



AMP3113BP SOLID STATE HIGH POWER AMPLIFIER

FEATURES

- Class AB linear GaN design
- Instantaneous wide bandwidth
- Suitable for C-Band high power pulse applications
- Small form factor & light weight
- Built-in protection circuits
- High reliability and ruggedness

ELECTRICAL SPECIFICATIONS

Parameter	Specification			Notes	
Operating Frequency Range	5.0 - 5.5 GHz				
Power Output @ Psat	100 Watt Min			Peak pulse	
Pulse Characteristics	Width	Duty	PRF	Rise / Fall	
	12.5 - 25 μ S	25% Max	10 - 20 KHz	<100 nS	
Power Gain	50 dB Min				
Gain Variation Over Temperature	0.5 dB Max			Over any 2 MHz	
Power Gain Flatness	0.3 dB p-p Max			Over any 2MHz	
Input / Output Return Loss	-12 dB Max			Relative to 50 Ohm	
Harmonics	-20 dBc Typ			At rated Pout	
Spurious	-60 dBc Max			Non-harmonics	
Pulse Trigger Speed	1 μ S Max			200 nS goal	
Disable Noise Floor	-87 dBm Max			when activated	
Operating Voltage	30 - 32 VDC			-0.6 dB @ 28V	
Power Consumption	400 Watt Max			Peak consumption	
Max Input Power Protection	+5 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	Auto shutdown
Storage Temperature	-40 to +85 °C	
Relative Humidity	5 to 95 %	Non-condensing
Altitude	20,000 ft. Max	

MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions (L x W x H)	12 x 10 x 6 inch	Including heatsink
Weight	20 lb. Max	Including heatsink
RF Connectors In/Out	SMA female	
DC Power / Interface Connector	9-Pin D-Sub	
Cooling	External Heatsink	Forced air required



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D-SUB CONNECTOR PIN ASSIGNMENT

Pin	Function	Description
1	FWD	N/A
2	VVA	N/A
3	CURRENT SENSOR	$I_D @ 20\text{mV}/100\text{mA Typ}$
4	TEMP SENSOR	$V_T @ 10\text{mV}/^\circ\text{C} + 500\text{mV Typ}$
5	SHUTDOWN	Enable: TTL "Hi" or Open, Disable: TTL "Lo" or Short.
6, 7	VDD	32VDC
8, 9	GND	Ground

OUTLINE DRAWING