

## Solid State High Power Amplifier Systems

1-30MHz/57dB Gain/57dBm Psat/220V AC

TLPA1M30M-57-57-BC

TURPA1M30M-5757BC is a solid state high power amplifier systems provides high output power and high gain across the 1 to 30MHz 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: 1-30MHz
- Gain: 57dB Min
- Psat Output Power: 57dBm Min
- Protection: Over TEM, over voltage, over current, over VSWR protection
- 50 Ohm Matched Input / Output



### 电气特性 Electrical Characteristics:

参数 Parameter	代码 Symbol	Min	Typ	Max	单位 Units
频率范围 Frequency range	BW	1-30			MHz
功率增益 Power Gain	GP	57	60		dB
增益平坦度 Gain flatness	$\Delta$ GL		$\pm 1$	$\pm 2$	dB
增益调节范围 Gain adjust Range	$\Delta$ GR		31.5		dB
增益调节步进 Gain adjust Step	$\Delta$ GS		0.5		dB
线性输出功率 Output P1dB	P1dB	53	54		dBm
饱和输出功率 Output Psat	Psat	57	57.5		dBm
杂散 Spurious@Pout=500W	Spur			-60	dBc
谐波 Harmonics@Pout=500W	HAM		-15	-10	dBc
输入驻波 Input VSWR	VSWRin			2	:1
交流电压 AC Voltage	Vac		220		V AC
交流电流 AC Supply Current	Iac		7		A
功耗 Power Consumption	Pdiss		1500		W
阻抗 Impedance	I/O-IMP	50			Ohms

## 机械特性 Mechanical Specifications:

参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	N Female/N Female	
通信接口 Communication Connector	DB15	
液晶显示屏 Front Panel LCD Screen Display	7 inch LCD Screen Display	
尺寸 Size	19 Inch 4U*550	mm
重量 Weight	≤35	Kg

## 绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
输入功率 RF Input Power	+5 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V

外形图 Outline Drawing:

Unit:mm

## 主要功能 Key Features:

参数 Parameter	特点 Advantages
控制功能 Control functions	1, Power setting On/Off
内置保护功能 Protection functions	1,Over TEM 2,Over voltage 3,Over current 4,Over VSWR
冷却系统 Cooling system	Built in Cooling system,forced air cooling

## 温度环境 Environmental Conditions:

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

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

## 订货信息 Ordering Information:

标准型号 Base Number	描述 Description	版本号 Revision
TURPA1M30M-5757BC	Solid State High Power Amplifier Systems 1-30MHz, Gain:57dB, Psat:57dBm, 220V AC, Built in Fan Cooling	Rev.1.1