

Power Amplifier

15-43GHz /35dB Gain/33 dBm Psat

Model: TLPA15G43G-35-33

TLPA15G43G-35-33 is a power amplifier with small signal gain of 35 dB and a nominal Psat of 33 dBm across the frequency range of 15 to 43 GHz. The DC power requirement for the amplifier is +24 VDC/1.5 A. The input and output port configuration offers coax adapter structure with 2.92mm female.

Features:

- Ultra Wide Band: 15-43GHz
- Gain: 35dB Min
- Output Power Psat: 33dBm 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	15-43			GHz
小信号增益 Small Signal Gain	35			dB
增益平坦度 Gain Flatness		±3		dB
线性输出功率 Output P1dB	30			dBm
饱和输出功率 Output Psat		33		dBm
杂散 Spurious@Pout=30dBm			-50	dBc
输入驻波 Input VSWR			2	:1
直流电压 DC Voltage		24		V DC
直流电流 DC Supply Current		1.5		A
阻抗 Impedance	50			Ohms

机械特性 Mechanical Specifications:

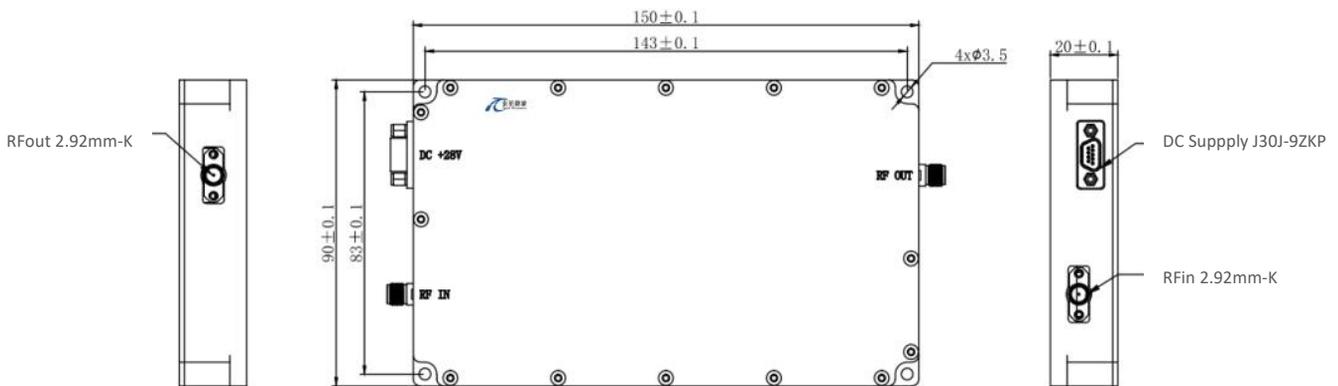
参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	2.92mm Female/2.92mm Female	
直流供电接口 DC Supply Connector	J30J-9ZKP	Pin1~5:+24V Pin6~9:GND
尺寸 Size	150*90*20	mm
重量 Weight	500	g

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	0 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V

外形图 Outline Drawing:

Unit:mm



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
TLPA15G43G-35-33	Power amplifier 15-43GHz,Gain:35dB,Psat:33dBm, +24V DC,Without Heatsink	Rev.1.1
TLPA15G43G-35-33-HS	Power amplifier 15-43GHz,Gain:35dB,Psat:33dBm, +24V DC,With Heatsink	Rev.1.1

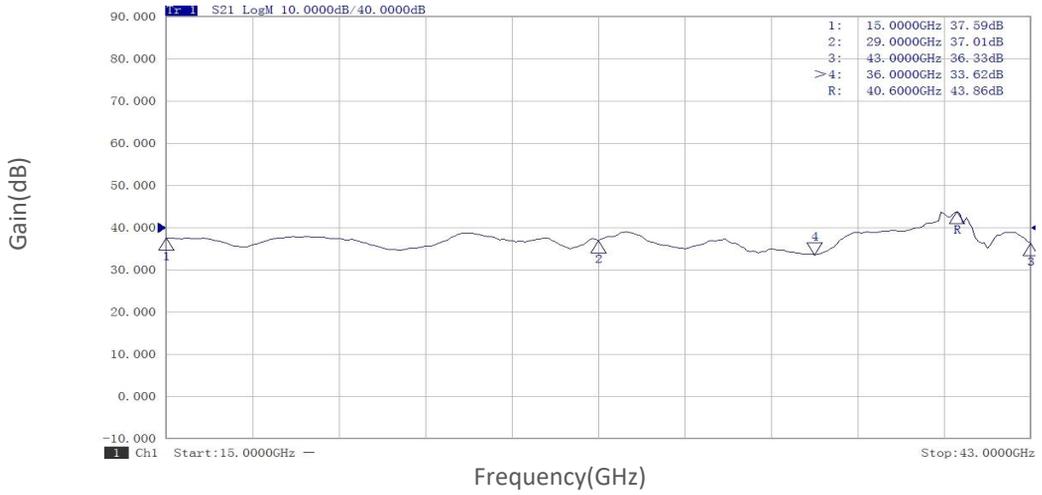
典型曲线 Typical Performance Data:

Input VSWR vs Frequency

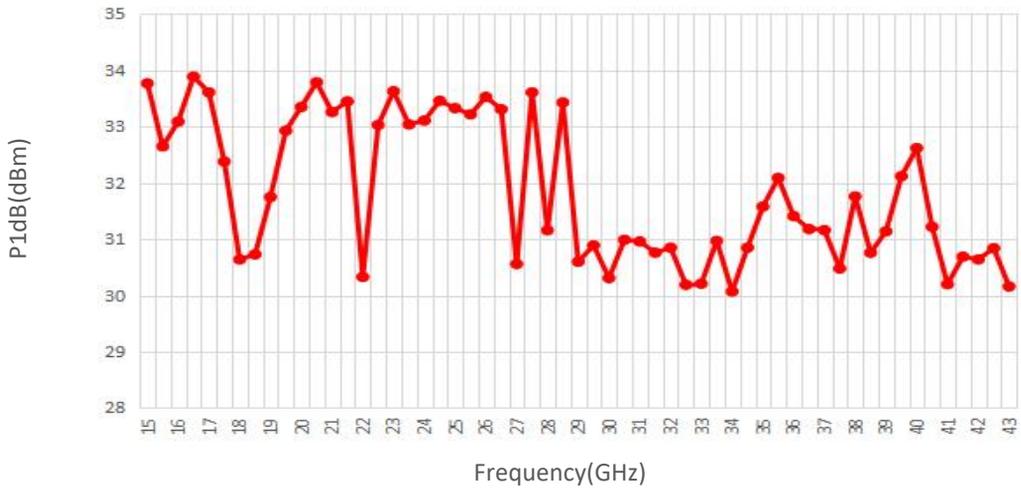
Input VSWR

典型曲线 Typical Performance Data:

Small Signal Gain vs Frequency



P1dB vs Frequency



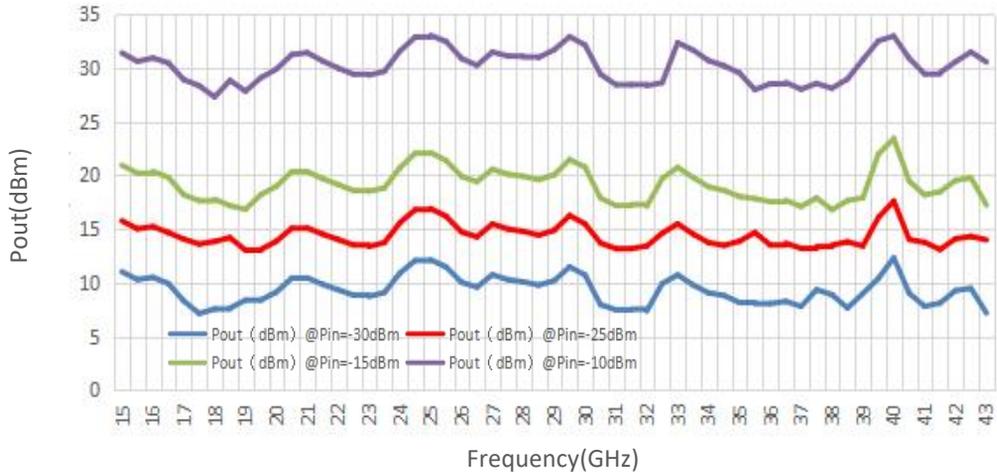
Pout@Pin

Pout(dBm)

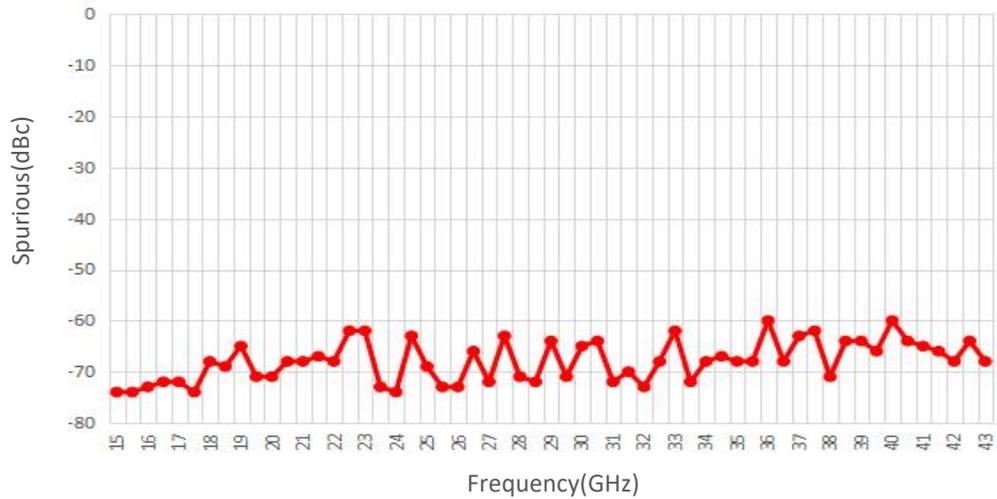
● Pout@15GHz
 ● Pout@29GHz
 ● Pout@43GHz

典型曲线 Typical Performance Data:

Pout@Equal_Pin



Spurious 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.