



The MP152/44/40SK-A is suitable for VHF linear amplification. The amplifier employs linear LDMOS power devices that provide high efficiency, ample output power, wide dynamic range, and high gain. The product integrates a bi-directional coupler for monitoring Forward and Reverse Power.



Model: MP152/44/40SK-A

1. Electrical Characteristics		
Item	Value	Note
Frequency Range	130 ~ 172 MHz	
Gain	45 ± 1.0 dB	
Gain Flatness	± 1.0 dB (Max.)	Over Frequency Range
Gain Variation	± 1.0 dB	Over Temperature Range
Output P1	+40 dBm (Min.)	
Output Psat	+41 dBm (Min.)	
IP3	+55 dBm (Min.)	Two Tones, +31 dBm/Tone, 100 KHz Spacing
Input VSWR	1.3:1 (Max.)	
HPA Enable/Disable	TTL "Low or Open" ⇒ Enable TTL "High" ⇒ Disable	
ALC ON/OFF	TTL "0V or Open" ⇒ ON TTL "5V" ⇒ OFF	Via Pin 3 on DB-9
ALC Level	ALC Setting Range > 15 dB	Continuous Adjust. via Pin 4 on DB-9
*Forward Power Monitor	4.0 ± 0.1 V @ +40 dBm	RMS Detection
*Reverse Power Monitor	4.0 ± 0.1 V @ +40 dBm	RMS Detection
Harmonics	-20 dBc (Max.)	Pout @ +40 dBm
Over Temperature Protection	Shutdown @ +85°C ± 5°C	Auto Recover @ +70°C ± 5°C
DC Input Voltage / Current	+28 VDC ± 1V / 1.5 A (Typ.)	DC Input Voltage / Current Pout @ 10 Watts CW
Efficiency	30 % (Min.)	
Input /Output Impedance	50 Ω	
Capable of Handling VSWR	6:1	
Max. Input Signal (without Damage)	+15 dBm	ALC ON

2. Mechanical Characteristics		
Monitoring Connectors	DB9-Male	4 – 40 screw
RF IN/OUT Connector	SMA 4 Hole –Female	
Dimensions	3.0" x 2.75" x 0.8"	
Weight	1.0 lb	

3. Environment Characteristics		
Operating Temperature	-30°C ~ +75°C	Base Plate

Revision History			
REV	Reason to Change	Date	Initialed by
	Released to Production	10/14/14	Y.Z.

4. DB9-Male 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	ALC On Indicator	ALC on +5V
9	Ground	

* Not used for G-Wave

5. Outline Drawing

