

## 20-100MHz/200Watts/Rack Mount

Model Number: MCW00210S53A

The MCW00210S53A 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
- Solid-state class AB design
- Front panel manual gain adjust or LCD controller
- 50 ohm input/output impedance
- High stability and ruggedness

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

Parameter	Symbol	Minimum	Typical	Maximum	Units
Operating Frequency	BW	20		1000	MHz
Output Power CW	P <sub>SAT</sub>		200		Watt
Output Power @ 1dB Gain Compression	P <sub>1dB</sub>		160		Watt
Power Gain @1dB Gain Compression	G <sub>1dB</sub>		52		dB
Input Power for Rated P <sub>SAT</sub>	P <sub>IN</sub>		0	3	dBm
Power Gain Flatness	ΔG		±2.0		dB
Input Return Loss	S <sub>11</sub>			-10	dB
Noise Figure	NF		10		dB
Harmonics @ P <sub>OUT</sub> =100W	H		-15	-10	dBc
Spurious Signals	Spur		-60		dBc
Input /Output Impedance	Impedance		50		dBc
Operating Voltage (1-phase)	V <sub>AC</sub>	100		240	Volt
Power Consumption @ P <sub>OUT</sub> =100W CW	P <sub>D</sub>		1000		Watt

### MECHANICAL SPECIFICATIONS

Parameter	Value	Limits
Dimensions(WxHxD) – Bench Top/Rack Mount	483 x 177 x 425 mm [19x6.96x17.5 inch] 4U	Max
Weight	12kg [27 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	0		50	°C	
Storage Temperature	-40		85	°C	
Relative Humidity (non-condensing)			95	%	

### PROTECTIONS

Input RF drive level without	+10 dBm	Max
VSWR protection@30W	∞ @ all load phase & amplitude for duration of 1 minute 3:1 @ all load phase & amplitude continuous	-
Thermal Overload	85°C shutdown	Max

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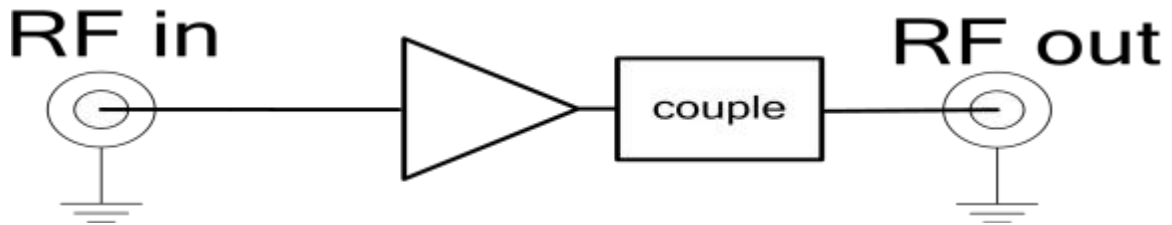
**AVAILABLE OPTIONS** (Selected options refer to the factory)

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

**WAN**

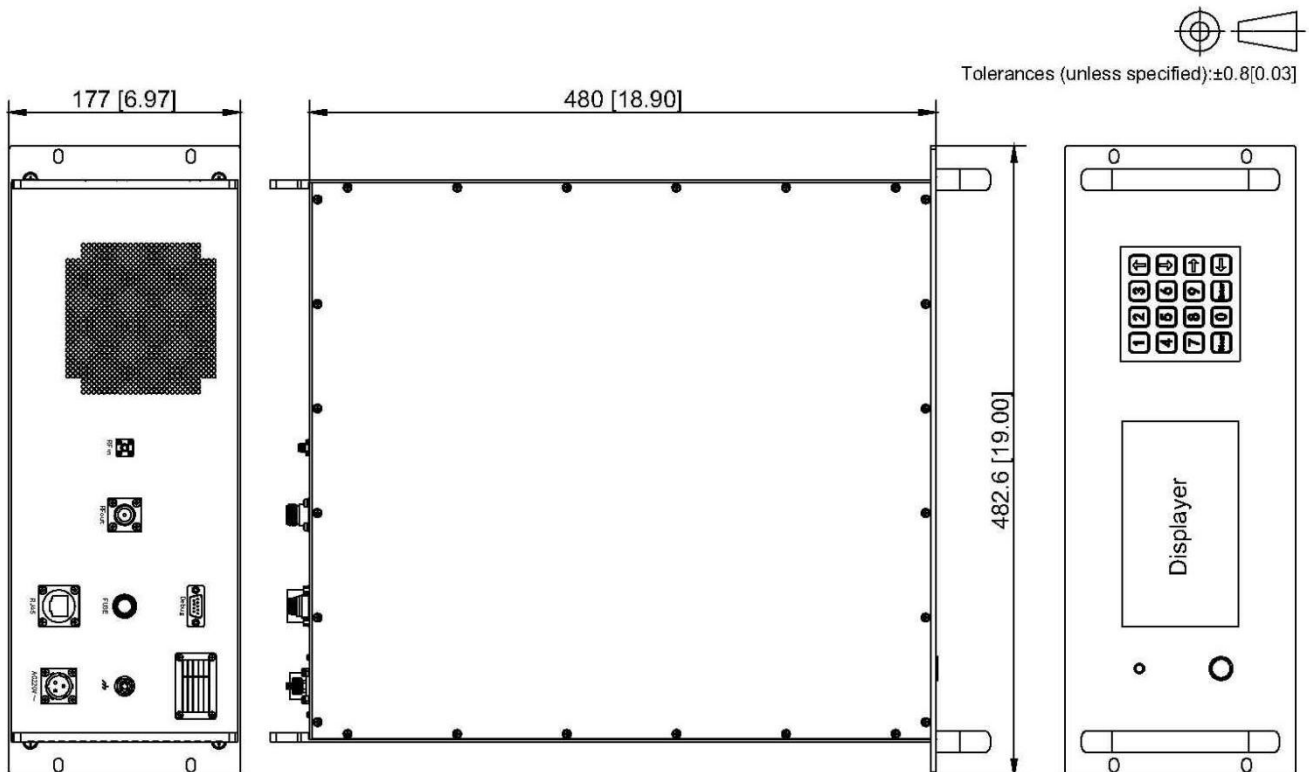
Description	Specifications	Option FGA	LED
FWD	Forward detected power		
REV	Reverse detected power		

