



The MP490/60/43MK-A is a broadband and high power amplifier for 460-520 MHz frequency band. It is suitable for Jamming or communication operation. The amplifier employs advance LDMOS power devices that provide ample output power, wide dynamic range, broad band, and high efficiency. It integrates a Bi-directional power coupler for forward and VSWR protection. Output isolator is included.



**Model: MP490/60/43MK-A**

1. Electrical Characteristics		
Item	Value	Note
Frequency Range	460 ~ 520 MHz	
Power Gain	40 ± 1.0 dB	
Gain Flatness	± 1.0 dB (Max.)	Over Freq. Range
Output Power P1	+43 dBm (Min.)	
Output Power Psat	+44 dBm (Min.)	
Input / Output VSWR	1.5:1 (Max.)	Isolator Included
IP3	+57 dBm (Min.)	2 Tones @ +34 dBm/ Tone, 100 KHz Spacing
Harmonics	-45 dBc (Typ.)	Pout @ +43 dBm
Spurious	-70 dBc (Max.)	Pout @ +43 dBm
Enable/Disable	TTL "0V or Open" ⇒ Enable TTL "5V" ⇒ Disable	
Thermal Shutdown	+85°C ±5°C	Auto Recover at +70°C ±5°C
Forward Power Monitor	4.0 ± 0.2 V @ +43 dBm	RMS Detection Range > 20 dB
Reflect Power Monitor	4.0 ± 0.2 V @ +43 dBm	RMS Detection Range > 20 dB
ALC On/Off	TTL "0V or Open" ⇒ Enable TTL "5V" ⇒ Disable	Via Pin 3
ALC Level	ALC Setting Range : 15 dB	Adjustable via Pin 4, 0-5V
DC Input	28VDC ± 2V	
DC Current	1.8 A (Max.)	Pout @ +43 dBm
In/Output Impedance	50 Ω	Isolator Included
Max. Input Power without Damage	+15 dBm	With ALC On

2. Mechanical Characteristics		
Monitoring connector	DB-9 Male	4 – 40 screw
RF IN/OUT Connector	SMA 4 Holes Female	
DC Input	Pin 6,7 on DB-9	
Dimensions	6.4" x 3.48" x 1.0"	
Weight	1.6 lb	
LED	LED Indicator	ALC On

Revision History			
REV	Reason to Change	Date	Initialed by

3. Environment Characteristics		
Operating Temperature	-20°C ~ +85°C	Base Plate
Cooling	External Heat in	
Humidity (Non-condensing)	95% (Max.)	

4. DB9 Pin Description		
1	Forward Power Monitor	
2	Reverse Power Monitor	
3	ALC On/Off	Enable: TTL Low or Open Disable: TTL High
4	ALC Level Input	
5	Enable / Disable	Enable: TTL Low or Open Disable: TTL High
6, 7	+ 28V	
8, 9	Ground	

**5. Outline Drawing**

