

Power Amplifier

2-8GHz /40dB Gain/40 dBm Psat

Model: TLPA2G8G-40-40

TLPA2G8G-40-40 is a power amplifier with small signal gain of 40 dB and Psat of 40 dBm across the frequency range of 2 to 8 GHz. The DC power requirement for the amplifier is +28 VDC/3.5 A. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Ultra Wide Band: 2-8GHz
- Gain: 40dB Min
- Output Power Psat: 40dBm 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	2-8			GHz
Small Signal Gain	40			dB
Gain Flatness		±1.5		dB
Output Psat	40			dBm
Spurious			-60	dBc
Input VSWR		2		:1
DC Voltage		28		V DC
DC Supply Current		3.5		A
Impedance	50			Ohms

Mechanical Specifications:

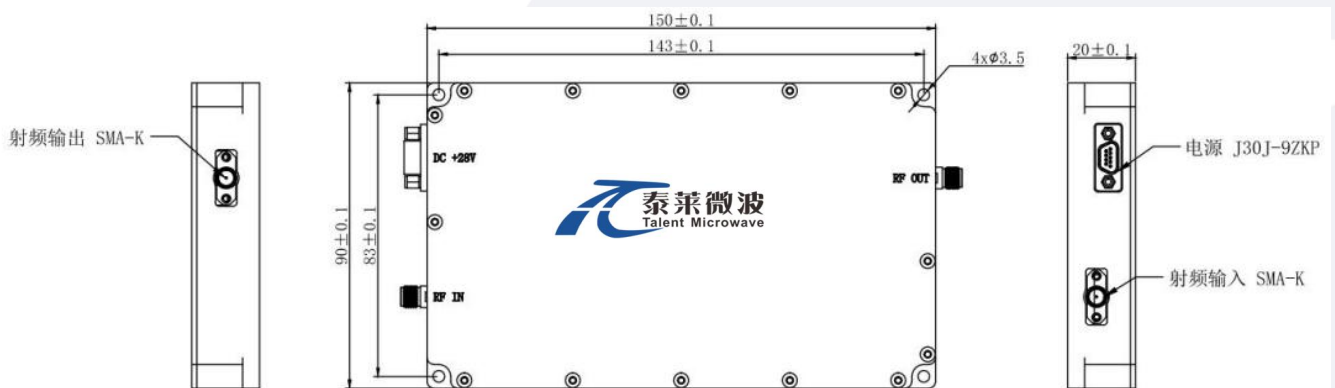
Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	Solder Pin	
Size	150*90*20	mm
Weight	/	g

Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+28 V
RF Input Power	+8 dBm
ESD sensitivity (HBM)	Class 0, passed 150V

Outline Drawing:

Unit:mm



***Heat Sink Required During Operation



OBSERVE PRECAUTIONS
ELECTROSTATIC SENSITIVE
DEVICES

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)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

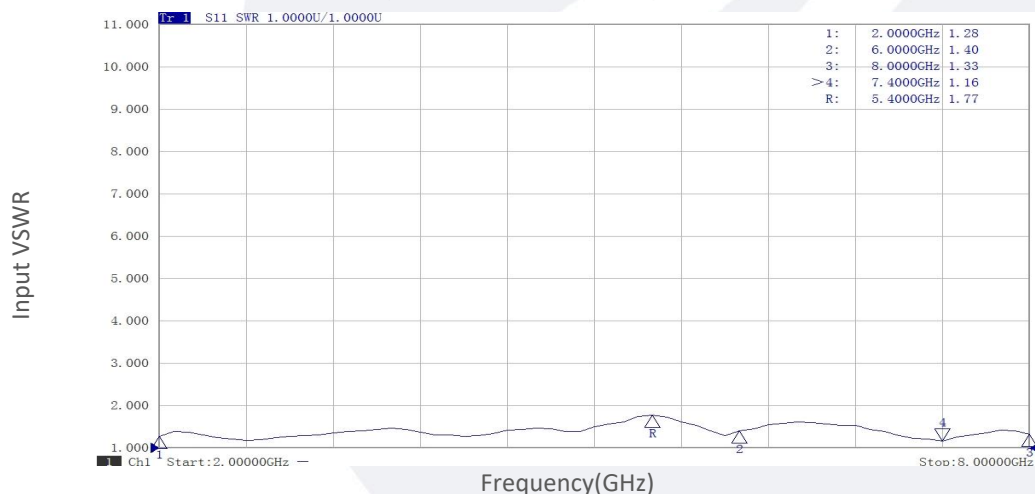
*Note: For a wider temperature range, please consult the manufacturer.

