

30-500MHz/500Watts/Rack Mount

Model Number: MCW00305S57A

The MCW00305S57A 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	30		500	MHz
Output Power CW	P _{SAT}		500		Watt
Power Gain	G _{1dB}		57		dB
Input Power for Rated P _{SAT}	P _{IN}		0		dBm
Power Gain Flatness	ΔG		±2		dB
Input Return Loss	S ₁₁			-10	dB
Harmonics @ P _{OUT} = 500W	H		-13		dBc
Spurious Signals	Spur		-55		dBc
Operating Voltage (1-phase)	V _{DC}		220		Volt
Power Consumption @ 500W CW	P _D		3500		Watt

MECHANICAL SPECIFICATIONS

Parameter	Value	Limits
Dimensions (W x H x D) – Bench Top / Rack	483 x 178 x 445mm [19x6.9x17.5 inch] (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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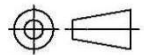
AVAILABLE OPTIONS (Selected options refer to the factory)

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

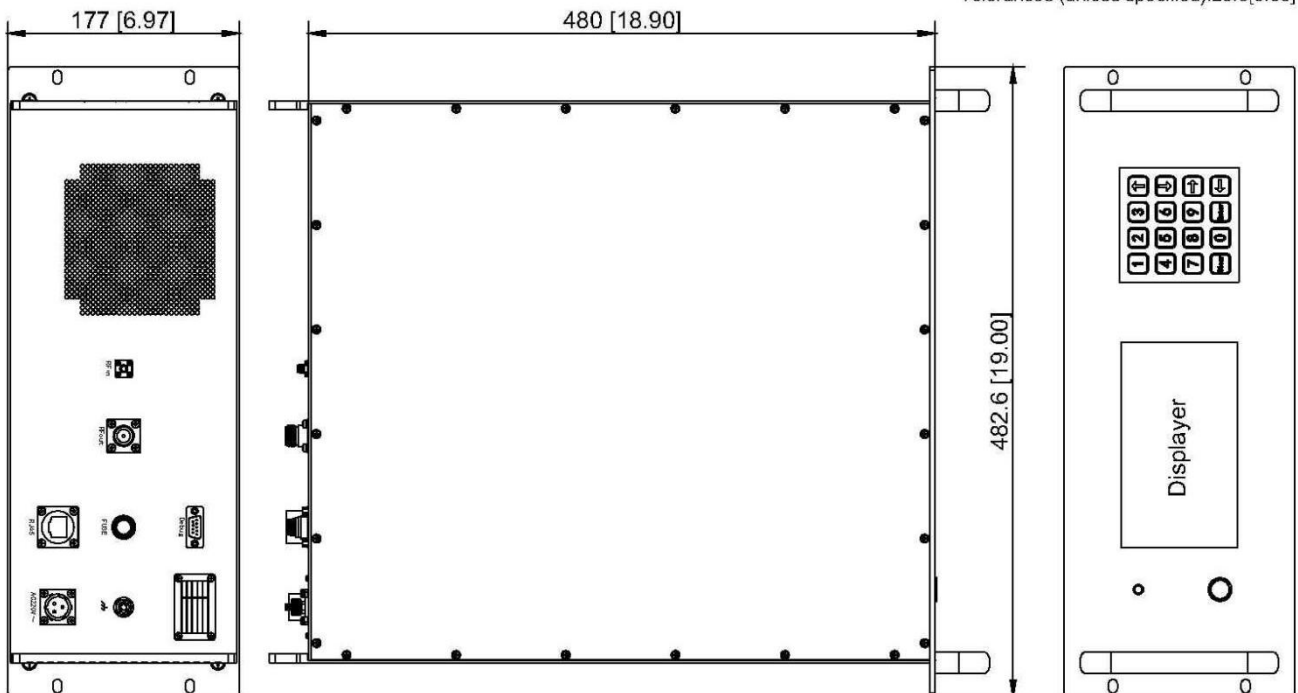
I/O CONNECTOR-Monitor Display or RS-232

Pin#	Description	Specifications	Option FGA	LED
1	RS-232(-)(Optional)	Transmit data-R xD		
2	RS-232(+)(Optional)	Transmit data-T xD		
3	GND	GND		
4	Shutdown	Amplifier Disable: TTL Logic Low(<0.7V)		
5	Reserved	Reserved		
6	Reserved	Reserved		
7	Reserved	Reserved		
8	Reserved	Reserved		
9	Reserved	Reserved		

OUTLINE DRAWING (All dimensions in mm)



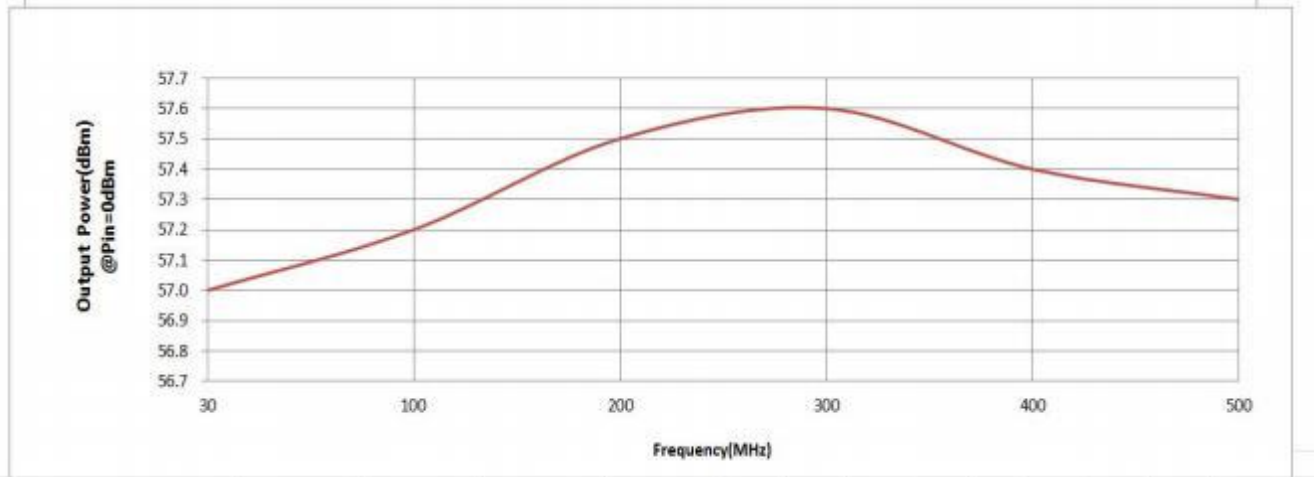
Tolerances (unless specified): ±0.8[0.03]



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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://ChengduMicrowaveTechnologyCo.,Ltd) sales team or E-mail to info@cdmicrowave.com if you have any more questions.

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