

AMP3021 SOLID STATE HIGH POWER AMPLIFIER

FEATURES

Class AB linear LDMOS design
 Instantaneous wide bandwidth
 Suitable for all modulations standards
 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	> 30dBc	At rated Pout
Non Harmonics Spurious	>60 dBc	
Operating Voltage	32 VDC	
Current Consumption	18 Amp Max	At rated Pout
Max Input Power	+8 dBm	Without damage
Load VSWR Protection	$\infty : 1$ Min	
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	Option 101: 200 X 106 X 28 mm	Excluding Connectors
Weight	700gr.	Typical Weight
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	N/A	Option-101 - Analog Forward Power Indicator
2	VVA	Option-103 - Analog Gain Control
3	CURRENT SENSOR	$I_D @ 20\text{mV}/100\text{mA}$ 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 - OPTION 103

