AMP3085-HR
SOLID STATE HIGH POWER AMPLIFIER

FEATURES

Designed for EMC-EMI/RFI, Lab, and general comm applications
Small form factor, high power density
Class A/AB linear advanced technology design
Instantaneous bandwidth
Suitable for X-Band CW linear applications
Built-in protection circuits
High reliability and ruggedness

ELECTRICAL SPECIFICATIONS: 50Ω, 25°C

Parameter	Specification	Notes
Operating Frequency Range	8.0 - 12.0 GHz	
Power Output @ Psat	100 Watt Min / 120 Watt Typ	CW
Power Gain	50 dB Min	0dBm or less for rated Pout
Power Gain Flatness	3.0 dB p-p Max	Constant input power
Input Return Loss	-10 dB Max	
Harmonics	-25 dBc Max	At rated Pout
Spurious	-60 dBc Max	Non-harmonics
Noise Figure	10 dB Max	
Operating Voltage	32 VDC Nom	
Current Consumption	23 Amp Max / <20 Amp Typ	At rated Pout
Input Power Protection	+3 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[2]	
Storage Temperature	-40 to +85 °C	
Relative Humidity	up to 95 %	Non-condensing
Altitude	45000 feet[1]	
Shock & Vibration	Normal transport[2]	

1 For airborne applications, designed to meet, testing will be quoted.
2 MIL Spec available for quotation.

MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions L x W x H	180 x 200 x 27 mm	Excluding connectors
Weight	4 Kg.	
RF Connectors In/Out	SMA female / Type-N female	
DC Power / Interface Connector	7-Pin Hybrid D-Sub	
Cooling	External Heatsink[3]	Forced air required

3 Adequate cooling for proper operation and long-term reliability.
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D-SUB CONNECTOR PIN ASSIGNMENT

Pin	Function	Description
1	Not used	N/A
2	Not used	N/A
3	Current Sensor	I_D@20mV/100mA Typ
4	Temp Sensor	V_T@10mV/°C + 500mV Typ
5	Shutdown	Enable = TTL “High” (>3.2V) or Open / Disable = TTL “Low” or Short
A1	VDD	32VDC
A2	GND	Ground

OUTLINE DRAWING