

Power Amplifier

1-6GHz/45dB Gain/34dBm Psat

Model: TLPA1G6G-45-33

TLPA1G6G-45-33 is a power amplifier with a minimum small signal gain of 45 dB and a nominal Psat of 34 dBm across the frequency range of 1 to 6 GHz. The DC power requirement for the amplifier is +15 VDC/0.7 A. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 1-6GHz
- Gain: 45dB Min
- Output Power Psat: 34dBm 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	1		6	GHz
小信号增益 Small Signal Gain	45	47		dB
增益平坦度 Gain Flatness		±3	±4	dB
线性输出功率 Output P1dB	30	31		dBm
饱和输出功率 Output Psat	33	34		dBm
谐波 Harmonic		-15		dBc
输入驻波 Input VSWR		1.5	2	:1
直流电压 DC Voltage		15	16	V DC
直流电流 DC Supply Current		0.7	1.5	A
阻抗 Impedance		50		Ohms

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
TLPA1G6G-45-33	Power amplifier 1-6GHz, Gain:45dB,Psat:33dBm,+15V DC,Without Heatsink	Rev.1.0
TLPA1G6G-45-33-HS	Power amplifier 1-6GHz, Gain:45dB,Psat:33dBm,+15V DC,With Heatsink	Rev.1.0

典型曲线 Typical Performance Data:

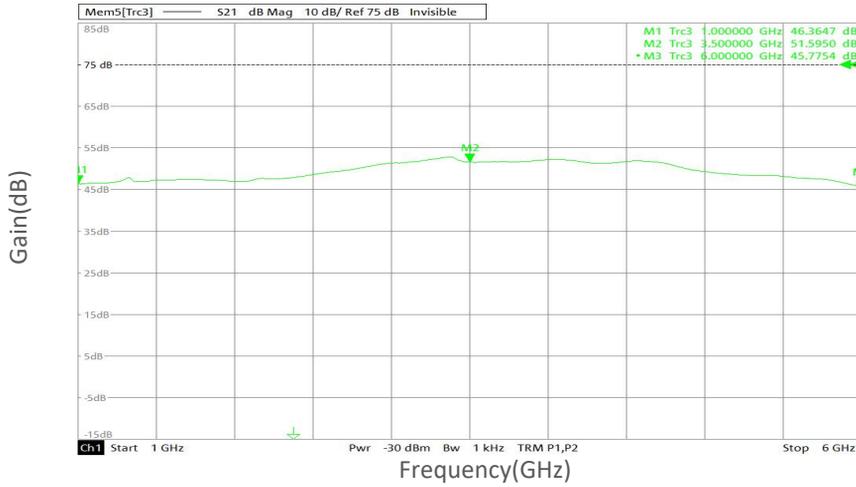
Input VSWR vs Frequency



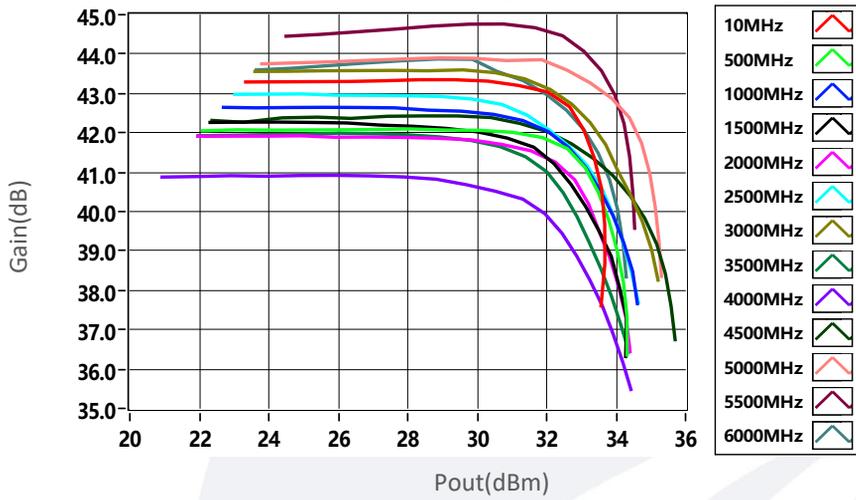
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

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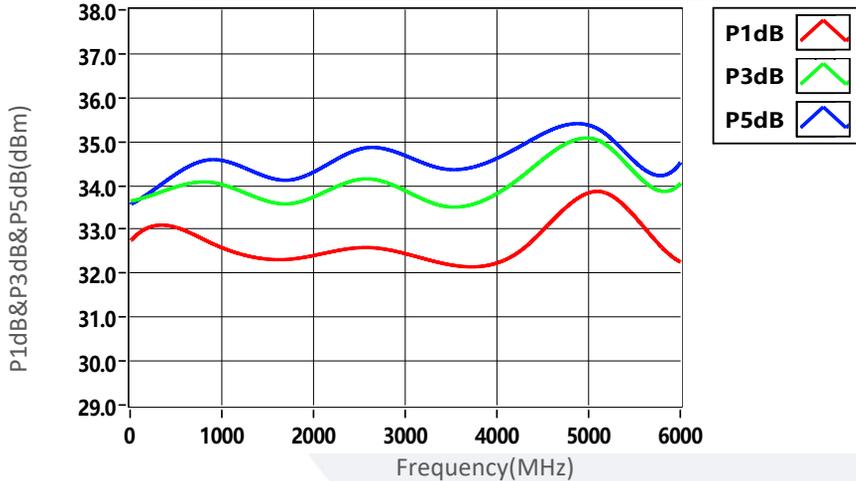
Small Signal Gain vs Frequency



