

Power Amplifier

12-20GHz/33dB Gain/33dBm Psat

Model: TLPA12G20G-33-33

TLPA12G20G-33-33 is a power amplifier with a minimum power gain of 33 dB and a minimum Psat of 33 dBm across the frequency range of 12 to 20 GHz. The DC&AC voltage power requirement for the amplifier is +24 V DC&+220 V AC. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 12-20GHz
- Gain: 33dB Min
- Output Power Psat: 33dBm 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	12		20	GHz
功率增益 Power Gain	33			dB
增益调节范围 Gain adjust Range		31.5		dB
增益调节步进 Gain adjust Step		0.5		dB
饱和输出功率 Output Psat	33			dBm
杂散 Supurious			-60	dBc
输入驻波 Input VSWR			2.0	:1
直流&交流电压 DC&AC Voltage	220V AC&24V DC			V
功耗 Power Consumption			60	W
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	
DC加电接口 DC Power Interface	Solder Pin	
尺寸 Size	250*245*100	mm
重量 Weight	≤7.5	Kg

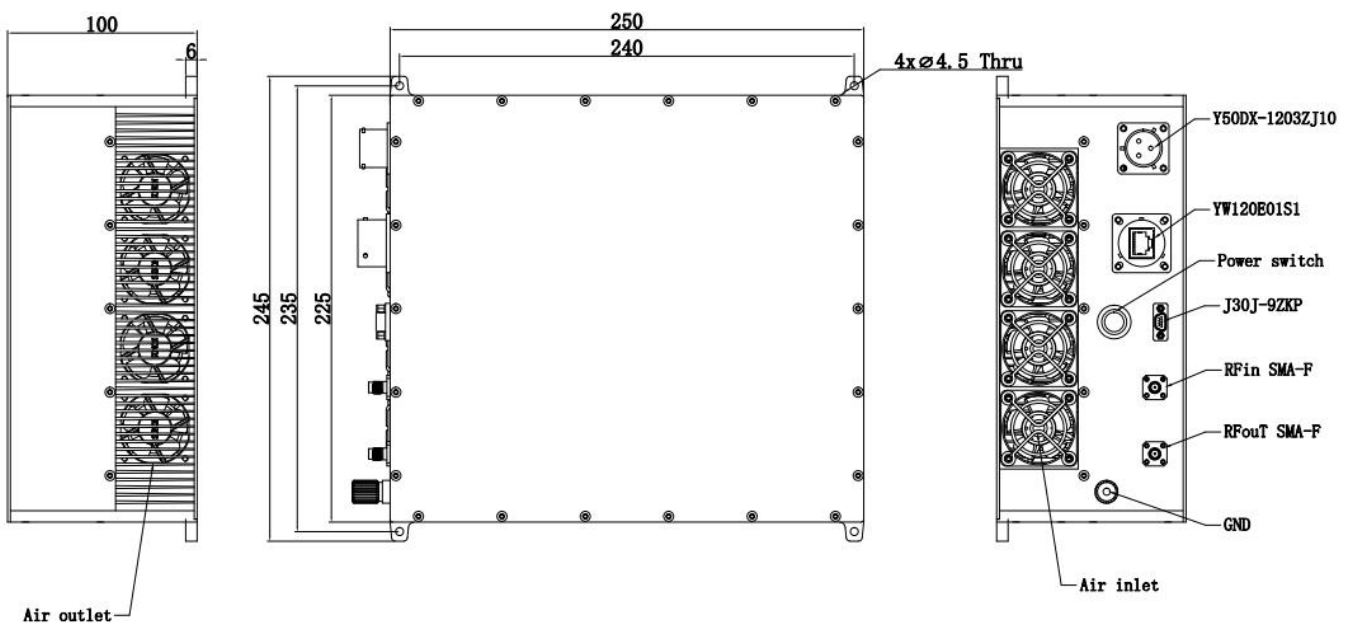
绝对最大值 Absolute Maximum Ratings:

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



外形图 Outline Drawing:

Unit:mm



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	30,000			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			

