



The MP1300/200/47MKG-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 efficiency. It is protected against over-temperature and VSWR.



**Model: MP1300/200/47MKG-A**

**1. Electrical Characteristics**

Item	Value	Note
Frequency Range	1200 ~ 1400 MHz	
Gain	50 (Min.)	
Gain Flatness	± 0.5 dB (Typ.)	Over Freq. Range
Gain Variation	± 1.0 dB (Typ.)	Over Temp. Range
Output Power Psat	+47 dBm (Min.)	
Input / Output VSWR	≤ 1.5 (Max.)	<b>Isolator Included</b>
Spurious	-70 dBc (Max.)	
Harmonics	-45 dBc (Max.)	@ 50 Watts Output
HPA Enable/Disable	TTL "0V or Open" ⇒ Enable TTL "5V" ⇒ Disable	
Forward Power Monitor	4.0 ± 0.2 V @ +47 dBm	RMS Detection, Pin 8
Reverse Power Monitor	4.0 ± 0.2 V @ +47 dBm	RMS Detection, Pin 9
Temperature Monitor	V <sub>t</sub> + 500 mV, 10 mV / °C	Pin 3
Current Monitor	10 mV / 100 mA	Pin 2
VVA Range	30 dB (Min.)	Pin 4: 0-5V 5V: Gain Max 0V: Gain Min
DC Input Voltage / Current	+28 VDC ± 1V / 5.0 A (Max.)	DC Input Voltage / Current Pout @ 50 W
Thermal Shutdown	+85°C ± 5°C	Auto Recover @ +70°C ± 5°C
Input / Output Impedance	50 Ω	
Max. Input Power without Damage	+0 dBm	

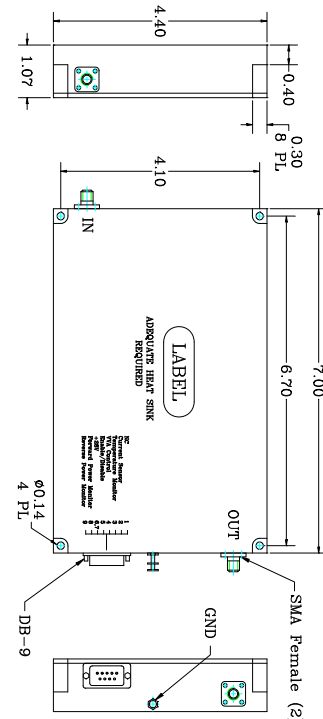
**3. Environment Characteristics**

Operating Temperature	-40°C ~ +85°C	Base Plate
Cooling	External Heatsink	
Humidity (Non-condensing)	95% (Max.)	

**4. DB-9 Male**

1	NC	
2	Current Sensor	
3	Temperature Monitor	V <sub>t</sub> + 500 mV, 10 mV / °C
4	VVA Control	0-5V 5V: Gain Max 0V: Gain Min
5	Enable / Disable	Enable: TTL Low or Open Disable: TTL High
6,7	+28V	
8	Forward Power Monitor	
9	Reverse Power Monitor	

**5. Outline Drawing**



**2. Mechanical Characteristics**

Monitoring Connector	DB-9 Male	
RF IN/OUT Connector	SMA 4 Holes / Female	
DC Input	Pin 6&7	
Dimensions	7.0" x 4.4" x 1.07"	
Weight	1.2 lb	

**Revision History**

REV	Reason to Change	Date	Initialed by