

1-2GHz/300Watts/Rack Mount

Model Number: MCW1020S55A

The MCW1020S55A 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 adjust
- Unconditional stability and ruggedness

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

Parameter	Symbol	Minimum	Typical	Maximum	Units
Operating Frequency	BW	1000		2000	MHz
Output Power CW	P _{SAT}		300		Watt
Power Gain @ P _{SAT}	G _P		57		dB
Input Power for Rated P _{SAT}	P _{IN}		0		dBm
Power Gain Flatness	ΔG _p		±2.5		dB
Input Return Loss	S ₁₁			-10	dB
Harmonics @ P _{OUT} = 150W	H		-10		dBc
Spurious Signals@ P _{OUT} = 150W	Spur		-60		dBc
Input/Output Impedance	Impedance		50		dBc
Operating Voltage (1 -phase)	VAC	180	220	250	Volt
Power Consumption @300W CW	PD		3000		Watt

MECHANICAL SPECIFICATIONS

Parameter	Value	Limits
Dimensions (W x H x D) – Bench Top / Rack Mount	482.6 x 221.5 x 605mm [19x8.7x23.8inch] (5U)	Max
Weight	55 kg [132 lbs]	Typ
RF Connectors Input /Output	Type-N, Female / 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	-40		85	°C	
Relative Humidity (non-condensing)			95	%	

PROTECTIONS

Input RF drive level without	+10 dBm	Max
VSWR protection@150W	@ 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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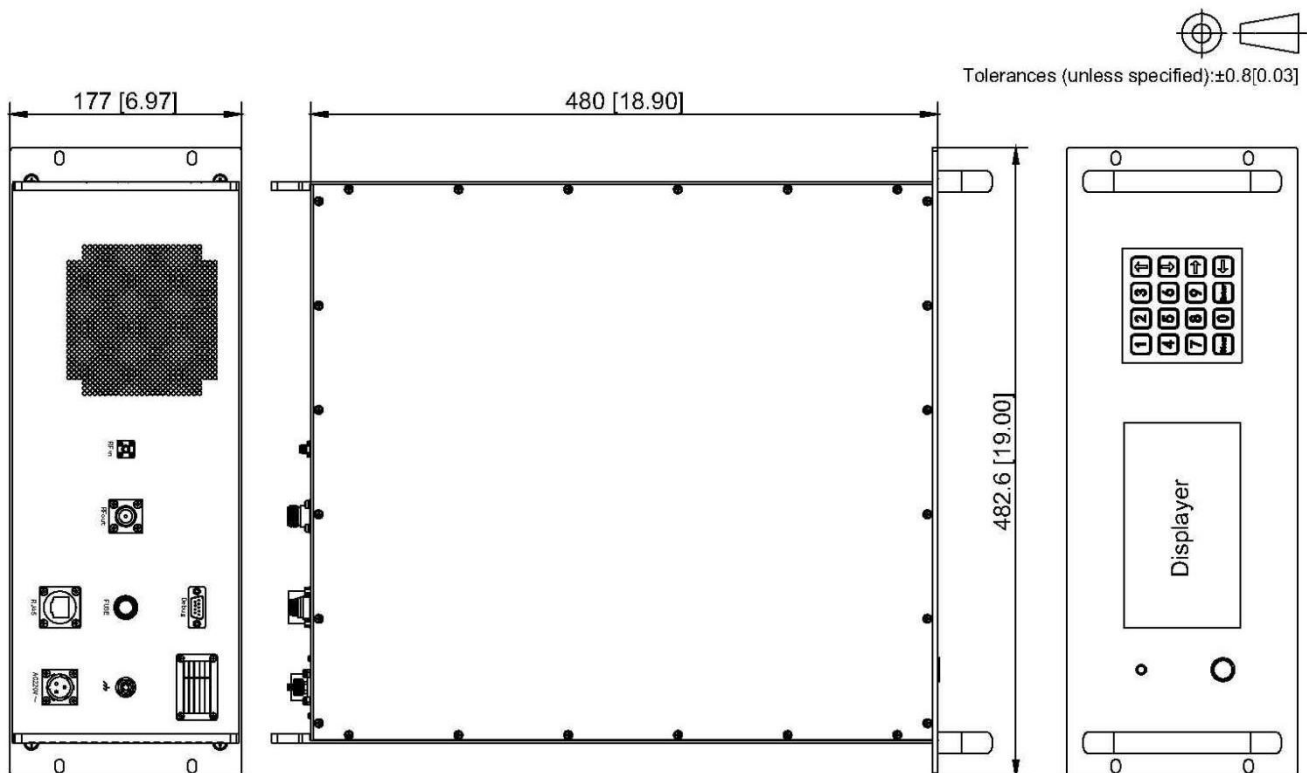
AVAILABLE OPTIONS (Selected options refer to the factory)

