

Power Amplifier

6-18GHz/50dB Gain/43 dBm Psat

Model: TLPA6G18G-43-43-HS-T

TLPA6G18G-43-43-HS-T is a power amplifier with a minimum small signal gain of 50 dB and a minimum Psat of 43 dBm across the frequency range of 6 to 18 GHz. The DC power requirement for the amplifier is +28 VDC/350 W. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 6-18GHz
- Gain: 50dB Min
- Output Power Psat: 43dBm Min
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	6		18	GHz
Small Signal Gain	50			dB
Gain Flatness@Full band		±4		dB
Output Psat	43			dBm
Spurious@Pout=43dBm			-60	dBc
Harmonics@Pout=43dBm			-10	dBc
Input VSWR			2.0	:1
DC Voltage		+28		V DC
Power Consumption			350	W
Impedance	50			Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Power Supply Connector	D-SUB7W2	A1: +28V A2: GND Pin1: TTL Pin2~5: NC
Size	200*100*69.5	mm
Weight	≤3.5	Kg

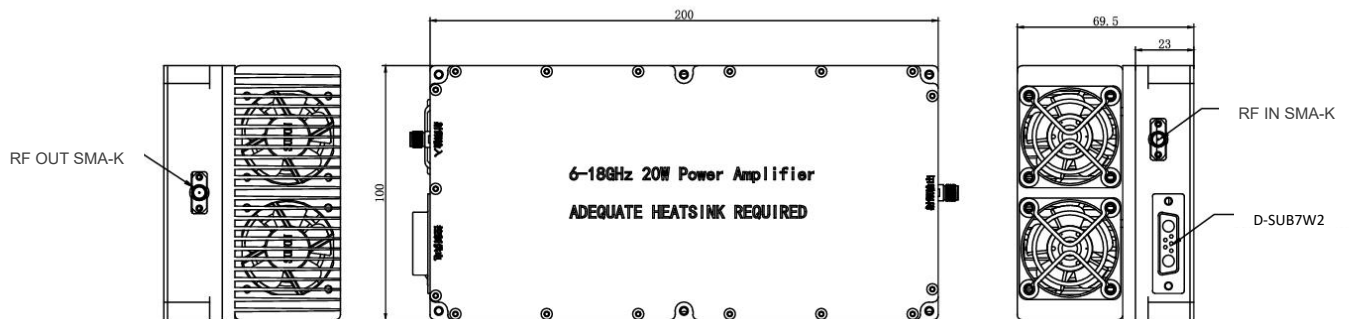
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+30 V
RF Input Power	+10 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



Outline Drawing:

