The MCW2900S57A 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:

- High power
- High Efficiency
- Extraordinary Harmonic Control
- Smaller Size and Lighter Weight
- Low Distortion

Electrical Specifications (@220VAC, 50Ω System)

Parameter	Symbol	Minimum	Typ	Maximum	Units
Operating Frequency	BW	2700		3100	MHz
Output Power CW	P1		500		Watt
Power droop	Droop		1		dB
Duty Cycle	Duty Cycle			20	%
Pulse Width	PWIDTH	2		100	μS
PRI	PRI	70		1000	μS
RF Input Power @ Pout =500W	Pin		0		dBm
Input Return Loss	S11			-10	dB
Rise /Fall time (Pulse Performance)	TRISE/FALL/OFF(10-90)		100		nS
Switching Speed	TON/OFF		2		uS
In/Output Impedance	Impedance		50		Ω
Harmonics @ POUT = 300W	H		-15		dBc
Spurious Signals	Spur		-55		dBc
Operating Voltage (1-phase)	VAC	100	220	260	Volt
Power Consumption @ 500W CW	PD		400		Watt

Absolute Maximum Rating

Parameter	Rating	
Input RF drive level without damage	+5dBm	Maximum
VSWR protection@200W	@ 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	-20		60	°C	
Storage Temperature	-40		85	°C	
Relative Humidity（non-condensing）			95	%	

Mechanical Specifications

Parameter	Value	Units	Notes
Dimensions	483 x 177 x445 mm [19x6.9x17.5 inch] (4U)	mm [inch]	Maximum
Weight	30 kg [66lbs]	kg [lbs]	Maximum
RF Connectors Input	Typ-N Female		
RF Connectors Output	Female		
Power Connectors	3-pin MS male		
Cooling	Extemal Heatsink(Not Supplied)		

DC Interface Connector

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