Description		LCD Screen
Status Monitor	LCD controller	Digital Display, including FWD/REV Power indication (dBm or Watt scale), Standby mode, Fault indication
WAN(standard Ethernet)	Serial management of device	Internet access
RS-232	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	FWD	Forward detected power		
2	REV	Reverse detected power		
4	Shutdown	Amplifier Disable: TTL Logic Low(<0.7V)		
4	Reserved	Reserved		
5	Reserved	Reserved		
6	Reserved	Reserved		
7	Reserved	Reserved		
8	Reserved	Reserved		
9	Reserved	Reserved		

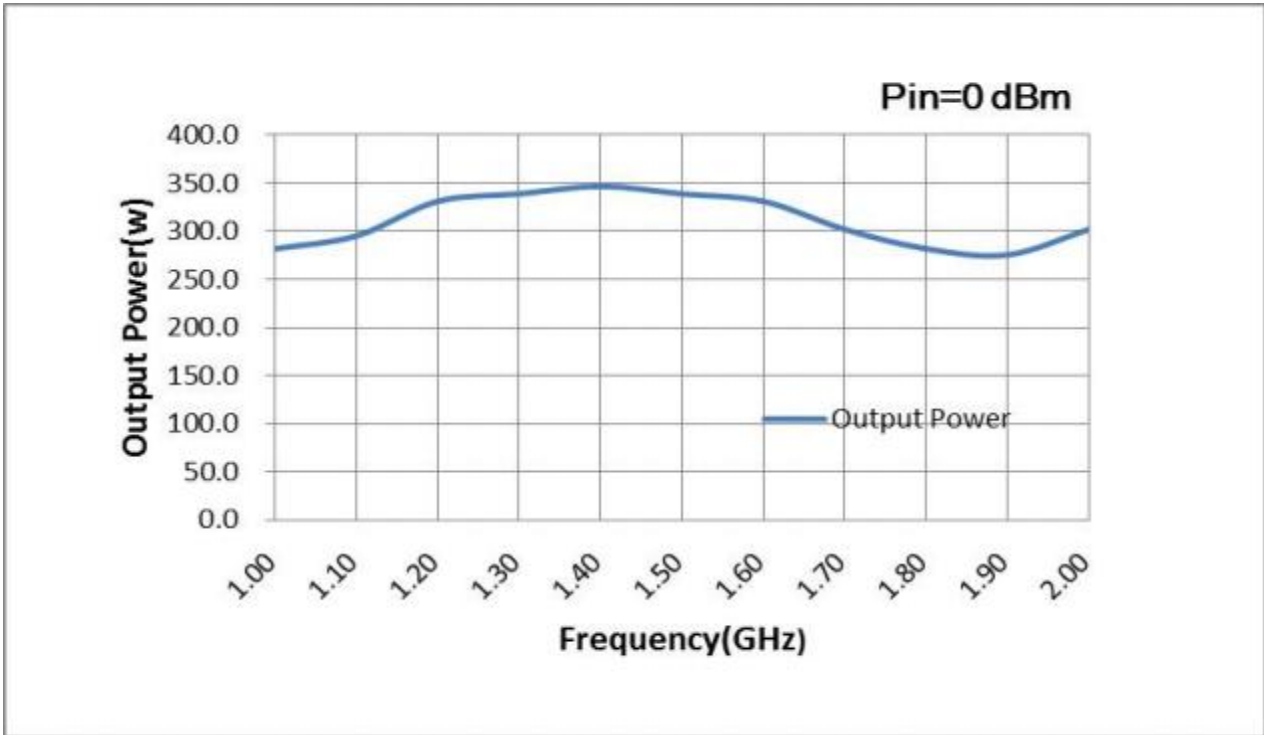
OUTLINE DRAWING(All dimensions in mm [inch])



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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 sales team or E-mail to info@cdmicrowave.com if you have any more questions.

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