



The **MP550/500/48MK-A** is a broadband and high power amplifier for 500-600 MHz frequency band. It is suitable for Jamming or communication operation. The amplifier employs advance LDMOS power devices that provide ample output power, wide dynamic range, broad band, and high efficiency. It integrates a Bi-directional power coupler for forward and VSWR protection. ALC is factory pre-set for output power protection.



**Model: MP550/500/48MK-A**

1. Electrical Characteristics		
Item	Value	Note
Frequency Range	500 ~ 600 MHz	
Power Gain	52 dB (Min.)	
Gain Flatness	± 1 dB	Across Frequency Range
Output Power P1	+50 dBm (Min.)	
Input VSWR	1.5:1 (Max.)	
IP3	56 dBm (Typ.)	Two Tones: @ +33 dBm per tone and 500 KHz spacing
Harmonics	-20 dBc (Max.)	@ +50 dBm Power Output
Spurious	-70 dBc (Max.)	@ +50 dBm Power Output
Enable/Disable	TTL "0V or Open" ⇒ Enable TTL "5V" ⇒ Disable	
Thermal Shutdown	+85°C ± 5°C	Auto Recover at +70°C ± 5°C
Forward Power Monitor	4.0 ± 0.1 V @ +50 dBm	RMS Detection Range > 20 dB
Reflect Power Monitor	4.0 ± 0.1 V @ +50 dBm	RMS Detection Range > 20 dB
VSWR Protection	Shutdown if Output Reflect Power ≥ +44 dBm ± 1 dBm	
ALC Default Setting	+51 dBm ± 1 dBm	
DC Input	28Vdc ± 2V	
DC Current	12 A (Typ.)	@ +50 dBm Power
In/Output Impedance	50 Ω	
Max. Input Power without Damage	+10 dBm	

2. Mechanical Characteristics		
Monitoring Connector	DB-9-Male	4 – 40 screw
RF IN/OUT Connector	SMA 4 Holes –Female	
DC Input	Pin 6,7 on DB-9	
Dimensions	8.4" x 3.48" x 1.06"	
Weight	1.5 lb	

Revision History			
REV	Reason to Change	Date	Initialed by

3. Environment Characteristics		
Operating Temperature	-20°C ~ +85°C	Base Plate
Cooling	External Heatsink	
Humidity (Non-condensing)	95% (Max.)	

4. DB9 Pin Description		
1	Forward Power Monitor	
2	Reverse Power Monitor	
3	N/C	
4	N/C	
5	Enable / Disable	Enable: TTL Low or Open Disable: TTL High
6, 7	+ 28V	
8, 9	Ground	

**5. Outline Drawing**

