



MP450/100/43MKG-A1 amplifier is suitable for 400 ~ 500 MHz band high power linear applications. Amplifier employs advance GaN power devices that provide sufficient output power and wide dynamic range.



Model: MP450/100/43MKG-A1

1. Electrical Characteristics

Item	Value	Note
Frequency Range	400 ~ 500 MHz	
Power Gain @ +43 dBm	11 ± 1 dB (Typ.)	Gain Adjustment: +/- 3 dB
Gain Flatness	± 1.0dB (Max.)	Over Freq. Range
Gain Variation	± 1.0 dB (Typ.)	Over Temp. Range
Output Psat	+ 44 dBm (Min.)	
Rejection @ 1575 +/- 15 MHz	- 30 dBc (Typ.)	
Input / Output VSWR	≤ 1.5:1	
Over Temperature Protection	Shutdown @ +85°C ± 5°C	
HPA Enable / Disable	TTL "0V or Open" ⇒ Enable TTL "5V" ⇒ Disable	
Switch On/Off Rise/Fall Time @ 90% Power Output	1μs (Typ.)	
Forward Power Monitor	4.0 ± 0.2 V @ + 43 dBm	RMS Detection
Reverse Power Monitor	4.0 ± 0.2 V @ + 43dBm	RMS Detection
Harmonics @ +43 dBm	- 20 dBc (Max.)	
Input / Output Impedance	50 Ω	
Load Mismatch Capability	6:1	
Max. Input Power (Without Damage)	+ 35 dBm	
DC Input	+24-28 VDC	
Current Consumption	1.6A (max.)	Pout @ +43 dBm
Efficiency	44%	

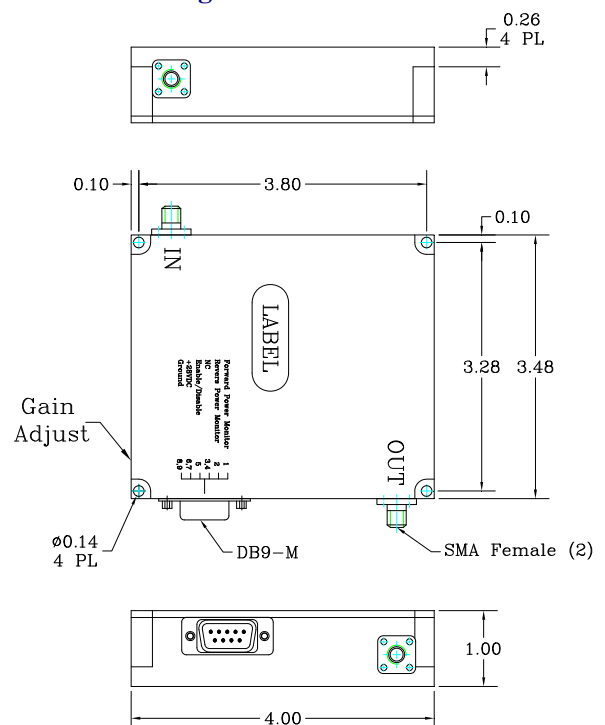
3. Environment Characteristics

Operating Temperature	-40°C ~ +75°C	Base Plate
Storage Temperature	-40°C ~ +120°C	
Humidity (Non-condensing)	95 %	
EMI		Designed to meet: IAW MIL-STD-461C

4. DB9 Pin Description

1	Forward Power Monitor	
2	Reverse Power Monitor	
3	NC	
4	NC	
5	Enable / Disable	Enable: TTL Low or Open Disable: TTL High
6, 7	+24 to +28VDC	
8	Ground	
9	Ground	

5. Outline Drawing



2. Mechanical Characteristics

Monitoring Connector	DB-9 Male	4-40 screw
RF IN/OUT Connector	SMA 4 Holes Female	
DC Input	Pin 6,7 on DB-9 Male	
Dimensions	4.0" x 3.48" x 1.0"	
Weight	1.0 lb	

Revision History

REV	Reason to Change	Date	Initialed by
	Initial Release	12/06/14	YZ