Gain vs Output Power



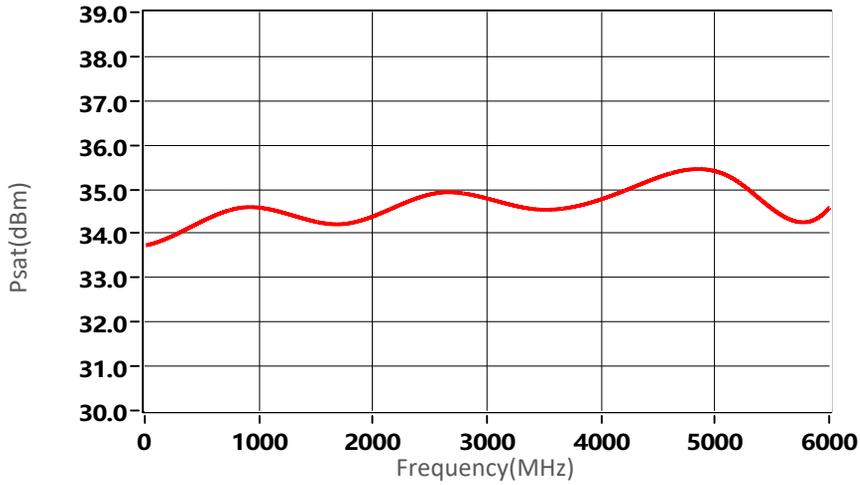
PndB vs Frequency



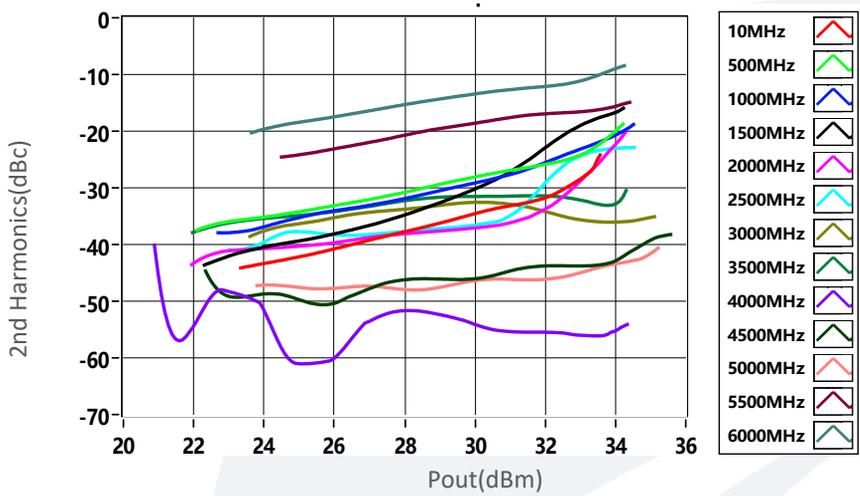
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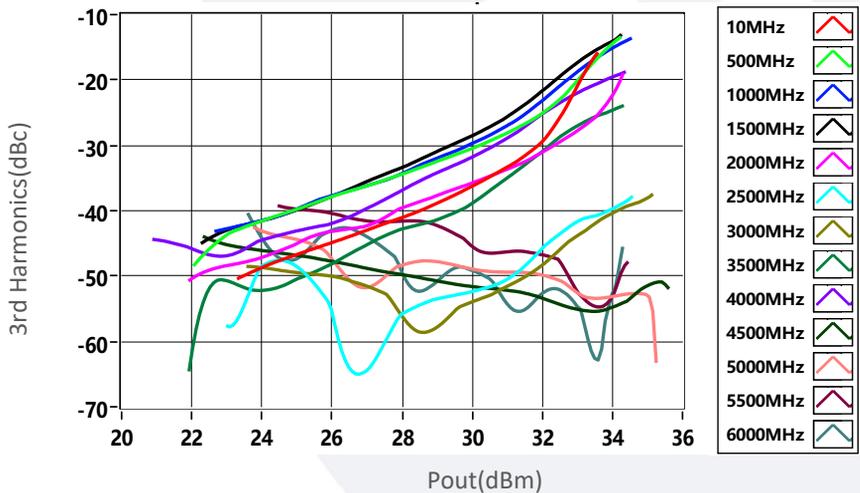
Psat vs Frequency



2nd Harmonics vs Output Power



3rd Harmonics vs Output Power



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