



The MP5800/150/47MK-A is suitable for 5.725 ~ 5.875 GHz high power, linear applications, and supports Wi-Max & LTE. The amplifier is designed for both TDD & FDD modulations. This amplifier employs linear GaN power devices that provide ample output power, wide dynamic range, and excellent gain flatness.

Model: MP5800/150/47MK-A



1. Electrical Characteristics

Item	Value	Note
Frequency Range	5725 ~ 5875 MHz	
Gain	47 dB (Min.)	@ 50 Watts Output
Gain Flatness	± 1.0 dB (Max.)	Over Pass Band Frequency Range
Output Psat	+47 dBm (Min.)	
Reverse Power Handling	+47 dBm (Min.)	
Input VSWR	1.8:1 dB (Max.)	
Output VSWR	≤ 1.2:1	Isolator Included
Noise Figure	10 dB (Typ.)	
HPA Enable / Disable	TTL "Low" ⇒ Enable TTL "High or Open" ⇒ Disable	
Switching On/Off @ 90% Rise/Fall Time	≤ 2 μs	
Current Sensor	100 mV/A	Pin 3
Temperature Sensor	Vt +500mV, 10mV/°C	
Harmonics	-40 dBc (Max.)	@ 50 Watts Output
Spurious	-65 dBc (Max.)	@ 50 Watts Output
DC Input Voltage / Current	+28VDC ± 1V / 7.0A (Max.)	DC Input Voltage / Current @ CW Pout @ +47 dBm
Max. CW Input (Without Damage)	+15 dBm	
Input / Output Impedance	50 Ω	
DC Input Protection	With Voltage Limit Diode	
Load Conditions	∞ : 1	

2. Mechanical Characteristics

Monitoring Connector	DB-9 Male	4 – 40 screw
RF INPUT Connector	SMA Female	
RF OUTPUT Connector	SMA Female	
DC Input	DB-9 Male	Pin 6, 7
Dimensions	7.20" x 3.97" x 1.07"	
Weight	1.5 lb	

Revision History

REV	Reason to Change	Date	Initialed by
	Production Approved	01/30/17	Y.Z.

3. Environment Characteristics

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
Operating Altitude	10,000 Feet (Max.)	
Vibration and Shock	Vibration 6.06 gRMS	Designed to meet: IAW MIL-STD-810F

4. DB9 Pin Description

1, 2	NC	
3	Current Sensor	100mV/A
4	Temperature Sensor	Vt +500mV, 10mV/°C
5	Enable / Disable	Enable: TTL Low Disable: TTL High
6, 7	+28 VDC	
8, 9	GND	

5. Outline Drawing

