



MP4750/700/40MK-A4 amplifier is suitable for 4.4 ~ 5.1 GHz frequency band high power applications. This amplifier employs GaN power devices that provide ample output power, wide dynamic range, and excellent efficiency.

Model: MP4750/700/40MK-A4

1. Electrical Characteristics		
Item	Value	Note
Frequency Range	4400 ~ 5100 MHz	
Gain	40 dB (Min.) 44 dB (Max.)	@ 10 Watt P.Out @ +25°C
Gain Flatness	± 1.0 dB (Typ.)	@ 10 Watts Output
Output Psat	+40 dBm (Min.)	
Reverse Power Handling	+42 dBm (Min.)	
Input / Output VSWR	1.5:1 dB (Max.)	
Output VSWR	Isolator Included	
HPA Enable / Disable	TTL "Low" ⇒ Enable TTL "High or Open" ⇒ Disable	Pin 8
Switching On/Off Time	≤ 5µs	
Spurious	-70 dBc (Max.)	@ 10 Watts Output
Harmonics	-30 dBc (Max.)	@ 10 Watts Output
FWD Power Monitor	2.5V +/- 0.2V	RMS Detection @ 10 Watts Output
Temperature Alarm	+80°C ± 5°C (No Damage @ +85°C)	Pin 15: TTL High: Normal TTL Low: Alarm
DC Input Voltage / Current	+28VDC ± 1V / 1.8A (Max.)	DC Input Voltage / Current @ Pout 10Watts
MAX CW Input (Without Damage)	+15 dBm	
Input / Output Impedance	50 Ω	
DC Input Protection	With TVS Diode	Up to 600 Watts

3. Micro DB-15 Pin Description		
1, 2	+28VDC	
3, 4	GND	
5, 6, 7	NC	
8	Enable / Disable	Enable: TTL Low Disable: TTL High
9, 10	+28VDC	
11, 12	GND	
13	FWD Monitor	60mV/dBm (Typ.)
14	NC	
15	Temperature Alarm	TTL High: Normal TTL Low: Alarm

4. Environment Characteristics		
Operating Temperature	-40°C ~ +80°C	Base Plate
Storage Temperature	-55°C ~ +125°C	
Cooling	External Heatsink	
Humidity (Non-condensing)	95% (Max.)	Designed to meet: IAW MIL-STD-810E
Operating Altitude	40,000 Feet	
Vibration and Shock	Vibration 6.06 gRMS	Designed to meet: IAW MIL-STD-810E

2. Mechanical Characteristics		
Monitoring Connector	Micro DB-15 Male	4 – 40 screw
RF IN/OUT Connector	SMA Female	
DC Input	Micro DB-15 Male	Pin 1,2, 9, 10
Dimensions	4.00" x 3.50" x 0.8"	
Weight	0.75 lb	

Revision History			
REV	Reason to Change	Date	Initialed by
	Released to Production	08/27/18	Y.Z.

5. Outline Drawing