**Functional Diagram**



**Note:** Output power is lower by 0.5-0.75dB with this option

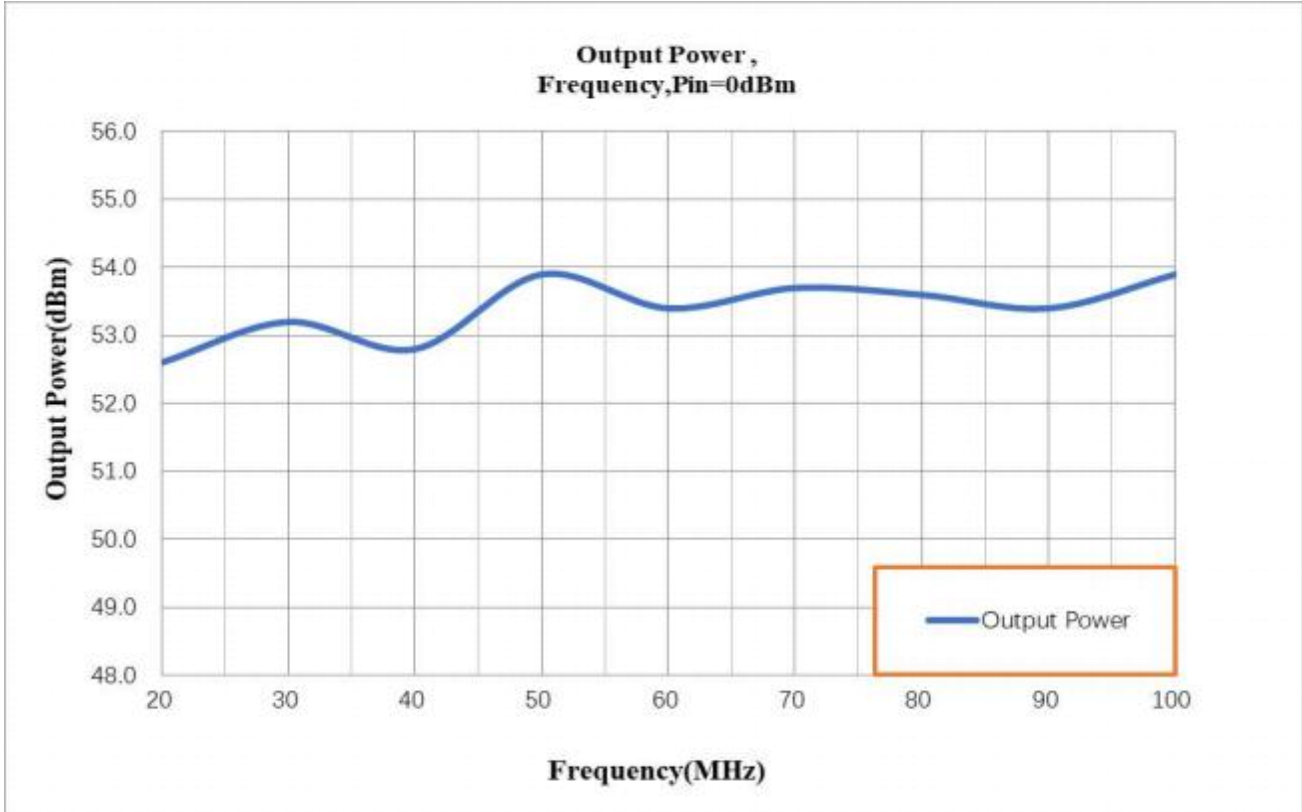
**OUTLINE DRAWING** (All dimensions in inch)



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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](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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