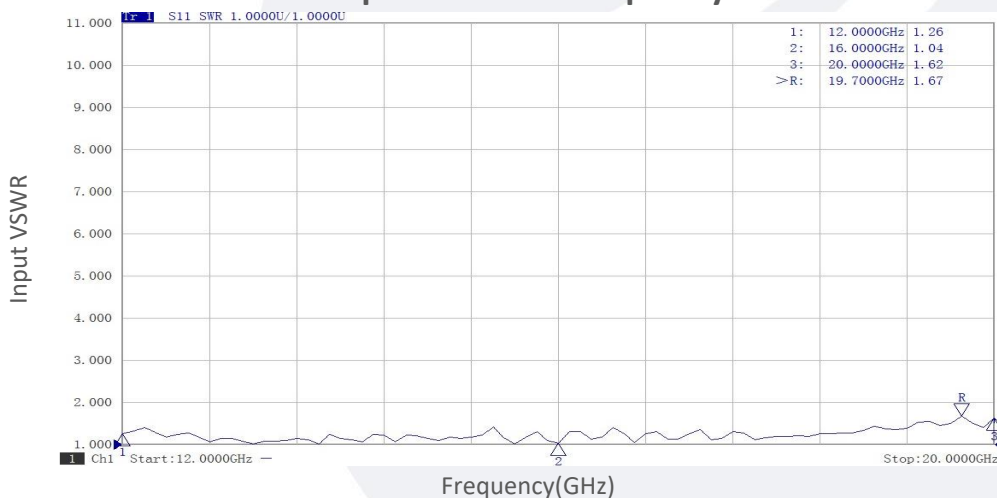
*Note: For a wider temperature range, please consult the manufacturer.

订货信息 Ordering Information:

标准型号 Base Number	描述 Description	版本号 Revision
TLPA12G20G-33-33	Power amplifier 12-20GHz, Gain:33dB,Psat:33dBm,+24V DC&220V AC,With Heatsink	Rev.1.1

典型曲线 Typical Performance Data:

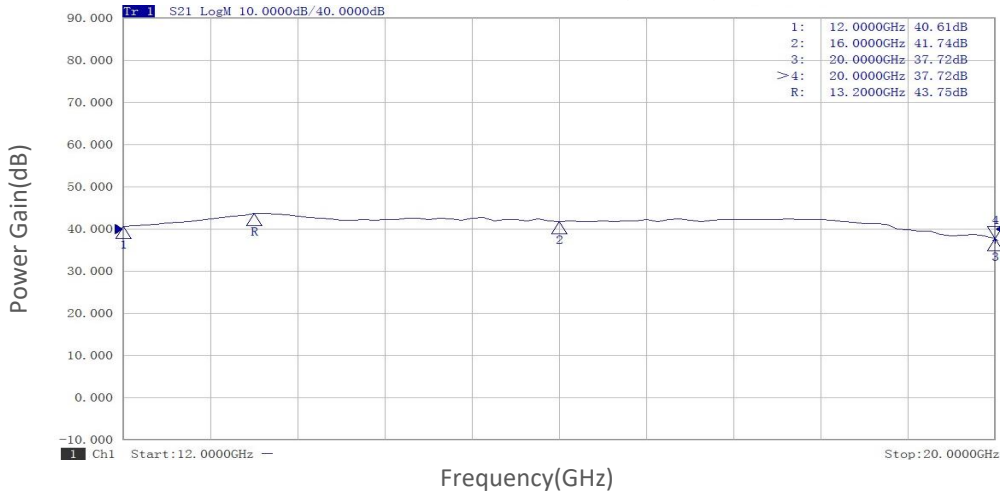
Input VSWR vs Frequency



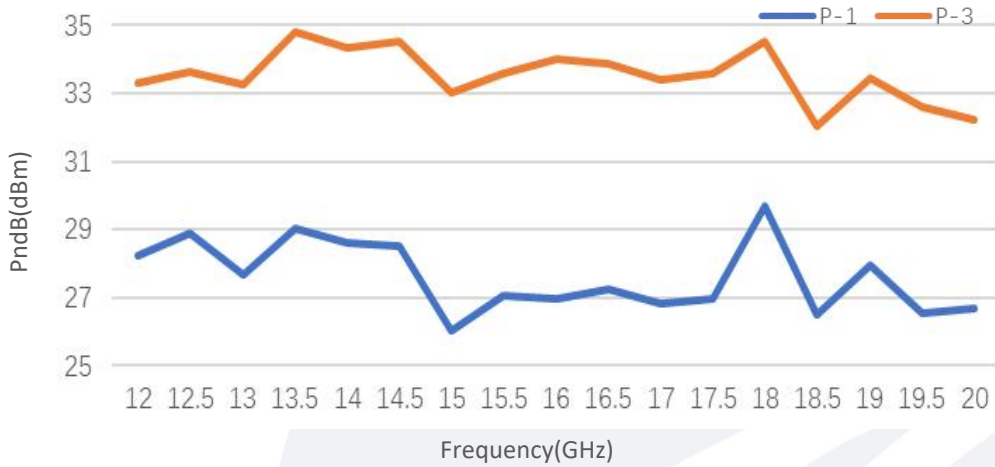
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

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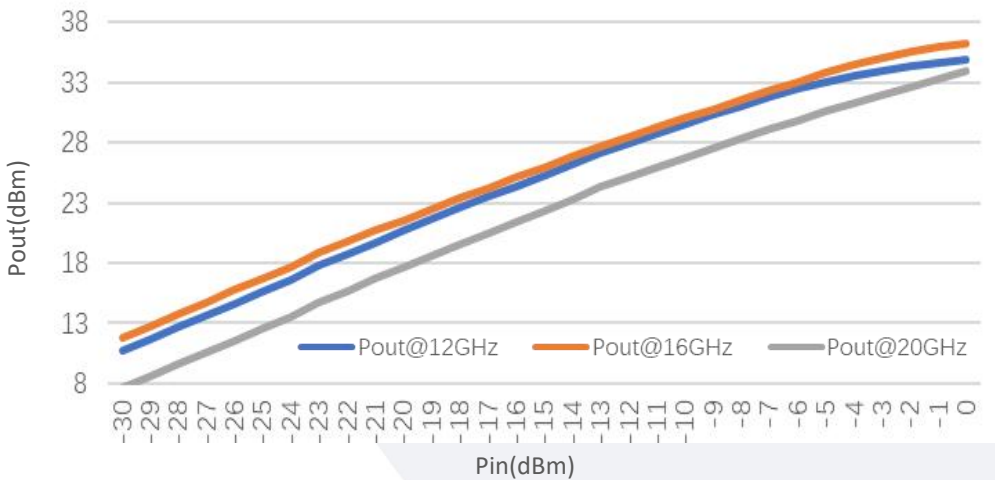
Power Gain vs Frequency



