

AMP3021 SOLID STATE HIGH POWER AMPLIFIER

FEATURES

- Class AB linear LDMOS design
- Instantaneous bandwidth
- Suitable for all single channel modulation standards
- Small form factor & light weight
- Built-in monitoring and protection circuits
- High reliability and ruggedness



ELECTRICAL SPECIFICATIONS

Parameter	Specification	Notes
Operating Frequency Range	420 - 450 MHz Min	
Power Output @ P1dB	200 Watt Min	CW
Power Gain	53 dB Min	
Power Gain Flatness	2.0 dB p-p Max	
Input Return Loss	10 dB Min	Relative to 50 Ohm
2-Tone Intermodulation (IMD)	-30 dBc Typ	45dBm/Tone, $\Delta = 1\text{MHz}$
Harmonics	-30 dBc Max	At rated Pout
Spurious	-60 dBc Max	Non-harmonics
Operating Voltage	28 - 32 VDC Nom	
Current Consumption	18 Amp Max	At rated Pout
Max Input Power	+8 dBm	<10 Sec without damage
Load VSWR Protection	$\infty : 1$ Min	<1 minute at rated Pout
Turn On / Off Speed	5 μSec Max	

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	240 x 120 x 28 mm	Excluding Connectors
Weight	1.4 Kg.	
RF Connectors In/Out	SMA-F / Type-N	
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/A
2	VVA	N/A
3	CURRENT SENSOR	$I_b @ 20\text{mV}/100\text{mA}$ Typ
4	TEMP SENSOR	$V_T @ 10\text{mV}/^\circ\text{C} + 500\text{mV}$ Typ
5	SHUTDOWN	TTL
A1	VDD	32VDC
A2	GND	Ground

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OUTLINE DRAWING