Ordering Information:

Base Number	Description	Revision
TLPA2G8G-40-40	Power amplifier 2-8GHz,Gain:40dB,Psat:40dBm, +28V DC,Without Heatsink	Rev.1.1
TLPA2G8G-40-40-HS	Power amplifier 2-8GHz,Gain:40dB,Psat:40dBm, +28V DC,With Heatsink	Rev.1.1

Typical Performance Data:

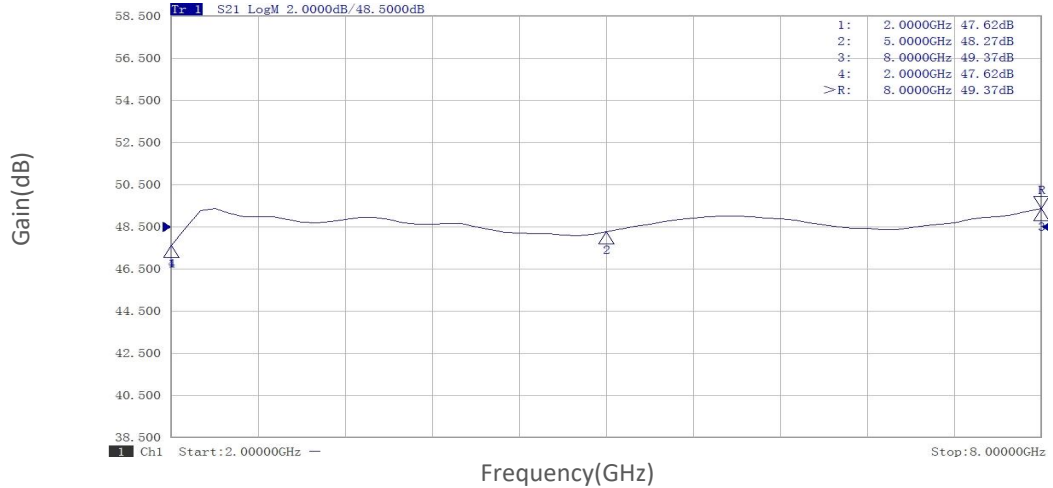
Input VSWR vs Frequency



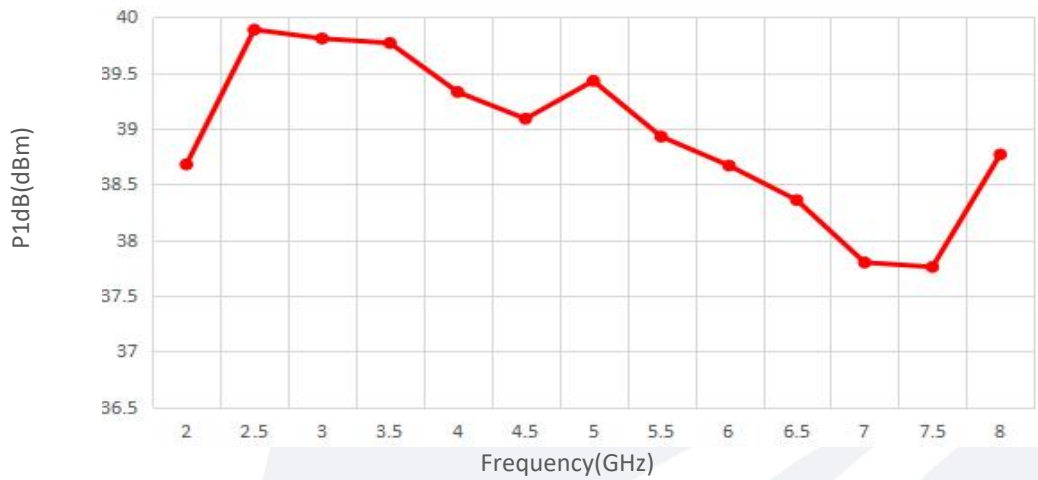
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

