



The MP4750/700/45MK-A is suitable for 4.4 - 5.1 GHz frequency band high power applications. The amplifier is designed for high and low power mode operation with ALC control. This amplifier employs GaN power devices that provide ample output power, wide dynamic range, and excellent efficiency.

Model: MP4750/700/45MK-A

1. Electrical Characteristics		
Item	Value	Note
Frequency Range	4400 ~ 5100 MHz	
Gain	42 dB (Min.)	@ 30 Watts Output
Gain Flatness	ALC Off: ± 1.0 dB (Max.) ALC On: ± 0.5 dB (Max.)	ALC ON: High and Low Mode
Output Psat	+45 dBm (Min.)	
Reverse Power Handling	+45 dBm (Min.)	
Mode Control	TTL Low: High Mode TTL High: Low Mode	DB-9 Pin 5
Operating Mode	High Mode: 45.3 ± 0.5 dBm	TTL Low: High
	Low Mode: 27.5 ± 0.5 dBm	TTL High: Low
Input / Output VSWR	1.5:1 dB (Max.)	
Output VSWR	Isolator Included	
HPA Enable / Disable	TTL "0V" or "Open" ⇒ Enable TTL "5V" ⇒ Disable	DB-9 Pin 6
Switching On/Off Time	≤ 5μs	
Spurious	-50 dBc (Max.) @ ± 2 KHz ~ ±10 MHz Offset	
	-70 dBc @ ±10 MHz ~ ∞	
Harmonics	-30 dBc (Max.)	@ 30 Watts Output
Temperature Monitor	Vt + 2.98V, 10mV/°C	DB-9 Pin 7
Temperature Alarm	+80°C ± 5°C	Pin 9: TTL High: Normal TTL Low: Alarm
DC Input Voltage / Current	+24VDC / 6.8A (Max.) +28VDC / 5.8A (Max.) +32VDC / 5.0A (Max.)	DC Input Voltage / Current Pout @ +30 Watts
MAX CW Input Without Damage	+20 dBm	
Input / Output Impedance	50 Ω	
DC Input Protection	With Voltage Limit Diode	

2. Mechanical Characteristics		
Monitoring Connector	J1 DB-9 Female	4 – 40 screw
RF IN/OUT Connector	J2 & J3 SMA Female	
DC Input	DB-9 Female	Pin 1,2
Dimensions	7.28" x 4.88" x 1.48"	
Weight	~ 1.8 lb	

Revision History			
REV	Reason to Change	Date	Initialed by

3. Environment Characteristics		
Operating Temperature	-40°C ~ +80°C	Base Plate
Storage Temperature	-40°C ~ +95°C	
Cooling	External Heatsink	
Humidity (Non-condensing)	95% (Max.)	Designed to meet: IAW MIL-STD-810E
Operating Altitude	30,000 Feet (Min.)	
Vibration and Shock	Vibration 6.06 gRMS	Designed to meet: IAW MIL-STD-202F method 214

4. Outline Drawing

