



AMP3119PZ SOLID STATE HIGH POWER AMPLIFIER

FEATURES

Class AB linear design
Instantaneous bandwidth
Suitable for Medium and long pulse TACAN frequency applications
Small form factor & light weight
Built-in protection circuits
High reliability and ruggedness



ELECTRICAL SPECIFICATIONS: 50Ω, 25°C

Parameter	Specification			Notes
Operating Frequency Range	960 - 1220 MHz			
Power Output Peak Pulse	135 Watt Min			
Pulse Characteristics	Width	Duty	Droop	
	6 - 60 μS	10 %	<1 dB	
Power Gain	24 dB Min			
Power Gain Flatness	2.0 dB p-p Max			Constant input power
Input Return Loss	-10 dB Max			Relative to 50 Ohm
Noise Figure	8 dB Max			
2-Tone Intermodulation (IMD)	-30 dBc Typ			36dBm/Tone, Δ = 1MHz
Harmonics	-30 dBc Max			At rated Pout
Spurious	-60 dBc Max			Non-harmonics
Operating Voltage	28 VDC Nom			
Current Consumption	12 Amp Avg.			At rated Pout
Input Power Protection	+32 dBm Max			<10 Sec without damage
Load VSWR Protection	∞ : 1			<1 minute at rated Pout
Turn On / Off Speed	5 μSec Max			
Phase Matching Module to Module	20 Deg p-p			
Amplitude Matching Module to Module	1 dB p-p			

ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification	Notes
Operating Case Temperature	-20 to +75 °C	Shutdown a@ 85°C
Storage Temperature	-40 to +85 °C	
Relative Humidity	5 to 95 %	Non-condensing

MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions	5.6 x 4.3 x 1.0 inch	Excluding connectors
Weight		
RF Connectors In/Out	SMA female / Type N female	
DC Power / Interface Connector	7-Pin Hybrid D-Sub	7W2
Cooling	External Heatsink	Forced air required



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D-SUB CONNECTOR PIN ASSIGNMENT

Pin	Function	Description
1	FWD	OPTION 101 - Forward power detect
2	VVA	OPTION 103 - Variable Voltage Attenuator
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 (Pull-Up resistor); Disable = TTL or Short
A1	VDD	28VDC
A2	GND	Ground

OUTLINE DRAWING