



# AMP3047P SOLID STATE HIGH POWER AMPLIFIER

## FEATURES

Ruggedized, compact Class AB high power pulse SSPA designed for high reliability TACAN, IFF and applications such as Secondary Surveillance Radar (SSR) applications, IFF Modes 1, 2, 3/A and Mode C. Standard features include protection against over-temperature, excess VSWR, excess modulation (pulse width and duty cycle). An internal capacitive bank provides low output droop over extended pulse widths. Input pulse trigger is accomplished through TTL compatible level signals.

## ELECTRICAL SPECIFICATIONS

Parameter	Specification			Notes		
Operating Frequency	1025 - 1150 MHz					
Power Output Peak Pulse	2000 Watt Min			Pulse @ 4% duty cycle		
Power Gain	63 dB Min					
Power Gain Flatness	1.5 dB p-p					
Pulse Characteristics	Width (tp)	Duty ( $\delta$ )	Rise / Fall	Droop		
	5 $\mu$ Sec	4%	100 nSec	1 dB Max		
Input Return Loss	-14 dB Min			Relative to 50 Ohm		
Noise Mute Level	-150 dB/Hz Typ					
Noise Figure	20 dB Max					
Class of Operation	AB/C			LDMOS transistors design		
Operating Voltage	50 VDC Nom					
Current Consumption	7 Amp Ave. Max			At rated Pout		
Harmonics	-40 dBc Max					
Max Input Power Protection	+3 dBm			<10 Sec		
Load VSWR Protection	$\infty$ : 1			At rated Pout for <1 Min		

## ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification	Note
Operating Case Temperature	0 to + 50 °C	
Storage Temperature	-40 to +85 °C	
Relative Humidity	0 to 95 %	Non Condensation

## MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions	420 x 280 x 41 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 @ 2% DS

### D-SUB CONNECTOR PIN ASSIGNMENT

Pin	Function	Description
A1	VDD	+50VDC
1	N/C	Reserved
2	N/C	Reserved
3	CURRENT MONITOR	$I_D @ 20mV/100mA$ Typ
4	TEMP MONITOR	$V_T @ 10mV/^\circ C + 500mV$ Typ
5	SHUTDOWN	TTL "Hi" = Disable Function @ 50mS ( <b>Option:</b> 5uS Trigger/Pulse Modulator)
A2	GND	Ground

### OUTLINE DRAWING

