

## 8000-12000 MHz/100Watts/Rack Mount

Model Number: MCW80120S50A

The MCW80120S50A is a rack-mountable unit incorporating a universal voltage power supply and a built in forced air-cooling system. This amplifier subsystem utilizes GaN power device that provides excellent power density, high efficiency, low distortion and wide dynamic range. Due to robust engineering and employment of advanced broadband RF matching networks, combining techniques and qualified components, the amplifier achieves consistent performance with field proven reliability.

### FEATURES:

- Instantaneous ultra-broadband
- Suitable for CW, AM, and FM modulation type
- Compact and robust design
- Standard front panel manual gain adjustment

### ELECTRICAL SPECIFICATIONS @ 220VAC, 25°C, 50Ω System

Parameter	Symbol	Min	Typ	Max	Units
Operating Frequency	BW	8000		12000	MHz
RF Output Power	Pout		100		Watt
Power Gain	G		50		Watt
Power Gain Flatness	ΔG		±2		dB
Input Return Loss	S11			-10	dB
Harmonics @50W	H			-15	dBm
Spurious	Spur			-60	dB
In/Output Impedance	Impedance		50		dB
Operating Voltage (1-phase)	VAC	180	220	240	dB
Power Consumption@50W	IDD		1500		Watt

### MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Notes
Dimensions (W x H x D) Bench Top / Rack Mount	483 x 178 x 445mm [19x6.9x17.5 inch] (4U)	mm [inch]	Max
Weight	30[66]	kg [lbs]	Max
RF Connectors Input	Type-N, Female		
RF Connectors Output	Type-N, Female		
Cooling	Built-in internal forced air cooling system		

### ENVIRONMENTAL CHARACTERISTICS (Design to Meet)

Parameter	Minimum	Typical	Maximum	Units	Notes
Operating Temperature	-10		40	°C	
Non-operating Temperature	-15		45	°C	Storage
Relative Humidity (non-condensing)			95	%	

### ABSOLUTE MAXIMUM RATING

Input RF drive level without damage	+10 dBm (Max)
VSWR protection@80W	@3:1- PA output power will degrade to a safe operation level, and system will still work; @>3:1 protection will make system shutdown.
Thermal Overload	Power will Gracefully Degrade, when Ambient Temp >40°C

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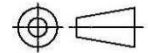
AVAILABLE OPTIONS (Selected options refer to the factory)

	Description	LCD
WAN(standard Ethernet)	Serial management of device	Internet access
RS-232	Serial management of device /local operator access	D-Sub 9-position Male
Status Monitor	LCD Controller	Digital Display, including FWD/REV Power indication (dBm or Watt scale), ALC On/Off, Standby mode, Fault indication

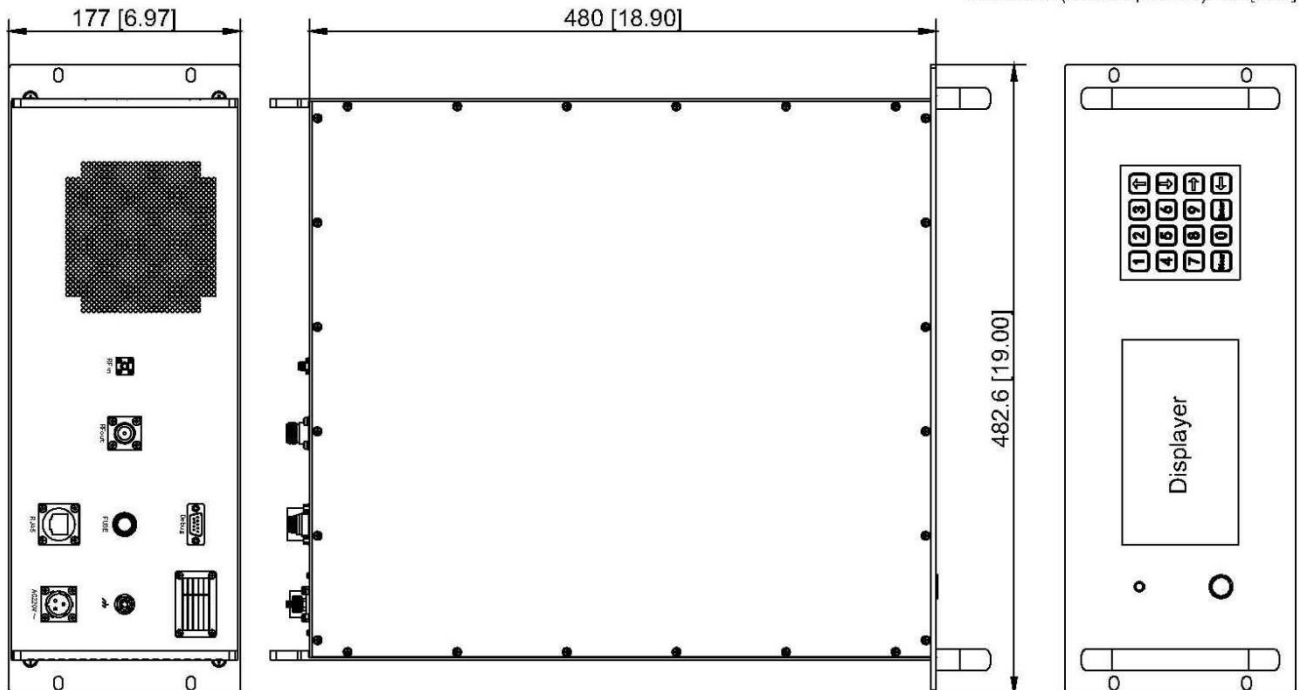
#### I/O CONNEC Gain TOR – Monitor Display or RS-232

