



AMP3085P-1LW SOLID STATE HIGH POWER AMPLIFIER

FEATURES

Designed for high peak power Ku Band pulse applications
Small form factor and ultra-light weight
Class AB design
Built in fast pulse modulator
Built-in protection circuits
High reliability and ruggedness



ELECTRICAL SPECIFICATIONS: 50Ω, 25°C

Parameter	Specification			Notes
Operating Frequency Range	16.0 - 18.0 GHz			
Power Output Pulse	100 Watt Typ			Peak pulse
Pulse Characteristics	Width	Duty	Rise/Fall	
	0.2 - 150 μs	up to 20 %	50 nS Typ	
Power Gain	50 dB Min			0dBm or less for rated Pout
Power Gain Flatness	3.0 dB p-p Max			Constant input power
Input Return Loss	10 dB Min			
Harmonics	-30 dBc Max			At rated Pout
Spurious	-60 dBc Max			Non-harmonics
Noise Figure	10 dB Max			
Operating Voltage	28 VDC Nom			
Current Consumption	11.5 Amp Max			5 Amps Typical @ Rated P-out
Max Input Power Protection	+3 dBm Max			<10 Sec without damage
Load VSWR Protection	∞: 1			Output Isolator (Max rating 20W Avg.)

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	25000 feet Max	
Shock & Vibration	Normal transport ¹	

¹ MIL Spec available for quotation

MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions	180 x 200 x 27 mm	Excluding connectors
Weight	<3 Kg. Typ	
RF Connectors In/Out	SMA female / Type-N female	
DC Power / Interface Connector	7-Pin Hybrid D-Sub	
Cooling	External Heatsink	Forced air required

AVAILABLE SPECIAL OPTIONS

Parameter	Specification	Notes
Option FPD: Forward Power Det.	RF Fwd power warning	
Option RPD: Reflected Power Det.	RF Rev power warning	
Option RS422: Remote control	RS422 Remote capability	

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D-SUB CONNECTOR PIN ASSIGNMENT

Pin	Function	Description
1	GND	Ground
2	GATING	Enable = "Low" / Disable = "High"
3	CURRENT MONITOR: I_D @ 20.9mV/100mA Typ	0.49Vdc @ $I_{DQ} = 2.34A$
4	TEMP. MONITOR: 10mV/°C + 500mV	0.867Vdc @ Room Temp = 37.5°C
5	SHUTDOWN	DC-Enable = TTL "High" or OPEN / Disable = TTL "Low" or GND
A1	VDD	+32VDC
A2	GND	Ground

OUTLINE DRAWING

