Turpanic Co, Ltd
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Power Amplifier

2-18GHz/40dB Gain/40dBm Psat

Model: TLPA2G18G-40-40

TLPA2G18G-40-40 is a power amplifier with typical power gain of 40 dB and a minimum Psat of 40 dBm across the frequency range of 2 to 18 GHz. The DC power requirement for the amplifier is +28 VDC/2.4 A. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 2-18GHz
- Gain: 40dB Typ
- Output Power Psat: 40dBm 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		2-18		GHz
功率增益 Power Gain		40		dB
增益平坦度 Gain Flatness		±4		dB
饱和输出功率 Output Psat	40			dBm
杂散 Spurious@Pout=40dBm			-50	dBc
二次谐波 2nd Harmonic@Pout=40dBm		-10		dBc
输入驻波 Input VSWR			2	:1
直流电压 DC Voltage		28		V DC
直流电流 DC Supply Current		2.4		A
阻抗 Impedance		50		Ohms

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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	150*127*74.5	mm

绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+29 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

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

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温度环境 Environmental Conditions:

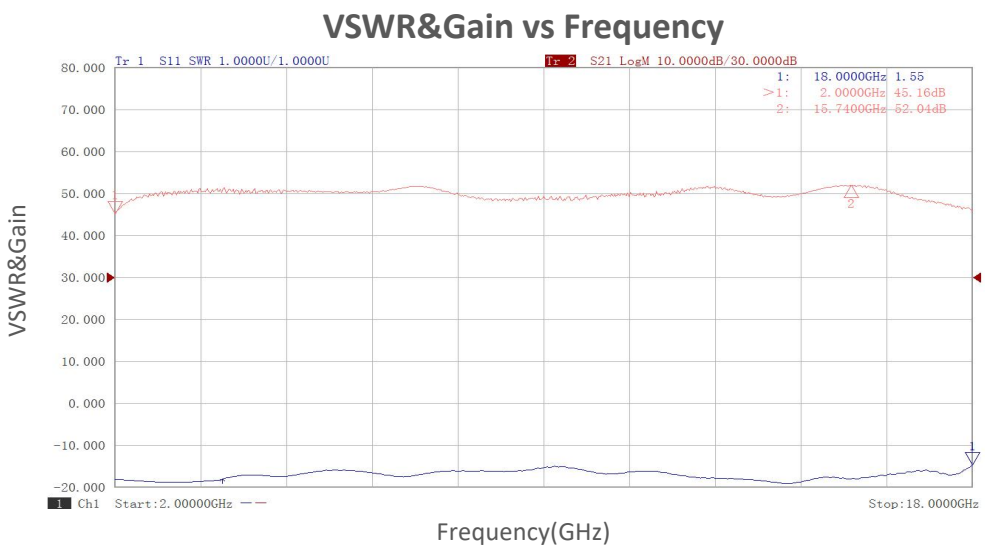
参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature*	-40		+50	℃
存储温度 Non-operating Temperature*	-50		+60	℃
相对湿度 Relative humidity		95		%
海拔 Altitude	10,000			feet
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
冲击 Shock(non operating)	20G for 11msc half 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
TLPA2G18G-40-40	Power amplifier 2-18GHz, Gain:40dB,Psat:40dBm,+28V DC,With Heatsink	Rev.1.2

