



The **MP16/28/50MK-A** is a high power amplifier for HF applications. Amplifier supports signal amplification in the 1.5 ~ 30 MHz frequency band. It employs advanced LDMOS devices and provides high efficiency, wide dynamic range and ample power. Amplifier module was designed for minimal size configuration, enabling system designers to reduce system dimensions.



Model: MP16/28/50MK-A

1. Electrical Characteristics

Item	Value	Note
Frequency Range	** 1.5 ~ 30 MHz	
Maximum Gain	50 ± 1 dB (Typ.)	Down adjustable
Gain Flatness	± 1.0 dB (Typ.)	Over Freq. Range
VVA Control	0V: Maximum Gain +5V: Minimum Gain	0 ~ 5V on Pin 4
VVA Control Range	25 dB (Min.)	
Output P1	+50 dBm (Min.)	
Output 3 rd Intercept Point	+62 dBm (Typ.)	2 CW tones @ +46 dBm per tone, 100 KHz Spacing
Input / Output VSWR	1.5:1 (Max.)	
2 nd /3 rd Harmonics	-30/-15 dBc (Max.)	Pout 100 Watts
Spurious	-60 dBc (Max.)	
Efficiency	> 38 %	Pout 100 Watts
HPA Enable/Disable	TTL "0V or Open" ⇒ Enable TTL "5V" ⇒ Disable	Pin 5 on DB9-Male
DC Input/ Current	+28V/ 9A	Pout 100 Watts
Input / Output Impedance	50 Ω	
Max. Input Signal (Without Damage)	+5 dBm	
Load Mismatch	3:1	All phase angles @ 100 Watts

** For 1 ~ 30 MHz Pass Band, please contact Factory

2. Mechanical Characteristics

Monitoring Connector	DB9-Male	4 – 40 screw
RF IN/OUT Connector	SMA Female	
Dimensions	6.80" x 3.48" x 1.07"	
Weight	2 lbs	

3. Environment Characteristics

Operating Temperature	-20°C ~ +75°C	Base Plate
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Revision History

REV	Reason to Change	Date	Initialed by
	Initial Release	09/20/17	Y.Z

4. DB9-Male Pin Description

1	N/C	
2	Current Monitor	Analog voltage relative to ID @ 10 mV / 100 mA
3	Temperature Monitor	Analog voltage relative to Module's Temperature Vt +500 mV, 10 mV / °C
4	VVA Control	0V: Maxi Gain +5V: Minimum Gain
5	Enable/Disable	0V or Open: Enable 5V: Disable
6, 7	+28VDC	
8, 9	GND	

6. Outline Drawing

