



The MP900/100/47MK-A1 is suitable for broadband 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: MP900/100/47MK-A1

1. Electrical Characteristics		
Item	Value	Note
Frequency Range	860 ~ 960 MHz	
Gain	50 ± 1dB	
Gain Flatness	± 1.0dB	Over Freq. Range
Gain Variation	± 1dB	Over Temp. Range
Output Power P1	+47 dBm (Min.)	
Output Power Psat	+ 48 dBm (Min.)	
Output 3 rd Intercept Point	+ 57 dBm	2 tones @ +40 dBm output, 1 MHz Spacing
Input / Output VSWR	≤ 1.2	Output Isolator Included
Harmonics	-45 dBc (Max.)	
Spurious	-70 dBc (Max.)	
HPA Enable/Disable	TTL "0V or Open" ⇒ Enable TTL "5V" ⇒ Disable	
ALC ON/OFF	Enable: TTL Low Disable: TTL High	
ALC Level	ALC Setting Range >15 dB	Adjustable Range via Analog Voltage Input 0-5V
Forward Power Monitor	4.0 ± 0.1 V @ +46 dBm	RMS Detection
Reverse Power Monitor	4.0 ± 0.1 V @ +46 dBm	RMS Detection
DC Input Voltage / Current	+28 VDC ± 1V / 4A > 40% Efficiency	DC Input Voltage / Current @ Pout +46 dBm CW
Thermal Shutdown	+85°C ± 5°C	Auto Recover @ +70°C ± 5°C
Input / Output Impedance	50 Ω	
Input Max without Damage	+10 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 3.4" x 1"	
LED	LED Indicator	ALC On

Revision History			
REV	Reason to Change	Date	Initialed by

3. Environment Characteristics		
Operating Temperature	-20°C ~ +70°C	Base Plate

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	
5	Enable / Disable	Enable: TTL Low or Open Disable: TTL High
6, 7	+28V	
8, 9	Ground	

5. Outline Drawing

