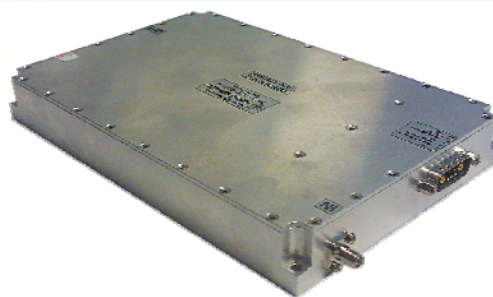




The **MP1000/1G/50MK-A** is a broadband high power amplifier that supports signal amplification in the 500 ~ 1500 MHz frequency range. It is protected against over-temperature and excessive current draw. It is suitable for Jamming or communication operation. The amplifier employs advance GaN power devices that provide ample output power, a wide dynamic range, and high efficiency.

Model: MP1000/1G/50MK-A



1. Electrical Characteristics

Item	Value	Note
Frequency Range	500 ~ 1500 MHz	
Power Gain	25 dB ± 1.5 dB	@ 100 Watts Power Output, over entire Temp. & Frequency Range
Output Power P _{sat}	100 Watts (Min.)	
Input Return Loss	-6 dB (Max.)	
Enable/Disable	TTL "Low or Open": Enable TTL "High": Disable	Pin 5 on D7W2
Switch On/Off @ 10-90% Time Rise/Fall Time	3 μs / 4.0 (μs Typ.)	
Thermal Shutdown	+85°C ± 5°C	Auto Recover at +70°C ± 5°C
Temperature Monitor	V _t + 500 mV, 10 mV / °C	Pin 3 on D7W2
Current Monitor	10 mV / 100 mA	Pin 2 on D7W2
Harmonics	-15 dBc (Max.)	Pout @ 100 Watts
IMD	-25 dBc (Max.)	2 Tones, 46 dBm/Tone, 12.5KHz Spacing
Spurious	-70 dBc (Max.)	Pout @ 100 Watts
DC Input	+28 VDC	
DC Current	13.0 A (Max.)	Pout @ 100 Watts
Standby Current	0.05 A (Max.)	Shutdown Status
In/Output Impedance	50 Ω	
Max. Input without Damage	+ 34 dBm	
Module to Module Gain Matching	± 1.0 dB	
Module to Module Phase Matching	± 10°	

2. Mechanical Characteristics

RF In/Out Connector	SMA Female	
DC Input	Pin A1, A2 on D7W2 Male	
Dimensions	8.25" x 5.4" x 1.1"	
Weight	2.85 lb	

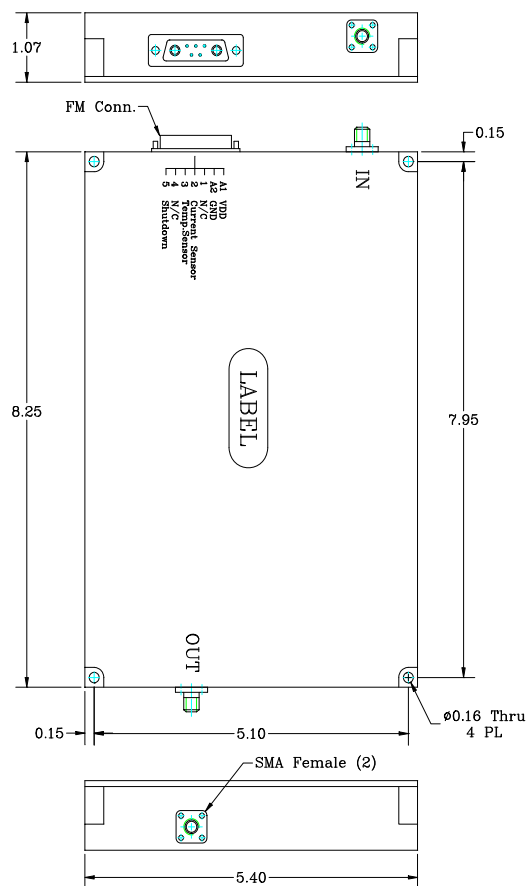
3. Environment Characteristics

Operating Temperature	-20°C ~ +75°C	**Base Plate
Cooling	External Heatsink	
Humidity (Non-condensing)	95% (Max.)	

4. D7W2-Male Pin Description

1	N/C	
2	Current Sensor	10 mV / 100 mA
3	Temperature Sensor	V _t + 500 mV, 10 mV / °C
4	N/C	
5	Enable/Disable	Enable: TTL Low or Open Disable: TTL High
A1	+28VDC	
A2	GND	

5. Outline Drawing



REV	Reason to Change	Date	Initialed by
A	Final Spec approved by Customer	08/07/13	YZ