

Power Amplifier

18-40GHz/19dB Gain/22dBm Psat

Model: TLPA18G40G-19-22-LC

TLPA18G40G-19-22-LC is a power amplifier with a typical small signal gain of 19 dB and Psat of 22 dBm across the frequency range of 18 to 40 GHz. The DC power requirement for the amplifier is +5 VDC/240 mA. The input and output port configuration offers coax adapter structure with 2.92mm female.

Features:

- Frequency range: 18-40GHz
- Small Signal Gain:19 dB Typ
- Output Power Psat: 22 dBm 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		18-40		GHz
小信号增益 Small Signal Gain		19		dB
增益平坦度 Gain Flatness		±1.5		dB
噪声系数 Noise Figure		8		dB
输出1dB压缩点 Output P-1 dB		21		dBm
饱和输出功率 Output Psat		22		dBm
输入驻波 Input VSWR		2		:1
输出驻波 Output VSWR		2		:1
直流电压 DC Voltage		+5		V DC
直流电流 DC Supply Current		240		mA
阻抗 Impedance		50		Ohms

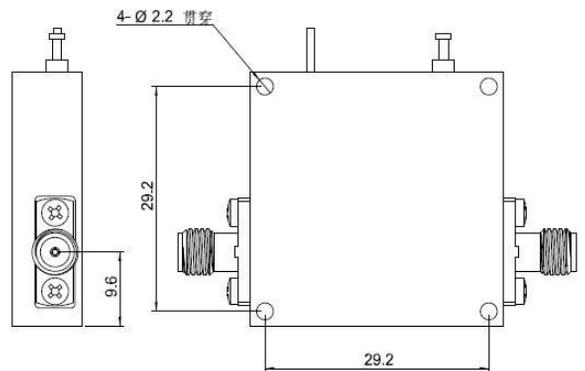
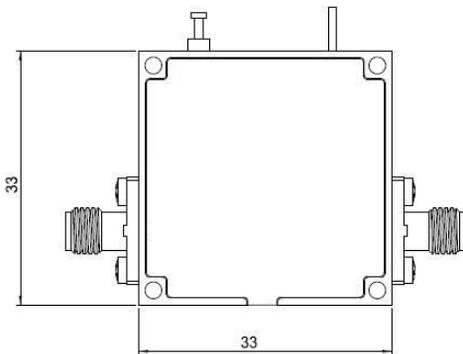
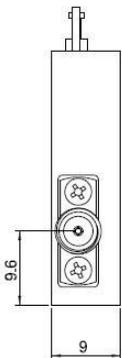
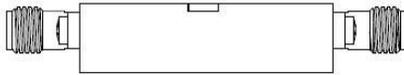
机械特性 Mechanical Specifications:

参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	2.92mm Female/2.92mm Female	
直流偏置 DC Bias	Solder Pin	
尺寸 Size	33*33*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	+5.5 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



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

温度环境 Environmental Conditions:

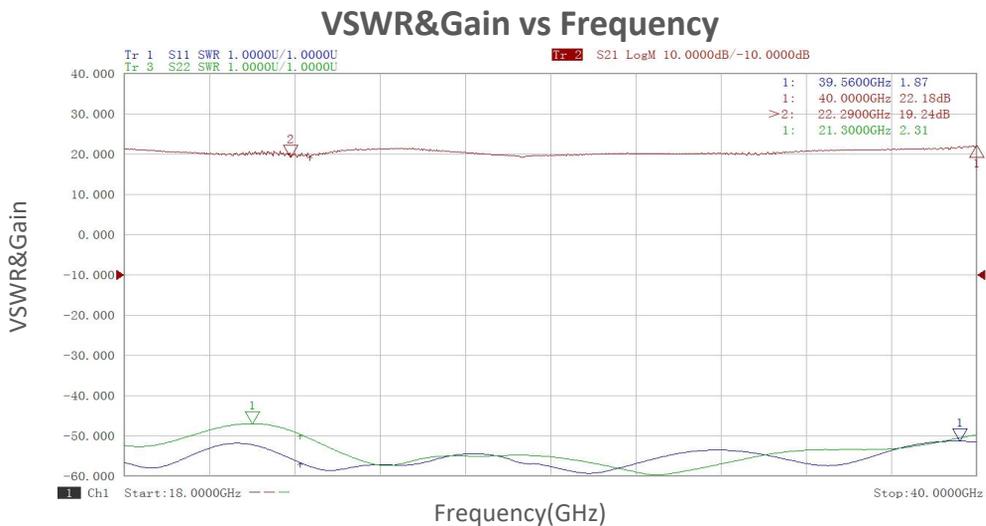
参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature*	-40		+60	°C
存储温度 Non-operating Temperature*	-50		+70	°C
相对湿度 Relative humidity		95		%
海拔 Altitude	10,000			feet
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
冲击 Shock(non operating)	20G for 11msc 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
TLPA18G40G-19-22-LC	Power amplifier 18-40GHz,Power Gain:19dB,Psat:22dBm, +5V DC,With Heatsink	Rev.1.1

