



The MP270/500/55HK-A is a broadband high power amplifier for VHF-UHF applications. The amplifier supports signal amplification in the 30-512 MHz frequency band. The amplifier employs linear LDMOS power devices that provide sufficient output power, wide dynamic range, and high gain.



Model: MP270/500/55HK-A

1. Electrical Characteristics		
Item	Value	Note
Frequency Range	30 ~ 512 MHz	
Power Gain @ Rated Power	32 dB ± 1.0 dB	
Power Gain Flatness	± 2.5 dB (Typ)	
Output P _{sat}	+54.8 dBm (Min.)	
Input VSWR	2:1 (Typ.)	
Spurious	-60 dBc (Max.)	@ 300 Watts
Efficiency	> 45%	Typical value @ +54.8 dBm
2 nd /3 rd Harmonics	-30/-10 dBc	Typical value @ +54.8 dBm
HPA Enable/Disable	TTL "0 V or Open" ⇒ Enable TTL "5 V" ⇒ Disable	
Temperature Sensor Output	10 mV/°C	
Over Temperature Shutdown	+85°C ± 5°C	Auto Recover @ +70°C ± 5°C
Current Sensor Output	100 mV/A	
DC Input Voltage	28-30 V	
Current Consumption	23 A (Typ.)	@ 300 watts
Input / Output Impedance	50 Ω	
Max RF Input	+30 dBm	

2. Mechanical Characteristics		
Monitoring Connector	D7W2 Male	4 – 40 screw
RF Input Connector	*SMA 4 Holes Female	
RF Output Connector	*N Female	
DC Input	A1 @ D7W2	
Dimensions	8.45" x 5.55" x 1.19"	

Revision History			
REV	Reason to Change	Date	Initialed by

3. Environment Characteristics		
Operating Temperature	-40°C ~ +70°C	Base Plate

4. D7W2 Pin Description		
1	N/C	
2	Current Monitor	100 mV/Amp
3	Temperature Monitor	10 mV/°C
4	N/C	
5	Enable/Disable	0V or Open: Enable 5V: Disable
A1	+28 V	
A2	GND	

5. Outline Drawing

