative to 50 Ohm
2-Tone Intermodulation (IMD)	-30 dBc Typ	46dBm/Tone, $\Delta = 1\text{MHz}$
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
Max Input Power Protection	+8 dBm	<10 Sec without damage
Load VSWR Protection	5 : 1 Min	<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		Max 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	$I_b@20\text{mV}/100\text{mA Typ}$
4	TEMP SENSOR	$V_T@10\text{mV}/^\circ\text{C} + 500\text{mV Typ}$
5	SHUTDOWN	TTL
A1	VDD	50VDC
A2	GND	Ground



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OUTLINE DRAWING