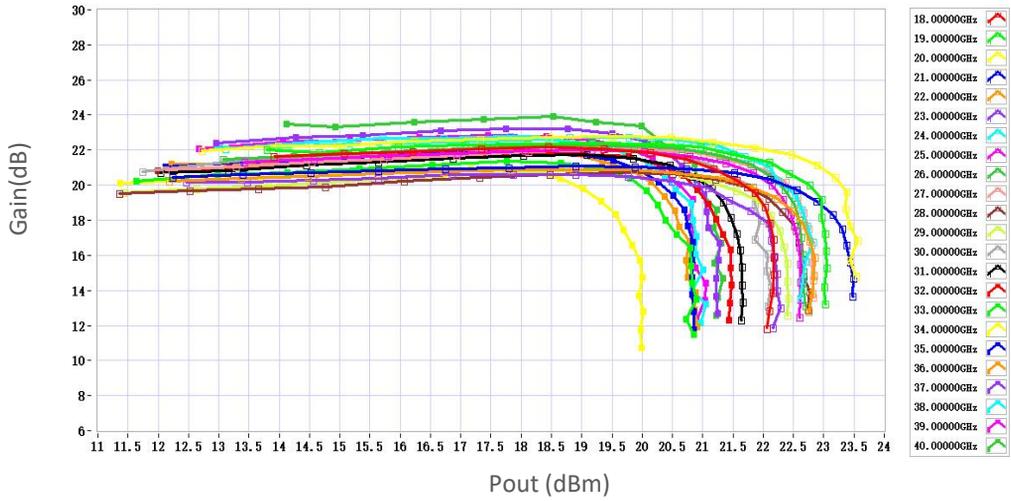
典型曲线 Typical Performance Data:



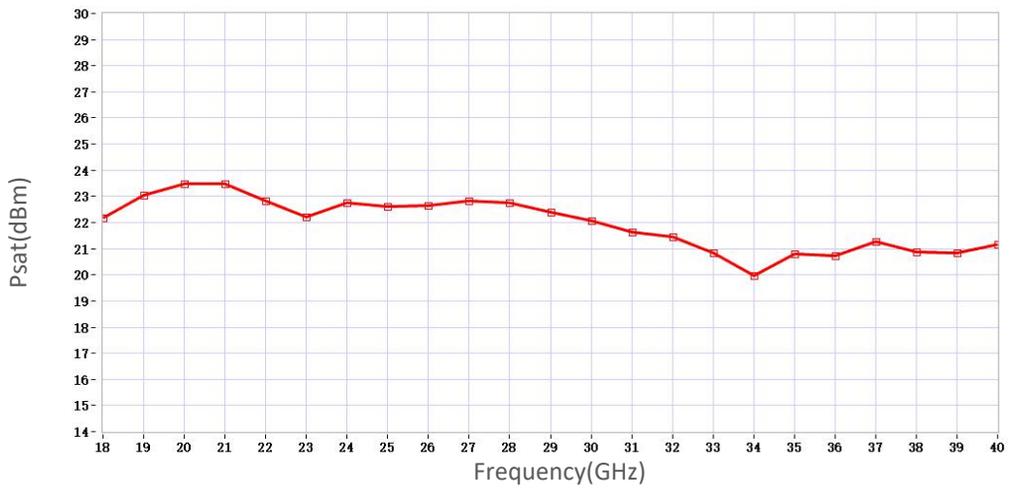
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment

典型曲线 Typical Performance Data:

Gain vs Output Power



Psat 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.