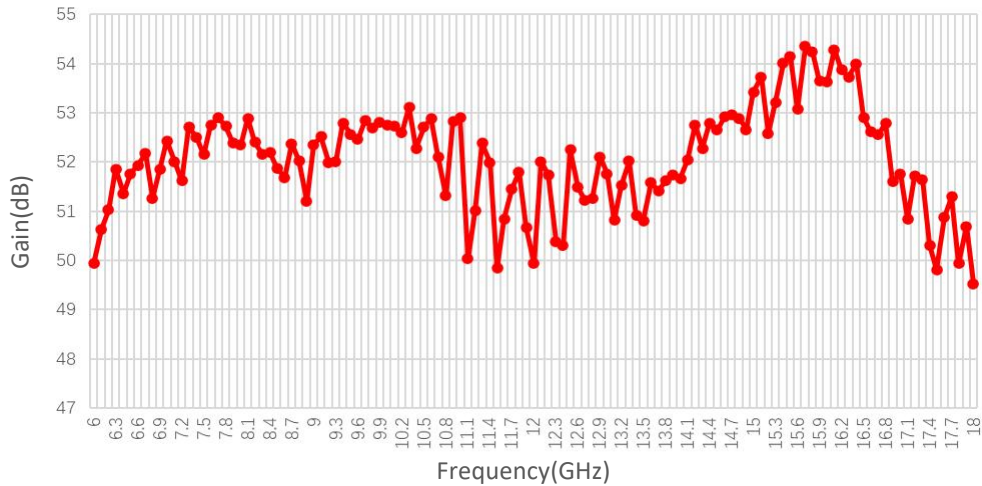
Unit:mm; Tolerance:±0.1mm



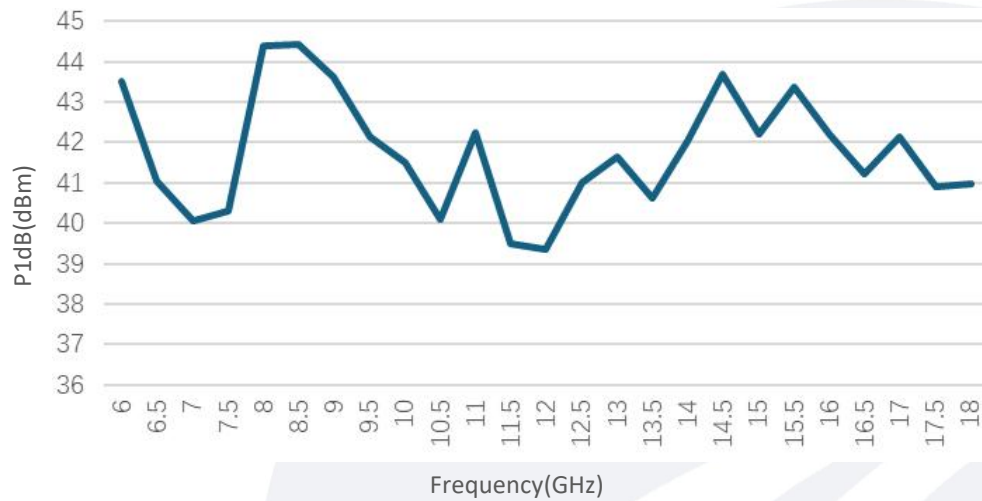
ESD Protection: Strictly adhere to ESD precautions to prevent electrostatic damage.

Typical Performance Data:

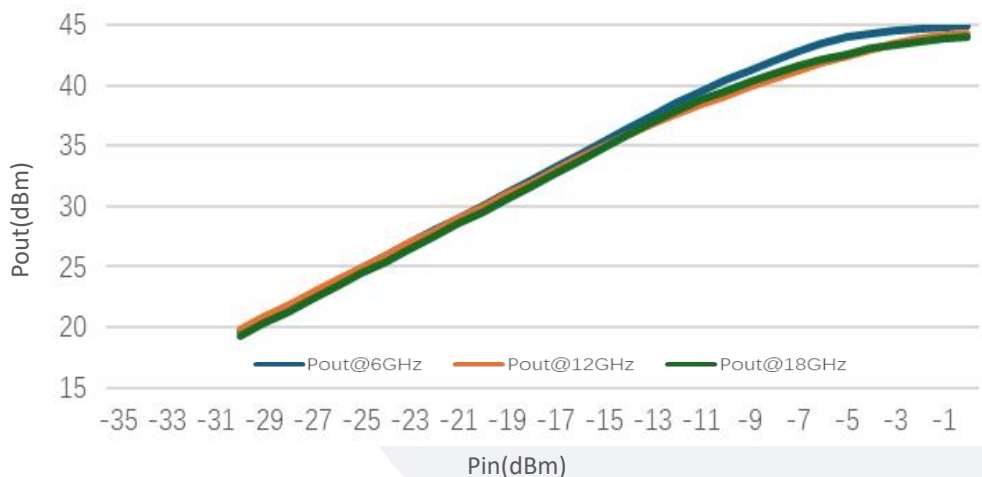
Small Signal Gain vs Frequency



P1dB vs Frequency



Pout@Pin



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.

