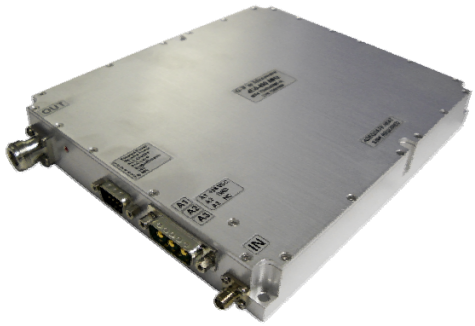
The **MP470/40/45MK-A** is a broadband high power amplifier for 450-490 MHz frequency band. It is suitable for Jamming and/or communication applications. The amplifier employs advanced LDMOS power devices that provide ample output power, wide dynamic range, broad band, and high efficiency. It integrates a Bi-directional power coupler for forward and VSWR protection.



Model: MP470/40/45MK-A

1. Electrical Characteristics

Item	Value	Note
Frequency Range	450 ~ 490 MHz	
Gain	50 ± 1 dB	
Gain Flatness	± 1.0 dB	Over Freq. Range
Gain Variation	± 1.0 dB	Over Temp. Range
Output P1	>100 Watts	
Reverse Power	>80 Watts	
Input/ Output VSWR	≤ 1.2	
Output VSWR	Isolator Included	
Output 3rd Intercept Point	+65 dBm	2 CW Tones, Spacing 25 kHz-3 MHz at +45 dBm Power Output
Over Temperature Protection	Shutdown at +85°C ± 5°C	
ALC ON/OFF	Enable: TTL Low Disable: TTL High	
ALC Level	ALC Setting Range > 15 dB	Continuous Adjustable Range via Pin4 Analog Voltage Input 0-5V
HPA Enable/Disable	TTL "0V or Open" ⇒ Enable TTL "5V" ⇒ Disable	
Forward Power Monitor	4.0 ± 0.2 V at +45 dBm	RMS Detection at Pin 1
Reverse Power Monitor	4.0 ± 0.2 V at +45 dBm	RMS Detection at Pin 2
Over Power Shutdown	When Output Power Level Over +49 dBm	
DC Input Voltage / Current	+28 VDC ± 1 V / 5.0 A	
Input / Output Impedance	50 Ω	
Max. Input Power without Damage	+10 dBm	With ALC On

2. Mechanical Characteristics

Monitoring Connector	DB-9 Male	4 – 40 screw
RF Input Connector	SMA 4 Holes Female	
RF Output Connector	N Type Female	
DC Input	D-3W3 Male	
Dimensions	8.07" x 6.70" x 1.07"	
LED	LED Indicator	ALC On

Revision History

REV	Reason to Change	Date	Initialed by

3. Environment Characteristics

Operating Temperature	-20°C ~ +75°C	Base Plate

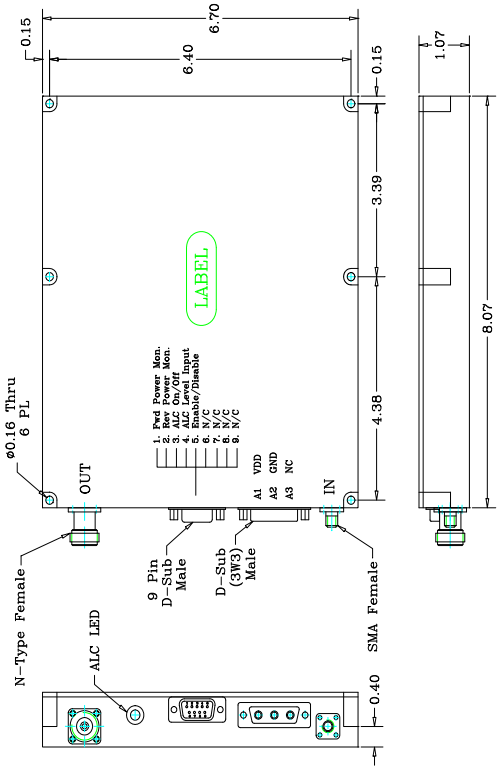
4. DB9 Pin Description

1	Forward Power Monitor	0-4 V
2	Reverse Power Monitor	0-4 V
3	ALC On/Off	ALC ON = TTL Low ALC OFF = TTL High
4	ALC Level Input	0-5V
5	Enable/Disable	Enable: TTL Low or Open Disable: TTL High
6,7,8,9	NC	

5. D-3W3 Pin Description

A1	+28V VDD
A2	GND
A3	N/C

6. Outline Drawing



38 LEUNING STREET | SOUTH HACKENSACK, NJ | USA 07606
TEL: (201) 343-6388 | FAX: (201) 343-6390 | E-MAIL: INFO@GWAYMICROWAVE.COM
WWW.GWAYMICROWAVE.COM