AMP5059P
SOLID STATE HIGH POWER PULSE AMPLIFIER

FEATURES

Class AB linear GaN hybrid design
Designed for narrow X-Band high power pulse applications
Solid-State Amplifier for TWT Driver
Built-in protection circuits
High reliability and ruggedness

ELECTRICAL SPECIFICATIONS: 50Ω, 25°C

Parameter	Specification				Notes
Operating Frequency Range	12 ±0.1 GHz				
Peak Pulse Output Power	400 Watt Min				
Pulse Characteristics	**Width**	**Duty**	**PRF**	**Rise / Fall**	
	2 µS	-	10 Hz	75 nS Max	
Power Gain	56 dB Min				
Input Return Loss	-14 dB Max				Relative to 50 Ohm
Harmonics	-30 dBc Typ				At rated Pout
Spurious	-60 dBc Max				Non-harmonics
Operating Voltage	42 VDC Nom				
Current Consumption	3.5 Amp Avg				2 µS at rated Pout
Input Power Protection	+6 dBm Max				<10 Sec without damage
Load VSWR Protection	∞ : 1				Output Isolator

ENVIRONMENTAL CHARACTERISTICS

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

MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions	220 x 235 x 45 mm	Excluding Connectors
Weight	-	
RF Connectors In/Out	SMA-F / Hi Power Type-N	Optional Waveguide
DC Power / Interface Connector	Hybrid D-Sub	
Cooling	External Heatsink	Forced air required

D-SUB CONNECTOR PIN ASSIGNMENT

Pin	Function	Description
1	FWD	N/C
2	REV	N/C
3	CURRENT NONITOR	I_D@20mV/100mA Typ
4	TEMP SENSOR	V_T@10mV/°C + 500mV Typ
5	SHUTDOWN	Enable = TTL “Hi” or Open; Disable = TTL “Lo” or Short
A1	VDD	42VDC
A2	GND	Ground

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OUTLINE DRAWING