



The MP1480/2050/47MK-CP-A is a broadband and high power amplifier for 450-2500 MHz frequency band. It is suitable for Jamming or communication operation. The amplifier employs advance GaN power devices that provide ample output power, a wide dynamic range, broadband, and high efficiency. It integrates a Bi-directional power coupler for forward and reflection monitor.

Model: MP1480/2050/47MK-CP-A

1. Electrical Characteristics

Item	Value	Note
Frequency Range	450 ~ 2500 MHz	
Power Gain	50 dB (Typ.)	At Rated Power
Gain Flatness	± 2.5 dB (Typ.)	Over Freq. Range
Output Power Psat	+47 dBm (Min.)	
Input VSWR	1.5:1 (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.)	
Thermal Shutdown	+80°C ± 5°C	Auto Recover @ +65°C ± 5°C
Forward Power Monitor	4.0 ± 0.2 V @ +47 dBm	RMS Detection at Pin 1
Reflect Power Monitor	4.0 ± 0.2 V @ +47 dBm	RMS Detection at Pin 2
ALC ON/OFF	Enable: TTL Low Disable: TTL High	Pin 3 on DB-9
ALC Level	ALC Setting Range >15 dB	Pin 4 on DB-9 Voltage Input 0-5V Accuracy: ± 1 dB
Harmonics	-15 dBc (Typ.)	@ Rated Power
Spurious	-60 dBc (Max.)	@ Rated Power
DC Input	+28 VDC	
DC Current	7.2 A (Max.)	@ Rated Power
Standby Current	0.1 A (Max.)	Shutdown Status
Efficiency	35% (Min.)	
In/Output Impedance	50 Ω	
Max. Input without Damage	+5 dBm	

2. Mechanical Characteristics

RF IN/OUT Connector	SMA Female	
DC Input	Pin 6,7 on DB-9	
Dimensions	9.8" x 3.95" x 1.1"	
Weight	2 lb	

3. Environment Characteristics

Operating Temperature	-20°C ~ +70°C	Base Plate
Cooling	External Heatsink	
Humidity (Non-condensing)	95% (Max.)	

Revision History

REV	Reason to Change	Date	Initialed by

4. DB9-Male Pin Description

1	FWD Power Monitor	0-4.0 V
2	REV Power Monitor	0-4.0 V
3	ALC On/Off	ALC ON = TTL Low ALC OFF = TTL High
4	ALC Level Input	0-5V
5	Enable/Disable	Enable: TTL Low or Short Disable: TTL High or Open
6,7	+28VDC	
8,9	GND	

5. Outline Drawing

