



# MPA5013 SOLID STATE HIGH POWER AMPLIFIER

## FEATURES

Class A linear GaAsFET design  
 Suitable for all single channel modulation standards  
 Built-in protection circuits  
 High reliability and ruggedness

## ELECTRICAL SPECIFICATIONS

Parameter	Specification	Notes
Operating Frequency Range	13.5 - 14.5 GHz	
Power Output @ P1dB GCP	1.0 Watt Min	CW
Small Signal Gain	30 dB Min	
Input VSWR	1.5 : 1 Min	Relative to 50 Ohm
2-Tone Intermodulation (IMD)	-30 dBc Typ	22 dBm/Tone, $\Delta = 1$ MHz
Harmonics	-30 dBc Typ	At rated Pout
Spurious	-60 dBc Max	Non-harmonics
Noise Figure	6.0 dB Typ	
Operating Voltage	12 - 15 VDC Nom	
Current Consumption	1.0 Amp Mom	At rated Pout
Max Input Power Protection	+10 dBm	<10 Sec without damage
Load VSWR Protection	$\infty : 1$	O/P 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	240 x 180 x 30 mm	Excluding connectors
Weight	TBD	Typical Weight
RF Connectors In/Out	SMA F / SMA F	
DC Power / Interface Connector	Hybrid D-Sub	
Cooling	External Heatsink	Forced air required

## FEED THRU

Pin	Function	Description
1	VDD	12VDC
2	GND	Ground

## PRELIMINARY OUTLINE DRAWING

Power Connection:  
Fan is connected directly to  
Amplifier supply line. Will add  
approx. 150ma at +12V Supply.