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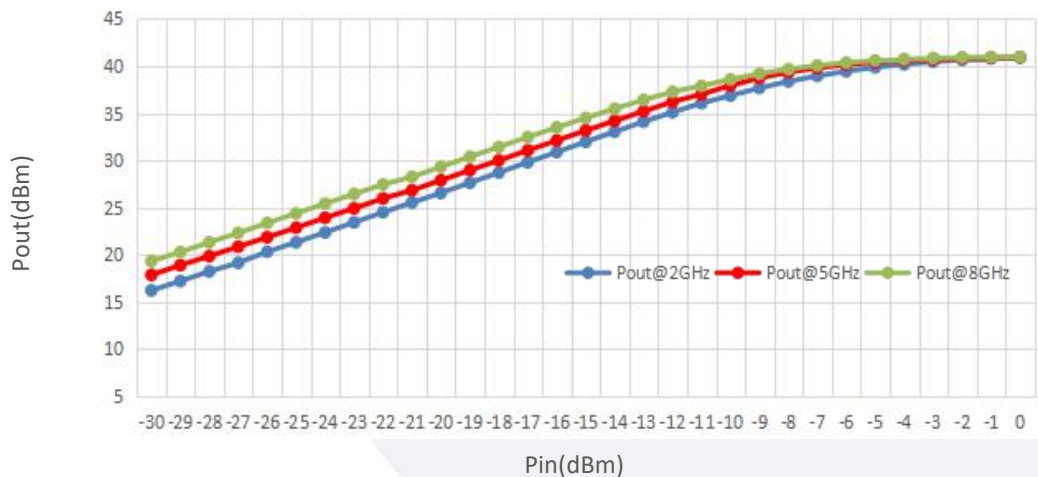
Small Signal Gain vs Frequency



