

AMP3112A-1P SOLID STATE HIGH POWER AMPLIFIER

FEATURES

Class AB linear GaN design
 Instantaneous bandwidth
 Suitable for X-Band high power linear pulse applications
 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	7.5 - 10.0 GHz				
Pulse Power Output	50 Watt Typ			Peak pulse	
Power Gain	47 dB Nom				
Power Gain Flatness	3.0 dB p-p Max				
Input Pulse Characteristics	Width	Duty	PRF	Drop	
	0.2 - 100 μS	2 %	10 KHz	<0.5 dB	
Input / Output Return Loss	-10 dB Max			Relative to 50 Ohm	
Harmonics	-30 dBc Typ			At rated Pout	
Spurious	-60 dBc Max			Non-harmonics	
Operating Voltage	40 VDC Nom				
Efficiency	20 % Typ			At rated Pout	
Input Power Protection	+3 dBm Max			<10 Sec without damage	
Load VSWR Protection	5 : 1 Max			<1 minute @ rated Pout	

ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification	Notes
Operating Case Temperature	-20 to +65 °C	
Storage Temperature	-40 to +85 °C	
Relative Humidity	5 to 95 %	Non-condensing

MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions	200 x 125 x 27 mm	Nominal dimensions
Weight	<2 Kg.	
RF Connectors In/Out	Hi-Freq. SMA female	
DC Power / Interface Connector	7-Pin Hybrid D-Sub	
Cooling	External Heatsink	Forced air required

D-SUB CONNECTOR PIN ASSIGNMENT

Pin	Function	Description
1	N/C	
2	N/C	
3	CURRENT SENSOR	I _b @50mV/100mA Typ
4	TEMP SENSOR	V _T @10mV/°C + 500mV Typ
5	SHUTDOWN	TTL "Hi" = Disable Function @ <50mS
6, 7	VDD	40VDC
8, 9	GND	Ground

OUTLINE DRAWING

