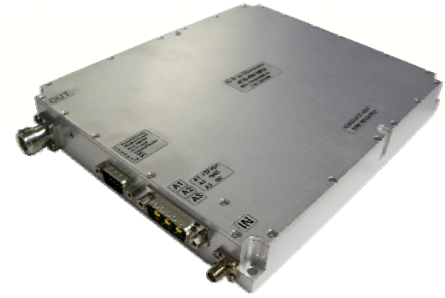




The MP440/40/50MK-A is suitable for UHF high power linear applications. The amplifier employs linear LDMOS power devices that provide sufficient output power, wide dynamic range, and high gain. Amplifier is equipped with Automatic Level Control loop, enabling it to be set to an Output Power level with maximal linearity at specific Communication System component environment.



## Model: MP440/40/50MK-A

### 1. Electrical Characteristics

Item	Value	Note
Frequency Range	420 ~ 460 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	> 100 Watts	
Input/ Output VSWR	≤ 1.2	
Output VSWR	<b>Isolator Included</b>	
Output 3 <sup>rd</sup> Intercept Point	+63 dBm	2 CW Tones, Spacing 1-MHz P. Out @ +44 dBm
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 @ +43 dBm	RMS Detection at Pin 1
Reverse Power Monitor	4.0 ± 0.2 V @ +43 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	DC Input Voltage / Current @ Pout +43 dBm
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 5.28" x 1.0"	
LED	LED Indicator	ALC On

### Revision History

REV	Reason to Change	Date	Initialed by
	Initial Release	03/02/15	YZ

### 3. Environment Characteristics

Operating Temperature	-20°C ~ +75°C	Base Plate
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### 4. DB9 Pin Description

1	Forward Power Monitor	
2	Reverse Power Monitor	
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	N/C	
7	N/C	
8	Ground	
9	Ground	

### 5. D-3W3 Pin Description

A1	VDD
A2	GND
A3	N/C

### 6. Outline Drawing

