The MCW80120S50A 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

Electrical Specifications (@220VAC, 50Ω System)

Parameter	Symbol	Minimum	Typ	Maximum	Units
Operating Frequency	BW	8		12	GHz
Output Power CW	ppk		100		Watt
Power Gain @ PSAT	Gp		50		dB
Power Gain Flatness	ΔGp		±2		dB
Input Return Loss	S11			-10	dB
Harmonics @ POUT = 50W	H			-15	dBc
Spurious Signals	Spur			-60	dBc
In/Output Impedance	Impedance		50		Ω
Operating Voltage (1-phase)	VAC	180	220	240	Volt
Power Consumption @ 50W CW	PD		1500		Watt

Absolute Maximum Rating

Parameter	Rating	
Input RF drive level without damage	+10dBm	Maximum
VSWR protection@80W	@ 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	-15		45	°C	
Relative Humidity（non-condensing）			95	%	

Mechanical Specifications

Parameter	Value	Units	Notes
Dimensions	483 x 178 x445mm [19x6.9x17.5 inch] (4U)	mm [inch]	Maximum
Weight	30[66]	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	RS485(-) (Optional)	Transmit data-R x D
4	RS485(+) (Optional)	Transmit data-T x D
5	GND	Transmit data-GND
6	Reserved	Reserved
7	Reserved	Reserved
8	Reserved	Reserved
9	Reserved	Reserved

Outline Drawing (All dimensions in mm [inch])

