



The MP3500/1G/40MK-A is suitable for broadband high power linear applications. The amplifier employs advance GaN power devices that provide sufficient output power, wide dynamic range, and high gain. It is protected against over-temperature.



Model: MP3500/1G/40MK-A

1. Electrical Characteristics

Item	Value	Note
Frequency Range	3000 ~ 4000 MHz	
Gain	40 ± 1 dB	@ 10 Watts Output
Gain Flatness	± 1.5 dB (Typ.)	Over Freq. Range
Gain Variation	± 1.0 dB (Typ.)	Over Temp. Range
Output Power Psat	+40 dBm (Min.)	
Input / Output VSWR	≤ 1.5 (Max.)	
Noise Figure	15 dB (Max.)	
Spurious	-70 dBc (Max.)	
Harmonics	-30 dBc (Max.)	At 10 Watts Output
HPA Enable/Disable	TTL "0V or Open" ⇒ Disable TTL "5V" ⇒ Enable	
Forward Coupling	30 dB ± 1.0 dB Over Entire Freq. Range	
Reverse Coupling	30 dB ± 1.0 dB Over Entire Freq. Range	
Temperature Monitor	V _t + 500 mV, 10 mV / °C	Pin 1
Current Monitor	10 mV / 100 mA	Pin 2
DC Input Voltage / Current	+28 VDC ± 1V / 1.0 A (Max.)	DC Input Voltage / Current at Pout 10 W
Thermal Shutdown	+85°C ± 5°C	Auto Recover @ +70°C ± 5°C
Input / Output Impedance	50 Ω	
Max. Input Power without Damage	+15 dBm	

2. Mechanical Characteristics

Monitoring Connector	DB-9 – Male	4 – 40 screw
RF IN/OUT Connector	SMA 4 Holes / Female	Sucoplate or Tri-Metal
Forward Coupling Connector	SMA 4 Holes / Female	Sucoplate or Tri-Metal
Reverse Coupling Connector	SMA 4 Holes / Female	Sucoplate or Tri-Metal
DC Input	Pin 4,5,6	
Maximum Weight	1.6 lb	
Dimensions	3.4" x 5.8" x 1.07"	
Screws Type	Philips	

Revision History

REV	Reason to Change	Date	Initialed by

3. Environment Characteristics

Operating Temperature	-20°C ~ +80°C	Base Plate
Storage Temperature	-40°C ~ +85°C	
Cooling	External Heatsink	
Humidity (Non-condensing)	95% (Max.)	Designed to meet: IAW MIL-STD-810F
Operating Altitude	10000 Feet (Min.)	
Vibration and Shock	Vibration 6.06 gRMS	Designed to meet: IAW MIL-STD-202F method 214
Fungus		Design to meet: IAW MIL-STD-810F method 508.5

4. DB9 Pin Description

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

5. Outline Drawing

