



The MP900/200/47MK-A5 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 internal Automatic Level Control loop, enabling it to be set to an Output Power level with maximal linearity at specific Communication System component environment.

**Model: MP900/200/47MK-A5**

1. Electrical Characteristics		
Item	Value	Note
Frequency Range	800 ~ 1000 MHz	
Gain	50 ± 1dB	
Gain Flatness	ALC Off	Over Freq. Range
	ALC On	
	±2.0 dB	±0.5 dB
Gain Variation	± 1dB	Over Temp. Range
Output Power P1	+46 dBm (Typ.)	
Output Power Psat	+ 47 dBm (Min.)	
Output 3 <sup>rd</sup> Intercept Point	+ 57 dBm	2 tones @ +40 dBm output power, 1 MHz Spacing
IMD@ 3 Tones	-5 dBc (Max.)	3 tones @ +44 dBm, 1 MHz Spacing
Input / Output VSWR	≤ 1.2	Output Isolator Included
Harmonics	-45 dBc (Max.)	
Spurious	-70 dc (Max.)	
HPA Enable/Disable	TTL "0V or Open" ⇒ Enable TTL "5V" ⇒ Disable	
ALC ON/OFF	Local Switch	
ALC Level	ALC Setting Range >15 dB	Continuous Adjust. via Local Potentiometer
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	+28 VDC	DC Input Voltage Range : 24-31.5V @ +45 dBm CW
DC Input Current	4A (Max.)	@ +46 dBm
Thermal Shutdown	+95°C ± 5°C	Auto Recover at +80°C ± 5°C
Input / Output Impedance	50 Ω	
Max. Input without Damage	+10 dBm	<b>With ALC on</b>

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
ALC Level Adjustment	Potentiometer	
ALC On/Off	Momentary Switch	Default: ALC On Push: ALC Off

Revision History			
REV	Reason to Change	Date	Initialed by



3. Environment Characteristics		
Operating Temperature	-20°C ~ +90°C	Base Plate
Cooling	External Heatsink	
Humidity (Non-condensing)	95% (Max.)	

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

**5. Outline Drawing**

