

AMP3119 SOLID STATE HIGH POWER AMPLIFIER

FEATURES

- Class AB linear design
- Instantaneous bandwidth
- Suitable for all single channel modulation standards
- Small form factor & light weight
- Built-in protection circuits
- High reliability and ruggedness



ELECTRICAL SPECIFICATIONS

Parameter	Specification	Notes
Operating Frequency Range	850 - 1220 MHz	
Power Output @ Psat	100 Watt Min	CW
Power Gain	50 dB Min	
Power Gain Flatness	2.0 dB p-p Max	Constant input power
Input / Output Return Loss	10 dB Min	Relative to 50 Ohm
Noise Figure	8 dB Max	
2-Tone Intermodulation (IMD)	-30 dBc Typ	40dBm/Tone, $\Delta = 1\text{MHz}$
Harmonics	-30 dBc Typ	At rated Pout
Spurious	-60 dBc Max	Non-harmonics
Operating Voltage	28 VDC Nom	
Current Consumption	10 Amp Max	At rated Pout
Max Input Power	+8 dBm Max	<10 Sec without damage
Load VSWR Protection	$\infty : 1$	<1 minute at rated Pout
Turn On / Off Speed	5 μSec Max	

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	200 x 100 x 27 mm	Excluding Connectors
Weight	-	Max Weight
RF Connectors In/Out	SMA female / Type N female	
DC Power / Interface Connector	9 Pin D-Sub	
Cooling	External Heatsink	Forced air required

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D-SUB CONNECTOR PIN ASSIGNMENT

Pin	Function	Description
1	FWD	OPTION 101 - Forward power detect
2	VVA	OPTION 103 - Variable Voltage Attenuator
3	CURRENT SENSOR	$I_D @ 20mV/100mA$ Typ
4	TEMP SENSOR	$V_T @ 10mV/^\circ C + 500mV$ Typ
5	SHUTDOWN	TTL
6, 7	VDD	28VDC
8, 9	GND	Ground

OUTLINE DRAWING

