AMP3023
SOLID STATE HIGH POWER AMPLIFIER

PRELIMINARY

FEATURES

Class AB linear GaN design
Instantaneous wide bandwidth
Suitable for all modulations standards
Built-in protection circuits
High reliability and ruggedness

ELECTRICAL SPECIFICATIONS

Parameter	Specification	Notes
Operating Frequency Range	2.7 - 3.5 GHz	
Power Output @ P1dB GCP	100 Watt Min	CW
Power Gain	50 dB Min	
Power Gain Flatness	3.0dB p-p Max	Constant input power
Gain Variation Over Temperature	±1.0 dB	Rated case temperature
Input Return Loss	10 dB	Relative to 50 Ohm
2-Tone Intermodulation (IMD)	>30 dBc Typ	40dBm/Tone, Δ = 1MHz
Harmonics	>25 dBc Typ	At rated Pout
Non Harmonics Spurious	>60 dBc Min	
Operating Voltage	28 -30 VDC	
Current Consumption	14 Amp Max	At rated Pout
Max Input Power	+10 dBm	Without damage
Load VSWR Protection	∞ : 1	
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 Condensation

MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions	285 x 230 x 28 mm	Excluding Connectors
Weight	TBD kg	Typical Weight
RF Connectors In/Out	SMA female / Type N female	
DC Power / Interface Connector	9-Pin D-Sub	
Cooling	External Heatsink	Forced air required

D-SUB CONNECTOR PIN ASSIGNMENT

Pin	Function	Description
1	FWD	N/C
2	REV	N/C
3	CURRENT SENSOR	I_D@20mV/100mA Typ
4	TEMP SENSOR	V_T@10mV/°C + 500mV Typ
5	SHUTDOWN	TTL
6, 7	VDD	28VDC
8, 9	GND	Ground

EXODUS ADVANCED COMMUNICATIONS

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OUTLINE DRAWING