



The MP275/450/43SK-A is a broadband high power amplifier for VHF/UHF applications. This amplifier supports signal amplification in the 50-500 MHz frequency band and is protected against over-temperature and excessive current draw.

Model: MP275/450/43SK-A

1. Electrical Characteristics

Item	Value	Note
Frequency Range	50 ~ 500 MHz	
Gain	53 dB (Min.)	
Gain Flatness	±1.5 (Max.)	Over Frequency Range
Output P1	+43 dBm (Min.)	
Output Psat	+44 dBm (Min.)	
Input / Output VSWR	2:1 (Max.)	
Spurious	-60 dBc (Max.)	
Output IP3	+53 dBm (Min.)	Two Tones @ 100 KHz Spacing
HPA Enable / Disable	TTL "0V or Open" ⇒ Enable TTL "5V" ⇒ Disable	
Noise Figure	9.0 (Max.)	
Temperature Sensor Output	Vt+ 500mV, 10 mV / °C	
Current Alarm Output	TTL High: Alarm TTL Low: Normal	When current is lower or higher than 10% of normal operating current
DC Input Voltage	+24 +/- 0.5 VDC (Nominal)	Operating range : + 24.5 - +30 VDC
Current Consumption	5.1 A (Max.)	@ Nominal VDC
Input / Output Impedance	50 Ω	
Max. Input Without Damage	+22 dBm	

2. Mechanical Characteristics

Monitoring Connector	DB9-Male	4 – 40 screw
RF IN/OUT Connector	SMA 4 Holes – Female	
DC Input	Pin 6 and Pin 7 @ DB9	
Dimensions	6.4" x 3.4" x 1.06"	

3. Environment Characteristics

Operating Temperature	-20°C ~ +70°C	Base Plate
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Revision History

REV	Reason to Change	Date	Initialed by

4. DB9 Pin Description

1	N/C	
2	Current Alarm	TTL High: Alarm TTL Low : Normal
3	Temperature Monitor	Vt + 500mV, 10 mV / °C
4	NC	
5	Enable / Disable	0V or Open: Enable 5V: Disable
6, 7	+24 V	
8, 9	GND	

5. Outline Drawing

