



MP4500/3G/41MK-A4 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. It is protected over current and over power.

Model: MP4500/3G/41MK-A4



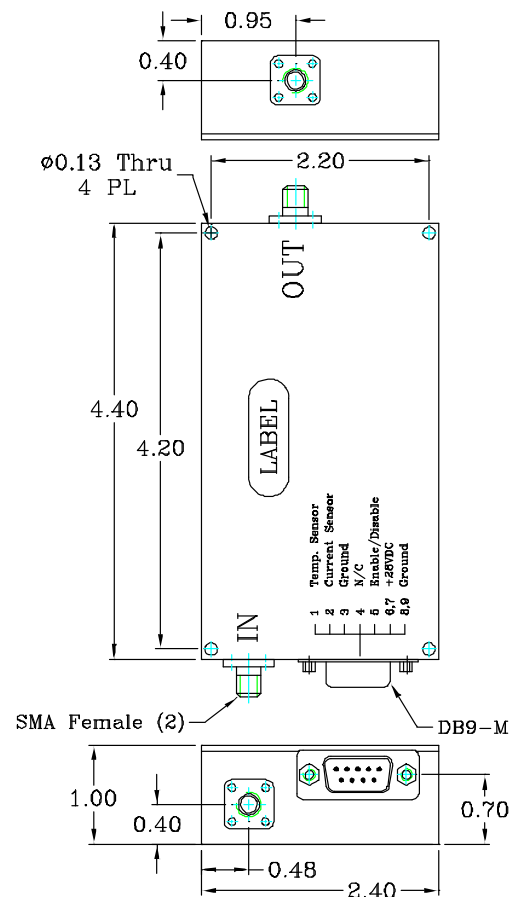
1. Electrical Characteristics

Item	Value	Note
Frequency Range	3000 ~ 6000 MHz	
Power Gain	45.0 ± 1.0 dB	P. Out @ +41 dBm, over entire Temp. & Frequency Range
Gain Flatness	+/- 1.0 dB (Max.)	With Constant Input at 0 dBm
Gain Variation	0.5 dB (Max.)/10°C	
Output Power P _{sat}	+41.8 dBm (Min.)	
Output IP3	+45 dBm (Min.)	+35 dBm/Tone, 10 ~ 200 KHz Spacing
Input Return Loss	-12 dB (Max.)	
Enable/Disable	TTL "High or Open": Disable TTL "Low": Enable	Pin 5 On DB-9
Switching Rise/Fall @ 10-90% Time	< 1.0 μs (Max.)	
Temperature Monitor	V _i + 500 mV, 10 mV / °C	Pin 1
Current Monitor	100 mV / A	Pin 2
Harmonics 2nd/3rd	-15 dBc (Max.)	P. Out @ +41 dBm
Spurious	-70 dBc (Max.)	P. Out @ +41 dBm
DC Input	+28 VDC	P. Out @ +41 dBm
DC Current	2.2 A (Max.)	P. Out @ +41 dBm
Standby Current	0.04 A (Max.)	Shutdown Status
Over Current Protection	Current limited @ 2.6A (Max.)	
In/Output Impedance	50 Ω	
Max. Input Signal (Without Damage)	+15 dBm	
Load Conditions (No Damage)	6 : 1	

4. DB-9 Male Pin Description

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

5. Outline Drawing



2. Mechanical Characteristics

RF In Connector	SMA – Female	J1
RF Out Connector	SMA – Female	J2
DC Input	Pin 6,7	J3
Dimensions	4.4" x 2.40" x 1.00"	
Weight	1.0 lb	
Paint: Except for Base Plate Surface (Chemical Conversion Coating on Base Plate)	Epoxy Gray F63A33	MIL-DTL-24441D
Environmentally Sealed	Except Connectors	*Lacquer on board

3. Environment Characteristics

Operating Temperature	-40°C ~ +75°C	**Base Plate
Storage Temperature	-40°C ~ +85°C	
Cooling	External Heatsink	
Humidity (Non-condensing)	95% (Max.)	
Operating Altitude	30,000 Feet (Max.)	
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
	Released to Production	01/23/19	Y.Z.