

Model:TLPA1G6G-52-44

Power Amplifier

1-6GHz,Gain:52dB,Psat:44dBm

Feature:

- Ultra Wide Band: 1-6GHz
- Gain:52 dB Min
- Psat Output Power: 44dBm Min
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Electrical Specifications:

Parameter	Min	Typ	Max	Units
Frequency range	1-6			GHz
Small Signal Gain	52			dB
Gain Flatness			±3	dB
Output P1dB		37		dBm
Output Psat		44		dBm
Spurious@Pout=44dBm			-60	dBc
Harmonic@Pout=44dBm			-10	dBc
Input VSWR		1.5	2	:1
DC Voltage	+28			V DC
DC Supply Current		6		A
Impedance	50			Ohms

Mechanical Specifications:

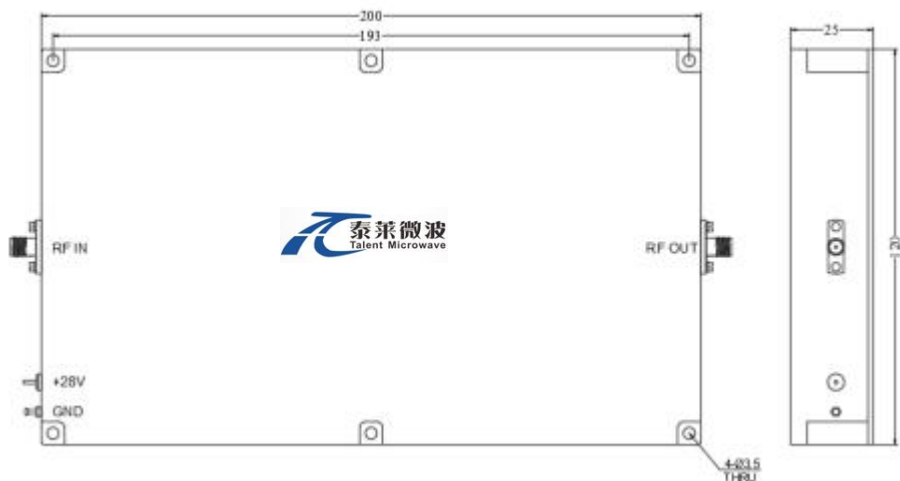
Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	Solder Pin	
Size	200*120*20	mm
Weight	200	g

Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+28V
RF Input Power	5 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Outline Drawing:

Unit: mm



*****Heat Sink Required During Operation**



Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature*	-40		+50	°C
Non-operating Temperature*	-50		+60	°C
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	20g,11ms,saw-tooth			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

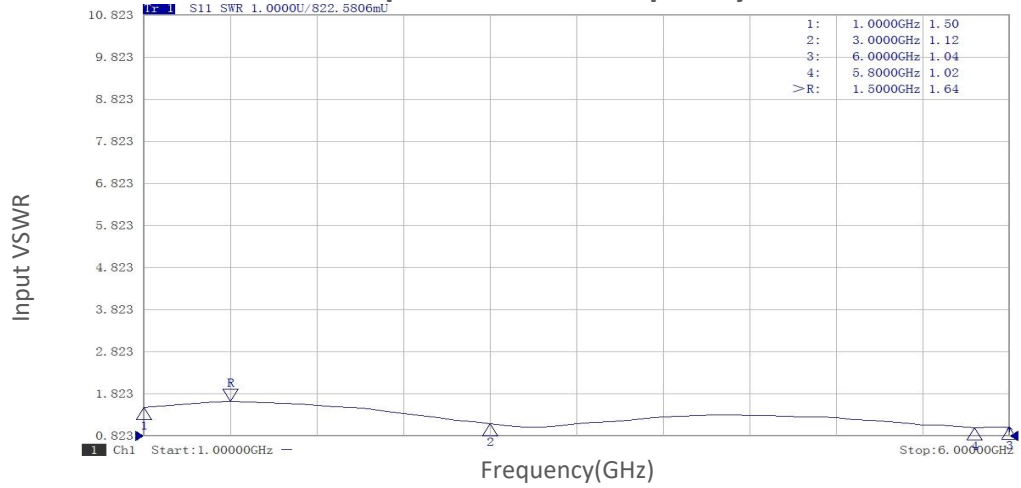
*Note: For a wider temperature range, please consult the manufacturer.