PndB vs Frequency

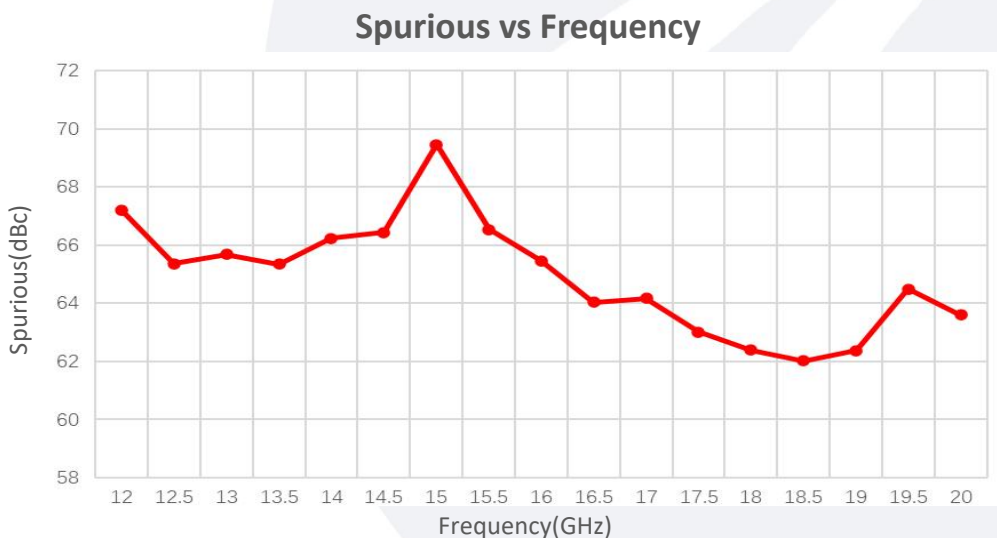
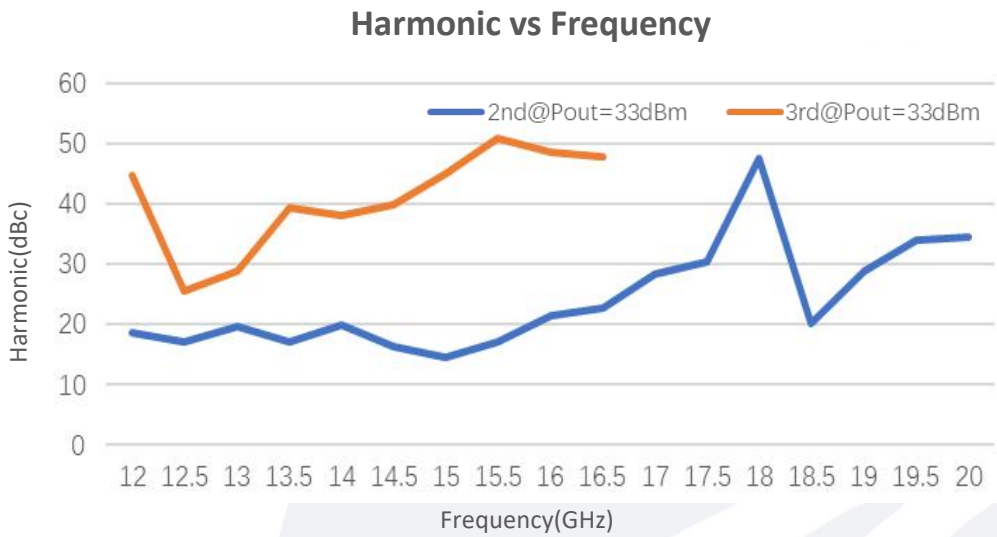
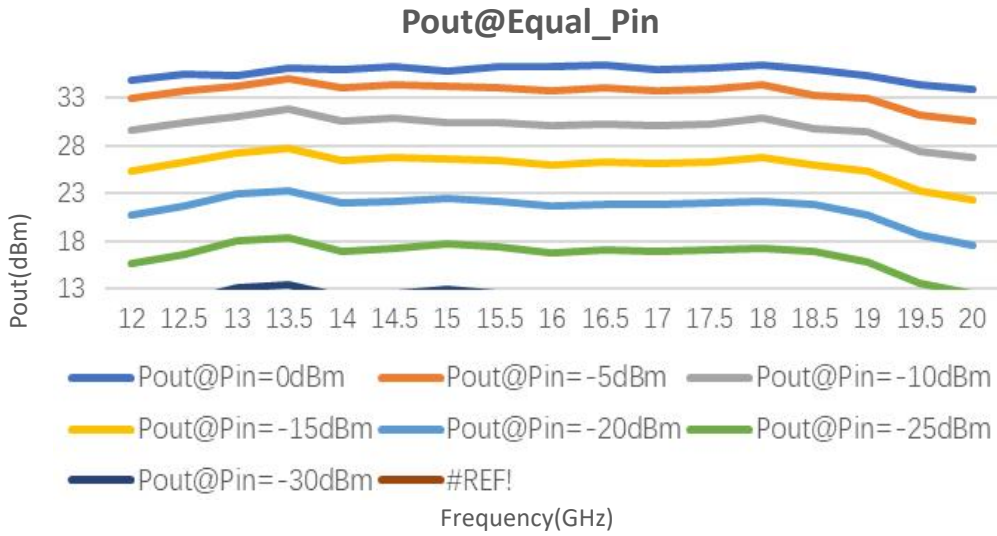


Pout@Pin



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