

Gain Control Amplifier

2-6GHz/40dB Gain/SMA Female

Model: TLPA2G6G-40-15-GCR20

TLPA2G6G-40-15-GCR20 is a gain control amplifier with a minimum small signal gain of 40 dB and a minimum P1dB of 15 dBm @no gain control across the frequency range of 2 to 6 GHz. The DC power requirement for the amplifier is +12 VDC/360 mA. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 2-6GHz
- Gain: 40dB Min
- Output Power P1dB: 15dBm Min
- 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	2-6			GHz
小信号增益 Small Signal Gain	40			dB
增益控制范围 Gain Control range	20			dB
增益平坦度 Gain Flatness			±2.25	dB
线性输出功率 Output P1dB @no gain control	15			dBm
线性输出功率 Output P1dB @max gain control		12		dBm
噪声系数 Noise Figure@no gain control			3	dB
噪声系数 Noise Figure@max gain control		4		dB
驻波 VSWR			2	:1
直流电压 DC Voltage		12	15	V DC
直流电流 DC Supply Current		360		mA
阻抗 Impedance	50			Ohms

机械特性 Mechanical Specifications:

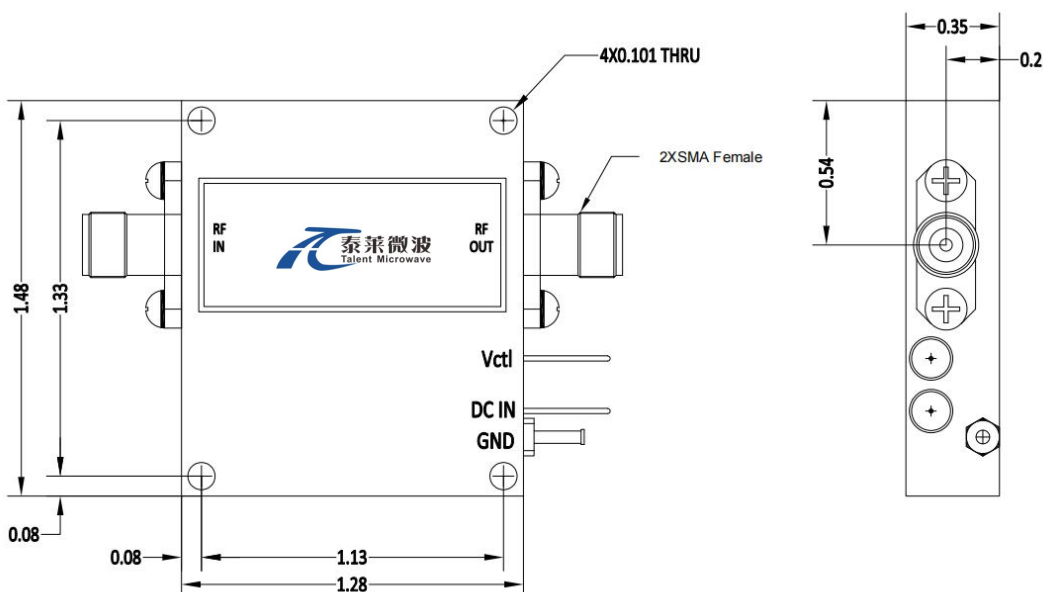
参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	SMA Female/SMA Female	
直流偏置 DC Bias	Solder Pin	
尺寸 Size	1.48*1.28*0.35	Inch

绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+15 V
输入功率 RF Input Power	TBD
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V

外形图 Outline Drawing:

Unit:Inch



*****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			

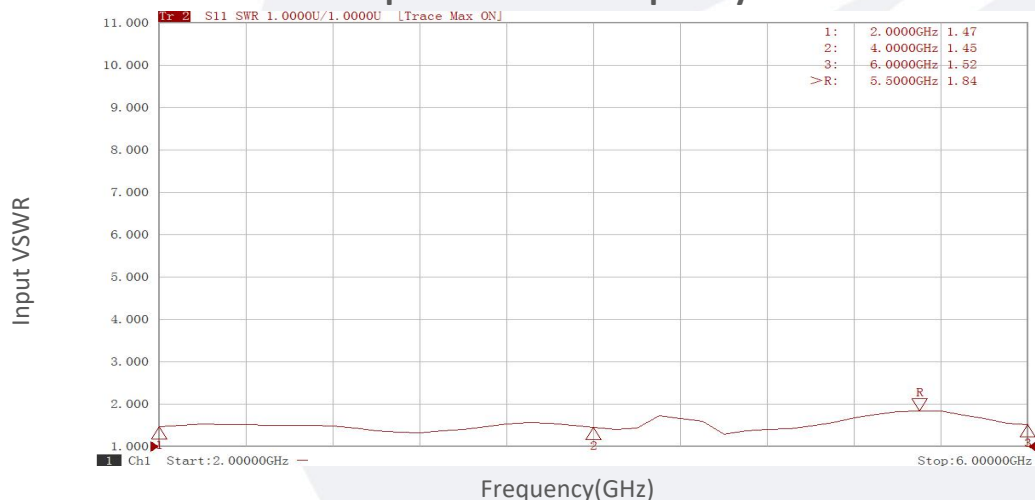
*Note: For a wider temperature range, please consult the manufacturer.

订货信息 Ordering Information:

标准型号 Base Number	描述 Description	版本号 Revision
TLPA2G6G-40-15-GCR20	Gain Control Amplifier 2-6GHz, Gain:40dB,P1dB:15dBm,+12V DC,SMA Female	Rev.1.1

典型曲线 Typical Performance Data:

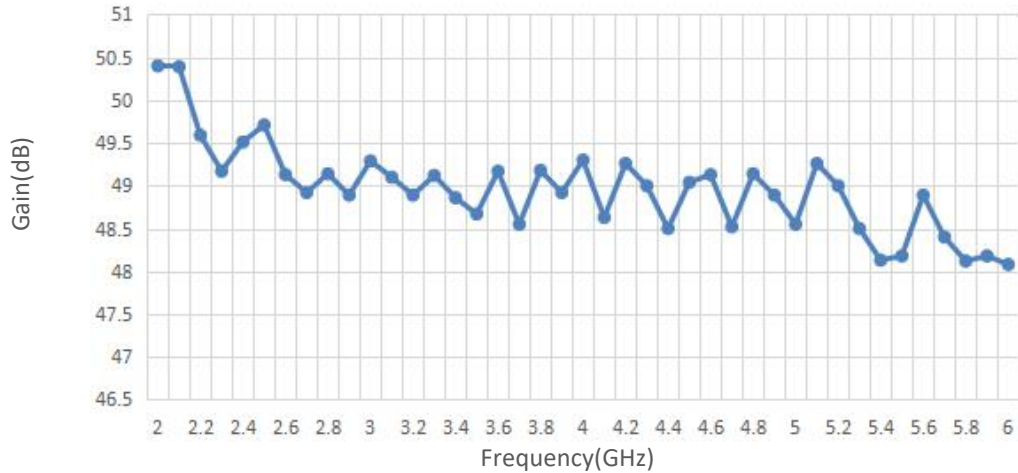
Input VSWR vs Frequency



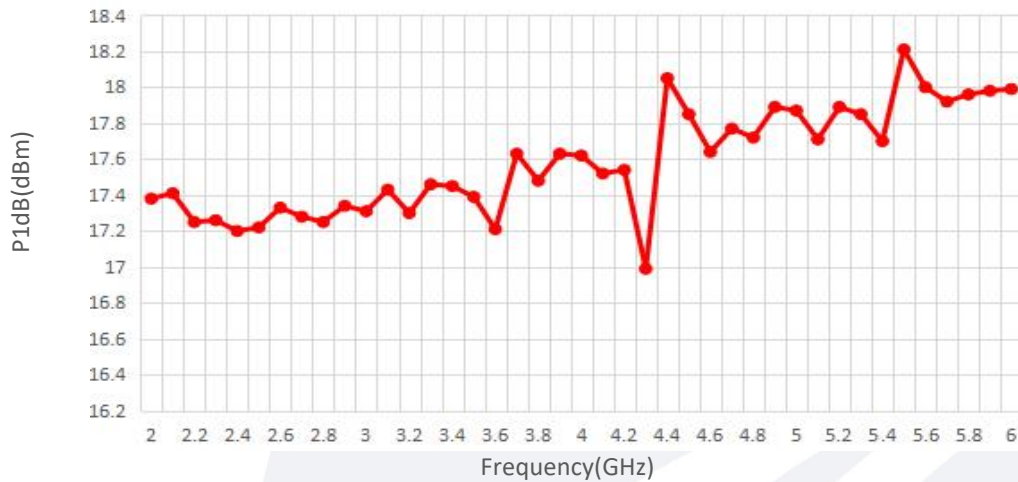
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

典型曲线 Typical Performance Data:

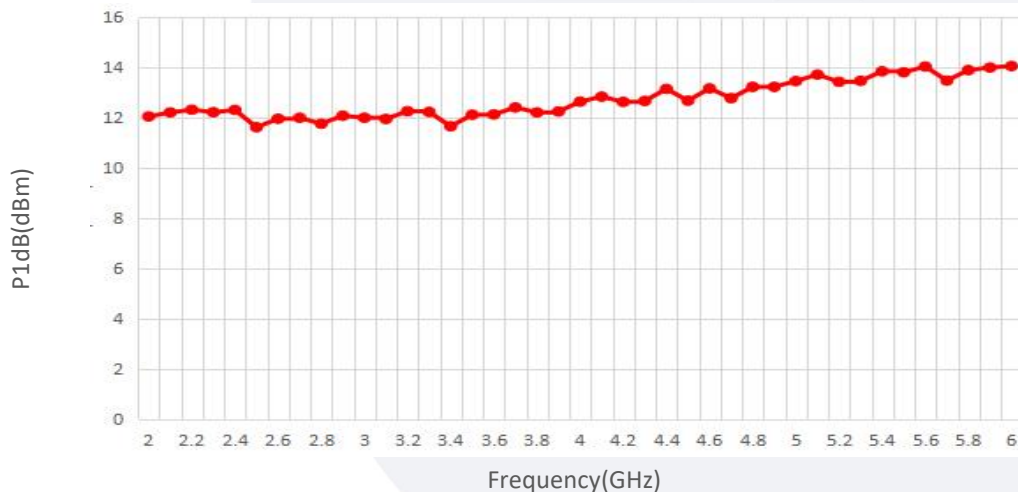
Small Signal Gain vs Frequency



P1dB@no gain control vs Frequency



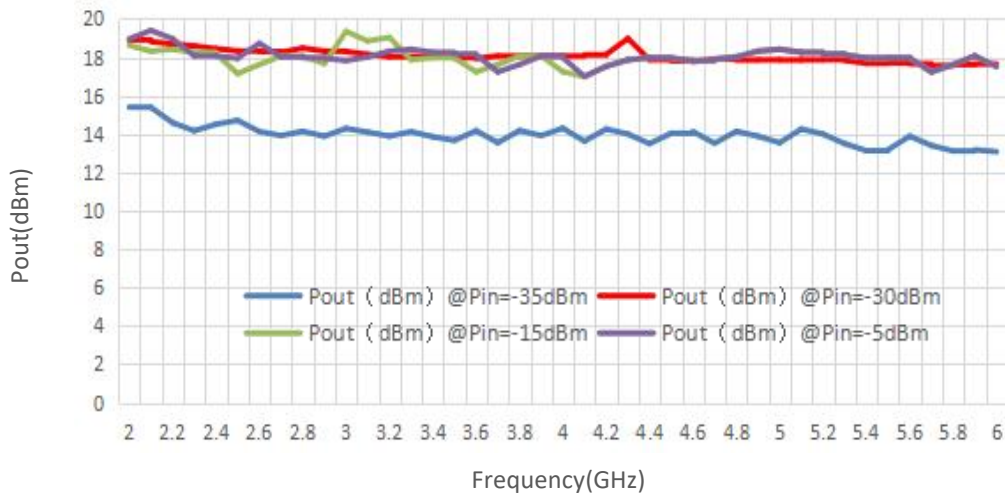
P1dB@max gain control vs Frequency



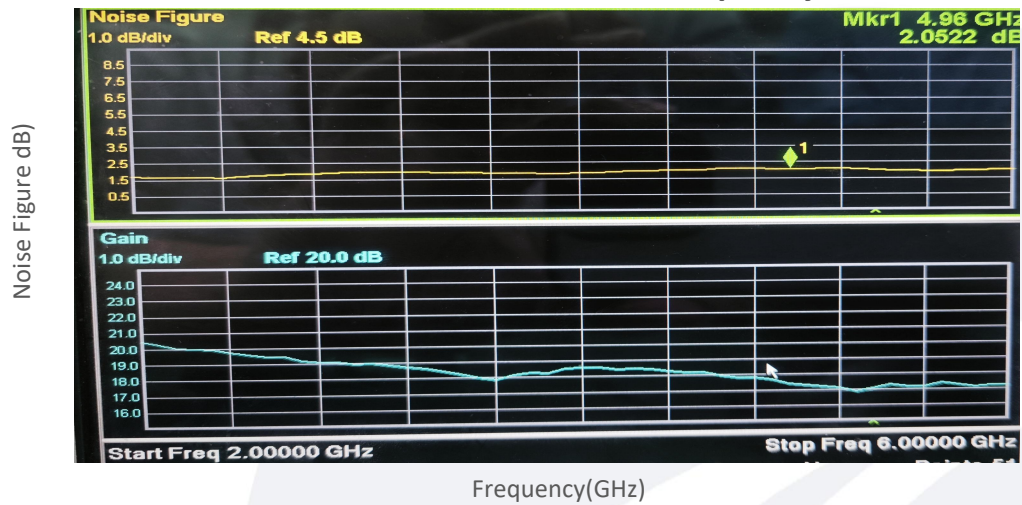
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

典型曲线 Typical Performance Data:

Pout@Equal_Pin



NF@min attenuation vs Frequency



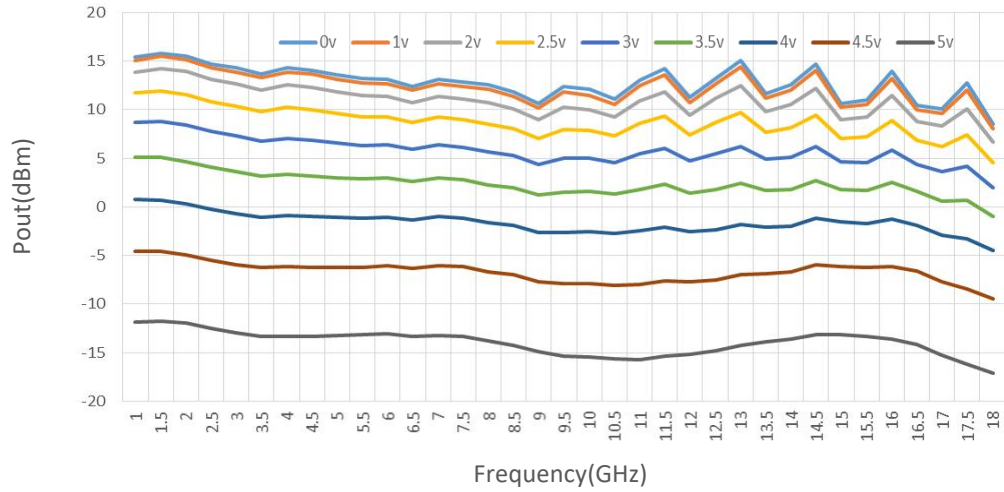
NF@max attenuation vs Frequency



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典型曲线 Typical Performance Data:

Attenuation@Vctrl vs Frequency



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