Pin #	Description	Specifications	Optio	LCD
1	Reserved	Reserved		
2	Reserved	Reserved		
3	Reserved	Reserved		
4	Shutdown	Amplifier Disable: TTL Logic Low(<0.7V)		
5	GND	GND		
6	Reserved	Reserved		
7	Reserved	Reserved		
8	Reserved	Reserved		
9	Reserved	Reserved		

#### OUTLINE DRAWING (All dimensions in mm)



Tolerances (unless specified): ±0.8[0.03]



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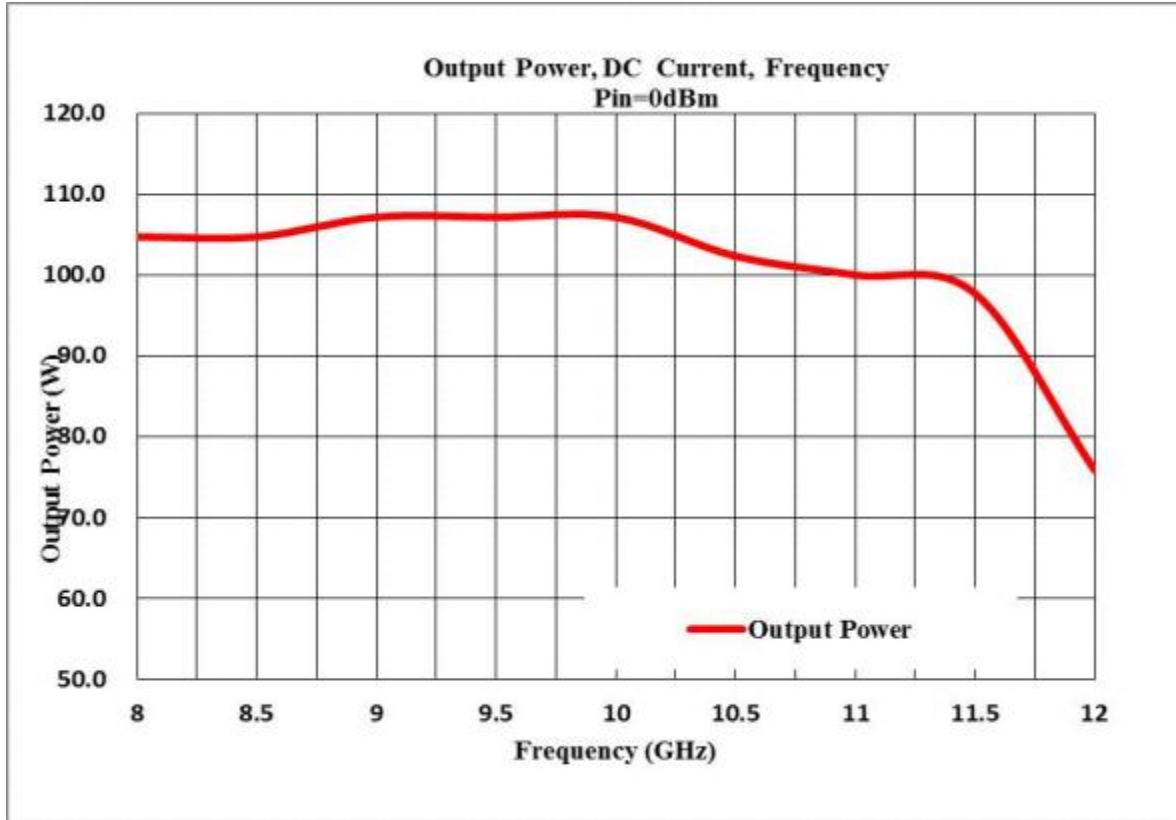
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TYPICAL PERFORMANCE PLOTS (For Reference Only)



### Important Note:

This product will be developed upon contract/order. All the above specs are for reference only. Actual product may be different. Please check with [Chengdu Microwave Technology Co., Ltd](http://Chengdu Microwave Technology Co., Ltd) sales team or E-mail to [info@cdmicrowave.com](mailto:info@cdmicrowave.com) if you have any more questions.

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