Environmental Conditions:

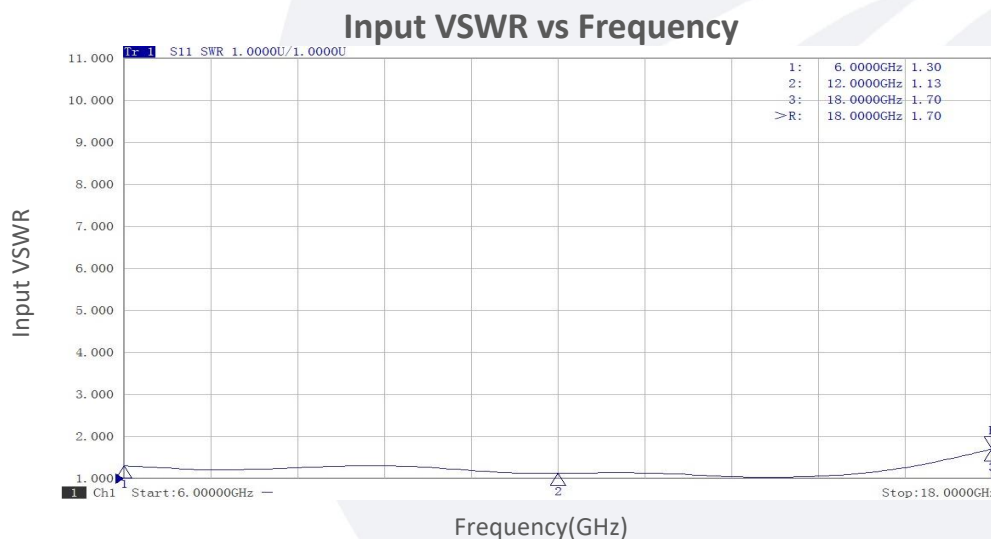
Parameter	Min	Typ	Max	Units
Operating Temperature*	-40		+70	°C
Non-operating Temperature*	-50		+80	°C
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	20g,11ms,saw-tooth			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

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

Ordering Information:

Base Number	Description	Revision
TLPA6G18G-43-43-HS-T	Power amplifier 6-18GHz,Gain:50dB,Psat:43dBm,+28V DC,With Heatsink, Operating Temperature -40~+70°C	Rev.1.1

