

Power Amplifier

2-18GHz /50 dB Gain/50 dBm Psat

Model: TLPA2G18G-50-50-HS

TLPA2G18G-50-50-HS is a power amplifier with a typical small signal gain of 50 dB and a nominal Psat of 50 dBm across the frequency range of 2 to 18 GHz. The DC power requirement for the amplifier is +28 VDC/1800 W. The input and output port configuration offers coax adapter structure with SMA female/N Female.

Features:

- Ultra Wide Band: 2-18GHz
- Gain: 50dB Min
- Output Power Psat: 50dBm 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	2-18			GHz
Small Signal Gain	50			dB
Gain Flatness		±4.5	±5	dB
Output Psat	50			dBm
Spurious@Pout=51dBm			-60	dBc
Harmonics@Pout=51dBm			-10	dBc
Input VSWR			2.0	:1
DC Voltage	+28			V DC
Power Consumption	1800@Max			W
Impedance	50			Ohms

Mechanical Specifications:

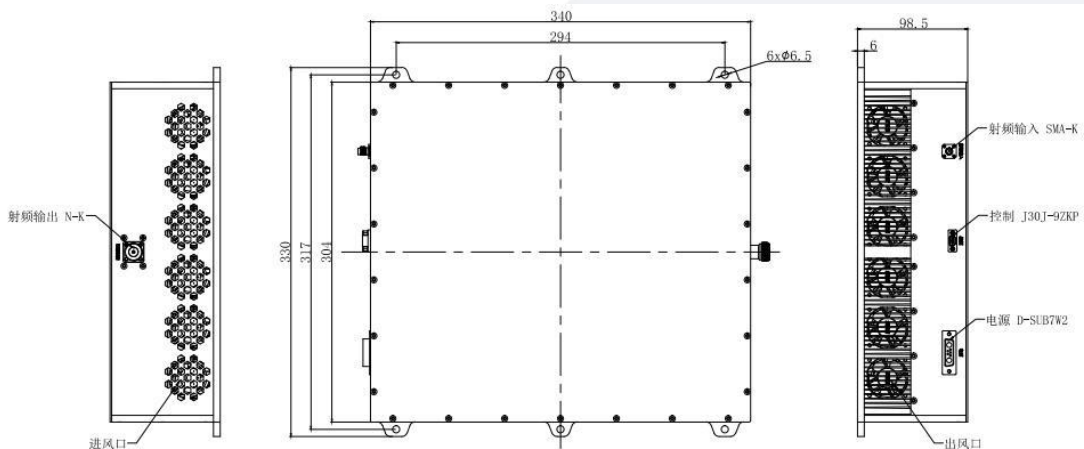
Parameter	Value	Units
Input /Output Connector	SMA Female/N Female	
直DC Bias	SUB-5W5	
Size	340*330*98.5	mm
Weight	25	Kg

Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+28 V
RF Input Power	10 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Outline Drawing:

Unit:mm



SUB-5W5 Define	
Pin	Function
A1-A2	+28V
A3-A5	GND

***Heat Sink Required During Operation



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

Environmental Conditions:

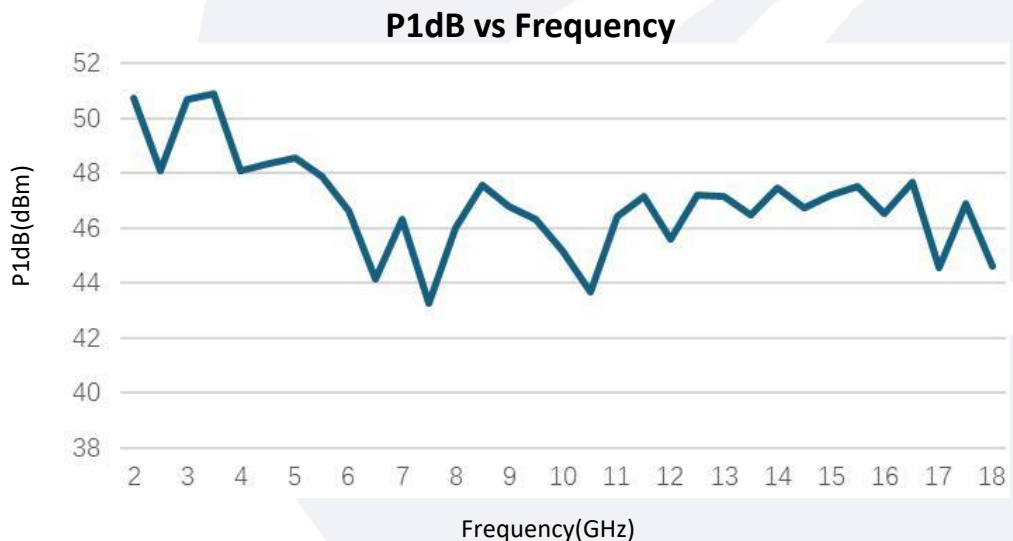
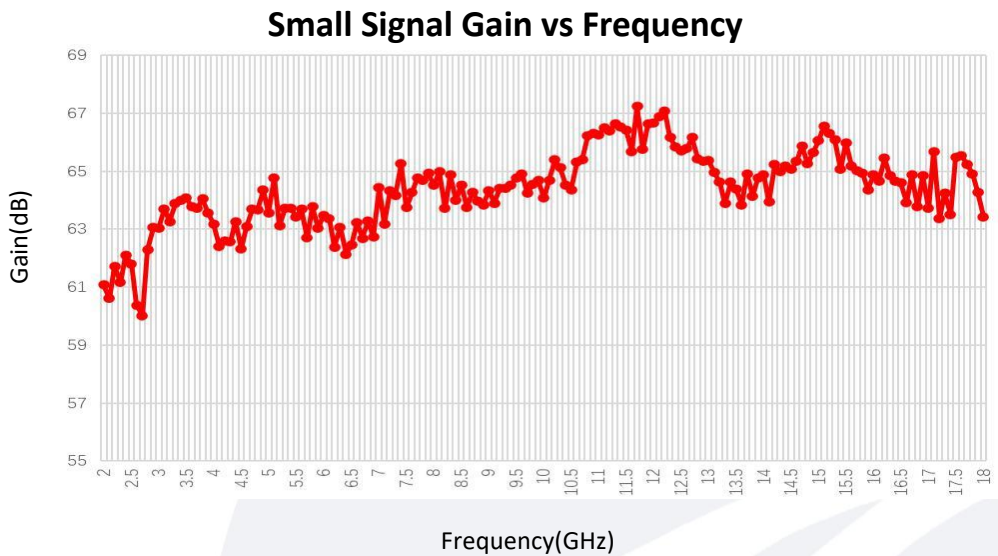
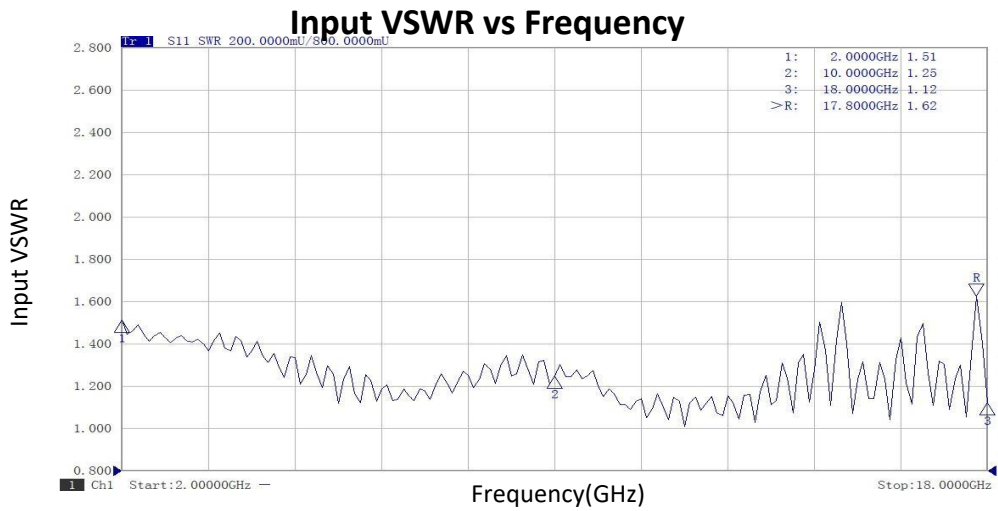
Parameter	Min	Typ	Max	Units
Operating Temperature*	-20		+40	°C
Non-operating Temperature*	-40		+55	°C
Relative humidity		95		%
Altitude	10000			feet
Shock / Vibration(MIL-STD-810F)	20g,11ms,saw-tooth			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

