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, 50Ω System)

Parameter	Symbol	Minimum	Typ	Maximum	Units
Operating Frequency	BW	30		500	MHz
RF Output Power @PSAT	PSAT		500		Watt
Power gain	PG		57		dB
Small Gain Flatness	ΔG		±2		dB
Input Power for Rated PSAT	PIN		0		dBm
Input Return Loss	S11			-10	dB
Harmonics @ POUT = 500W	H		-13		dBc
Spurious Signals	Spur		-55		dBc
Operating Voltage (1-phase)	VDC		220		Volt
Power Consumption @ 500W CW	PD		3500		Watt

Absolute Maximum Rating

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

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	48 kg	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	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 [inch])

