

# AMP1013 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: 50Ω, 25°C

Parameter	Specification	Notes
Operating Frequency Range	10 - 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
Gain Variation Over Temperature	±2.0 dB	Rated case temperature
Input Return Loss	-10 dB Max	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 Max	At rated Pout
Input Power Protection	+8 dBm Max	<10 Sec without damage
Load VSWR Protection	∞ : 1	< 1 minute at rated Pout

## 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	162 x 86 x 27 mm	Excluding connectors
Weight	630 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	Option-101 - Analog Forward Power Indicator
2	VVA	Option-103 - Analog Gain Control
3	CURRENT SENSOR	I <sub>b</sub> @50mV/100mA Typ
4	TEMP SENSOR	V <sub>T</sub> @10mV/°C + 500mV Typ
5	SHUTDOWN	TTL
6, 7	VDD	28VDC
8, 9	GND	Ground

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## OUTLINE DRAWING

