



The **MP275/500/44MK-A4** is a broadband and high power amplifier for 20-530 MHz frequency band. It is suitable for Jamming or communication operation. The amplifier employs advanced LDMOS power devices that provide ample output power, good gain flatness over broadband, a wide dynamic range, and high efficiency.

**Model: MP275/500/44MK-A4**

1. Electrical Characteristics		
Item	Value	Note
Frequency Range	20 ~ 530 MHz	
Power Gain	45 dB (Min.)	@ +44 dBm
Gain Flatness	± 2.0 dB (Max.)	Over Frequency @ 25 Watts
Output Psat	+45 dBm (Min.)	
Harmonics	-15 dBc (Typ.)	Pout @ 25 Watts
Spurious	-70 dBc	Pout @ 25 Watts
Input VSWR	1.5:1 (Max.)	
HPA Enable/Disable	TTL "Low or Open" ⇒ Enable TTL "High" ⇒ Disable	Pin 5
Switching On/Off Time	5µs (Max.)	
Forward Power Monitor	4.0 ± 0.2 V @ +44 dBm Monitor Flatness: ±1 dBm	Pin 1 RMS Detection
Reverse Power Monitor	4.0 ± 0.2 V @ +44 dBm, Monitor Flatness: ±1 dBm	Pin 2 RMS Detection
Temperature Monitor	V <sub>t</sub> + 500 mV, 10 mV / °C	Pin 3
Current Monitor	10 mV / 100 mA	Pin 4
DC Input Voltage / Current	+28 VDC ± 1V / 3.0 A (Max.)	DC Input Voltage / Current @ Pout 25 Watts CW
Efficiency	30%	
Input /Output Impedance	50 Ω	
Input Max. without Damage	+3 dBm	
Load Conditions without Damage	6:1	Pout @ 25 Watts

2. Mechanical Characteristics		
Monitoring Connector	DB-9 Male	4-40 screw
RF IN/OUT Connector	SMA 4 Hole Female	
Dimensions	4.65" x 3.4" x 0.93"	
Weight	1.0 lb	

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

Revision History			
REV	Reason to Change	Date	Initialed by

**PHOTO NOT AVAILABLE**

4. DB9-Male Pin Description		
1	FWD Monitor	
2	REV Monitor	
3	Temperature Monitor	
4	Current Monitor	
5	Enable / Disable	Enable: TTL Low Disable: TTL High
6,7	+28VDV	
8,9	Ground	

**5. Outline Drawing**

