

AMP3031P SOLID STATE HIGH POWER AMPLIFIER

FEATURES

Class AB linear LDMOS design
Suitable for S-Band long Pulse applications
Built-in monitoring and protection circuits
High reliability and ruggedness

ELECTRICAL SPECIFICATIONS

Parameter	Specification	Notes
Operating Frequency Range	2.7 - 2.9 GHz	
Peak Output Power	1000 Watt Min	
Duty Cycle (δ)	10 % Max	
Pulse Width (tp)	1 - 150 μ S Min	200 μ S Max
Power Gain	20 dB Nom	
Pulse Droop	1 dB Max @ 150 μ S, 065 dB @ 100 μ S	
Rise / Fall Time	200 nS Max @ Psat	
Switching Delay Time (Td)	300 nS Typical	
Pulse to Pulse Stability	0.0063 dB / 0.032° Max	
Power Gain Flatness	1.0 dB p-p Max	
Input Return Loss	10 dB Min	Relative to 50 Ohm
Harmonics	> 40 dBc Typ	At rated Pout
Non Harmonics Spurious	>60 dBc	
Operating Voltage	32 VDC Nom	
Current Consumption	10 Amp Ave	$\delta = 10\%$
Non Input Power	10 Watt Nom	
Load VSWR	5 : 1 Min	

ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification	Notes
Operating Case Temperature	+10 to +40 °C	
Storage Temperature	-40 to +85 °C	
Relative Humidity	95 % Max	Non Condensing

MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions	230 x 200 x 48 mm	Excluding Connectors
Weight	TBD	Max Weight
RF Connectors In/Out	SMA female / Type-N female	
DC Power / Interface Connector	7-Pin Hybrid D-Sub	
Cooling	External Heatsink	Forced air required

D-SUB CONNECTOR PIN ASSIGNMENT

Pin	Function	Description
1	FWD	N/C
2	VVA	N/C
3	CURRENT SENSOR	$I_D @ 20mV/100mA$ Typ
4	TEMP SENSOR	$V_T @ 10mV/^{\circ}C + 500mV$ Typ
5	SHUTDOWN	TTL
A1	VDD	+32VDC
A2	GND	Ground

AMP3031P SOLID STATE HIGH POWER AMPLIFIER

OUTLINE DRAWING

