AMP1001
SOLID STATE HIGH POWER AMPLIFIER

FEATURES

Class AB linear MOSFET design
Instantaneous wide bandwidth
Suitable for all single channel modulation standards
Built-in protection circuits
High reliability and ruggedness

ELECTRICAL SPECIFICATIONS - 50 Ohm Impedance

Parameter	Specification	Notes
Operating Frequency Range	1 - 1000 MHz	
Output Power @ Psat	25 Watt Min	CW
Output Power @ P1dB	12 Watt Min	
Power Gain	44 dB Min	
Power Gain Flatness	3 dB p-p Max	Constant input power
Input Return Loss	10 dB Min	Relative to 50 Ohm
2-Tone Intermodulation (IMD)	-30 dBc Typ	35dBm/Tone, Δ = 1MHz
Harmonics	-20 dBc Typ	At rated output
Spurious	-60 dBc Max	Non-harmonics
Operating Voltage	28 - 30 VDC	
Current Consumption	4 Amp	At rated Pout
Max Input Power Protection	+8 dBm	10 Sec without damage
Load VSWR Protection	∞ : 1	At rated Pout for <1 minute

ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification	Notes
Operating Case Temperature	-20 to +75 °C	Full performance
Storage Temperature	-40 to +85 °C	
Relative Humidity	5 to 95 %	Non-condensation

MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions	162 x 96 x 27 mm	Excluding connectors
Weight	600 gr.	Typical 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	REV	Option-103 - Analog Gain Control
3	CURRENT SENSOR	I_D@50mV/100mA Typ
4	TEMP SENSOR	V_T@10mV/°C + 500mV Typ
5	SHUTDOWN (Open Collector)	Enable = Open or TTL “Low” (0V) - Disable = TTL “High” (>3.2V)
6, 7	VDD	28VDC
8, 9	GND	Ground

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OUTLINE DRAWING