

## Power Amplifier

26.5-40GHz/47dB Gain/47dBm Psat

Model: TLPA26.5G40G-47-47

TLPA26.5G40G-47-47 is a power amplifier with a minimum power gain of 47 dB and a minimum Psat of 47 dBm across the frequency range of 26.5 to 40 GHz. The DC power requirement for the amplifier is +22 VDC/30 A. The input port configuration offers coax adapter structure with 2.92mm female and output port configuration WR28.

### Features:

- Frequency range: 26.5-40GHz
- Gain: 47dB Min
- Output Power Psat: 47dBm 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	26.5		40	GHz
功率增益 Power Gain	47			dB
增益平坦度 Gain Flatness		±4.5		dB
饱和输出功率 Output Psat	47			dBm
杂散 Spurious			-50	dBc
输入驻波 Input VSWR		2	2.5	:1
直流电压 DC Voltage		+22	+24	V DC
直流电流 DC Supply Current			30	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	2.92mm Female/WR28	
DC加电接口 DC Power Supply Interface	SUB-5W5	
控制及检测接口 Control and Test Connector	J30J-15ZKP	
正向/反向耦合 Forward/Reverse Coupling Connector	2.92 Female/2.92 Female	
尺寸 Size	300*264*85	mm
重量 Weight	10	Kg

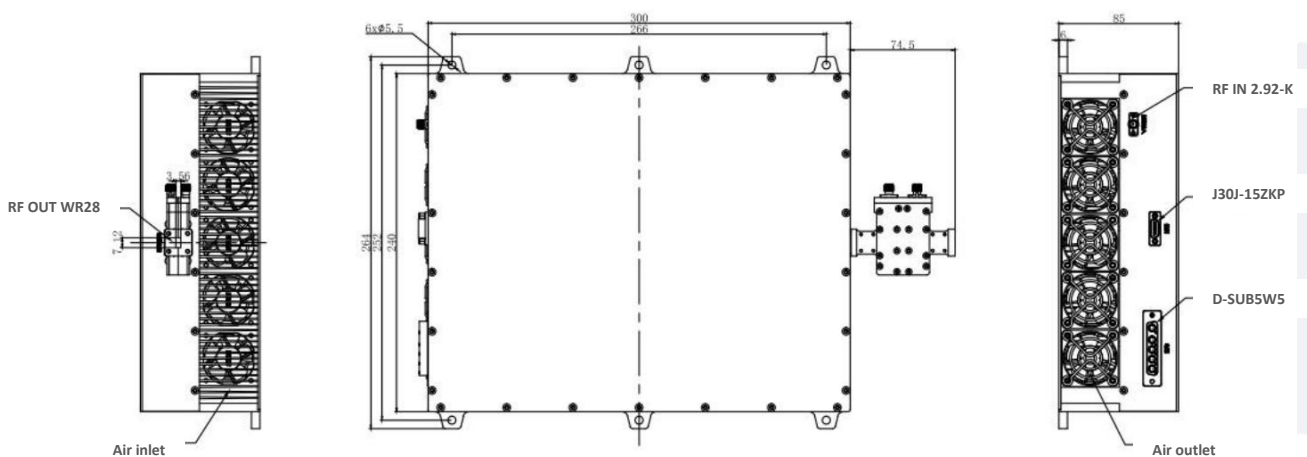
## 绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+24 V
输入功率 RF Input Power	+10 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.

## 直流供电及控制接口 DC Power Supply&Control Connector:

J30J-15ZKP Define	
引脚 Pin	功能 Function
Pin1	TTL(high for open,low for close)
Pin2	Current Monitor
Pin3	Temperature Monitor
Pin4	0.5dB Attenuation
Pin5	1dB Attenuation
Pin6	2dB Attenuation
Pin7	4dB Attenuation
Pin8	8dB Attenuation
Pin9	16dB Attenuation
Pin10-15	GND

DSUB-5W5 Define	
引脚 Pin	功能 Function
A1-A2	+24V
A3-A5	+24V

## 温度环境 Environmental Conditions:

参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature*	0		+40	°C
存储温度 Non-operating Temperature*	-45		+65	°C
相对湿度 Relative humidity		95		%
海拔 Altitude	10,000			feet
震动 Shock / Vibration(MIL-STD-810F)	20g,11ms,saw-tooth			
冲击 Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

