The **MP5100/1400/43MK-A** is suitable for 4400 ~ 5800 MHz applications. The amplifier employs advance GaN power devices that provide sufficient output power, wide dynamic range, and high gain. It integrates high power switch for TDD application.

Model: MP5100/1400/43MK-A

1. Electrical Characteristics

Item	Value	Note
Frequency Range	4400 ~ 5800 MHz	
	Tx	
Tx Power Gain	40± 1.0 dB	
Tx Power Gain Flatness	± 1.0 dB	@2 0 watts Over Freq.
Tx Gain Variation	± 1 dB	Over Temp. Range
Tx Output Power Psat	+43 dBm (Min.)	
Insertion Loss of Rx Path	≤ 1.5 dB	
Input / Output VSWR	≤ 1.5	
Tx 2nd Harmonics	-40 dBc (Max.)	@ + 43 dBm Output
Spurious	-70 dBc (Max.)	@ +43 dBm Output
	Rx	
Tx/Rx Switch Control	TTL "0" ⇒ Tx On TTL "1" ⇒ Rx On	Pull Up in TTL High on Pin 4
Tx/Rx Switching Time	5 µs (Max.)	TTL Control Signal: F = 1 KHz, 50% DC
Tx/Rx Isolation	100 dB (Min.)	
DC Input Voltage /Currnt	+28 VDC /3.2A	@ 20 Watts
Efficiency	≥ 22%	
Temperature Sensor	Vt + 500mV, 10mV/C°	Pin 3
FWD Monitor @ +43 dBm	4.0 ± 0.2V	Pin 5 Indicates
Input / Output Impedance	50 Ω	
Input Max without Damage	+12 dBm	
Reverse DC Voltage Protection	With TVS Diode 30V	Up to 600 Watts

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-9	
Dimensions	4.92" x 2.95" x 0.93"	
Weight	1.0 lb	

3. Environment Characteristics

Operating Temperature	-40℃ ~ +75℃	**Base Plate**
Storage Temperature	-40°C ~ +95°C	
Cooling	External Heat-Sink	
Humidity (Non-condensing)	95% (Max.)	Designed to meet: IAW MIL-STD-810F
Operating Altitude	30,000 Feet (Min.)	
Vibration and Shock	Vibration 6.06 gRMS	Designed to meet: IAW MIL-STD-810F

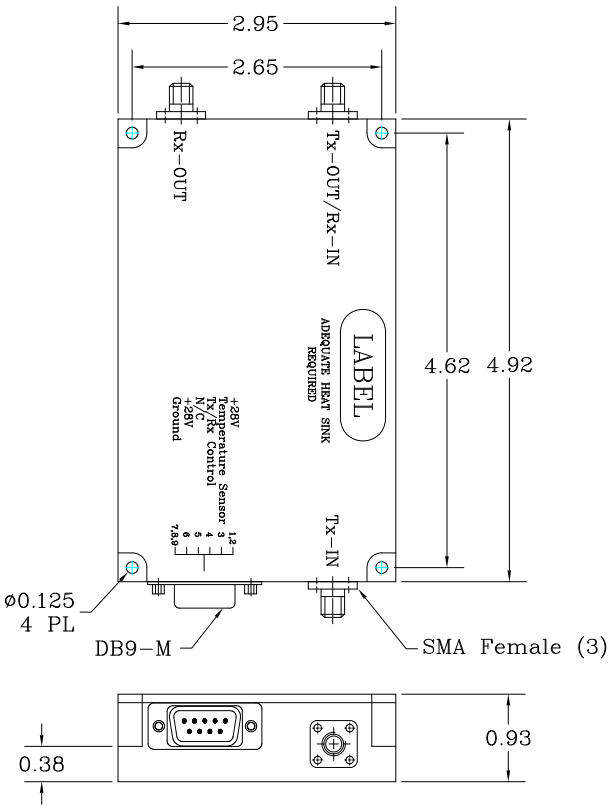
Revision History

REV	Reason to Change	Date	Initialed by
	Initial Release	10/27/15	Y.Z.

4. DB9 Pin Description

1, 2	+ VDC	
3	Temperature Sensor	
4	Tx/Rx Control	Tx On: TTL Low Rx On: TTL High
5	FWD Monitor	
6	+ VDC	
7, 8, 9	Ground	

5. Outline Drawing



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