



AMP3121P SOLID STATE HIGH POWER PULSE AMPLIFIER

FEATURES

- Ruggedized, compact Class AB linear LDMOS design
- Suitable for L-Band high power radar pulse applications
- Internal capacitive bank provides low output droop
- Built-in protection circuits
- High reliability and ruggedness



ELECTRICAL SPECIFICATIONS – Relative to 50 Ω

Parameter	Specification		Notes
Operating Frequency	960 - 1215 MHz	950 - 1250 MHz	
Peak Pulse Output Power	1200 Watt Min	1100 Watt Min	Peak Pulse
Peak Power Gain	16 dB Min		Needs AMP3120 Driver
Input Pulse Characteristics	Pulse Width(tp)	Duty Cycle(δ)	PRF
	0.2 - 2 μS	-	300 Hz
Pulse Rise / Fall Time	100 nS Max		
Pulse Droop	0.5 dB Max		
Input Return Loss	10 dB Min		Relative to 50 Ohm
Harmonics	-30 dBc Max		
Spurious	-60 dBc Max		Non-harmonics or Gaussian
Operating Voltage	48 VDC Nom		
Current Consumption	50 Amp Peak Max / 2 Amp Avg Max		
Load VSWR	∞ : 1		<1 minute at rated Pout

ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification	Note
Operating Case Temperature	-20 to +70°C	
Storage Temperature	-40 to +85 °C	
Relative Humidity	5 to 95 %	Non-condensation

MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions	130 x 150 x 32 mm	Excluding Heatsink
Weight	TBD	
RF Connectors In/Out	SMA female / Type N 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 (Option: 5uS Trigger/Pulse Modulator)
A1	VDD	48VDC
A2	GND	Ground

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OUTLINE DRAWING