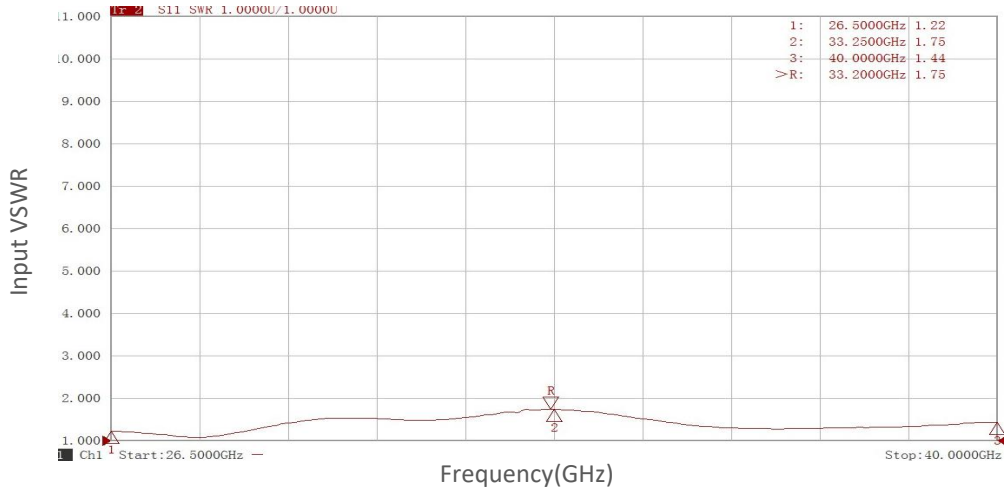
\*Note: For a wider temperature range, please consult the manufacturer.

## 订货信息 Ordering Information:

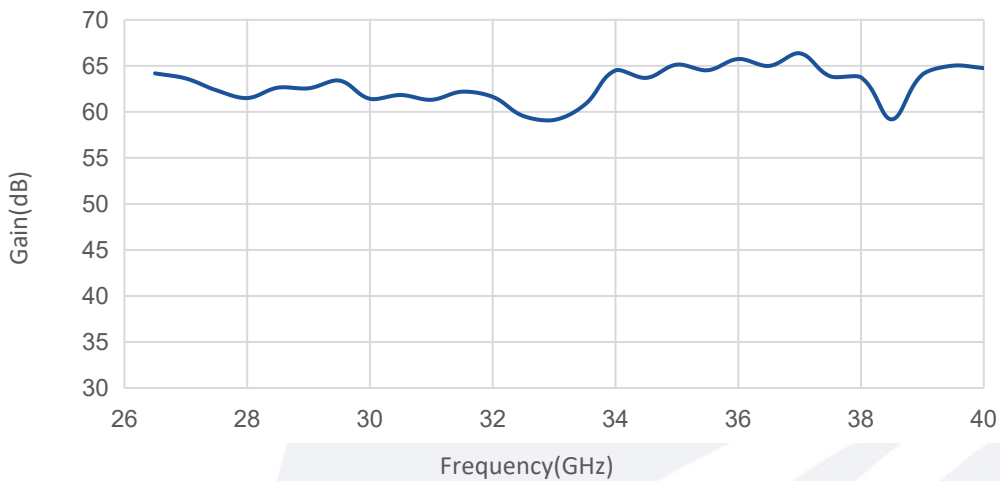
标准型号 Base Number	描述 Description	版本号 Revision
TLPA26.5G40G-47-47	Power amplifier 26.5-40GHz, Gain:47dB,Psat:47dBm,+22V DC,With Heatsink	Rev.1.1

