

## Power Amplifier

0.01-6.5GHz/30dB Gain/34dBm Psat

Model: TLPA0.01G6.5G-30-30

TLPA0.01G6.5G-30-30 is a power amplifier with a minimum power gain of 30 dB and a nominal Psat of 34 dBm across the frequency range of 0.01 to 6.5 GHz. The DC power requirement for the amplifier is +28 VDC/0.5 A. The input and output port configuration offers coax adapter structure with SMA female.

### Features:

- Frequency range: 0.01-6.5GHz
- Gain: 30dB Min
- Output Power Psat: 34dBm 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	0.01		6.5	GHz
功率增益 Power Gain	30	35		dB
增益平坦度 Gain Flatness		±3	±4	dB
线性输出功率 Output P1dB	30	32		dBm
饱和输出功率 Output Psat	33	34		dBm
杂散 Spurious@Pout=30dBm			-60	dBc
谐波 Harmonics@Pout=30dBm			-8	dBc
输入驻波 Input VSWR		1.5	2	:1
直流电压 DC Voltage	26	28	30	V DC
直流电流 DC Supply Current		0.5	1.3	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	Solder Pin	
尺寸 Size	90.2*70*15	mm
重量 Weight	250	g

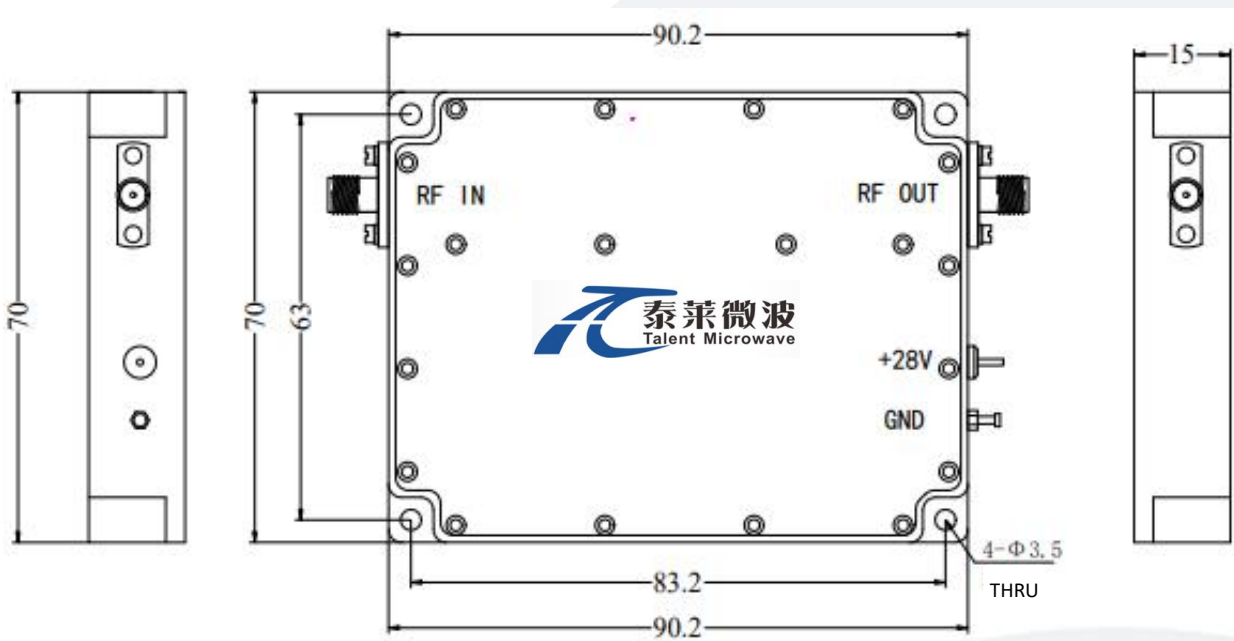
## 绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+13 V
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



