

Model: TLPA1G8G-42-40

**Solid State High Power Amplifier
1-8GHz, Gain: 40dB, Psat: 40dBm**

Feature:

- Ultra Wide Band: 1-8GHz
- Gain: 40dB
- Psat Output Power: 40dBm
- 50 Ohm Matched Input / Output

电气特性 Electrical:

| 参数Parameter | Min. | Typ. | Max. | 单位Units |
|------------------------|------|------|------|---------|
| 频率范围 Frequency range | 1-8 | | | GHz |
| 功率增益 Power Gain | 40 | | | dB |
| 饱和输出功率 Output Psat | 40 | | | dBm |
| 增益平坦度 Gain Flatness | | ±3 | | dB |
| 输入功率 Input Power | | 0 | 10 | dBm |
| 杂散 Spurious@Psat | 50 | | | dBc |
| 谐波 Harmonics@Psat | 10 | | | dBc |
| 输入驻波 Input VSWR | | | 2.0 | :1 |
| 直流电压 DC Voltage | | +28 | | V DC |
| 直流电流 DC Supply Current | | | 4.5 | A |
| 阻抗 Impedance | 50 | | | Ohms |

机械特性 Mechanical :

| 参数Parameter | 指标 Value | 单位 Units |
|--------------------------------|-----------------------|----------|
| 输入输出接口 Input /Output Connector | SMA Female/SMA Female | |
| DC加电接口 DC Power Interface | J30J-9ZKP | |
| 尺寸 Size | 150*90*20 | mm |
| 重量 Weight | 0.5 | Kg |

绝对最大值 Absolute Maximum Ratings:

| 参数Parameter | 指标 Value |
|------------------------------|----------------------|
| 供电偏置电压 Supply Bias Voltage | TBD |
| 输入功率 RF INPUT POWER | 10 dBm |
| ESD灵敏度 ESD sensitivity (HBm) | Class 0, passed 150V |



外形尺寸 Outline Drawing:

Unit: mm



J30J-9ZKF Define

| 引脚 Pin # | 功能 Function |
|----------|-------------|
| 1-5 | +28V |
| 6-9 | GND |



OBSERVE PRECAUTIONS
ELECTROSTATIC SENSITIVE
DEVICES

温度环境 Environmental Conditions:

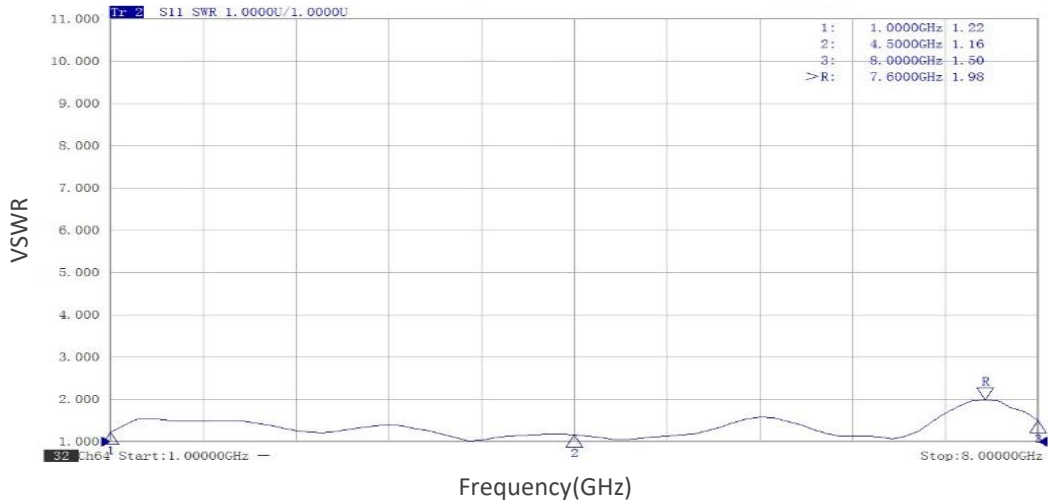
| 参数 Parameter | Min. | Typ. | Max. | 单位 Units |
|------------------------------------|---|------|------|----------|
| 操作温度 Operating Temperature | -40 | | +60 | °C |
| 存储温度 Non-operating Temperature | -45 | | +65 | °C |
| 相对湿度 Relative humidity | | 95 | | % |
| 海拔 Altitude | 50,000 | | | feet |
| 震动 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 | | | |

订货信息 Ordering Information:

