



AMP1033 SOLID STATE HIGH POWER AMPLIFIER

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	800 - 3000MHz	
Power Output	125 Watt Min	CW
Power Gain	51 dB Min	
Power Gain Flatness	3.0 dB p-p Max	Constant input power
Input / Output Return Loss	10 dB Min	Relative to 50 Ohm
2-Tone Intermodulation (IMD)	>30dBc Typ	40 dBm/Tone, $\Delta = 1\text{MHz}$
Harmonics	>20 dBc Typ	At rated Pout
Non Harmonics Spurious	>60 dBc	
Operating Voltage	32 - 36 VDC	
Current Consumption	12 Amp Max @ 34 VDC	At rated Pout
Max Input Power	+10dBm	Without damage
Load VSWR Protection	$\infty : 1$	
Gain/Phase Match	N/A	Between set of 2 modules

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	220 X 144 X 27 mm	Excluding Connectors
Weight	1650 gr.	Max Weight
RF Connectors In/Out	SMA 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	OPTION 101 - Forward power detect
2	N/C	N/C
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
6, 7	VDD	34VDC
8, 9	GND	Ground



The drawing includes the following dimensions and labels:

- Top View Dimensions:**
 - Overall width: 220
 - Overall height: 136.4
 - Left side mounting holes: 22 (center-to-center), 11.6 (offset)
 - Bottom side mounting holes: 27 (center-to-center), 11.6 (offset), 2 (hole diameter)
 - Internal horizontal dimensions: 98, 48, 74
 - Internal vertical dimensions: 58.67
 - Total internal width: 212.4
- Labels and Features:**
 - 4X $\phi 4.1$ Thru:** Four mounting holes at the corners.
 - 2X $\phi 4.1$ Thru:** Two mounting holes for the RF output.
 - J1 RF INPUT:** Located on the left edge.
 - RF OUTPUT J2:** Located on the right edge.
 - J3:** A multi-pin connector on the right edge.
 - Pinout for J3:**
 - N/C
 - N/C
 - CURRENT MONITOR
 - TEMP. MONITOR
 - SHUTDOWN
 - VDD
 - VDD
 - GND
 - GND
- Side View Dimensions:**
 - Overall height: 144
 - Distance from top edge to J1/J2: 53.2
 - Distance from J1/J2 to J3: 117.5