



The MP772/6/5MK-A1 is suitable for 700-800 MHz band high power linear applications. It supports 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: MP772/6/44MK-A1

### 1. Electrical Characteristics

Item	Value	Note
Frequency Range	769 ~ 775 MHz	
Gain	45 ± 1 dB (Typ.)	
Gain Flatness	± 0.25 dB (Max.)	Over Freq. Range
Gain Variation	± 1.0 dB (Typ.)	Over Temp. Range
Output P1	+ 44 dBm (Typ.)	
Output Psat	+ 45 dBm (Min.)	
Output IP3	+59 dBm (Min.) +60 dBm (Typ.)	Two tones measured @ +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 > 20 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	-45 dBc (Max.)	@ +44 dBm
Input / Output Impedance	50 Ω	
Max. Input Power (Without Damage)	+6 dBm	With ALC On
Current Consumption	1.0 A (Typ.)	@ +37 dBm Output
	2.2 A (Max.)	@ +44 dBm Output

### 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
	Released to production	11/09/14	YZ

### 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

