AMP1146A
SOLID STATE HIGH POWER AMPLIFIER

FEATURES

Class AB linear GaN design
Instantaneous ultra-wide bandwidth
High power covering the full S and C bands
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 - 8.0 GHz	
Power Output @ Psat	70 Watt Min	CW
Power Gain	48 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	37 dBm/Tone, Δ = 1 MHz
Harmonics	-20 dBc Typ	At rated Pout
Spurious	-60 dBc Max	Non-harmonics
Operating Voltage	32 VDC Nom	
Current Consumption	14 Amp Typ	At rated Pout / Psat
Input Power Protection	+5 dBm Max	<10 Sec Without damage
Load VSWR Protection	3 : 1 Max[1]	<1 Minute @ rated output

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	250 x 110 x 25 mm	Excluding connectors
Weight	1.4 Kg.	
RF Connectors In/Out	SMA female	
DC Power / Interface Connector	7 Pin Hybrid D-Sub	
Cooling	External Heatsink	Forced air required

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D-SUB CONNECTOR PIN ASSIGNMENT

Pin	Function	Description
1	FWD	N/C
2	VVA	N/C
3	CURRENT SENSOR	I_D@20mV/100mA Typ
4	TEMP SENSOR	V_T@10mV/°C + 500mV Typ
5	SHUTDOWN	Enable = TTL “High” or Open / Disable = TTL “Low” Or Short
6, 7	VDD	32VDC
8, 9	GND	Ground

OUTLINE DRAWING