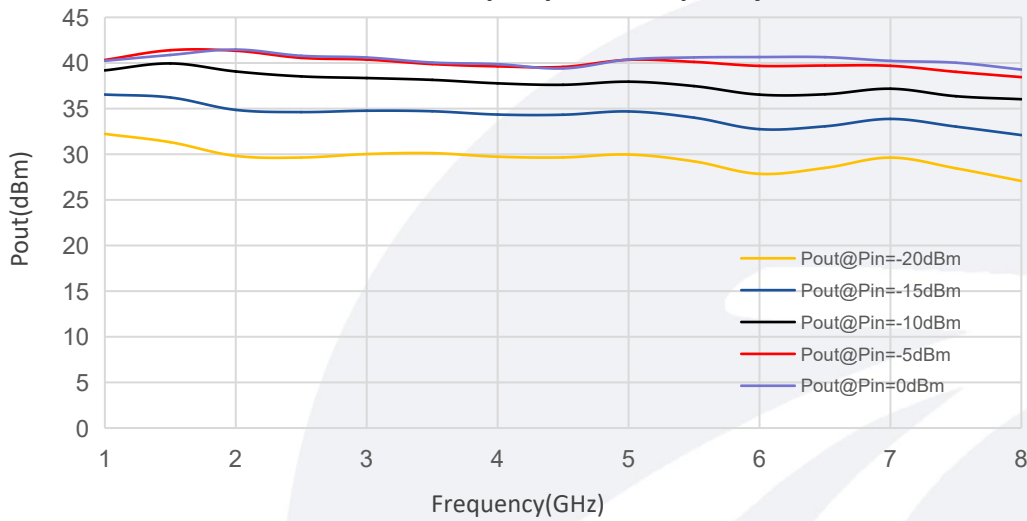
| 标准型号 Part Number | 描述 Description | 版本号 Revision |
|-------------------|--|--------------|
| TLPA1G8G-42-40 | Solid State High Power Amplifier, 1-8GHz, Gain:40dB, Psat:40dBm, 28V DC Without Heatsink | Rev.1.1 |
| TLPA1G8G-42-40-HS | Solid State High Power Amplifier, 1-8GHz, Gain:40dB, Psat:40dBm, 28V DC With Heatsink | Rev.1.1 |

典型曲线 Typical Performance Data:

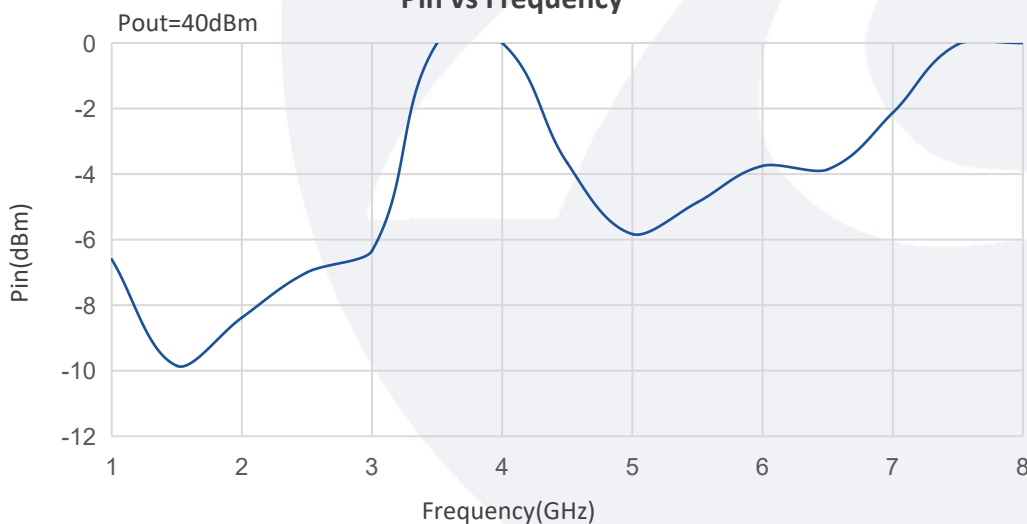
VSWR vs Frequency



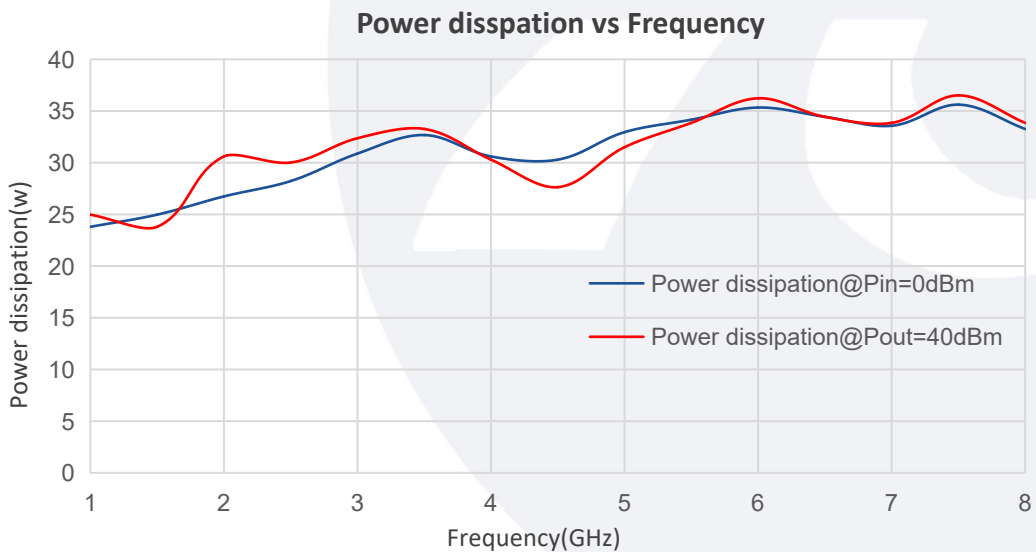
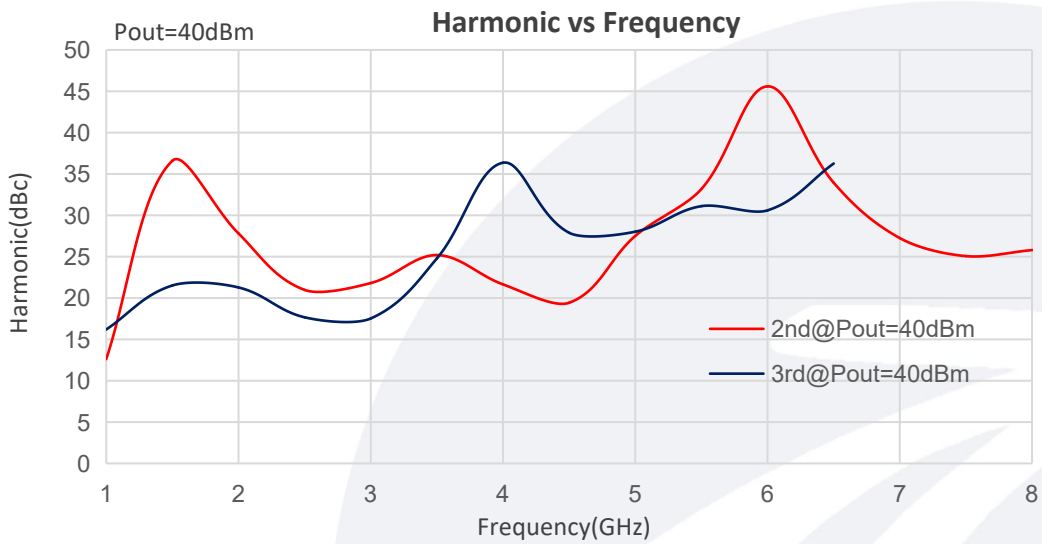
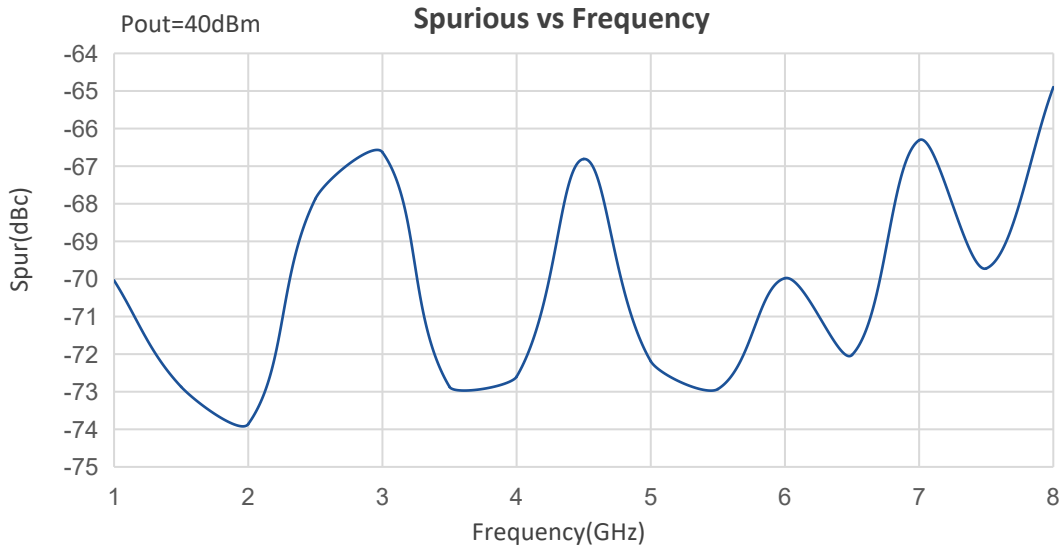
Pout@Equal-pin vs Frequency



