



AMP1110A SOLID STATE HIGH POWER AMPLIFIER

FEATURES

Class AB linear GaN hybrid design
Small form factor, light weight
Instantaneous wide bandwidth
Suitable for all single channel modulation standards
Built-in protection circuits
High reliability and ruggedness

ELECTRICAL SPECIFICATIONS

Parameter	Specification	Notes
Operating Frequency Range	2.0 - 8.0 GHz	
Power Output	40 Watt Min	CW
Power Gain	46 dB Min	
Power Gain Flatness	4.0 dB p-p Max	Constant input power
Input / Output Return Loss	10 dB Min	Relative to 50 Ohm
2-Tone Intermodulation (IMD)	-30 dBc Typ	36dBm/Tone, $\Delta = 1$ MHz
Harmonics	-25 dBc Typ	At rated Pout
Spurious	-60 dBc Max	Non-harmonics
Noise Figure	8.0 dB Max	
Operating Voltage	32 VDC Nom	
Current Consumption	<10 Amp	At rated Pout
Input Power Protection	+5 dBm Max	<10 Sec without damage
Load VSWR Protection	5 : 1	<1 minute at rated Pout

ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification	Notes
Operating Case Temperature	-20 to +65 °C	
Storage Temperature	-40 to +85 °C	
Relative Humidity	5 to 95 %	Non-condensation

MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions	200 x 110 x 25 mm	Excluding connectors
Weight	TBD	
RF Connectors In/Out	SMA female	
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	Reserved
2	VVA	Reserved
3	CURRENT SENSOR	$I_D @ 50mV/100mA$ Typ
4	TEMP SENSOR	$V_T @ 10mV/^{\circ}C + 500mV$ Typ
5	SHUTDOWN	TTL
A1	VDD	32VDC
A2	GND	Ground



The drawing includes the following views and dimensions:

- Top View:** Shows the overall dimensions of 200mm by 110mm. It includes mounting holes (10x Ø4 Thru), RF INPUT and RF OUTPUT ports, and a connector labeled "2X UNC #4-40 Tapping".
- Bottom View:** Shows the component layout with labels: N/C, N/C, CURRENT MONITOR, TEMP. MONITOR, SHUTDOWN, VDD, VDD, GND, and GND.
- Side View:** Shows the profile of the PCB with dimensions 25mm, 12.13mm, and 12.88mm.