



MP5500/800/44MK-A1 amplifier is suitable for 5.1 ~ 5.9 GHz high power, linear applications, and supports Wi-Max & LTE. It is designed for both TDD & FDD modulations. Amplifier employs linear GaN power devices that provide ample output power, wide dynamic range, and excellent gain flatness. Band Pass and Low Pass filters are included into the module to improve Selectivity and Harmonic responses.



Model: MP5500/800/44MK-A1

1. Electrical Characteristics

Item	Value	Note
Frequency Range	5100 ~ 5900 MHz	
Frequency Response	Pass Band: 800 MHz (Min.)	
	Rejection: 600 MHz Offset from 5500 MHz: 30 dBc (Min.)	
Gain	44 dB (Min.), 46 (Max.)	20 Watts Output
Gain Flatness	± 1.0 dB (Typ.)	Over Pass Band Frequency Range
Output Psat	+43 dBm (Min.)	
Reverse Power Handling	+43 dBm (Min.)	
Input VSWR	1.5:1 dB (Max.)	
Output VSWR	≤ 1.2:1	Isolator Included
Noise Figure	8 dB (Max.)	
HPA Enable / Disable	TTL "Low" Enable TTL "High or Open" ⇒ Disable	
Switching On/Off @ 90% Rise/Fall Time	≤ 3µs	
Forward Power Monitor	4.0 ± 0.1V @ +43 dBm	RMS Detection at Pin 1
Reverse Power Monitor	4.0 ± 0.1V @ +43 dBm	RMS Detection at Pin 2
Current Sensor	100mV/A	Pin 3
VVA Control	+5V : Max Gain 0V : Maximum Attenuation	Pin 4
VVA Range	> 25 dB	
DC Input Voltage / Current	+28VDC ± 1V / 5.0A (Max.)	DC Input Voltage / Current @ CW Pout @ +43dBm
Efficiency	14%	
Max. CW Input Signal (Without Damage)	+10 dBm	
Input / Output Impedance	50 Ω	
DC Input Protection	With Voltage Limit Diode	

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	8.6" x 3.54" x 1.20"	
Weight	2.6 lb	

Revision History

REV	Reason to Change	Date	Initialed by
A	Change Psat and Current @ +43 dBm	05/17/16	Y.Z
B	Internal Layout changed due obsolescence of components	02/04/20	Y.Z

3. Environment Characteristics

Operating Temperature	-20°C ~ +70°C	Base Plate
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4. DB9 Pin Description

1	Forward Power Monitor	0 – 4.0 V
2	Reverse Power Monitor	0 – 4.0 V
3	Current Sensor	100mV/A
4	VVA Control	0 - 5 V
5	Enable / Disable	Enable: TTL Low Disable: TTL High
6, 7	+28 VDC	
8, 9	GND	

5. Outline Drawing

