



The MP200/200/42MK-A is suitable for VHF and UHF linear amplification. The amplifier employs linear LDMOS power devices that provide high efficiency, ample output power, wide dynamic range, and high gain.



Model: MP200/200/42MK-A

1. Electrical Characteristics

Item	Value	Note
Frequency Range	100 ~ 300 MHz	
Gain	25 ± 1.0 dB	
Gain Flatness	± 1.0 dB (Max.)	
Gain Variation	± 1.0 dB	Over Temperature Range
Output P1	+ 42 dBm (Typ.)	
Output Psat	+ 44 dBm (Min.)	
Input VSWR	1.3:1 (Max.)	
HPA Enable/Disable	TTL "Low" ⇒ Enable TTL "High or Open" ⇒ Disable	Pin 4
HPA Switching ON/OFF Speed	2 μSec (Max.)	
Temperature Sensor	Vt + 500mV, 10mV/°C	
Harmonics 2nd/3rd	-40 dBc (Max.) / -22 dBc (Max.)	Measured @ 120 MHz Pout @ +36.5 dBm
Spurious (Across Entire Pass-band)	-70 dBc (Max.)	Pout @ +42 dBm
DC Input Voltage / Current	+28 VDC / 1.8 A (Typ.), 2.2 (Max.)	DC Input Voltage / Current Pout @ 20 Watts CW
Efficiency	> 40 %	@ 20 Watts
Current in Disable Mode	< 0.05A, 0.03A (Typ.)	No RF Signal IN
Input /Output Impedance	50 Ω	
Load Mismatch (No Damage)	6:1	
Max. Input Signal (Without Damage)	+ 25 dBm	

2. Mechanical Characteristics

RF IN/OUT Connector	SMA 4 Hole -Female	
DC Input	DB9 Male	
Dimensions	2.78" x 2.78" x 0.89"	
Weight	0.38 lb	

3. Environment Characteristics

Operating Temperature	-40°C ~ +80°C	Base Plate
Storage Temperature	-55°C ~ +95°C	
Cooling	External Heatsink	
Humidity (Non-condensing)	95% (Max.)	
Operating Altitude	< 30,000 Feet	
Vibration and Shock	Vibration 7.6 gRMS	Designed to meet: IAW MIL-STD-202F method 214

Revision History

REV	Reason to Change	Date	Initialed by
	Change Harmonics Specification and Measurement to +36.5 dBm @ 120 MHz. Change P1dBm to +42 dBm (Typ.)	10/17/17	Y.Z.
	Change Outline Dimensions to better accommodate DB9	10/20/17	Y.Z.
	Increased Operating Temp range, Change Vibration spec, Altitude	10/31/17	Y.Z.
	Production Approved	12/18/17	Y.Z.

4. DB9 Pin Description

1, 2	+28 VDC	
3	Temperature Sensor	
4	Enable/Disable	
5	NC	
6	+28 VDC	
7, 8, 9	Ground	

5. Outline Drawing

