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 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, 50Ω System)

Parameter	Symbol	Minimum	Typ	Maximum	Units
Operating Frequency	BW	1000		2000	MHz
Output Power CW	P1		300		Watt
Power gain	PG		57		dB
Input Power for Rated PSAT	PIN		0		dBm
Power Gain Flatness	ΔGp		±2.5		dB
Input Return Loss	S11			-10	dB
Harmonics @ POUT = 150W	H		-10		dBc
Spurious Signals	Spur		-60		dBc
Input/Output Impedance	Impedance		50		dBc
Operating Voltage (1-phase)	VDC	180	220	250	Volt
Power Consumption @ 300W CW	PD		3000		Watt

Absolute Maximum Rating

Parameter	Rating	
Input RF drive level without damage	+10dBm	Maximum
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	

Environmental Specifications (Design to Meet)

Parameter	Minimum	Typical	Maximum	Units	Notes
Operating Temperature	-10		40	°C	
Storage Temperature	-40		85	°C	
Relative Humidity（non-condensing）			95	%	

Mechanical Specifications

Parameter	Value	Units	Notes
Dimensions	482.6 x 221.5 x 605mm [19x8.7x23.8inch] (5U)	mm [inch]	Maximum
Weight	55 kg [132 lbs]	kg [lbs]	Maximum
RF Connectors Input	Typ-N Female		
RF Connectors Output	Typ-N, Female		
Cooling	Extemal Heatsink (Not Supplied)		

DC Interface Connector

Pin #	Description	Specifications
1	FWD	Forward detected power
2	REV	Reverse detected power
3	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])