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



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

## 温度环境 Environmental Conditions:

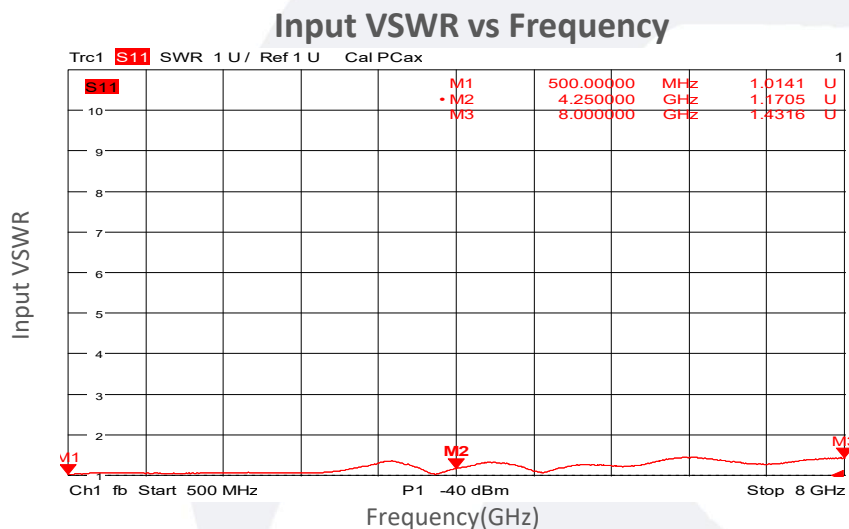
参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature*	-40		+60	°C
存储温度 Non-operating Temperature*	-50		+70	°C
相对湿度 Relative humidity		95		%
海拔 Altitude	30,000			feet
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
冲击 Shock(non operating)	20G for 11msc 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
TLPA0.01G6.5G-30-30	Power amplifier 0.01-6.5GHz, Gain:30dB,Psat:34dBm,+28VDC,Without Heatsink.	Rev.1.1
TLPA0.01G6.5G-30-30-HS	Power amplifier 0.01-6.5GHz, Gain:30dB,Psat:34dBm,+28VDC,With Heatsink.	Rev.1.1

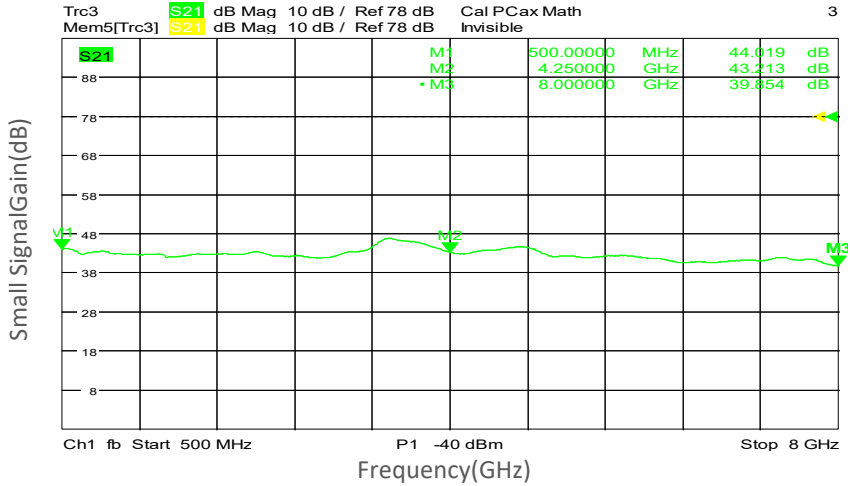
## 典型曲线 Typical Performance Data:



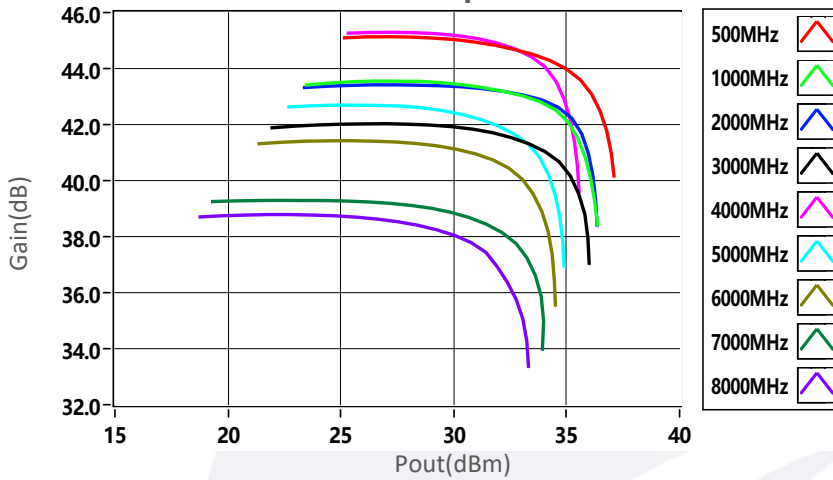
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

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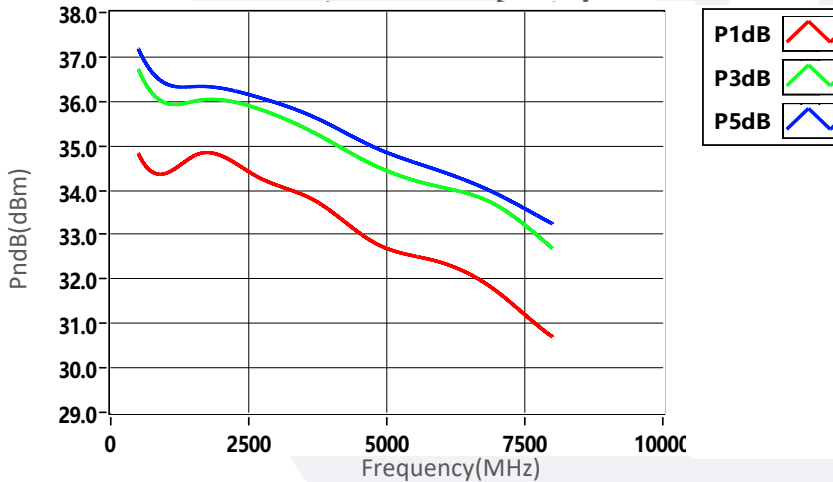
### Small Signal Gain vs Frequency



