



The MP742/28/50MK-A1 is a broadband and high power amplifier for 728-756 MHz frequency band. It is suitable for LTE communication operation. The amplifier employs advance LDMOS power devices that provide ample output power, wide dynamic range, broad band, and high efficiency. Output isolator is included.

Model: MP742/28/50MK-A1

1. Electrical Characteristics		
Item	Value	Note
Frequency Range	728 ~ 756 MHz	Instantaneous Bandwidth 12 MHz
Power Gain	50 ± 1.0 dB	
Gain Flatness	± 0.5 dB (Max.)	
Output Power P1	+49 dBm (Typ.)	
Output Power Psat	+51 dBm (Min.)	
Input VSWR	1.5:1 (Max.)	
IP3	+65 dBm (Min.)	2 Tones @ +39 dBm/ Tone, 1 MHz Spacing
Harmonics	-45 dBc (Max.)	Pout @ +42 dBm
Spurious	-70 dBc (Max.)	Pout @ +42 dBm
Enable/Disable	TTL "0V or Open" ⇒ Enable TTL "5V" ⇒ Disable	
Forward Power Monitor	2.4 ± 0.2 V @ +42 dBm	RMS Detection Range > 25 dB
Reflect Power Monitor	2.4 ± 0.2 V @ +42 dBm	RMS Detection Range > 25 dB
ALC Control	+5V: ALC Off 0V: ALC On	Pin 3
ALC Level Input	0-5 V	Pin 4
ACL Range	> 15 dB	
ALC Accuracy	± 0.5 dBm (Max.)	
DC Input	28Vdc ± 2V	
DC Current	3.0 A (Max.)	Pout @ + 42 dBm
In/Output Impedance	50 Ω	Isolator Included
Max. Input Power without Damage	+5 dBm	

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 0.93"	
Weight	1.5 lb	

Revision History			
REV	Reason to Change	Date	Initialed by

3. Environment Characteristics		
Operating Temperature	-20°C ~ +85°C	Base Plate
Cooling	External Heat Sink	
Humidity (Non-condensing)	95% (Max.)	

4. DB9 Pin Description		
1	Forward Power Monitor	
2	Reverse Power Monitor	
3	ALC On/Off	
4	ALC Level Input	0-5V
5	Enable / Disable	Enable: TTL Low or Open Disable: TTL High
6, 7	+28V	
8		
9	Ground	

5. Outline Drawing

