



The **MP770/12/50MK-A2** is suitable for 700 MHz band LTE 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: MP770/12/50MK-A2

1. Electrical Characteristics

Item	Value	Note
Frequency range	763 ~ 775 MHz	
Gain	52 dB (Min.)	
Gain Flatness	± 1dB	Over Freq. Range
Gain Variation	± 1dB	Over Temp. Range
Output Power P1	+50 dBm (Typ.)	
Output Power Psat	+51 dBm (Typ.)	
Input / Output VSWR	≤ 1.2	Output Isolator Included
Output IP3	+62 dBm (Typ.)	Two tones, @ 40 dBm per tone, 1 MHz spacing
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	Continuous Adjustable Range via Analog Voltage Input 0-5V
Forward Power Monitor	4.0 ± 0.1 V @ +50 dBm	RMS Detection
Reverse Power Monitor	4.0 ± 0.1 V @ +50 dBm	RMS Detection
DC Input Voltage / Current	+28VDC ± 1V / 9A	DC Input Voltage / Current Pout @ +50 dBm CW
Thermal Shutdown	+85°C ± 5°C	Auto Recover at +70°C ± 5°C
Input / Output Impedance	50 Ω	
Max. Input Power 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

