

Power Amplifier

2-6GHz /45 dB Gain/47 dBm Psat

Model: TLPA2G6G-45-47

TLPA2G6G-45-47 is a power amplifier with a typical small signal gain of 45 dB and a nominal Psat of 47 dBm across the frequency range of 2 to 6 GHz. The DC power requirement for the amplifier is +28 VDC/9 A. The input and output port configuration offers coax adapter structure with SMA Female.

Features:

- Ultra Wide Band: 2-6GHz
- Gain: 45dB Typ
- Output Power Psat: 47dBm Typ
- 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	2-6			GHz
Gain	43	45		dB
Gain Flatness		±3		dB
Output P1dB		45		dBm
Output Psat		47		dBm
Harmonics		-15	-13	dBc
Input VSWR		1.5	2.0	:1
DC Voltage	+28			V DC
DC Supply Current		9		A
Impedance	50			Ohms

Mechanical Specifications:

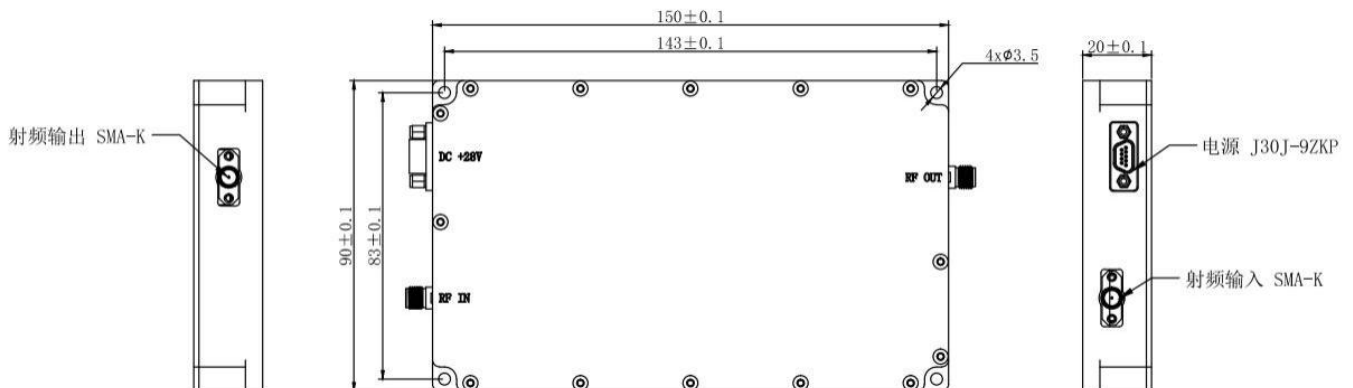
Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	Solder Pin	
Size	150*90*20	mm
Weight	/	g

Absolute Maximum Ratings:

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

Outline Drawing:

Unit:mm



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

Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature*	-40		+75	°C
Non-operating Temperature*	-55		+125	°C
Relative humidity		95		%
Altitude	50000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

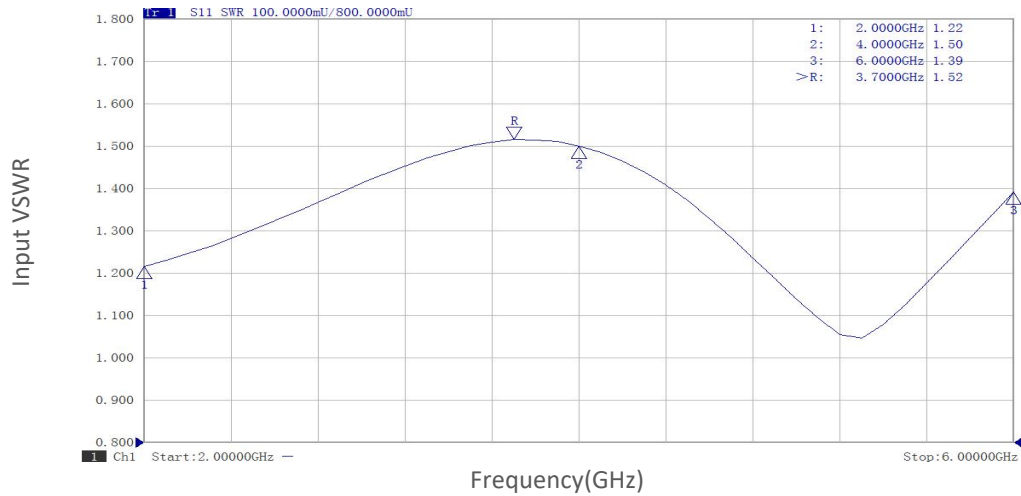
*Note: For a wider temperature range, please consult the manufacturer.

