

The **MP1450/1500/50MK-CP-A** is a broadband high power amplifier that supports signal amplification in the $700 \sim 2200$ MHz frequency range. It is protected against over-temperature and high VSWR. It is suitable for Jamming or communication operation. The amplifier employs advance GaN power devices that provide ample output power, a wide dynamic range, and high efficiency.

Model: MP1450/1500/50MK-CP-A

1. Electrical Characteristics			
Item	Value	Note	
Frequency Range	$700\sim 2200~MHz$		
Power Gain	49 dB (Min.), 50 (Typ.)	@ 100 Watts, over entire Temp. & Frequency Range	
Power Gain Flatness	± 2.5 dB (Max.)	@ 100 Watts, over entire Temp. & Frequency Range	
Output Power P _{sat}	100 Watts (Min.)		
Input Return Loss	-15 dB (Typ.)		
Enable/Disable	TTL "Low or Open": Enable TTL "High": Disable	Pin 5 on D7W2	
Thermal Shutdown	$+85^{\circ}C \pm 5^{\circ}C$	Auto Recover at $+70^{\circ}C \pm 5^{\circ}C$	
Temperature Monitor	V_t + 500 mV, 10 mV / °C	Pin 3 on D7W2	
VVA Control	+5V: Maxim Gain 0V: Maxim Attenuation	Pin 4 on D7W2	
VVA Range	> 30 dB		
Forward Power Monitor	$2.4~\pm 0.2$ V @ +50 dBm	RMS Detection at Pin 1	
Forward Power Monitor Flatness	± 1.0 dBm (Typ.)	Over Frequency Band	
Reflect Power Monitor	2.4 ± 0.2 V @ +50 dBm	RMS Detection at Pin 2	
Reflect Power Monitor Flatness	± 1.0 dBm (Typ.)	Over Frequency Band	
Harmonics	-15dBc (Max.)	Pout @ 100 Watts	
Spurious	-70 dBc (Max.)	Pout @ 100 Watts	
Efficiency	> 25%	Pout @ 100 Watts	
DC Input	+28 VDC		
DC Current	13.0 A (Max.)	Pout @ 100 Watts	
Standby Current	0.08 A (Max.)	Shutdown Status	
In/Output Impedance	50 Ω		
Max. Input without Damage	+10 dBm		

2. Mechanical Characteristics		
RF In/Out Connector	SMA Female	
DC Input	Pin A1, A2 on D7W2 Male	
Dimensions	8.50" x 4.50" x 1.07"	Unit: inch [mm]
Weight	2.5 lb	

Revision History			
REV	Reason to Change	Date	Initialed by

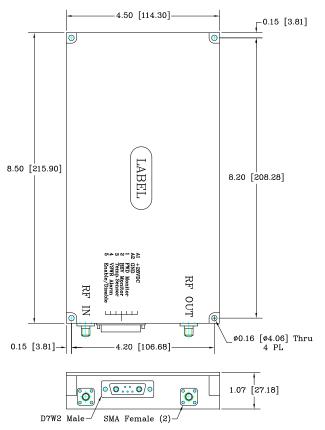


3. Environment Characteristics		
Operating Temperature	$-10^{\circ}C \sim +70^{\circ}C$	**Base Plate
Cooling	External Heat-sink	
Humidity (Non-condensing)	95% (Max.)	

4. D7W2	-Male Pin	Description

1	FWD Monitor	
2	REV Monitor	
3	Temperature Sensor	V_t + 500 mV, 10 mV / °C
4	VVA	0-5V
5	Enable/Disable	Enable: TTL Low or Open Disable: TTL High
A1	+28VDC	
A2	GND	

5. Outline Drawing



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