



The MP930/20/46MKC-A is suitable for high power 900MHz band 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, input over drive and VSWR.

Model: MP930/20/46MKC-A

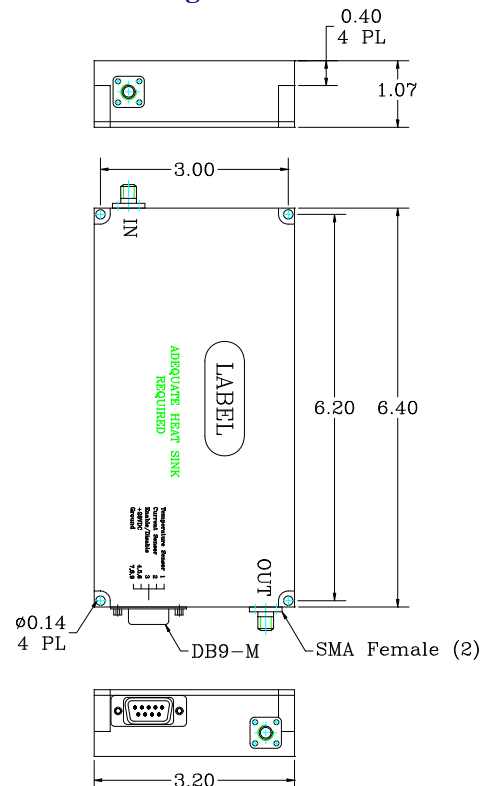


1. Electrical Characteristics		
Item	Value	Note
Frequency Range	925 ~ 935 MHz	
Power Gain	40 ± 0.5 dB	@ 40 Watts Output
Gain Flatness	± 0.5 dB (Typ.)	Over Freq. Range
Gain Variation	± 1.0 dB (Typ.)	Over Temp. Range
Output Power Psat	+46 dBm (Min.)	
Operating Class	Class C	
Input / Output VSWR	≤ 1.2 (Max.)	Output Isolator Included
Noise Figure	15 dB (Max.)	
Spurious	-70 dBc (Max.)	
Harmonics	-20 dBc (Max.)	At 40 Watts Output
HPA Enable/Disable	TTL "0V or Open" ⇒ Disable TTL "5V" ⇒ Enable	
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 / 2.8 A (Max.)	DC Input Voltage / Current at Pout 40 W
Stand By Current	80 mA (Max.)	No RF Input
Efficiency	>50%	At 40 Watts Output
Thermal Shutdown	+85°C ± 5°C	Auto Recover at +70°C ± 5°C
Input Over Driving Protection	Shut Down if Input Power ≥ 20 ± 1 dBm	
Input / Output Impedance	50 Ω	
Load Condition	1: ∞	
Max. Input Power without Damage	+25 dBm	

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	NC	NC
4,5,6	+28VDC	
7,8,9	Ground	

5. Outline Drawing



2. Mechanical Characteristics		
Monitoring Connector	DB-9 – Male	4 – 40 screw
RF IN/OUT Connector	SMA 4 Holes / Female	Sucoplate or Tri-Metal
DC Input	Pin 4,5,6	
Maximum Weight	1.2 lb	
Dimensions	3.2" x 6.4" x 1.07"	
Screws Type	Philips	

Revision History			
REV	Reason to Change	Date	Initialed by