



The **MP435/170/49MK-A1** is a broadband high power amplifier for VHF-UHF applications. This amplifier supports signal amplification in the 350 ~ 520 MHz frequency band. The amplifier employs linear LDMOS power devices that provide significant linear output power, wide dynamic range, and high gain.



Model: MP435/170/49MK-A1

1. Electrical Characteristics

Item	Value	Note
Frequency Range	350 ~ 520 MHz	
Gain	45 dB (Min.)	
Gain Flatness	± 1.5 (Max.)	Over Frequency Range
VVA Range	60 dB (Min.)	0 – 12V
Output P3	+48.5 dBm (Min.)	
Output Psat	+49 dBm (Min.)	
Input VSWR	1.5:1 (Max.)	
Spurious	-70 dBc (Max.)	
Efficiency	50 % (Typ.)	Pout @ 70 Watts
2 nd /3 rd Harmonics	-25 dBc (Typ.)	Pout @ 70 Watts
HPA Enable / Disable	TTL "0V or Open" ⇒ Enable TTL "5V" ⇒ Disable	
DC Input Voltage	+22 ± 0.5 V	
Current Consumption	6.5A (Max.)	Pout @ 70 Watts
Input / Output Impedance	50 Ω	
Max. Input Signal (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 and Pin 7 @ DB-9	
Dimensions	5.93" x 4.6" x 0.8" [150.62 mm x 116.84 mm x 22.61 mm]	
Weight	~ 1.5 lb	

3. Environment Characteristics

Operating Temperature	-40°C ~ +75°C	Base Plate
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Revision History			
REV	Reason to Change	Date	Initialed by
A	Mounting Screws Diameter changed	11/05/14	G.D.
B	Approved for production.	01/10/15	Y.Z.
C	VVA Range changed from 30dB to 60dB	03/09/15	G.D.

4. DB9 Pin Description

1, 2, 3	N/C	
4	VVA Control	0-12V 12V: Gain Max. 0V: Gain Min.
5	Enable / Disable	0V or Open: Enable 5V: Disable
6, 7	+22 V	
8, 9	GND	

5. Outline Drawing

Unit: inch [mm]

