MP5500/800/48MK-A1 amplifier is suitable for Wi-Max and LTE high power applications. It employs linear GaN power devices that provide sufficient output power, wide dynamic range, and high gain. Amplifier is protected against over current and VSWR., and integrates a Bi-directional coupler for Forward and Reflected Power monitoring.

Model: MP5500/800/48MK-A1

1. Electrical Characteristics

Item	Value		Note
Frequency Range	5100 ~ 5900 MHz		
Power Gain	51 dB (Min.)	57 dB (Max.)	@ 50 Watts Output
Gain Flatness	± 1.0 dB		**@ Constant Input -5.0 dBm Over Freq. Range**
Output Power Psat	+48 dBm (Min.)		
Input / Output VSWR	≤ 1.5		
Harmonics	-50 dBc (Max.)		@ +47 dBm Output
Spurious	-65 dBc (Max.)		@ +47 dBm Output
HPA Enable/Disable	**TTL "Low " ⇒ Enable** **TTL "High or Open" ⇒ Disable**		Pin 5
Forward Power Monitor	2.4 ± 0.1 V @ +47 dBm		**Pin 1,** RMS Detection
Reverse Power Monitor	2.4 ± 0.1 V @ +47 dBm		**Pin 2**, RMS Detection
Input Power Monitor	2.4 ± 0.1 V @ 0 dBm		**Pin 3**, RMS Detection
VVA Control Range	> 30 dB		**Pin 4**, Voltage Input 0-5V
VVA Control Voltage	+5V: Maxim Gain 0V: Minimum Gain		
Temperature Sensor	Vt +500mV, 10mV/°C		**Pin 13**
Current Monitor	100mV/A		**Pin 12**
DC Input Voltage/Current	+28 VDC / 9.5 A (Max.)		@ +47 dBm Output
Efficiency	20 %		@ +47 dBm Output
Input / Output Impedance	50 Ω		
Max. Input Signal ***(Without Damage)***	+5 dBm		
Load Conditions			**Shut Down Protection**

2. Mechanical Characteristics

Monitoring Connector	HD DB-15-Male	4 – 40 screw
RF IN/OUT Connector	SMA, 4 Holes – Female	
DC Input	Pin 6,7,8 on DB15-M	
Dimensions	7.30" x 5.40" x 0.87"	
Weight	2.8 lb	

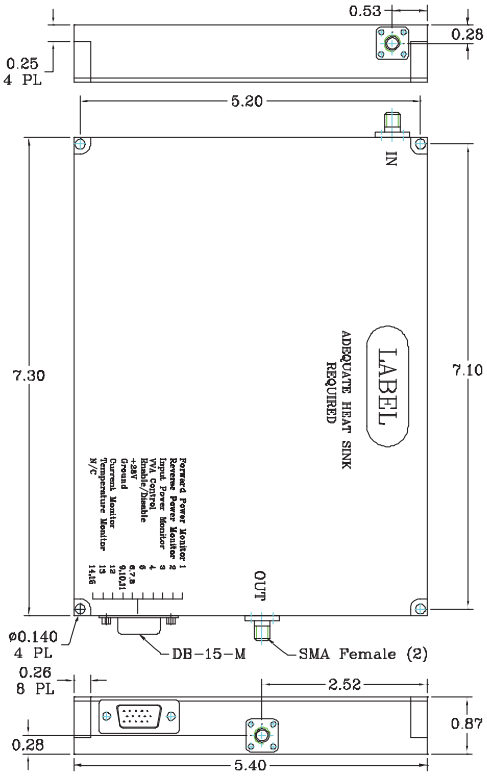
3. Environment Characteristics *(Designed to meet)*

Operating Temperature	-20°C ~ +70°C	Base Plate
Storage Temperature	-40°C ~ +95°C	
Cooling	External Heat-Sink	
Humidity ***(Non-condensing)***	95% (Max.)	**Designed to meet: IAW MIL-STD-810F**
Vibration and Shock	Vibration 6.06 gRMS	**Designed to meet: IAW MIL-STD-810F**

4. HD DB15 Male Pin Description

1	Forward Power Monitor	
2	Reverse Power Monitor	
3	Input Power Monitor	
4	VVA Control	
5	Enable / Disable	Enable: TTL Low Disable : TTL High or Open
6, 7, 8	+ 28V	
9, 10, 11	Ground	
12	Current Monitor	
13	Temperature Monitor	
14, 15	NC	

5. Outline Drawing



Revision History			
REV	**Reason for Change**	**Date**	**Initialed by**
	Released to Production	06/13/19	Y.Z

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