

## 1.5-30MHz/500Watts/Rack Mount

Model Number: MCW0001003S57A

The MCW0001003S57A is a rack-mountable unit incorporating a universal voltage power supply and a built in forced air-cooling system. This amplifier subsystem utilizes LDMOS 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 adjust
- Unconditional stability and ruggedness

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

Parameter	Symbol	Minimum	Typical	Maximum	Units
Operating Frequency	BW	1.5		30	MHz
Output Power CW	P <sub>SAT</sub>		500		Watt
Power Gain	G <sub>1dB</sub>		57		dB
Input Power for Rated P <sub>SAT</sub>	P <sub>IN</sub>		0		dBm
Power Gain Flatness	ΔG		±2		dB
Input Return Loss	S <sub>11</sub>			-10	dB
Harmonics @ P <sub>OUT</sub> = 500W	H		-10		dBc
Spurious Signals	Spur		-55		dBc
Operating Voltage (1-phase)	V <sub>DC</sub>		220		Volt
Power Consumption @ 500W CW	P <sub>D</sub>		3000		Watt

### MECHANICAL SPECIFICATIONS

Parameter	Value	Limits
Dimensions (W x H x D) – Bench Top / Rack	482mm x 221mm x605mm (4U)	Max
Weight	48 kg	Max
RF Connectors Input /Output	In:Type-N, Female; Output: Type-N, Female	
Cooling	Built-in internal forced air cooling system	

### ENVIRONMENTAL CHARACTERISTICS (Design to Meet)

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

### PROTECTIONS

Input RF drive level without	+10 dBm	Max
VSWR protection	@ 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	

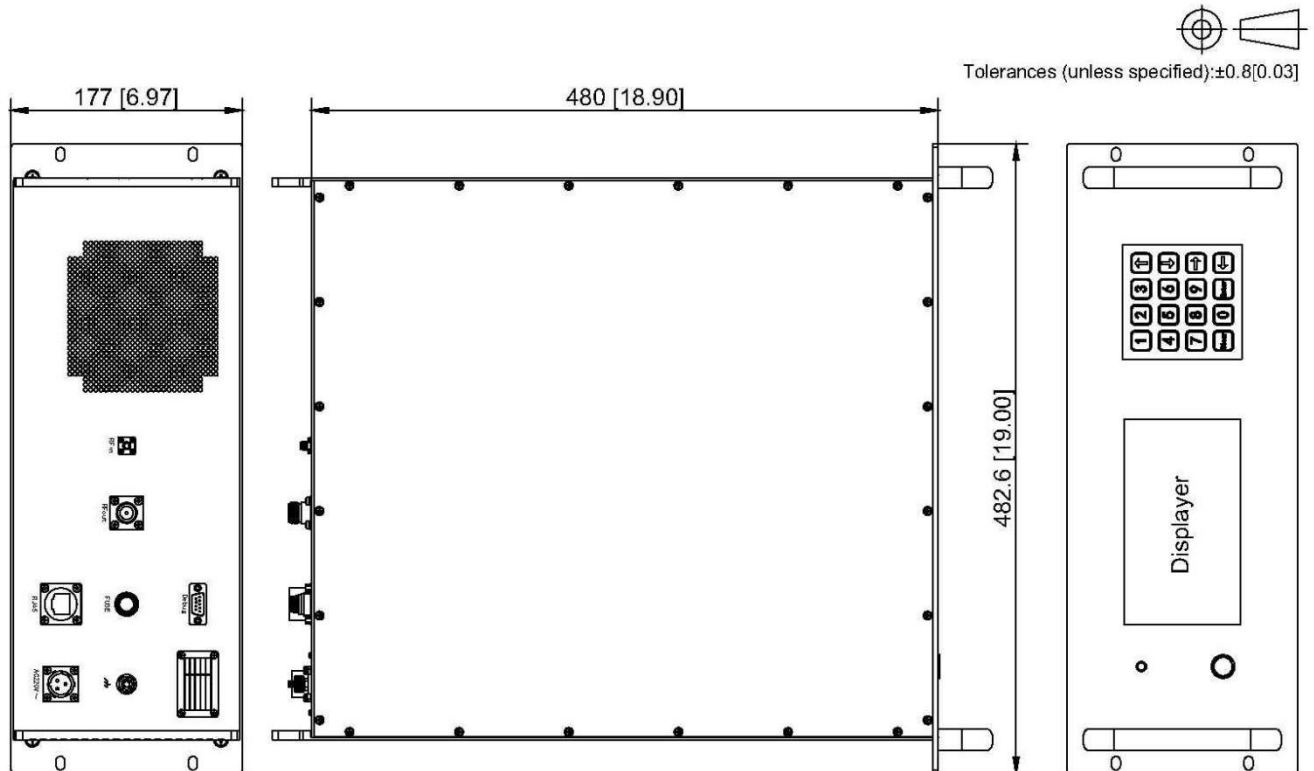
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DC INTERFACE CONNECTOR

Pin#	Description	Specifications	Option FGA	LED
1	Shutdown	Amplifier Disable: TTL Logic Low(<0.7V)		
2	Current Monitor	Analog voltage relative to IDD @ 100mV per Ampere		
3	GND	GND		
4	GND	GND		
5	Reserved	Reserved		
6	Reserved	Reserved		
7	Reserved	Reserved		
8	Reserved	Reserved		
9	Reserved	Reserved		

OUTLINE DRAWING ( All dimensions in mm )



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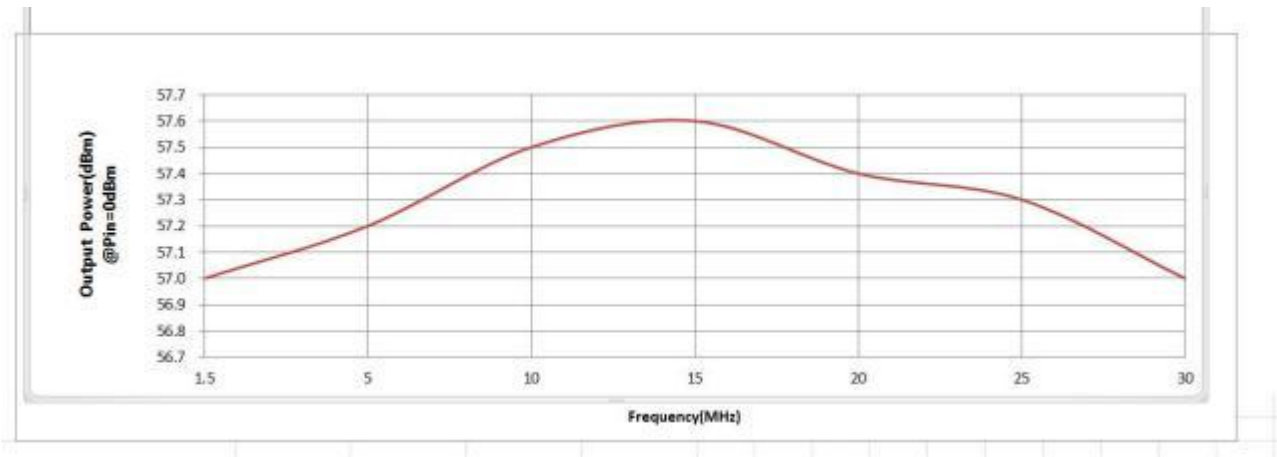
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### TYPICAL PERFORMANCE PLOTS



#### 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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