



The MP4500/3G/50MK-A1 is a broadband high power amplifier that supports signal amplification in the 3000-6000 MHz frequency. It is suitable for Jamming or communication operation. The amplifier employs advanced GaN power devices that provide ample output power, a wide dynamic range, and high efficiency.



Model: MP4500/3G/50MK-A1

1. Electrical Characteristics

Item	Value	Note
Frequency Range	3000 ~ 6000 MHz	
Power Gain	20 dB (Min.)	@ 100 Watts Power Output, over entire Temp. & Frequency Range
Gain Flatness	+/- 2.0 dB (Typ.)	
Gain Variation	0.5 dB (Max.)/10°C	
Output Power P _{sat}	+50 dBm (Max.)	
Input Return Loss	-10 dB (Max.)	
Enable/Disable	TTL "High": Enable TTL "Low or Open": Disable	Pin 3 On DB-9
Switching Rise/Fall @ 10-90% Time	< 0.5 μs (Max.)	
Isolation in Disable Mode	70 dB (Min.)	
Temperature Monitor	V _t + 500 mV, 10 mV / °C	Pin 1
Current Monitor	100 mV / A	Pin 2
Harmonics	-15 dBc (Typ.)	@ 100 Watts Power
Spurious	-70 dBc (Max.)	@ 100 Watts Power
DC Input	+28 VDC	
DC Current	12.0 A (Typ.)	@ 100 Watts Output
Standby Current	0.08 A (Max.)	Shutdown Status
In/Output Impedance	50 Ω	
Max. Input without Damage	+33 dBm	
Load Conditions (No Damage)	6 : 1	
Module to Module Gain Matching	± 0.8 dB	
Module to Module Phase Matching	± 5°	

2. Mechanical Characteristics

RF In Connector	SMA – Female	J1
RF Out Connector	SMA – Female	J2
DC Input	Pin A1 & A2	J3
Dimensions	4.98" x 5.35" x 1.07"	
Weight	1.8 lb	

3. Environment Characteristics

Operating Temperature	-20°C ~ +75°C	**Base Plate
Storage Temperature	-40°C ~ +85°C	
Cooling	External Heatsink	
Humidity (Non-condensing)	95% (Max.)	
Operating Altitude	10,000 Feet (Min.)	
Vibration and Shock	Vibration 6.06 gRMS	Designed to meet: IAW MIL-STD-202F method 214

Revision History

REV	Reason to Change	Date	Initialed by
	Initial Release	02/17/17	Y.Z

4. D7W2 Pin Description

1	Temperature Sensor	10 mV/°C , +500mV
2	Current Sensor	100 mV/Amp
3	Ground	
4	Enable / Disable	Enable: TTL High Disable: TTL Low or Open
5	NC	
A1	+28VDC	
A2	Ground	

5. Outline Drawing

