



The MP4000/4G/48MK-A is a broadband high power amplifier that supports signal amplification in the 2000-6000 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: MP4000/4G/48MK-A

1. Electrical Characteristics

Item	Value	Note
Frequency Range	2000 ~ 6000 MHz	
Power Gain	32 dB (Min.), 38 dB (Max.)	@ 70 Watts Power Output, over entire Temp. & Frequency Range
Gain Flatness	+/- 2.0 dB (Typ.) ± 0.9 dB (Max.) Over 500 MHz	
Gain Variation	0.5 dB (Max.)/10°C	
Gain Stability Over Time	+/- 0.25 dB (Max.)	
Output Power P _{sat}	+48 dBm (Min.) +48.5dBm (Typ.)	
Over Shoot of Pulse Signal	5% (Max.)	Design to meet.
Flatness of Output Power P _{sat}	+/- 1.5 dB (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.)	
Noise Floor in Disable Mode	-100 dBm/RBW = 1 MHz (Max.)	
Temperature Monitor	V _t + 500 mV, 10 mV / °C	Pin 1
Current Monitor	250 mV / A	Pin 2
Harmonics	-15 dBc (Typ.)	@ 70 Watts Power
Spurious	-70 dBc (Max.)	@ 70 Watts Power
DC Input	+31 VDC	
DC Current	11.0 A (Typ.)	@ 70 Watts Output
Standby Current	0.08 A (Max.)	Shutdown Status
In/Output Impedance	50 Ω	
Max. Input Signal (without Damage)	+20 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	5.7" x 5.4" x 1.07"	
Weight	2.2 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

4. D7W2 Pin Description

1	Temperature Sensor	10 mV/°C , +500mV
2	Current Sensor	250 mV/Amp
3	Ground	
4	Enable / Disable	Enable: TTL High Disable: TTL Low or Open
5	NC	
A1	+32VDC	
A2	Ground	

5. Outline Drawing

