The **MA500/10/44SK-A** is a broadband high power amplifier for VHF-UHF/Cellular/GSM applications. This amplifier supports signal amplification in the 20 ~1000 MHz frequency band and is protected against over-temperature and excessive current draw.

Model: MA500/10/44SK-A

1. Electrical Characteristics

Item	Value	Note
Frequency Range	20 ~ 1000 MHz	
Gain	44 dB (Min.)	
Gain Flatness	±1.5 (Max.)	Over Frequency Range
VVA Range	25 dB (Min.)	
Output P1	+40 dBm (Min)	
Output Psat	+44 dBm (Min.)	
Output 3rd Intercept Point	+48 dBm (Typ.)	**2 CW tones, @ +27 dBm per tone, 100 kHz spacing**
Input / Output VSWR	2:1 (Max.)	
Spurious	-60 dBc (Max.)	
Efficiency	16% (Min.)	@ 25 Watts Power Output
Harmonics	-20 dBc (Typ.)	@ 10 Watts Power Output
HPA Enable / Disable	TTL "0V or Open" ⇒ Enable TTL "5V" ⇒ Disable	
Temperature Sensor Output	10 mV / °C	
Current Sensor Output	275 mV / A	
HPA Switching ON/OFF Speed	2 µs	
DC Input Voltage	+26 to +28V	
Current Consumption	6.5 A (Max.)	@ 25 Watts Power Output
Input / Output Impedance	50 Ω	
Max. Input Signal ***(Without Damage)***	+5 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	-40°C ~ +70°C	**Base Plate**

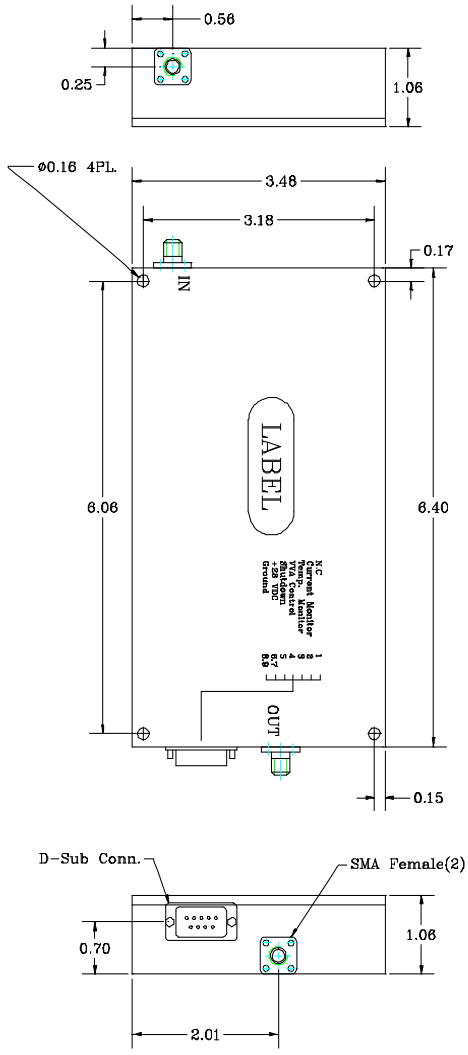
Revision History

REV	Reason to Change	Date	Initialed by
	Released to production	11/09/12	YZ

4. DB9 Pin Description

1	N/C	
2	Current Monitor	275 mV / A
3	Temperature Monitor	10 mV / °C
4	VVA Control	0-5V 0V: Gain Max. 5V: Gain Min.
5	Enable / Disable	0V or Open: Enable 5V: Disable
6, 7	+28 V	
8, 9	GND	

5. Outline Drawing



38 LEUNING STREET | SOUTH HACKENSACK, NJ | USA 07606
TEL: (201) 343-6388 | FAX: (201) 343-6390 | E-MAIL: INFO@GWAYMICROWAVE.COM
WWW.GWAYMICROWAVE.COM