### Gain vs Output Power

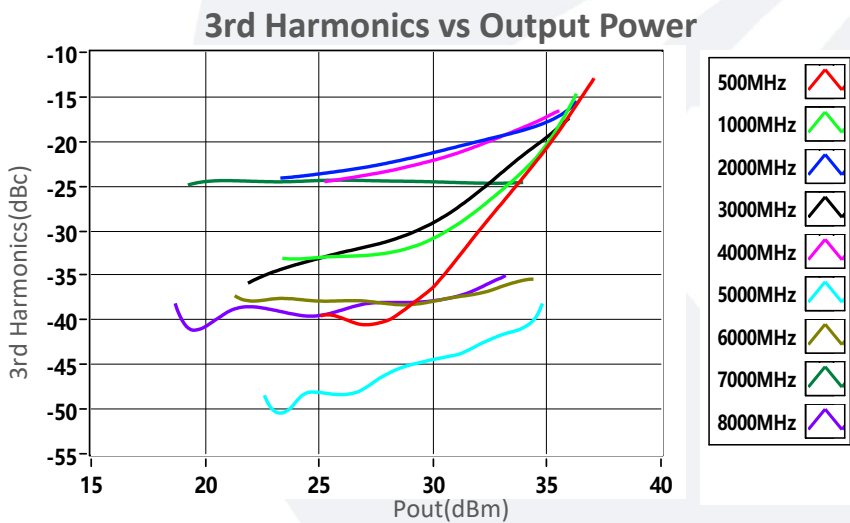
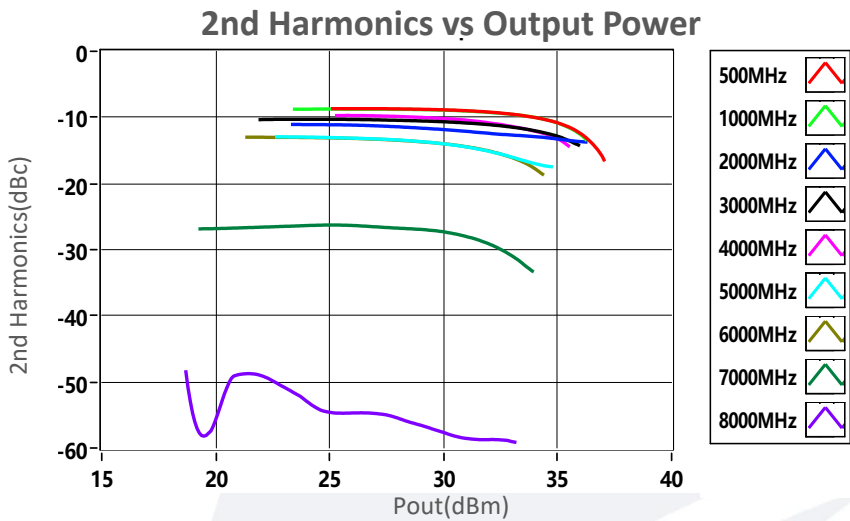
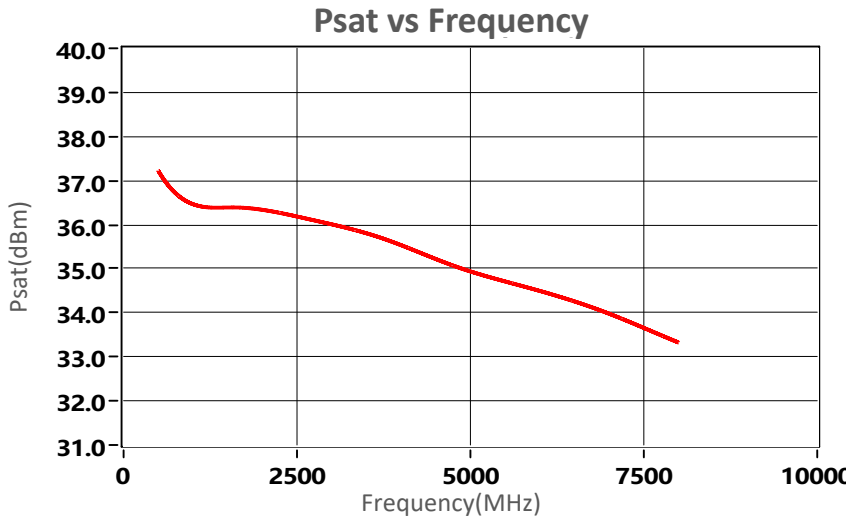


### PndB vs Frequency



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