

## 2.7-3.1GHz/500Watts/Rack Mount

Model Number: MCW2900S57A

The MCW2900S57A 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 narrowband RF matching networks, combining techniques and qualified components, the amplifier achieves consistent performance with field proven reliability.

### FEATURES:

- High power
- High Efficiency
- Extraordinary Harmonic Control
- Smaller Size and Lighter Weight
- Low Distortion

### ELECTRICAL SPECIFICATIONS @ 220VAC, 25°C, PD=50μS, DC=10% ,50Ω System

Parameter	Symbol	Minimum	Typical	Maximum	Units
Operating Frequency	BW	2700		3100	MHz
Output Power (Typical 50Usec, 10%)	P <sub>PK</sub>		500		Watt
Power droop	Droop		1		dB
Duty Cycle	Duty Cycle			20	%
Pulse Width	P <sub>WIDTH</sub>	2		100	uS
PRI	PRI	70		1000	uS
Harmonics @ Pout = 300W	H		-15		dBc
RF Input Power( @ Pout = 500W )	Pin		0		dBm
Rise /Fall time(Pulse Performance)	TRISE/FALL/OFF(10-90)		100		nS
Switching Speed	TON/OFF		2		uS
Input Return Loss	S <sub>11</sub>			-10	dB
In/Output Impedance	Impedance		50		Ω
Spurious Signals	Spur		-55		dBc
Operating Voltage (@50/60Hz)	VAC	100	220	260	Volt
Power Consumption @ 500W	PD		400		Watt

### MECHANICAL SPECIFICATIONS

Parameter	Value	Limits
Dimensions (W x H x D) – Bench Top / Rack	483 x 177 x445 mm [19x6.9x17.5 inch] (4U)	Max
Weight	30 kg [66lbs]	Max
RF Connectors Input /Output	Type-N, Female	
Power Connectors	3-pin MS male	
Cooling	Built-in internal forced air cooling system	

### ENVIRONMENTAL CHARACTERISTICS (Design to Meet)

Parameter	Minimum	Typical	Maximum	Units	Notes
Operating Ambient Temperature	-20		60	°C	
Storage Temperature	-40		85	°C	
Relative Humidity (non-condensing)			95	%	

\*Chengdu Microwave Technology Co., Ltd\*

>>1st Floor, Building 3#, Huidu Science Park, No.5 Xixin Avenue, High-tech West District, Chengdu, China 611731

>>Tel: +86(28)87872669\*0

>>Fax: +86(28)87882925

>>Mobile/WhatsApp: +86-181 8078 9271

>>E-mail: [info@cdmicrowave.com](mailto:info@cdmicrowave.com)

>>[www.cdmicrowave.com](http://www.cdmicrowave.com)

## 2.7-3.1GHz/500Watts/Rack Mount

Model Number: MCWP2900S57A

### PROTECTIONS

Input RF drive level without	+5 dBm (Max)
VSWR protection@200W	@ 3:1- PA output power will degrade to a safe operation level, and system will still work.
Thermal Overload	Power will Gracefully Degrade, when Ambient Temp >40 °C

### AVAILABLE OPTIONS (Selected options refer to the factory)

	Description	LCD
WAN(standard Ethernet)	Serial management of device	Internet access
RS-232(Optional)	Serial management of device /local operator access	D-Sub 9-Pin, Male
Status Monitor(Optional)	LCD	Digital Display, including FWD/REV Power indication (dBm or Watt scale), Standby mode, Fault indication (dBm or Watt scale), Fault indication
GainAdjustment(Optional)	Controller, Front Panel	Gain Adjustment

### I/O CONNECTOR-Monitor Display or RS-232

Pin#	Description	Specifications	LCD
1	FWD	Forward detected power	
2	REV	Reverse detected power	
3	GND	GND	
4	Reserved	Reserved	
5	Reserved	Reserved	
6	Reserved	Reserved	
7	Reserved	Reserved	
8	Reserved	Reserved	
9	Reserved	Reserved	

