

## Power Amplifier

30MHz-2.5GHz/43dB Gain/40dBm Psat

Model: TLPA30M2.5G-43-40

TLPA30M2.5G-43-40 is a power amplifier with a typical small signal gain of 43 dB and a nominal Psat of 40 dBm across the frequency range of 30MHz to 2.5 GHz. The DC power requirement for the amplifier is +28 VDC/1.5 A. The input and output port configuration offers coax adapter structure with SMA female.

### Features:

- Frequency range: 30MHz-2.5GHz
- Gain: 43dB Typ
- Output Power Psat: 40dBm Typ
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

### Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

## 电气特性 Electrical Characteristics:

参数 Parameter	Min	Typ	Max	单位 Units
频率范围 Frequency range	30MHz		2.5GHz	
小信号增益 Small Signal Gain	40	43		dB
增益平坦度 Gain Flatness		±1.5	±2	dB
饱和输出功率 Output Psat	36	40		dBm
杂散 Spurious			-50	dBc
谐波 Harmonic			-10	dBc
输入驻波 Input VSWR		1.5	2	:1
开关速度 Switching Speed		1	2	us
TTL 控制 TTL Control	"1": On, "0": Off, Enable: +5V, Disable: 0V			V
直流电压 DC Voltage		+28		V DC
直流电流 DC Supply Current		1.5		A
阻抗 Impedance		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	SMA Female/SMA Female	
直流偏置 DC Bias	D-SUB-7W2	
尺寸 Size	95.3*44.5*26.9	mm

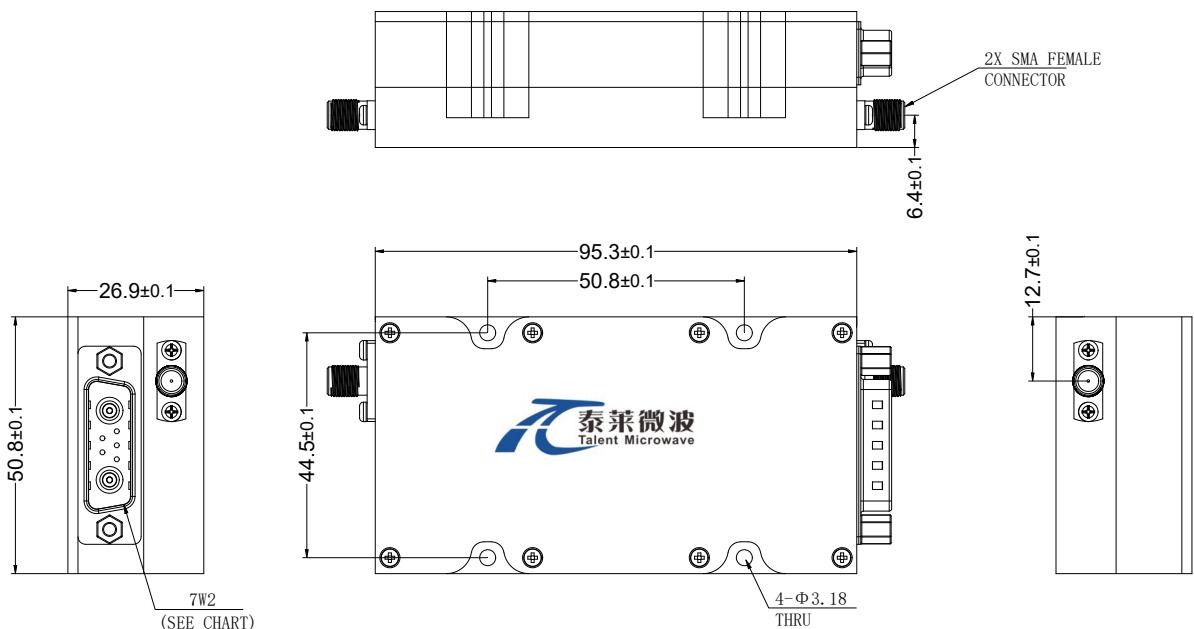
## 绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+28 V
输入功率 RF Input Power	+10 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V



## 外形图 Outline Drawing:

Unit:mm



**\*\*\*Heat Sink Required During Operation**



ESD Protection: Strictly adhere to ESD precautions to prevent electrostatic damage.

## 直流供电接口 DC Supply Connector(7W2):

Pin#	Name	Function
A1	GND	Ground
A2	+VDC	+26-30VDC
1	Temp Sensor	$V_0 = 10 \text{ mV}/^\circ\text{C} \times T^\circ\text{C} + 600 \text{ mV}$
2	Amp enable	TTL high (+5V) or no connection=enable TTL Low (0V)=disable
3	NC	No connection
4	GND	Ground
5	NC	No connection

## 温度环境 Environmental Conditions:

参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature*	-40		+60	°C
存储温度 Non-operating Temperature*	-50		+70	°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
TLPA30M2.5G-43-40	Power amplifier 30MHz-2.5GHz, Gain:43dB,Psat:40dBm,+28V DC,Without Heatsink	Rev.1.1
TLPA30M2.5G-43-40-HS	Power amplifier 30MHz-2.5GHz, Gain:43dB,Psat:40dBm,+28V DC,With Heatsink	Rev.1.1