

## Power Amplifier

40-67GHz/39dB Gain/34dBm Psat

Model: TLPA40G67G-39-34

TLPA40G67G-39-34 is a power amplifier with a typical small signal gain of 39 dB@40-60GHz and a nominal Psat of 34 dBm across the frequency range of 40 to 67 GHz. The DC power requirement for the amplifier is +20 VDC/2.05 A. The input and output port configuration offers coax adapter structure with 1.85mm female.

### Features:

- Frequency range: 40-67GHz
- Gain: 39dB Typ@40-60GHz
- 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		40		67	GHz
小信号增益 Small Signal Gain	@40-60GHz	35	39		dB
	@60-67GHz	33	35		
线性输出功率 Output P1dB			29		dBm
饱和输出功率 Output Psat		33	34		dBm
输入驻波 Input VSWR			5.8		:1
输出驻波 Output VSWR			2.3		:1
直流电压 DC Voltage			20	24	V DC
直流电流 DC Supply Current			2.05		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	1.85mm Female/1.85mm Female	
直流偏置 DC Bias	Feedthru capacitor	
尺寸 Size	50*80*13	mm

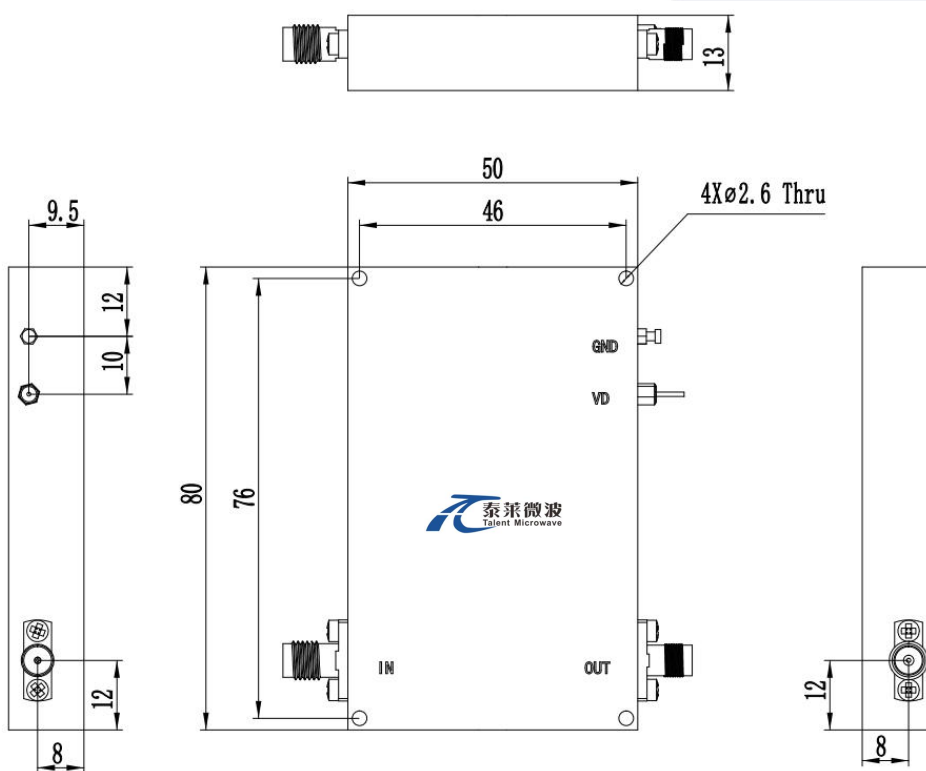
## 绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+24 V
输入功率 RF Input Power	+15 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	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			

