

# AMP5037A 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	1300 MHz	
Power Output P1dB	80 Watt Min	CW
Power Gain	50 dB Nom	
Input Return Loss	10 dB Min	Relative to 50 Ohm
2-Tone Intermodulation (IMD)	>30 dBc Typ	41dBm/Tone, $\Delta = 1\text{MHz}$
Harmonics	>30 dBc Typ	At rated Pout
Non Harmonics Spurious	>60 dBc	
Operating Voltage	28 VDC Nom	
Current Consumption	12 Amp Max	At rated Pout
Max Input Power Protection	+8 dBm	Note 1
Load VSWR Protection	$\infty : 1$ Min	1 Min Max
Turn On / Off Speed	5 $\mu\text{Sec}$ Max	

1. Nominal Input Power is 0dBm Max input power protection for 10 seconds without damage

## 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	162 x 96 x 27 mm	Excluding Connectors
Weight	700 gr.	Max Weight
RF Connectors In/Out	SMA female	
DC Power / Interface Connector	9-Pin D-Sub	
Cooling	External Heatsink	Forced air required

## D-SUB CONNECTOR PIN ASSIGNMENT

Pin	Function	Description
1	FWD	Option-101 - Analog Forward Power Indicator
2	VVA	Option-103 - Analog Gain Control
3	CURRENT SENSOR	$I_D @ 20\text{mV}/100\text{mA}$ Typ
4	TEMP SENSOR	$V_T @ 10\text{mV}/^\circ\text{C} + 500\text{mV}$ Typ
5	SHUTDOWN	TTL
6, 7	VDD	28VDC
8, 9	GND	Ground

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## OUTLINE DRAWING

