



The **MP270/500/5SK-A1** is suitable for VHF and UHF linear amplification. The amplifier employs linear GaN power devices that provide high efficiency, ample output power, wide dynamic range, and high gain. The product integrates a bi-directional coupler for monitoring Forward and Reverse Power.



Model: MP270/500/5SK-A1

1. Electrical Characteristics		
Item	Value	Note
Frequency Range	20 ~ 520 MHz	
Power Gain	44 (Min.)	Pout @ +37 dBm
Gain Flatness	± 2.0 dB (Max.)	Over Frequency Range
Gain Variation	± 1.0 dB	Over Temperature Range
Output Psat	+37 dBm (Min.) +38 dBm (Typ.)	
Input VSWR	1.3:1 (Max.)	
HPA Enable/Disable	TTL "Low or Open" ⇒ Enable TTL "High" ⇒ Disable	
Switching On/Off Time @ 90% Power Output	3 μs (Max.)	TTL Control Signal: 1 KHz, 50% Duty Cycle
Harmonics	-10 dBc (Max.) / -15 dBc (Typ.)	Pout @ +37 dBm
Spurious	-70 dBc (Max.)	
Forward Power Monitor	2.0 ± 0.2 V @ 5 Watts	RMS Detection
Reverse Power Monitor	2.0 ± 0.2 V @ 5 Watts	RMS Detection
DC Input Voltage / Current	+28 VDC ± 1V / 0.40 A (Typ.)	DC Input Voltage / Current Pout @ 5 Watts CW
Efficiency	45% (Typ.)	
Input /Output Impedance	50 Ω	
Capable of Handling VSWR	6:1	
Maximum Input Signal (without Damage)	+5 dBm	

2. Mechanical Characteristics		
Monitoring Connectors	DB9-Male	4 – 40 screw
RF IN/OUT Connector	SMA 4 Hole –Female	
Dimensions	3.0" x 2.75" x 0.79"	
Weight	0.28 lb	

3. Environment Characteristics		
Operating Temperature	-20°C ~ +80°C	Base Plate

Revision History			
REV	Reason to Change	Date	Initialed by
	Production Approved	03/06/17	YZ

4. DB9-Male Pin Description		
1	GND	
2	NC	
3	+28 VDC	
4	Enable / Disable	Enable: TTL "Low or Open" Disable: TTL "High"
5	Reverse Power Detection	
6	Forward Power Detection	
7, 8, 9	N/C	

5. Outline Drawing

