



Microwave Town Company, LLC

MTPA50125250502

500MHz-2500MHz 100Watt Broadband Power Amplifier

MTPA50125250502 is a air-cooled, broadband, solid state amplifier. This rack mount amplifier based on GaN technology provides high gain, high output power, wide dynamic range, and good linearity. The front panel gain control permits the operator to conveniently set the desired output level. The LCD display shows operate status including rack temperature, current, gain, and etc. Multiple self-protection techniques are implemented such as thermal overload, excessive current flow, Input overdrive, large mismatch, fan mal-function. The status indications are available via the LCD display accordingly. This unit is suitable in EMI/EMC test, satellite communication, RF/MW measurements, and other applications.

- High Power and Efficiency
- High Reliability and Ruggedness
- Ultra Broadband
- Built-in control, monitoring & protection circuits
- GPIB option -101



ELECTRICAL CHARACTERISTICS @ 220V/110V AC, +25° C, 50Ω

PARAMETER	UNIT	MIN	TYPICAL	MAX
Frequency Response	MHz	500		2500
Power Gain	dB		50	
Gain Flatness per 40MHz bandwidth	+/-dB		1	
Gain Flatness via Temperature	+/-dB		2	
Saturated Output Power	dBm		50	
Efficiency @ Sat Output Power	%		25	
Output Power @ 1dB gain compression point	dBm		47	
Harmonic Distortion	dBc		-20	
Spurious Signals	dBc		-60	
Load	Ohm			Infinity
IM3@P1dB	dBc		-20	
Input VSWR				2:1
Output VSWR			2:1	



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ENVIRONMENTAL SPECIFICATIONS (DESIGN TO MEET)

PARAMETER	UNIT	MIN	TYPICAL	MAX
Voltage	V (AC)		220	
Current	A		2	
Operating Temperature	°C	0		50
Non-Operating Temperature	°C	-40		70

MECHANICAL SPECIFICATIONS

PARAMETER	UNIT	MIN	TYPICAL	MAX
Dimensions W x H x D	Inch		25.00X19.00X6.00	
Weight	KG		25	
RF Input & Output		SMA(F), SMA(F)		
option		GPIO(101)		

PROTECTIONS

PARAMETER	UNIT	MIN	TYPICAL	MAX
Input Overdrive	dBm		+10	
Load Mismatch Tolerance			5:1 @ all phase & amplitude	
Thermal Overload	°C		85	



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OUTLINE DRAWINGS