Ordering Information:

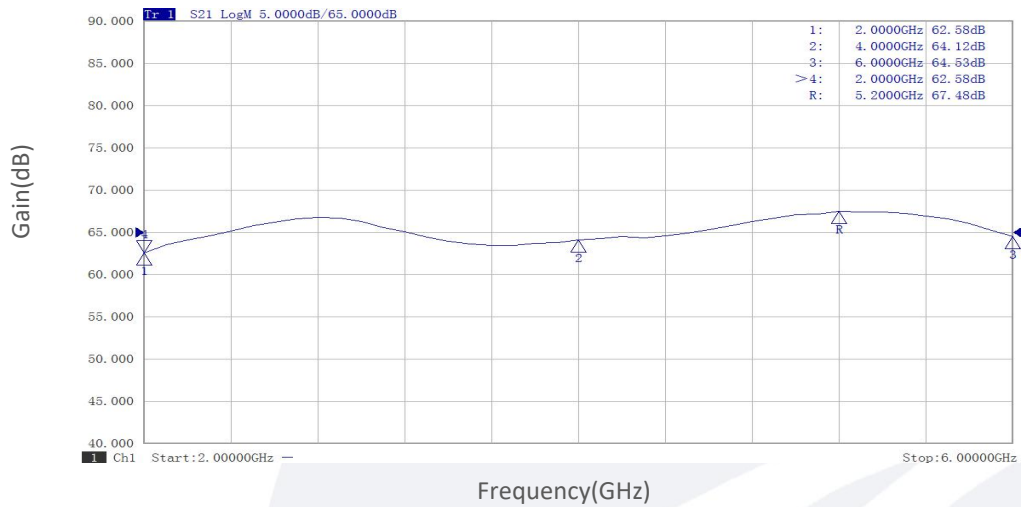
Base Number	Description	Revision
TLPA2G6G-45-47	Power amplifier 2-6GHz,Gain:45dB,Psat:47dBm,+28V DC,Without Heatsink.	Rev.1.1
TLPA2G6G-45-47-HS	Power amplifier 2-6GHz,Gain:45dB,Psat:47dBm,+28V DC,With Heatsink.	Rev.1.1

Typical Performance Data:

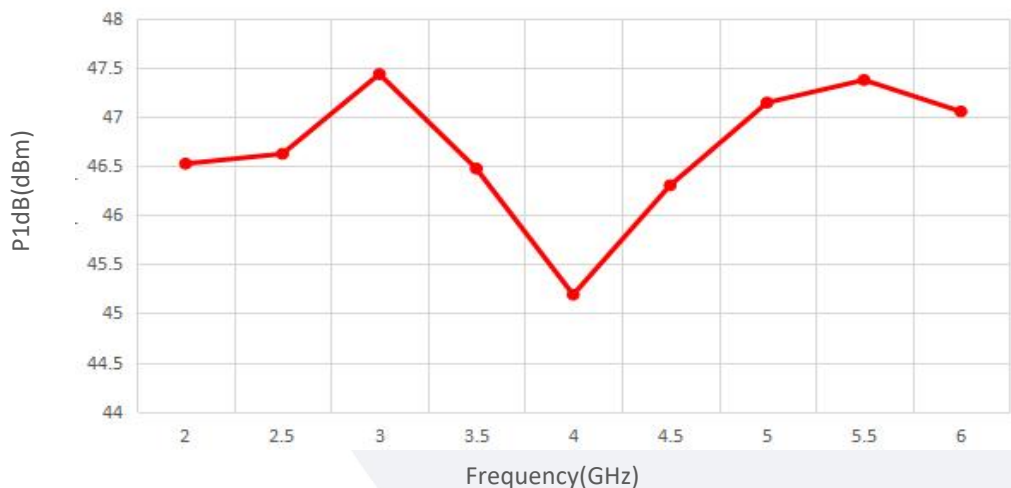
Input VSWR vs Frequency



Gain vs Frequency



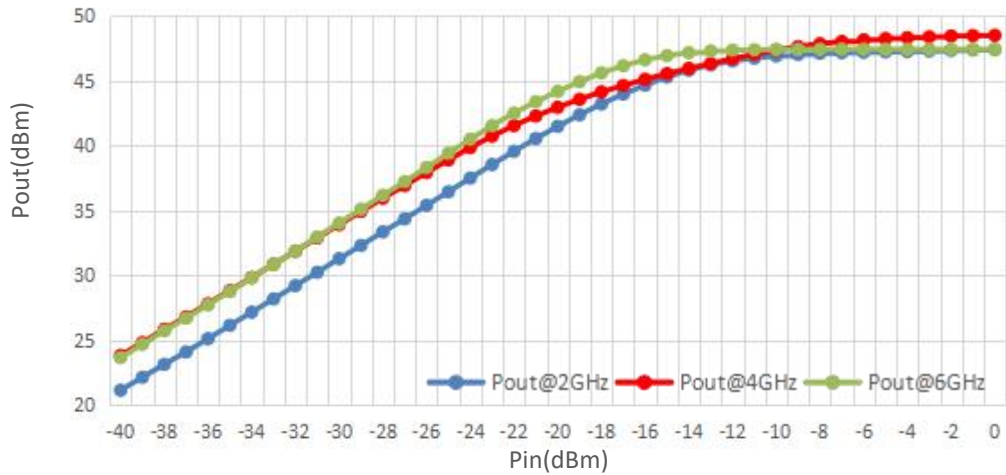
P1dB vs Frequency



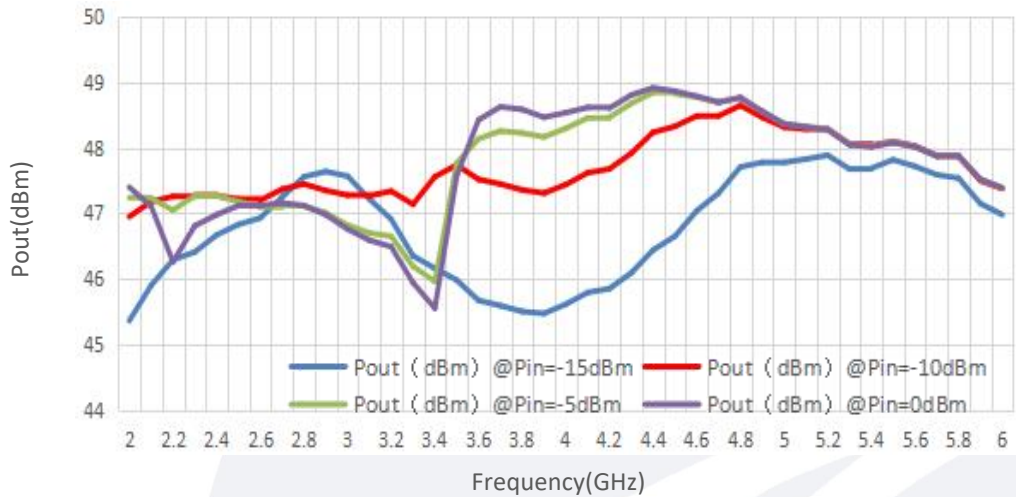
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

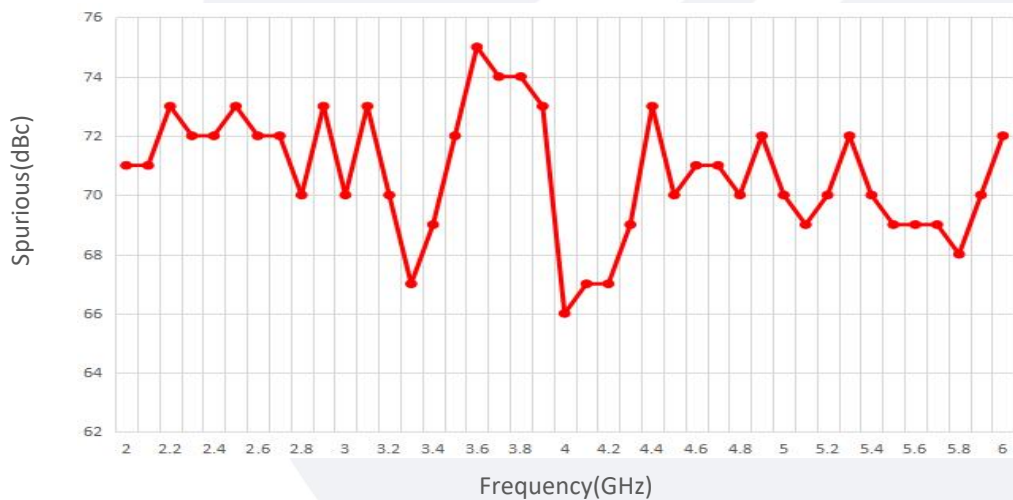
Pout@Pin



Pout@Equal_Pin



Spurious vs Frequency



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Typical Performance Data:

Harmonic vs Frequency

