



The MA270/10/50HK-A is a broadband high power amplifier for VHF-UHF applications. The amplifier supports signal amplification in the 20-520 MHz frequency band. It is protected against over-temperature.

Model: MA270/10/50HK-A

1. Electrical Characteristics		
Item	Value	Note
Frequency Range	20 ~ 520 MHz	
Gain	50 dB (Min.)	
Gain Flatness	±2.0 (Typ.)	Over Frequency Range
VVA Range	25 dB (Min.)	
Output P1	+49 dBm (Min.)	
Output Psat	+50 dBm (Min.)	
Input / Output VSWR	2:1 (Max.)	
Spurious	-60 dBc (Max.)	
Efficiency	30 %	Pout @ 100 Watts
2 nd / 3 rd Harmonics	-30 / -15 dBc (Typ.)	Pout @ 100 Watts
HPA Enable / Disable	TTL "0V or Open" ⇒ Enable TTL "5V" ⇒ Disable	
Temperature Sensor Output	10 mV / °C	
Current Sensor Output	275 mV / A	
HPA Switching ON/OFF Speed	1 μs	
DC Input Voltage	+26 to +28 V	
Current Consumption	12.5 A (Max.)	
Max. Input Power without Damage	+5 dBm	

2. Mechanical Characteristics		
Monitoring Connector	DB9-Male	4 – 40 screw
RF IN/OUT Connector	SMA 4 Holes – Female	
DC Input	Pin 6 and Pin 7 @ DB9	
Dimensions	6.4" x 3.4" x 1.06"	

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

Revision History			
REV	Reason to Change	Date	Initialed by
D	Production approved after P.Out device change	01/30/14	G. David

4. DB9-Male Pin Description		
1	N/C	
2	Current Monitor	275 mV / A
3	Temperature Monitor	10 mV / °C
4	VVA Control	0-5V 0V: Gain Max. 5V: Gain Min.
5	Enable / Disable	0V or Open: Enable 5V: Disable
6, 7	+28 V	
8, 9	GND	

5. Outline Drawing