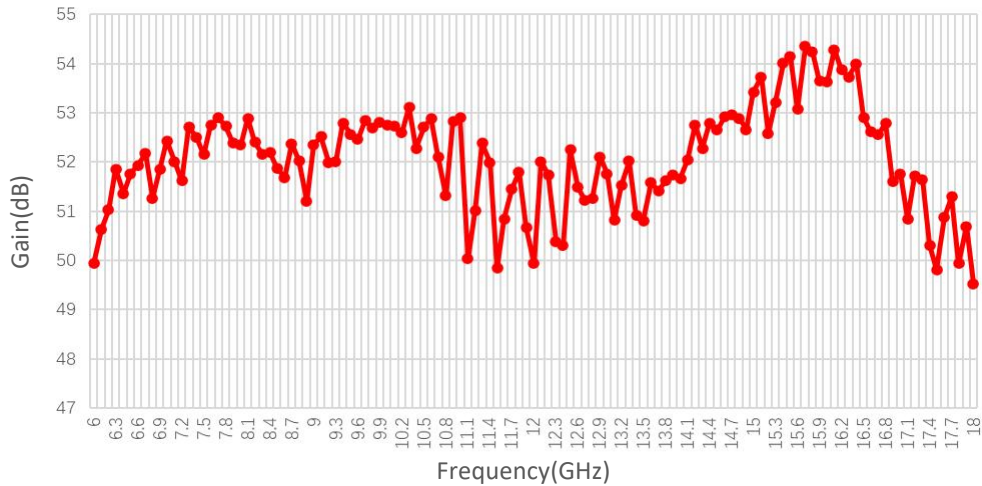
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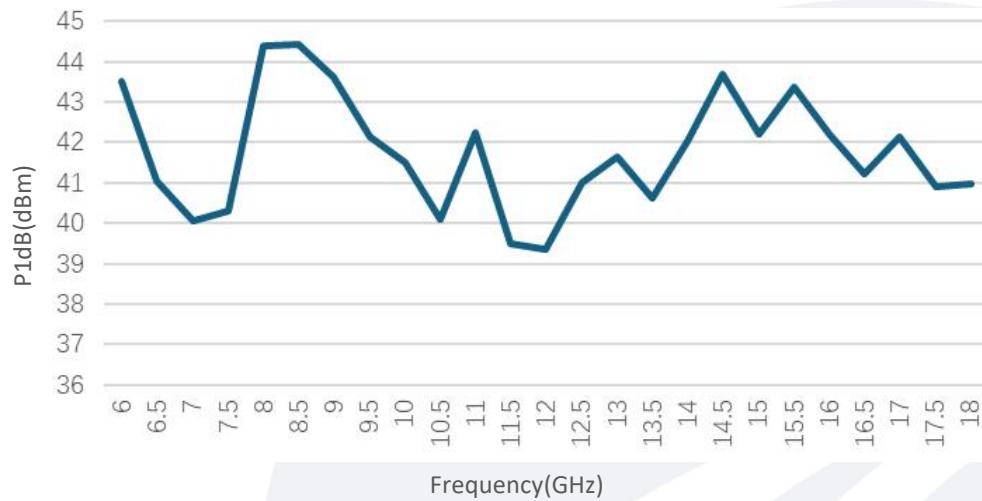
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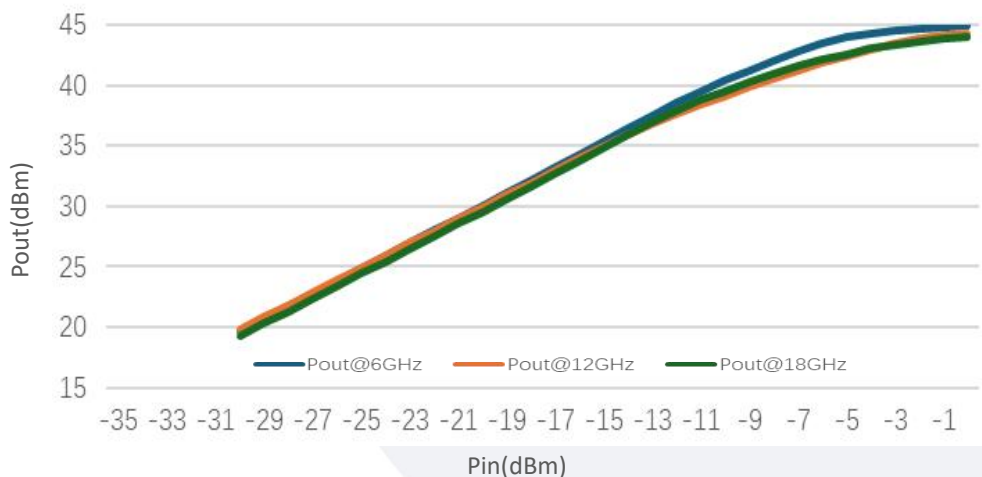
Small Signal Gain vs Frequency



