



The MP1840/60/43SK-A2 is suitable for broadband high power linear applications. The amplifier employs linear LDMOS power devices that provide sufficient output power, wide dynamic range, and high gain.

## Model: MP1840/60/43SK-A2

1. Electrical Characteristics		
Item	Value	Note
Frequency Range	1805 ~ 1880 MHz	
Gain	45 ± 1dB	
Gain Flatness	±1.0 dB (Max.)	Over Freq. Range
Gain Variation	± 1dB	Over Temp. Range
Output Power P1	+43 dBm (Min.)	
Output Power Psat	+ 44 dBm (Min.)	
Output 3 <sup>rd</sup> Intercept Point	+ 56 dBm	2 tones @ +36 dBm output power, 1 MHz Spacing
ACLR @ +43 dBm	- 30 dBc @ ± 200KHz offset from F0 (Max.) (RBW=30 kHz)	<b>Signal Source:</b> 1 GSM
	-55dBc @ ±400KHz offset from the F0 (Max.) (RBW= 30 kHz)	
Input / Output VSWR	≤ 1.2	Output Isolator Included
Harmonics	-45 dBc (Max.)	@ P1 dB
Spurious	-70 dBc (Max.)	
HPA Enable/Disable	TTL "0V or Open" ⇒ Enable TTL "5V" ⇒ Disable	
VVA Control	+5V: Maxim Gain 0V: Maxim Attenuation	
VVA Range	>25 dB	
Forward Power Monitor	2.4 ± 0.1 V @ +43 dBm	RMS Detection
Reverse Power Monitor	2.4 ± 0.1 V @ +43 dBm	RMS Detection
DC Input Voltage	28 VDC	
DC Input Current	2.2 A (Max.)	Pout @ +43 dBm
Thermal Shutdown	+85°C ± 5°C	Auto Recover @ +70°C ± 5°C
Input / Output Impedance	50 Ω	
Max. Input without Damage	+10 dBm	<b>With ALC on</b>

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	
Dimensions	5.92" x 2.98" x 1"	

Revision History			
REV	Reason to Change	Date	Initialed by

3. Environment Characteristics		
Operating Temperature	-20°C ~ +70°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	NC	
4	VVA Control	0 – 5V
5	Enable / Disable	Enable: TTL Low or Open Disable: TTL High
6, 7	28V	
8	NC	
9	Ground	

## 5. Outline Drawing

