



AMP3017 SOLID STATE HIGH POWER AMPLIFIER

PRELIMINARY

FEATURES

Class A linear high power GaAsFET design
 Designed for proprietary X-Band applications
 Suitable for all modulations standards
 Built-in protection circuits
 High reliability and ruggedness

ELECTRICAL SPECIFICATIONS

Parameter	Specification	Notes
Operating Frequency Range	8.175 - 8.250 GHz	
Power Output	400 Watt Min	CW
Power Gain	56 dB Min	
Power Gain Flatness	2.0 dB p-p Max	
Input / Output Return Loss	10 dB Min	Relative to 50 Ohm
2-Tone Intermodulation (IMD)	>30 dBc Typ	47dBm/Tone, $\Delta = 1\text{MHz}$
Harmonics	>30 dBc	At rated Pout
Non Harmonics Spurious	>60 dBc	
Operating Voltage	10 VDC Nom	
Current Consumption	140 Amp Max	At rated Pout
Max Input Power	+8 dBm Max	Without damage
Load VSWR Protection	$\infty : 1$	Output Isolator

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	Heatsink Assembly	See Drawings
Weight	TBD	
RF Connectors In/Out	SMA/WR90	Flange UG-136B/U
DC Power / Interface Connector	7-Pin Hybrid D-Sub	
Cooling	External Heatsink	Forced air required

D-SUB CONNECTOR PIN ASSIGNMENT

Pin	Function	Description
A1	VDD	10 VDC
A2	GND	Ground
1	FWD	(Optional)
2	REV	(Optional)
3	CURRENT SENSOR	$I_D @ 2.0\text{mV}/100\text{mA Typ}$
4	TEMP SENSOR	$V_T @ 10\text{mV}/^\circ\text{C} + 500\text{mV Typ}$
5	SHUTDOWN	TTL

PRELIMINARY

OUTLINE DRAWING