P1dB vs Frequency

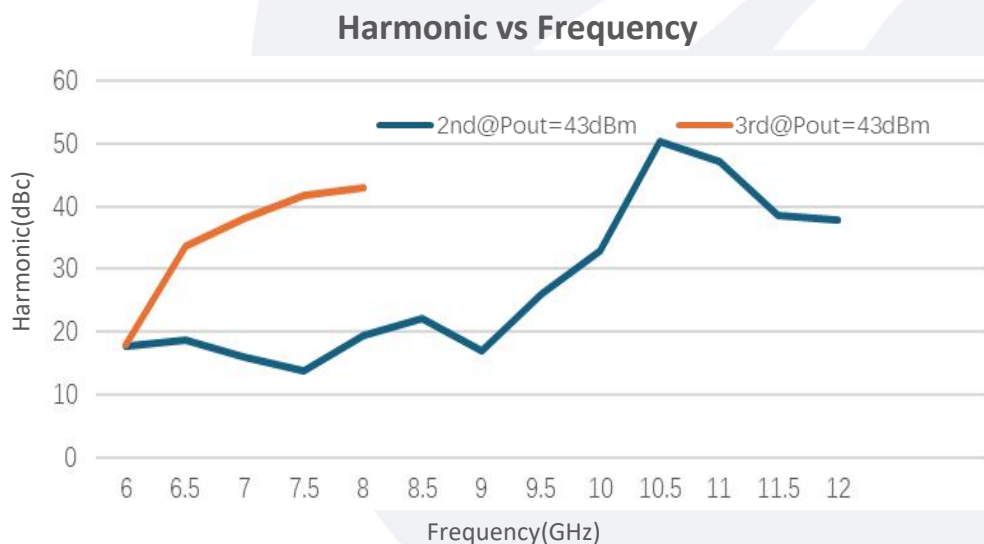
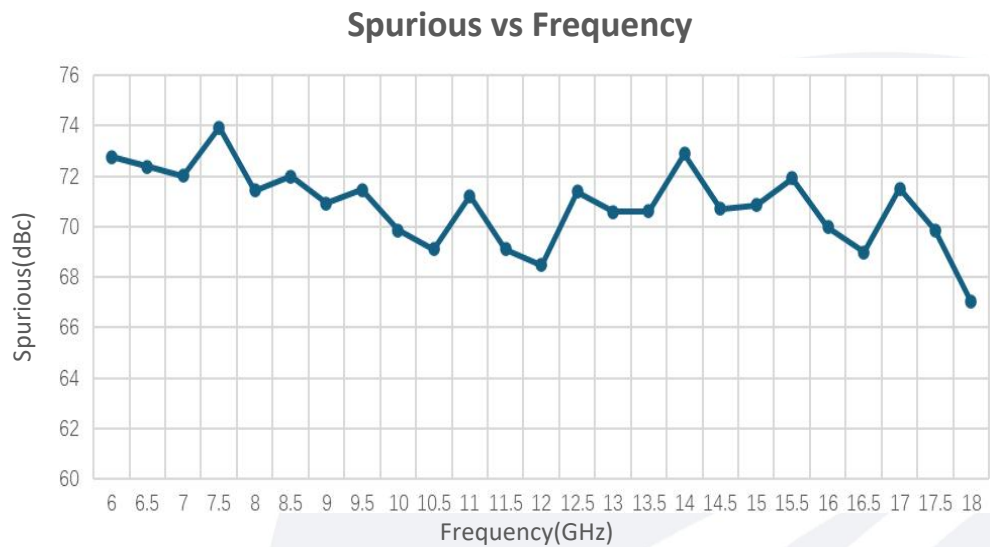
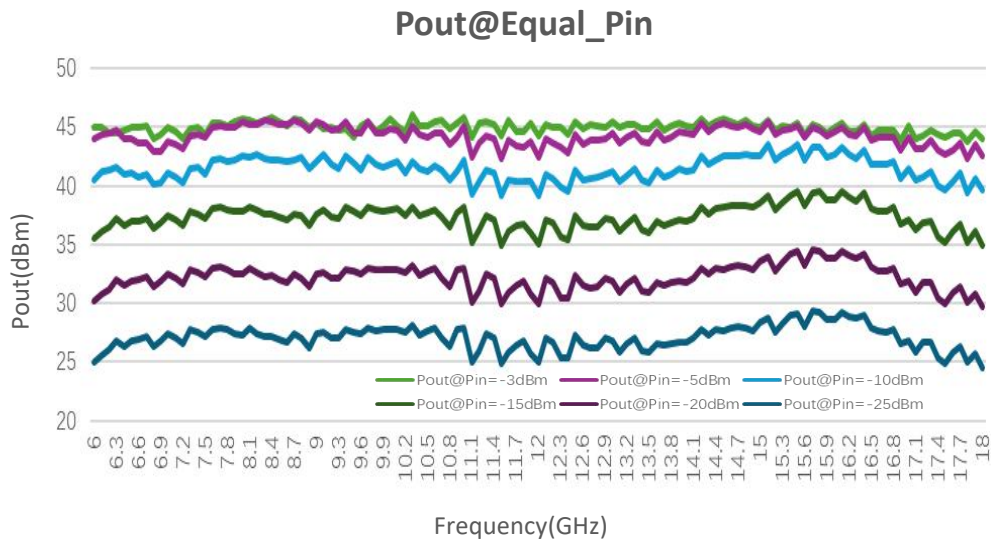


Pout@Pin



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