

Solid State High Power Amplifier Systems

30-500MHz/57dB Gain/57dBm Psat/220V AC

Model: TLPA30M500M-57-57-BC

TLPA30M500M-57-57-BC is a solid state high power amplifier systems provides high output power and high gain across the 30 to 500MHz frequency range. The amplifier features a built-in 220V power supply, making it easy to use in most lab environments. This model features thermal self protection, preventing damage to the amplifier and providing added reliability.

Features:

- Frequency range: 30-500MHz
- Gain: 57dB Min
- Psat Output Power: 57dBm Min
- Protection: Over TEM, over voltage, over current, over VSWR protection
- 50 Ohm Matched Input / Output



Electrical Characteristics:

Parameter	Symbol	Min	Typ	Max	Units
Frequency range	BW	30-500			MHz
Power Gain	GP	57	60		dB
Gain flatness	ΔGL		± 1	± 2	dB
Gain adjust Range	ΔGR		31.5		dB
Gain adjust Step	ΔGS		0.5		dB
Output P1dB	P1dB	53	54		dBm
Output Psat	Psat	57	57.5		dBm
Spurious@Pout=500W	Spur			-60	dBc
Harmonics@Pout=500W	HAM		-15	-10	dBc
Input VSWR	VSWRin			2	:1
AC Voltage	Vac		220		V AC
AC Supply Current	Iac		7		A
Power Consumption	Pdiss		1500		W
Impedance	I/O-IMP	50			Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	N Female/N Female	
Communication Connector	DB15	
Front Panel LCD Screen Display	7 inch LCD Screen Display	
Size	19 Inch 4U*550	mm
Weight	≤35	Kg

Absolute Maximum Ratings:

Parameter	Value
RF Input Power	+5 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Outline Drawing:

Unit:mm

Key Features:

Parameter	Advantages
Control functions	1, Power setting on/off
Protection functions	1,Over TEM 2,Over voltage 3,Over current 4,Over VSWR
Cooling system	Built in Cooling system,forced air cooling

Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature*	-20		+40	°C
Non-operating Temperature*	-30		+50	°C
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

*Note: For a wider temperature range, please consult the manufacturer.

Ordering Information:

Base Number	Description	Revision
TLPA30M500M-57-57-BC	Solid State High Power Amplifier Systems 30-500MHz,Gain:57dB,Psat:57dBm,220V AC,Built in Fan Cooling	Rev.1.1