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

Ordering Information:

Base Number	Description	Revision
TLPA2G18G-50-50-HS	Power amplifier 2-18GHz,Gain:50dB,Psat:47dBm, +28V DC,Built in Fan Cooling	Rev.1.1

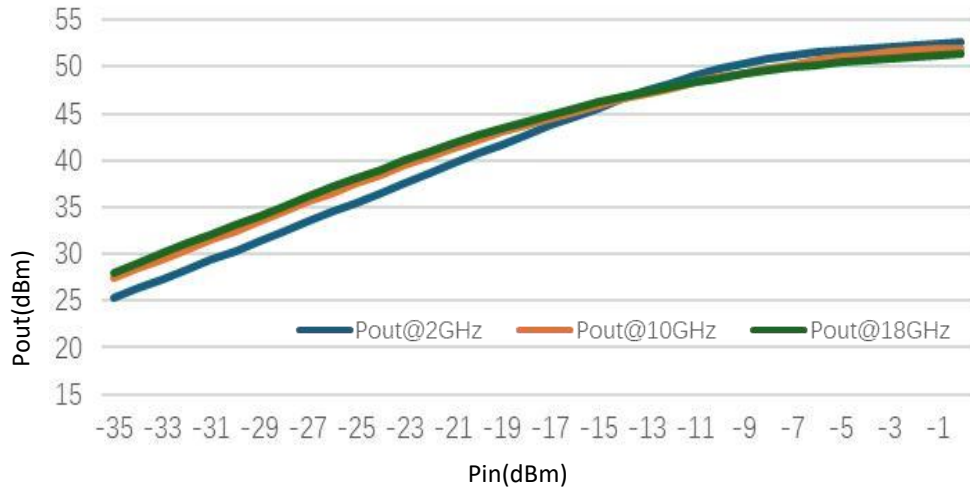
Typical Performance Data:



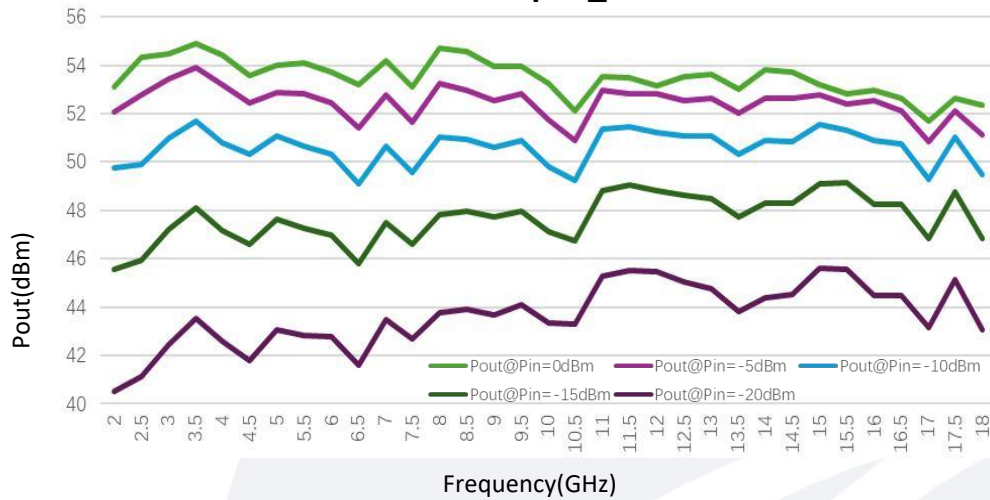
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

