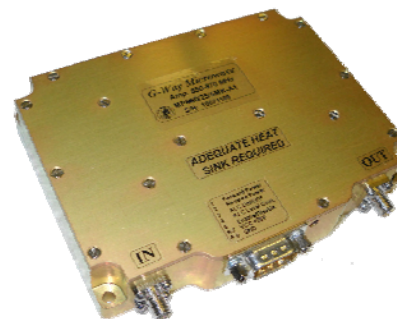




The MP815/90/5MK-A1 is suitable for 800 MHz band high power linear applications. It supports LTE, CDMA, GSM, IDEN and TDMA communication systems. The amplifier employs linear LDMOS power devices that provide sufficient output power, wide dynamic range, and high gain. The amplifier is equipped with Automatic Level Control loop, enabling it to be set to an Output Power level with maximal linearity at specific Communication System component environment.



Model: MP815/90/5MK-A1

1. Electrical Characteristics		
Item	Value	Note
Frequency Range	770 ~ 860 MHz	
Gain	45 ± 1 dB (Typ.)	
Gain Flatness	±1.0 dB (Max.)	Over Freq. Range
Gain Variation	±1.0 dB (Typ.)	Over Temp. Range
Output P1	+44 dBm (Min.)	
Output Psat	+45 dBm (Min.)	
Output IP3	+57 dBm (Min.) +58 dBm (Typ.)	Two tones measured at +34 dBm per tone and 1 MHz spacing
Input / Output VSWR	≤ 1.2	
Output VSWR	Isolator Included	
Over Temperature Protection	Shutdown @ +85°C ± 5°C	
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	Continuous Adjustable Range via Analog Voltage Input 0-5V Accuracy: ± 1 dB
Forward Power Monitor	4.0 ± 0.1 V @ +37 dBm	RMS Detection
Reverse Power Monitor	4.0 ± 0.1 V @ +37 dBm	RMS Detection
Harmonics @ P1 dBm	-45 dBc (Typ.)	
Input / Output Impedance	50 Ω	
Max. Input Power without Damage	+6 dBm	With ALC On
Current Consumption	1.2 A (Max.)	Pout @ +37 dBm

2. Mechanical Characteristics		
Monitoring Connector	DB9-Male	4-40 screw
RF IN/OUT Connector	SMA 4 Holes Female	
DC Input	Pin6,7 on DB-9 Male	
Dimensions	5.0" x 3.6" x 1.0"	

Revision History			
REV	Reason to Change	Date	Initialed by

3. Environment Characteristics		
Operating Temperature	-20°C ~ +70°C	Base Plate
Storage Temperature	-40°C ~ +85°C	
Humidity (Non-condensing)	95 %	

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, 7	+28VDC	
8, 9	Ground	

5. Outline Drawing