Ordering Information:

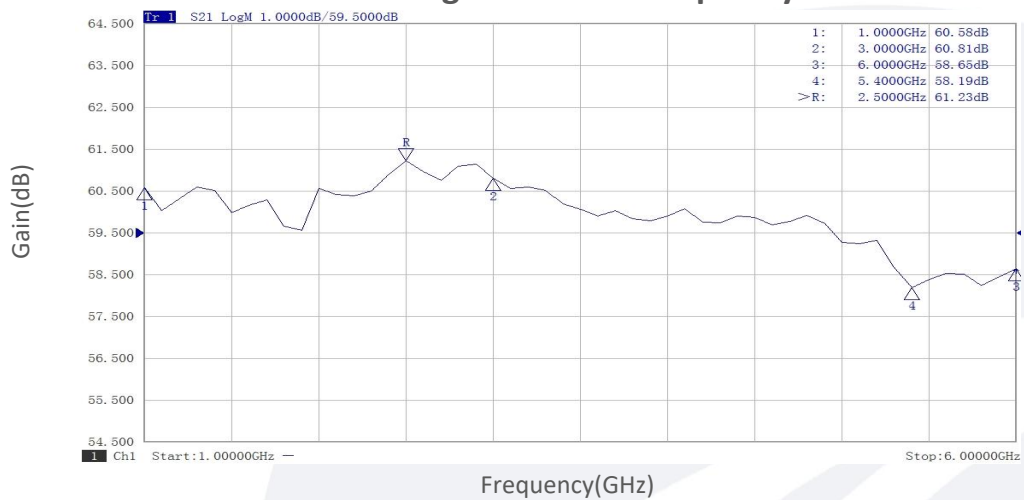
Part Number	Description	Revision
TLPA1G6G-52-44	Power amplifier 1-6GHz,Gain:52dB,Psat:44dBm, +28V DC,Without Heatsink	Rev.1.1
TLPA1G6G-52-44-HS	Power amplifier 1-6GHz,Gain:52dB,Psat:44dBm, +28V DC,With Heatsink	Rev.1.1

Typical Performance Data:

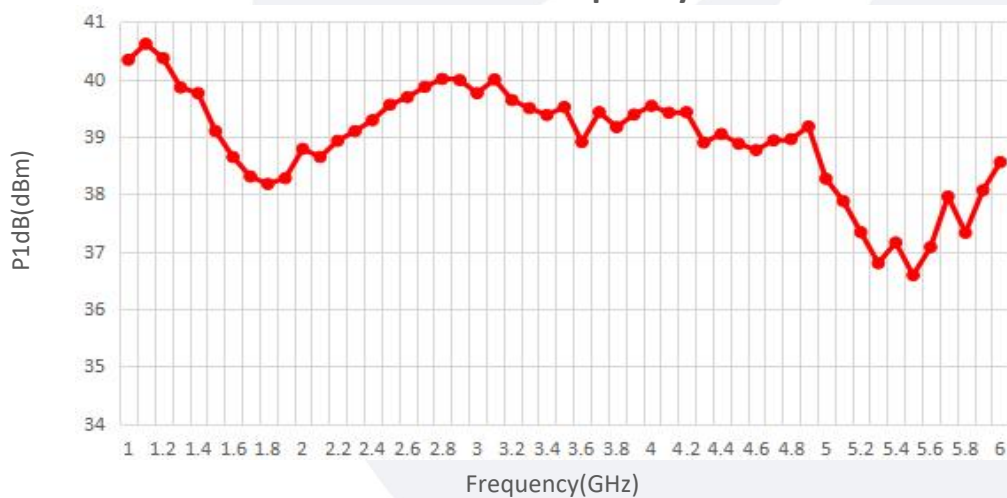
Input VSWR vs Frequency



Small Signal Gain vs Frequency



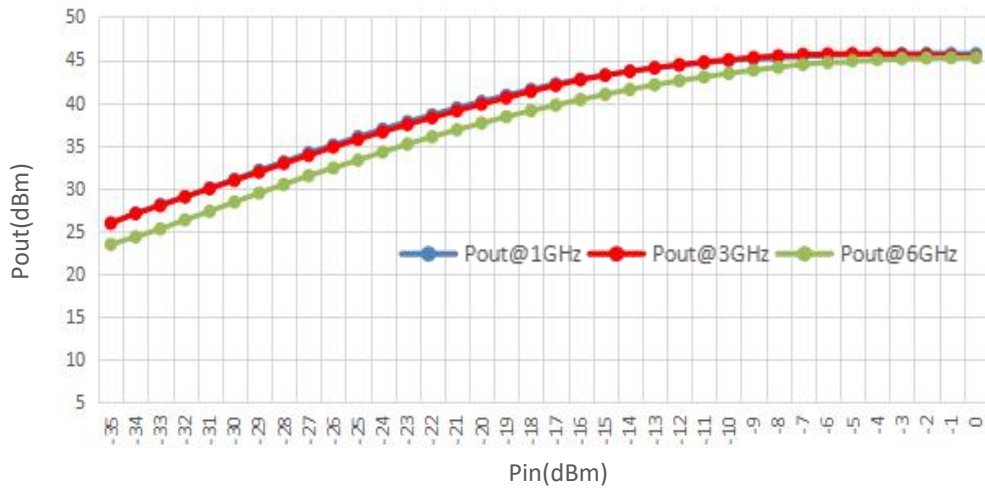
P1dB vs Frequency



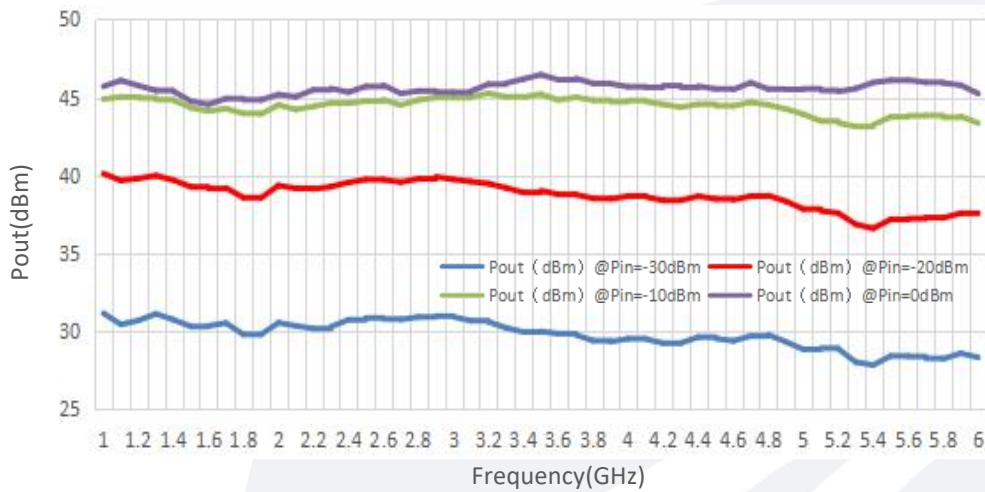
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

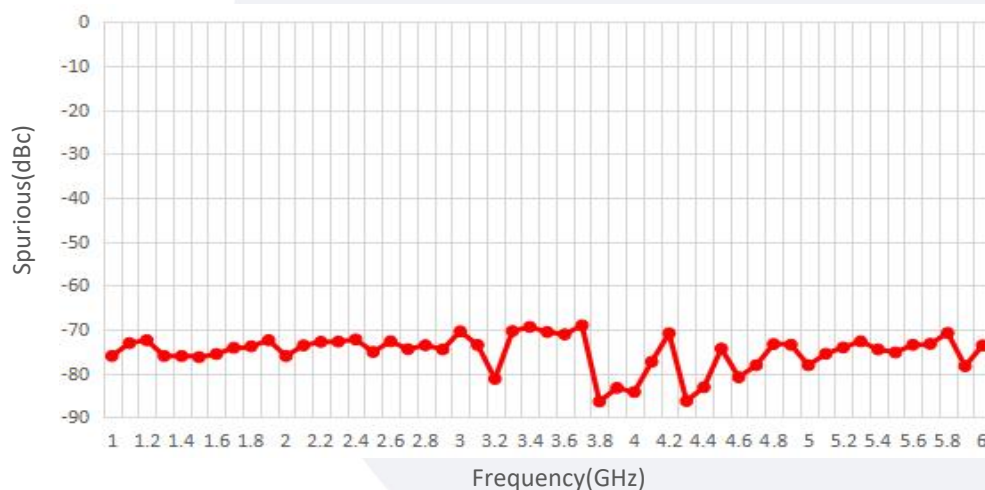
Pout@Pin



Pout@Equal_Pin



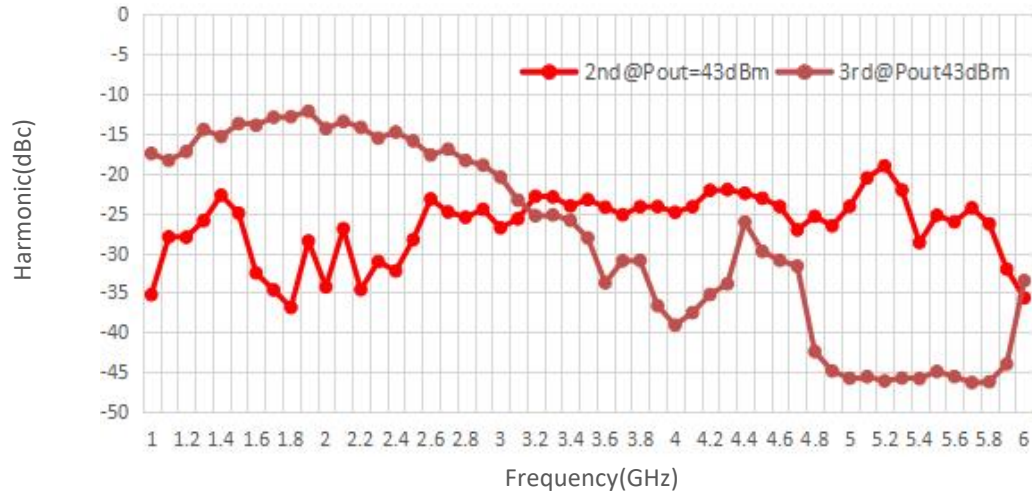
Spurious vs Frequency



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Typical Performance Data:

Harmonic vs Frequency



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