MP585/830/48MK-A4 amplifier is suitable for 170 - 1000 MHz high power linear applications. The amplifier employs linear LDMOS power devices that provide sufficient output power, wide dynamic range, and high gain.

Model: MP585/830/48MK-A4

1. Electrical Characteristics

Item	Value		Note
Frequency Range	170 ~ 1000 MHz		
Power Gain	46 dB ± 1.0 dB		@ + 46 dBm Output
Gain Flatness	± 1.5 dB (Typ.)	± 1.8 dB (Max.)	Over Freq. Range
Output Power Psat	+50.0 dBm (Min.)		
IMD	-30 dBc (Max.)		**Two Tones Up to +40 dBm per tone 10 - 200 KHz Spacing**
Input / Output VSWR	≤ 1.5		
Harmonics 2nd/3rd	**-25 / -17 dBc (Max.) @ 170 – 400 MHz**		@ + 44 dBm Output
	-25 / -20 dBc (Max.) @ 400 – 1000 MHz		@ +46 dBm Output
Spurious	-70 dBc (Max.)		@ +46 dBm Output
HPA Enable/Disable	**TTL "Low" ⇒ Enable TTL "High or Open " ⇒ Disable**		Pin 3
Switching On/Off Time @ 90% Power Output	3 µs (Max.)		TTL Control Signal: 1 KHz , 50% Duty Cycle
DC Input Voltage/Current	+27 ~ 29V /4.8 A (Max.)		@ + 46 dBm Output
Efficiency	> 30 %		@ + 46 dBm Output
Temperature Sensor	Vt +500mV, 10mV/°C		Pin 1
Current Sensor	100mV/A		Pin 2
Input / Output Impedance	50 Ω		
Max. Input Signal *(No Damage)*	+10 dBm		
Load Conditions *(No Damage)*	6 : 1		

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 on DB-9	
Dimensions	5.38" x 3.40" x 1.07"	
Weight	1.2 lb	*Estimated
Paint: **Except for Base Plate Surface (Chemical Conversion Coating on Base Plate)**	Epoxy Gray F63A33	MIL-DTL-24441D

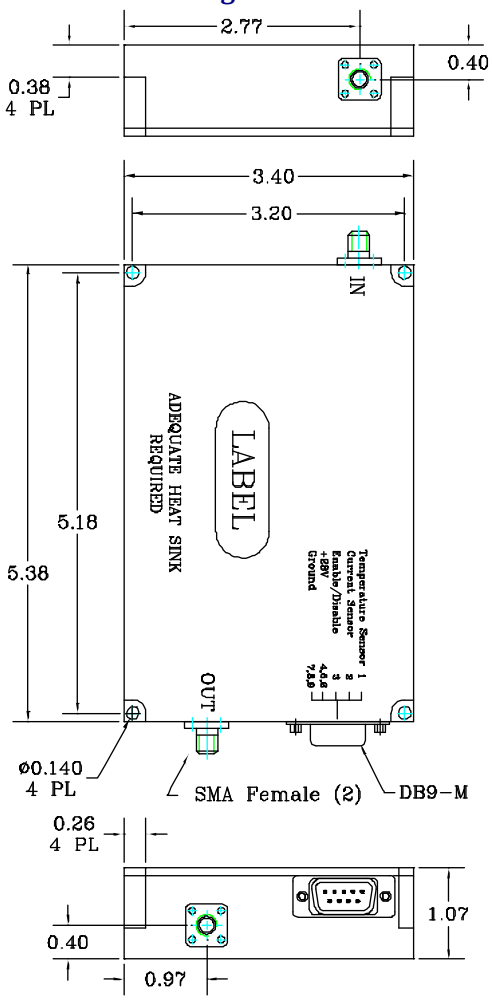
3. Environment Characteristics *(Designed to meet)*

Operating Temperature	-30°C ~ +75°C	Base Plate
Storage Temperature	-40°C ~ +95°C	
Cooling	External Heat-Sink	
Humidity *(Non-condensing)*	95% (Max.)	**Designed to meet: IAW MIL-STD-810F**
Operating Altitude	10,000 Feet	
Shock & Vibration	Vibration 6.06 gRMS	**Designed to meet: IAW MIL-STD-810F**
Environmentally Sealed	Except Connectors	*Lacquer on board

4. DB9 Pin Description

1	Temperature Sensor	
2	Current Sensor	
3	Enable/Disable	Enable: TTL Low Disable: TTL High or Open
4, 5, 6	+ 28V	
7, 8, 9	Ground	

5. Outline Drawing



Revision History			
REV	**Reason to Change**	**Date**	**Initialed by**
	Customer Approved	**11/19/18**	**G.D.**

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