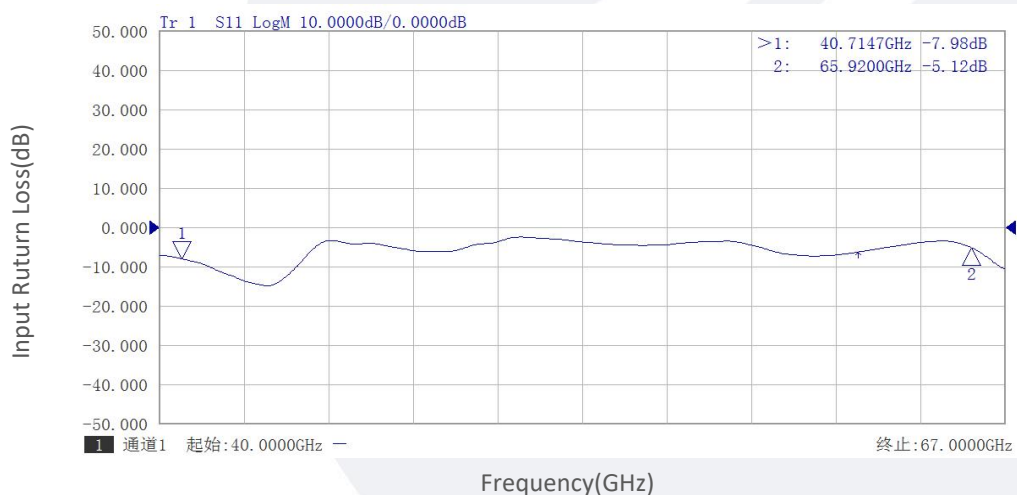
\*Note: For a wider temperature range, please consult the manufacturer.

## 订货信息 Ordering Information:

标准型号 Base Number	描述 Description	版本号 Revision
TLPA40G67G-39-34	Power amplifier 40-67GHz, Gain:39dB,Psat:34dBm,+20V DC,Without Heatsink	Rev.1.1
TLPA40G67G-39-34-HS	Power amplifier Power amplifier 40-67GHz, Gain:39dB,Psat:34dBm,+20V DC,With Heatsink	Rev.1.1

## 典型曲线 Typical Performance Data:

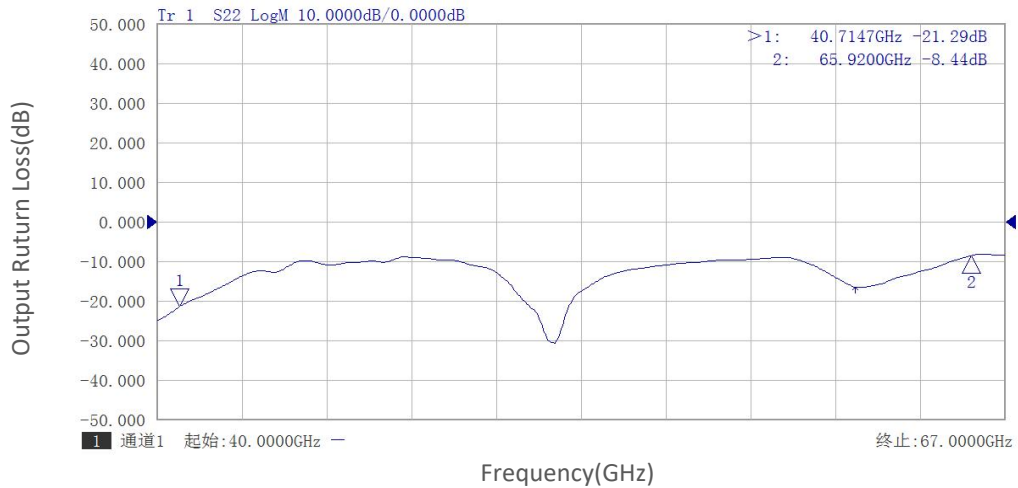
Input Return Loss vs Frequency



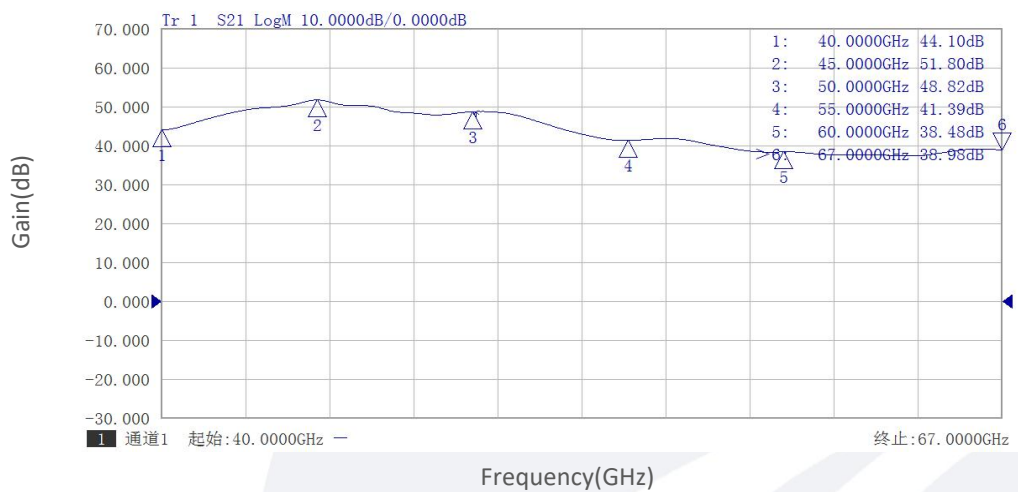
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

