



The MP4000/4G/41MK-A is suitable for 2.0 - 6.0 GHz frequency band high power applications. This amplifier employs linear GaN power device that provide ample output power, wide dynamic range, and excellent efficiency.

## Model: MP4000/4G/41MK-A

### 1. Electrical Characteristics

Item	Value	Note
Frequency Range	2000 ~ 6000 MHz	
Gain	42 dB (Min.)	P. Out @ 15 Watts
Gain Flatness	± 2.0 dB (Max.)	Constant input power
Output Psat	+ 41 dBm (Min.)   + 43 dBm (Typ)	
Input VSWR	2:1 dB (Max.)	
Enable / Disable	TTL "Low" or "Open" ⇒ Disable TTL "High" ⇒ Enable	DB-9 Pin 5
Switching On/Off Time	≤ 1 μs	
Spurious	- 65 dBc (Max.)	
Harmonics	- 12 dBc (Max.)	Pout @ 15 Watts
Temperature Monitor	Vt + 0.5V, 10mV/°C	DB-9 Pin 4
Current Monitor	100mV/100mA	DB-9 Pin 3
FWD Monitor	2.5V @ 4 GHz	P. Out @ 15 Watts
REV Monitor	2.5V @ 4 GHz	P. Out @ 15 Watts
Power Monitor Flatness	± 2.0 dBm (Typ.)	
DC Input Voltage / Current	+28VDC / 3.0A (Max.)	DC Input Voltage / Current P. Out @ 15 Watts
VSWR Protection	Shutdown if reflected power ≥ +36 ± 2.0 dBm	VSWR ∞ : 1
Over Current Protection	Current limited @ 3A	
MAX CW Input Signal (Without Damage)	+10 dBm	
Input / Output Impedance	50 Ω	
DC Input Protection	With TVS Diode	

### 2. Mechanical Characteristics

Monitoring Connector	DB-9 Male	4 - 40 screw
RF IN/OUT Connector	SMA Female	
DC Input	DB-9 Female	Pin 6, 7
Dimensions	4.98" x 2.70" x 1.07"	
Weight	1.0 lb	

### Revision History

REV	Reason to Change	Date	Initialed by
	Initial Release	07/19/17	YZ

### 3. DB9 Pin Description

1	FWD Monitor	RMS Detector
2	REV Monitor	RMS Detector
3	Current Sensor	100 mV/Amp
4	Temperature Sensor	10 mV/°C, +500mV
5	Enable / Disable	Disable: TTL Low or Open Enable: TTL High
6, 7	+28VDC	
8, 9	Ground	

### 4. Environment Characteristics (Designed to meet)

Operating Temperature	-20°C ~ +75°C	Base Plate
Storage Temperature	-40°C ~ +85°C	
Cooling		External Heatsink
Humidity (Non-condensing)	95% (Max.)	Designed to meet: IAW MIL-STD-810E
Operating Altitude	30,000 Feet (Max.)	
Vibration and Shock	Vibration 6.06 gRMS	Designed to meet: IAW MIL-STD-202F method 214

### 5. Outline Drawing