**典型曲线 Typical Performance Data:**

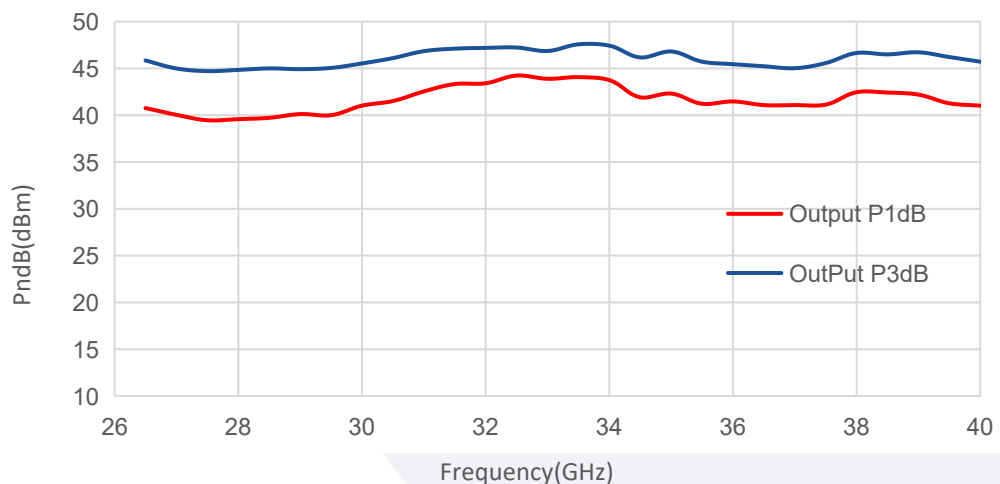
**Input VSWR vs Frequency**



**Small Signal Gain vs Frequency**



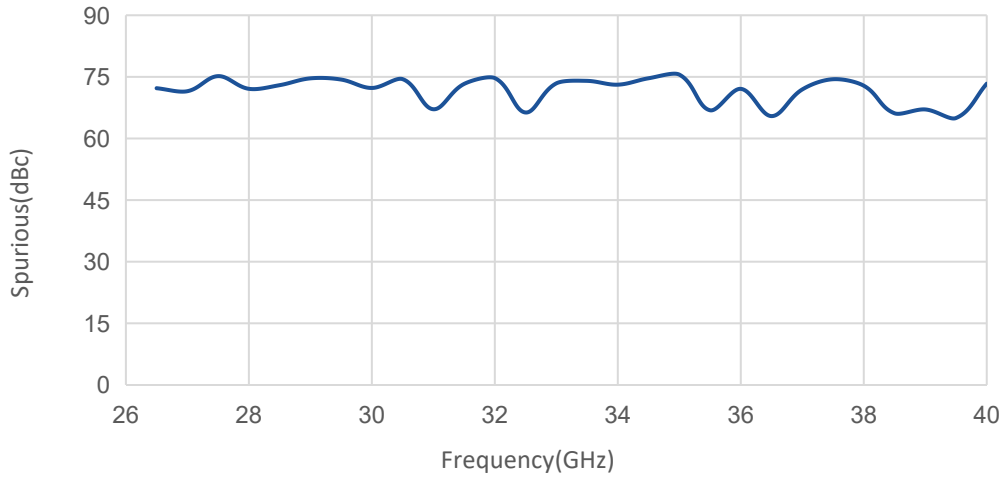
**PndB vs Frequency**



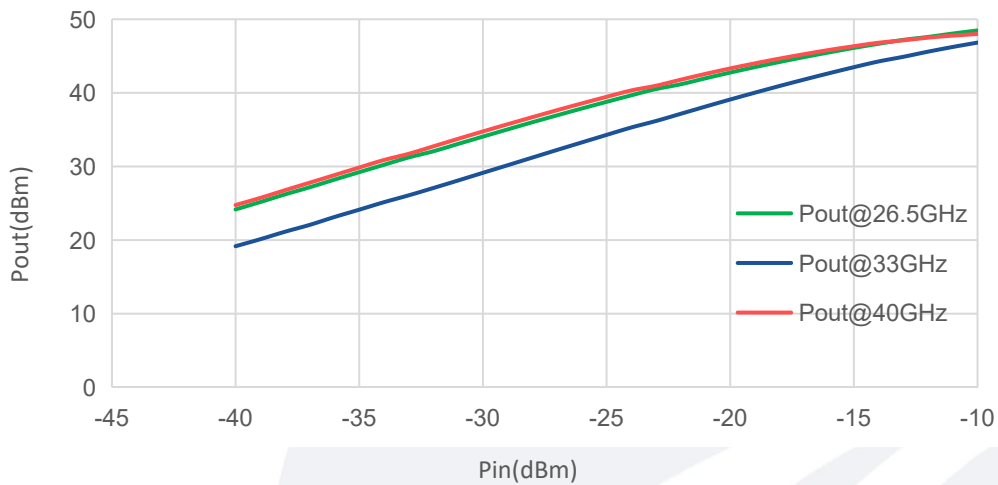
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

**典型曲线 Typical Performance Data:**

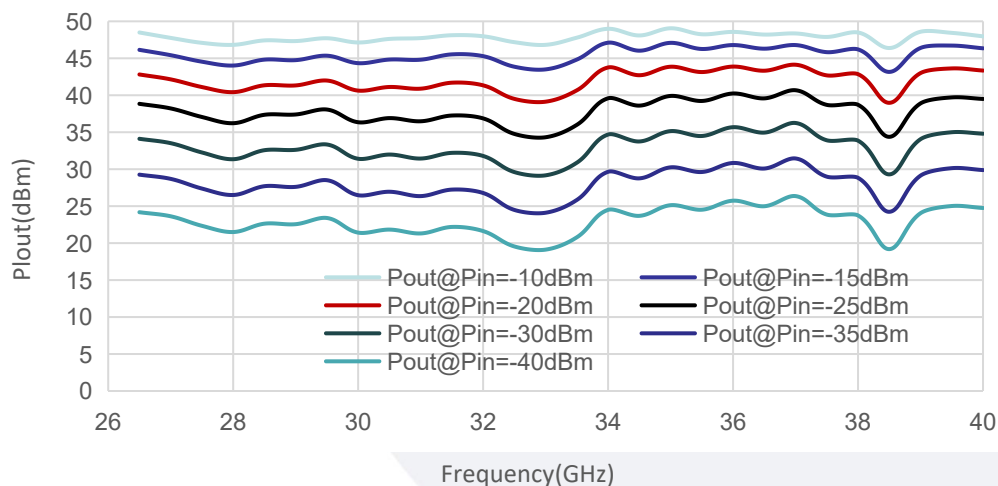
**Spurious vs Frequency**



**Pout@Pin**



**Pout@Equal\_Pin**



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