\*Chengdu Microwave Technology Co., Ltd\*

>>1st Floor, Building 3#, Huidu Science Park, No.5 Xixin Avenue, High-tech West District, Chengdu, China 611731

>>Tel:+86(28)87872669\*0

>>Fax:+86(28)87882925

>>Mobile/WhatsApp:+86-181 8078 9271

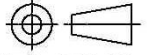
>>E-mail: [info@cdmicrowave.com](mailto:info@cdmicrowave.com)

>>[www.cdmicrowave.com](http://www.cdmicrowave.com)

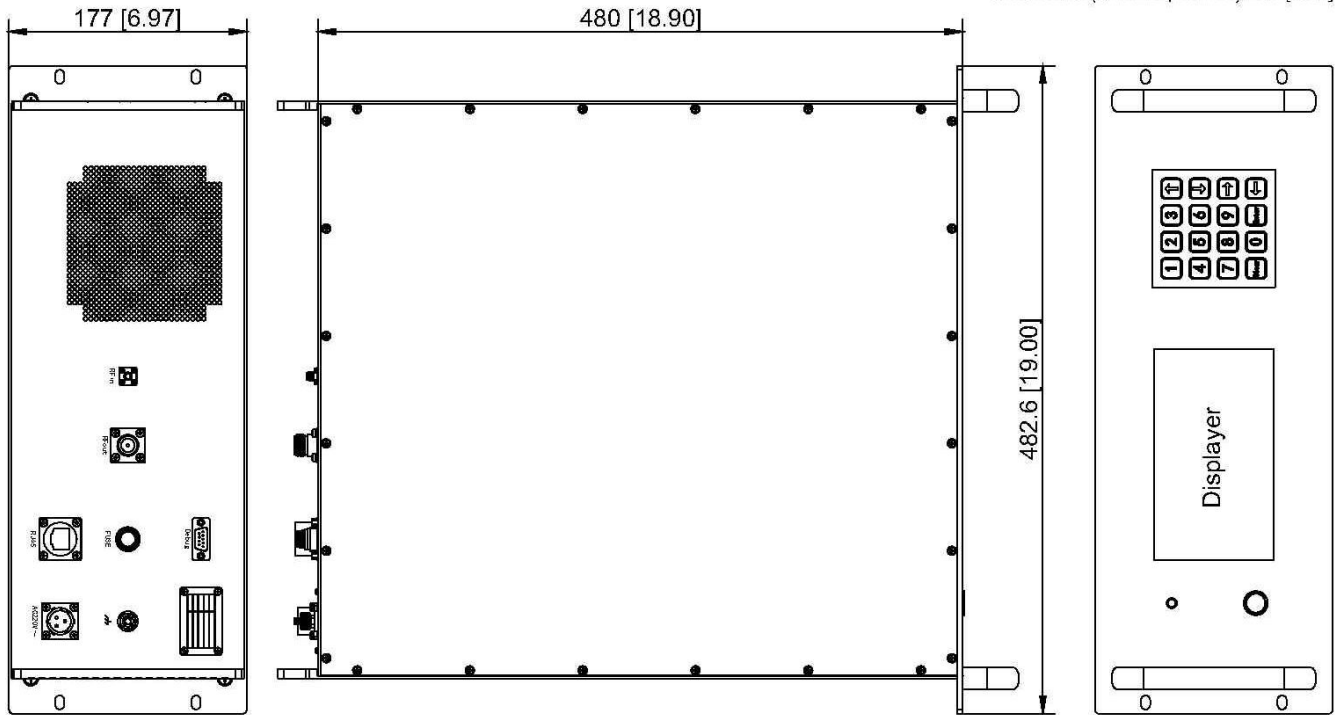
## 2.7-3.1GHz/500Watts/Rack Mount

Model Number: MCWP2900S57A

OUTLINE DRAWING (All dimensions in mm)



Tolerances (unless specified): ±0.8[0.03]



TYPICAL PERFORMANCE PLOTS (For reference only)