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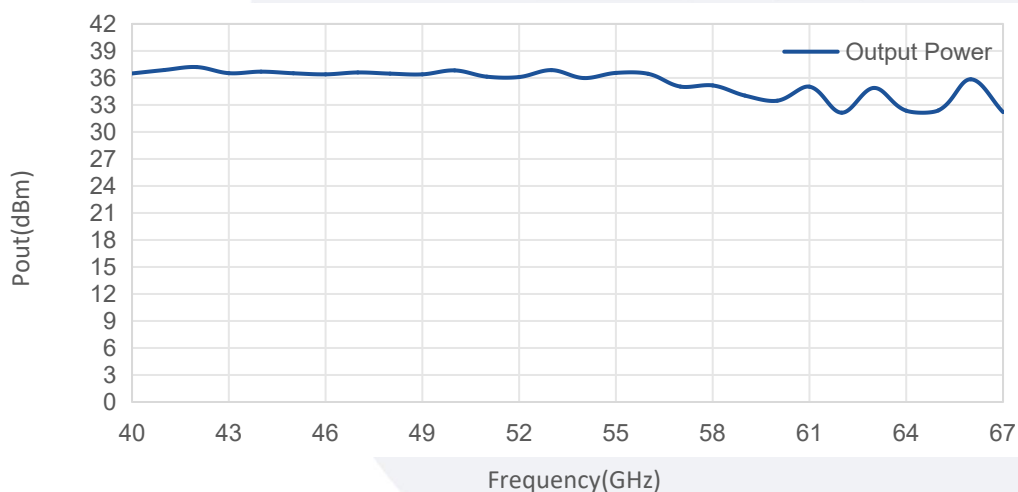
### Output Return Loss vs Frequency



### Small Signal Gain vs Frequency



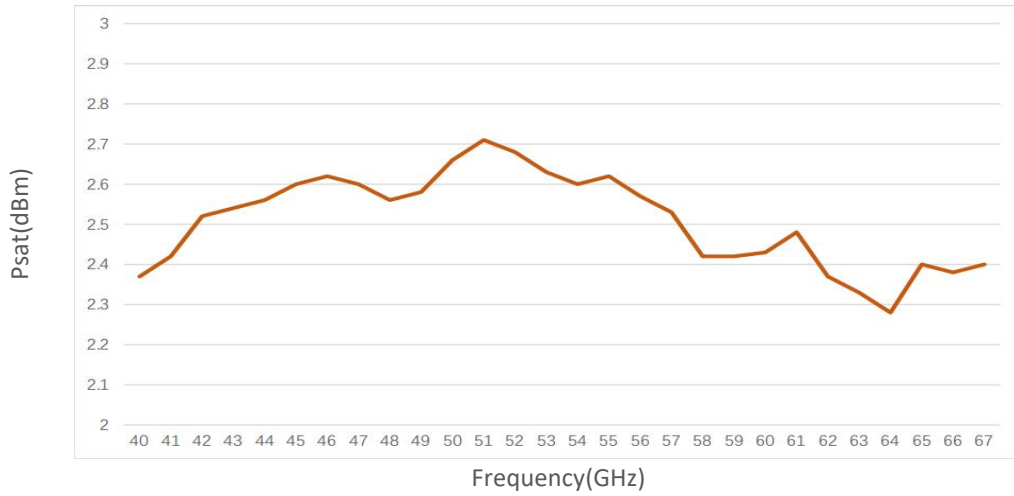
### Pout vs Frequency



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## 典型曲线 Typical Performance Data:

### Psat vs Frequency



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