Pin vs Frequency

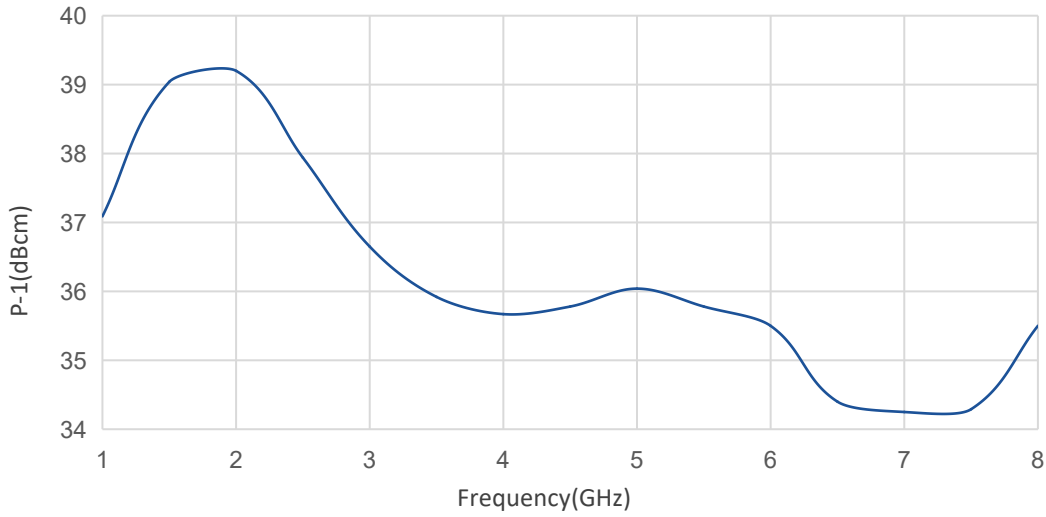


典型曲线 Typical Performance Data:

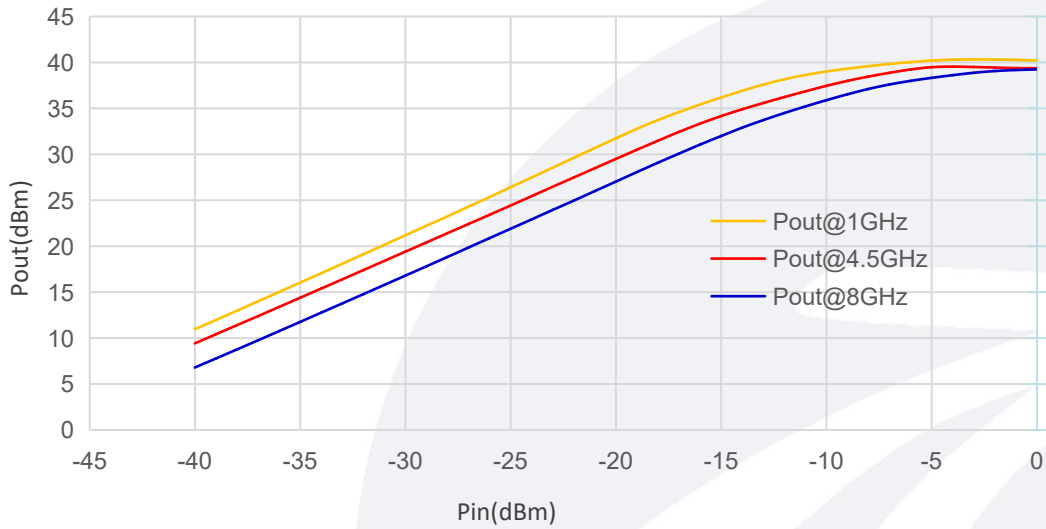


典型曲线 Typical Performance Data:

Output P1dB vs Frequency



Pout vs Pin



Small Signal Gain vs Frequency