P1dB vs Frequency



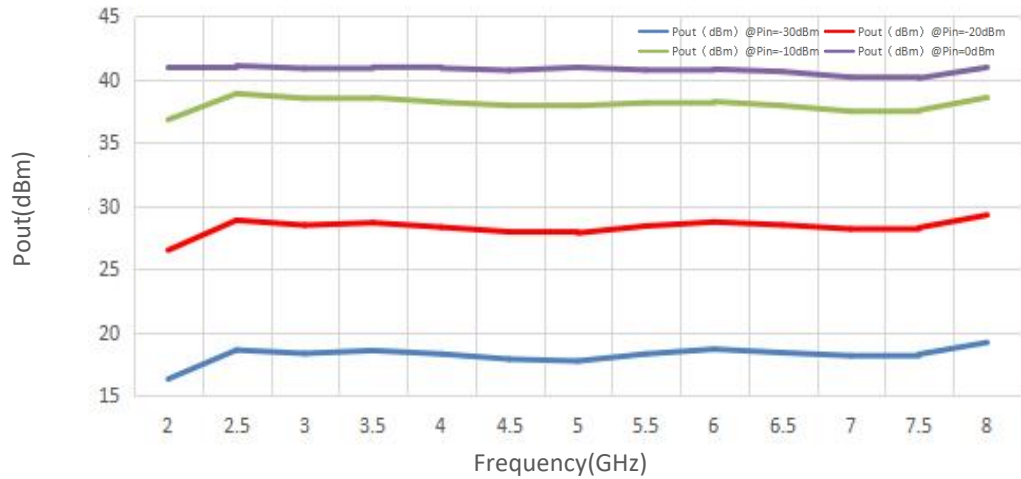
Pout@Pin



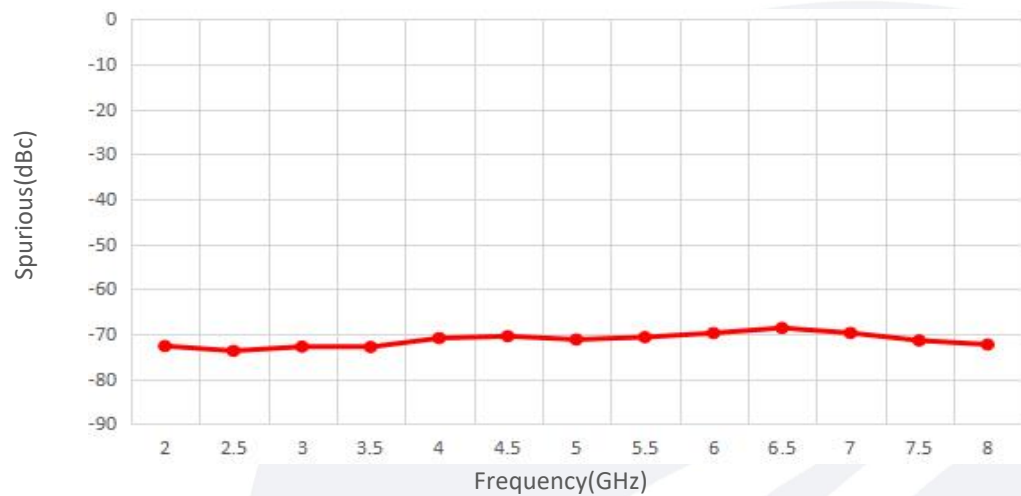
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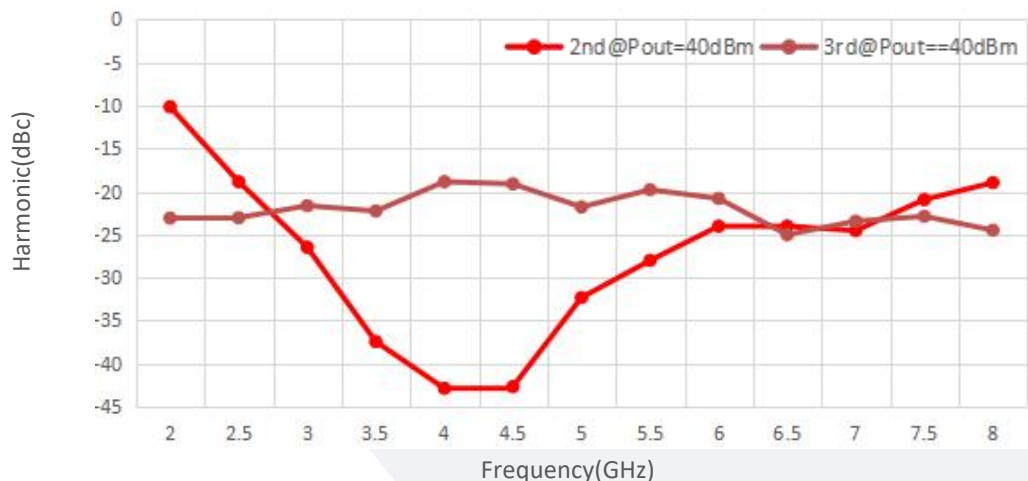
Pout@Equal_Pin



Spurious vs Frequency



Harmonic vs Frequency



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