AMP1038
SOLID STATE HIGH POWER AMPLIFIER

FEATURES

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

ELECTRICAL SPECIFICATIONS: 50Ω, 25°C

Parameter	Specification	Notes
Operating Frequency Range	20 - 500 MHz	
Power Output @ Psat	10 Watt Min	CW
Power Gain	40 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	
2-Tone Intermodulation (IMD)	-30 dBc Typ	30dBm/Tone, Δ = 1MHz
Harmonics	-20dBc Typ	At rated Pout
Spurious	-60 dBc Max	Non-harmonics
Operating Voltage	28 - 30 VDC Nom	
Current Consumption	1.5 Amp Max	At rated Pout
Max Input Power	+8 dBm Max	>10 Sec without damage
Load VSWR Protection	∞ : 1[1]	>1 minute at rated Pout
Enable / Disable Switching Speed (Optional)	<5 µS	10 - 90% of Rise & Fall time

1 Modules could be damaged due to excessive VSWR beyond 1 minute

ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification	Notes
Operating Case Temperature	-20 to +75 °C	
Storage Temperature	-40 to +85 °C	
Relative Humidity	up to 95 %	Non-condensing
Altitude	3000 meters	
Shock & Vibration	Normal transport[2]	

2 MIL Spec available for quotation

MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions	125 x 63 x 25 mm	Excluding connectors
Weight	260 gr.	
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	N/C
2	VVA	N/C
3	CURRENT SENSOR	I_D@100mV/100mA Typ
4	TEMP SENSOR	V_T@10mV/°C + 500mV Typ
5	SHUTDOWN	Enable = TTL “Hi” or Open; Disable= TTL “Lo” or Short
6, 7	VDD	28VDC
8, 9	GND	Ground

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OUTLINE DRAWING