

AMP1089-1 SOLID STATE HIGH POWER AMPLIFIER

FEATURES

Class AB linear GaN design
Instantaneous wide bandwidth
Designed for EMI/RFI, lab, and general communication applications
Suitable for all single channel modulation standards
Small form factor & light weight
Built-in protection circuits
High reliability and ruggedness



ELECTRICAL SPECIFICATIONS: 50Ω, 25°C

Parameter	Specification	Notes
Operating Frequency Range	2.0 - 6.0 GHz	
Power Output CW	150 Watt Min	Pin=0dBm for rated Pout
Power Output @ P1dB GCP	80 Watt Min	100 Watt Typ
Power Gain	52 dB Min	
Power Gain Flatness	4.0 dB p-p Max	Constant input power
Input / Output Return Loss	-10 dB Max	
2-Tone Intermodulation (IMD)	-30 dBc Typ	43dBm/Tone, Δ = 1 MHz
Harmonics	<-20 dBc Typ	At rated Pout
Spurious	-60 dBc Max	Non-harmonics
Operating Voltage	32 VDC Nom	
Current Consumption	40 Amp Max	At rated Pout
Max Input Power	+3 dBm Max	<10 Sec without damage
Load VSWR Protection	5 : 1 Max	<1 minute at rated output

ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification	Notes
Operating Case Temperature	-40 to +65 °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	5.9 Kg.	
RF Connectors In/Out	SMA / Type-N female	
DC Power / Interface Connector	Hybrid 9-Pin D-Sub	9W4
Cooling	External Heatsink	Forced air required

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Pin	Function	Description
1	FWD	OPTION 101 - Forward Power Detect
2	VVA	OPTION 103 - Variable Voltage Attenuator
3	CURRENT SENSOR	I _D @ 10mV/100mA Typ
4	TEMP SENSOR	V _T @ 10mV/°C + 500mV Typ
5	SHUTDOWN	TTL
A1, A2	VDD	32VDC
A3, A4	GND	Ground

9x- Ø4.4 THRU

RF INPUT

RF OUTPUT

100.00

40.00

121.20

250.00

121.20

3.80

132.54

100.00

75.00

200.00

58.70

3.80

58.70

19.30

12.65

12.75

2.00

25.00

8.00

100.00

A1: VDD
A2: VDD
N/C
N/C
CURRENT MONITOR
TEMP. MONITOR
SHUTDOWN
A3: GND
A4: GND