



The MP740/25/5MK-A1-LTE is suitable for 700 MHz LTE band high power linear applications. 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: MP740/25/5MK-A1-LTE

1. Electrical Characteristics

Item	Value	Note
Frequency Range	720 ~ 780 MHz	
Gain	50 ± 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 (Typ.)	
Output Psat	+45 dBm (Typ.)	
Output IP3	+56 dBm (Min.)	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	Auto Recover at +70°C ± 5°C
HPA Enable / Disable	TTL "Low or Open" ⇒ Enable TTL "High" ⇒ Disable	
ALC ON/OFF	Enable: TTL "Low or Open" 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 (Max.)	
Input / Output Impedance	50 Ω	
DC Input	+28V ± 2V	
Current Consumption	1.2 A (Typ.)	+37 dBm Output
Max. Input Power without Damage	+10 dBm	With ALC On

2. Mechanical Characteristics

Monitoring Connector	DB9-Male	4-40 screw
RF IN/OUT Connector	SMA 4 Holes –Female	
DC Input	Pin 6,7 on DB-9 Male	
Dimensions	5.0" x 3.6" x 1.0"	

3. Environment Characteristics

Operating Temperature	-20°C ~ +70°C	Base Plate
Storage Temperature	-40°C ~ +85°C	
Humidity	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

