



The MP3100/800/45MK-A11 is a broadband and high power amplifier for 2700-3500 MHz frequency band. It is suitable for Communication applications. The amplifier employs advance GaN power devices that provide ample output power, a wide dynamic range, broadband, and high efficiency.



## Model: MP3100/800/45MK-A11

### 1. Electrical Characteristics

Item	Value	Note
Frequency Range	2700 ~ 3500 MHz	
Gain	47 dB ± 2 dB	@ Rated Power
Gain Flatness	± 1.5 dB (Typ.)	Pout @ +45 dBm Over Freq. Range
Output Power Psat	+45.0 dBm (Min.)	
Input VSWR	1.8:1 (Max.)	
Enable/Disable	TTL "Low or Open": Enable TTL "High": Disable	Pin 5 on DB-9
Switch On/Off @ 10-90% Time	< 2 μs (Typ.)	
Forward Coupling	30 dB ± 0.5 dB Over Entire Freq. Range	≥ 20 dB Directivity
Reverse Coupling	30 dB ± 0.5 dB Over Entire Freq. Range	≥ 20 dB Directivity
Thermal Shutdown	+80°C ±5°C	Auto Recover @ +70°C ±5°C
Harmonics	-20 dBc (Max.)	@ Rated Power
Spurious	-70 dBc (Max.)	@ Rated Power
Current Sensor	100 mV/Amp	Pin 2 on DB-9
Temp. Sensor	10 mV/°C	Pin 3 on DB-9
DC Input	+28 VDC	
DC Current	3.5 A (Max.)	Pout @ +45 dBm
Standby Current	0.1 A (Max.)	Shutdown Status
Efficiency	30 % (Min.)	Pout @ +45 dBm
Input / Output Impedance	50 Ω	
Max. Input Power (Without Damage)	+5 dBm	

### 2. Mechanical Characteristics

RF IN/OUT Connector	SMA Female	
DC Input	Pin 6,7 on DB-9	
Dimensions	7.2" x 3.48" x 1.06"	
Weight	1.2 lb	

### 3. Environment Characteristics

Operating Temperature	-20°C ~ +75°C	Base Plate
Cooling	External Heatsink	
Humidity (Non-condensing)	95% (Max.)	

### Revision History

REV	Reason to Change	Date	Initialed by
	Production released	12/14/14	Y.Z.
	FWD & REF Power as RF signal	05/03/18	Y.Z.

### 4. DB9-Male Pin Description

1	NC	
2	Current Sensor	100 mV/Amp
3	Temperature Monitor	V <sub>t</sub> + 500 mV, 10 mV / °C
4	NC	
5	Enable/Disable	Enable: TTL Low or Open Disable: TTL High
6, 7	+28VDC	
8	NC	
9	NC	

### 5. Outline Drawing