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

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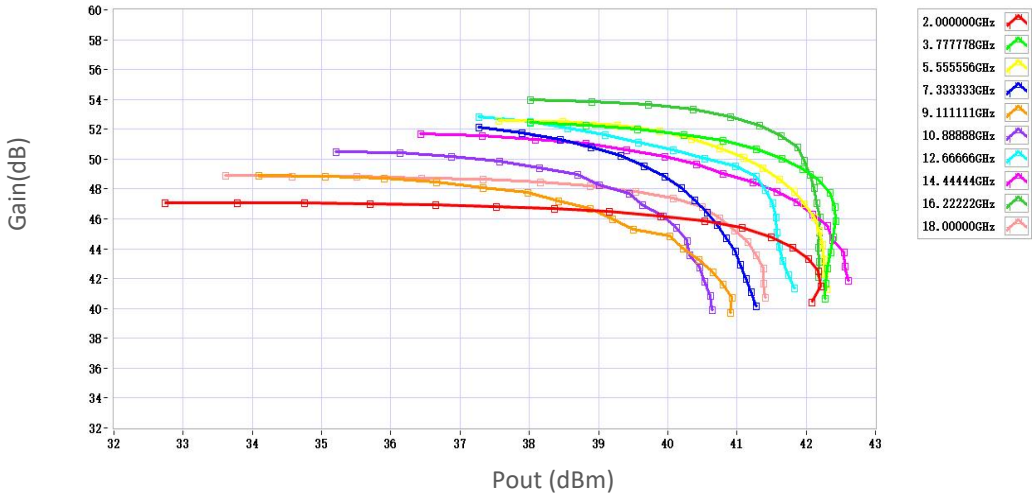
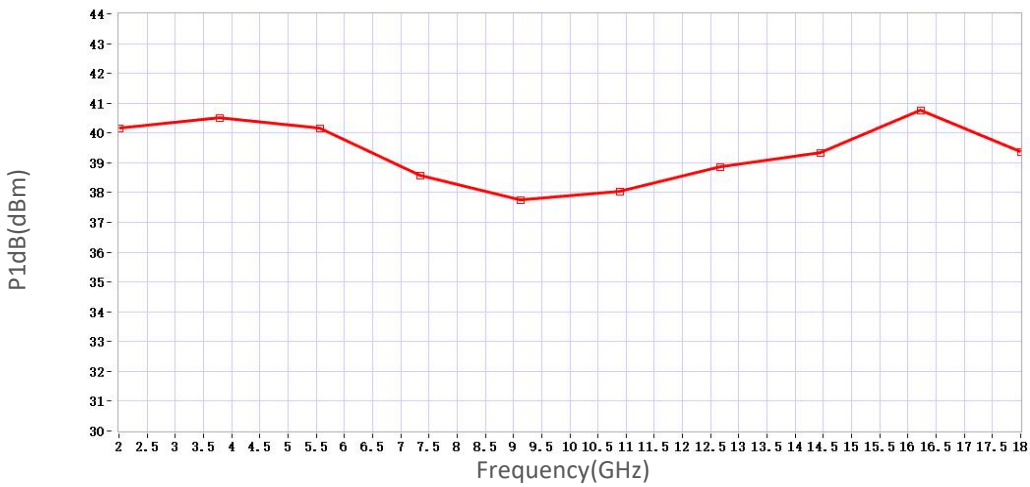
典型曲线 Typical Performance Data:

Gain vs Output Power



P1dB vs Frequency



P3dB vs Frequency

P3dB(dBm)

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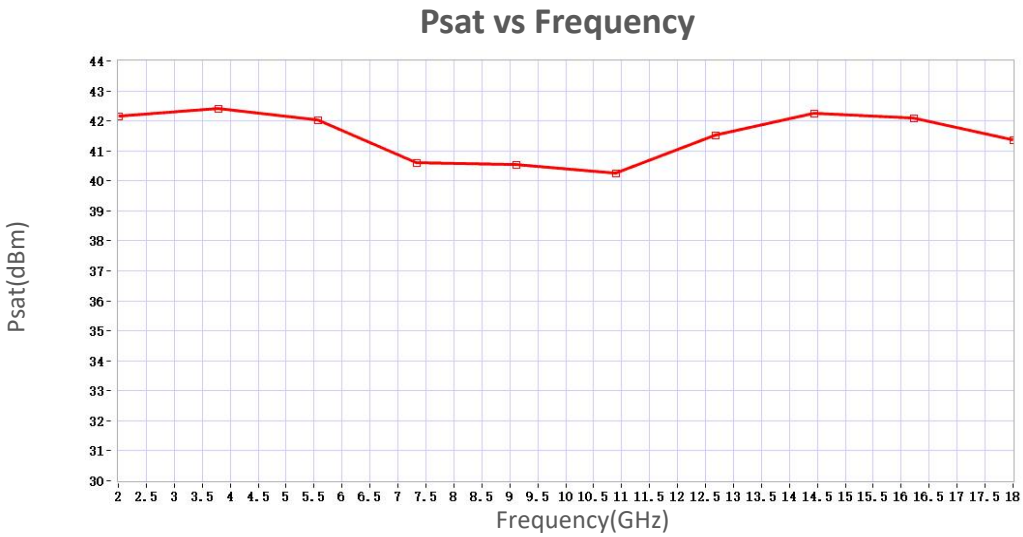
典型曲线 Typical Performance Data:



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.