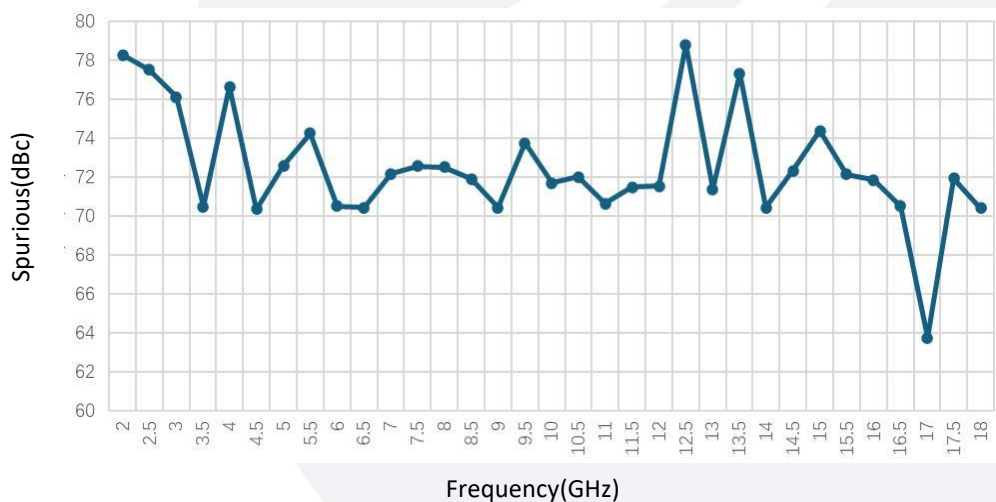
Pout@Pin



Pout@Equal_Pin

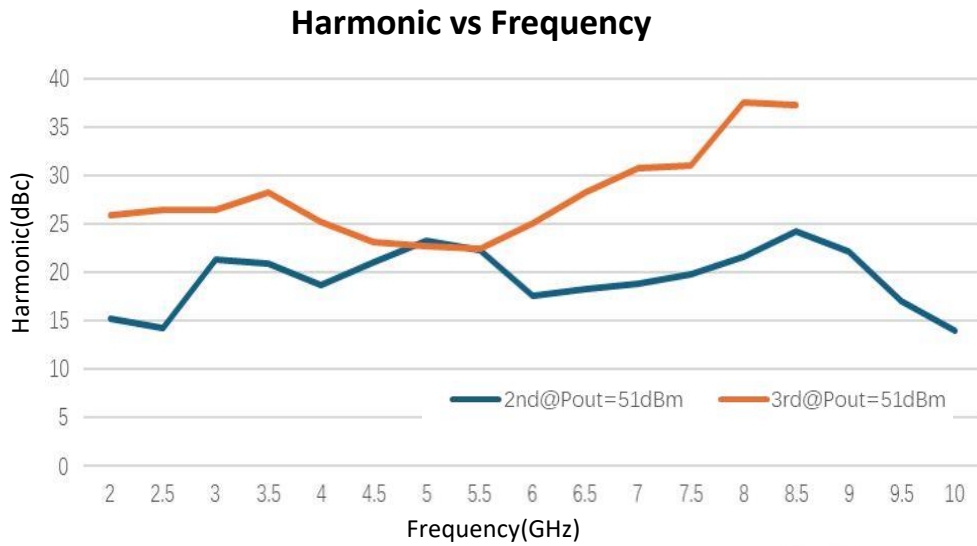


Spurious vs Frequency



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