



AMP3009P-2 SOLID STATE HIGH POWER PULSE AMPLIFIER

FEATURES

Class AB linear GaN design
 High dynamic range
 Suitable for airborne and phase array X-Band pulse applications
 Built-thermal, load VSWR, pulse width, duty cycle protections
 High reliability and ruggedness

ELECTRICAL SPECIFICATIONS: 49VDC, 25°C

Parameter	Specification			Notes	
Operating Frequency Range	9.1 - 9.5 GHz			BW = 400 MHz	
Peak Pulse Output @ Psat	200 Watt Min / 250W Typ				
Power Gain at Peak Power	53 dB Min				
Pulse Characteristics (Max values)	Width	Duty	PRF	Rise/Fall	Droop
	0.1 - 100 μ S	20 %	5 KHz	<75 nS	<0.8 dB
Max Input Power	+10 dBm			No damage	
Power Gain Flatness	1.0 dB p-p Max				
Gain Stability Over Temperature	\pm 0.3 dB Max				
Input VSWR	1.5 : 1 Max			Relative to 50 Ohm	
Output VSWR	2.0 : 1 Max			Relative to 50 Ohm	
Harmonics	-35 dBc Max @ Psat				
Spurious	-65 dBc Max				
Switching Delay Time (Td)	300 nS Typical				
Inter-Pulse Noise Level	-164 dBm Typ / -160 dBm Max			Using pulse gating	
Noise Figure	10 dB Max				
Operating Voltage	49 VDC \pm 1.0 V				
Current Consumption	30 Amp Peak / 7 Amp Avg.			At 20% Duty-Cycle	
Load VSWR	∞ : 1			Output isolator	

MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions	240 x 180 x 30 mm	Including WG
Weight	1.3 Kg	
RF Connectors In/Out	SMA F / Waveguide (WR90)	
DC Power / Interface Connector	Hybrid D-Sub	
Cooling	External Heatsink	Forced air required

I/O INTERFACE

Pin	Function	Test Results
A1	VDD	+49VDC
A2	GND	Ground
P1	N/C	N/C
P2	GATING SIGNAL	TTL "Hi" = Disable Function @ <1 μ S
P3	CURRENT MONITOR	I _b @50mV/100mA Typ
P4	TEMP. MONITOR:	V _T @10mV/°C + 500mV Typ
P5	SHUTDOWN	Enable = TTL "Hi" or Open

OUTLINE DRAWING

