

Power Amplifier

0.5-6GHz /45dB Gain/43dBm Psat

Model: TLPA0.5G6G-45-43

TLPA0.5G6G-45-43 is a power amplifier with a typical power gain of 45 dB and a nominal Psat of 43 dBm across the frequency range of 0.5 to 6 GHz. The DC power requirement for the amplifier is +36 VDC/3 A. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Ultra Wide Band: 0.5-6GHz
- Gain: 45dB Typ
- Output Power Psat: 43dBm 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	0.5-6			GHz
Power Gain	43	45		dB
Gain Flatness		±3.5		dB
Output Psat	41	43		dBm
Spurious			-50	dBc
Harmonic@0.7-6GHz			-10	dBc
Harmonic@0.5-0.7GHz			-5	dBc
Input VSWR			1.8	:1
DC Voltage		28		V DC
DC Supply Current		3		A
Impedance	50			Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	Solder Pin	
Size	130*74.5*16	mm

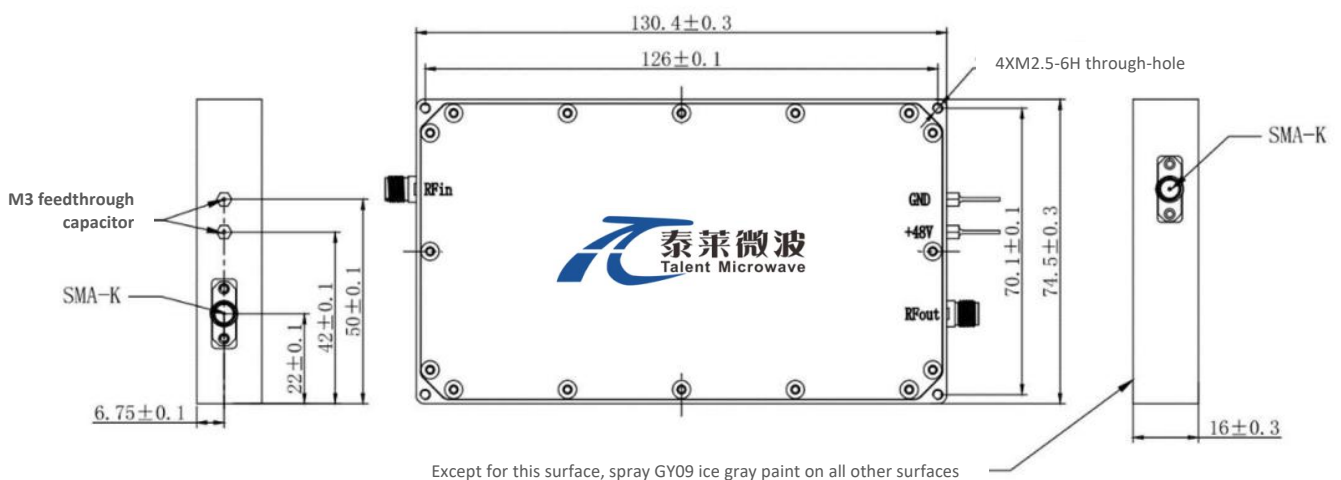
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+36 V
RF Input Power	+10 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

外形图 Outline Drawing:

Unit:mm

Regulatory Compliance:



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



OBSERVE PRECAUTIONS
ELECTROSTATIC SENSITIVE
DEVICES

Environmental Conditions:

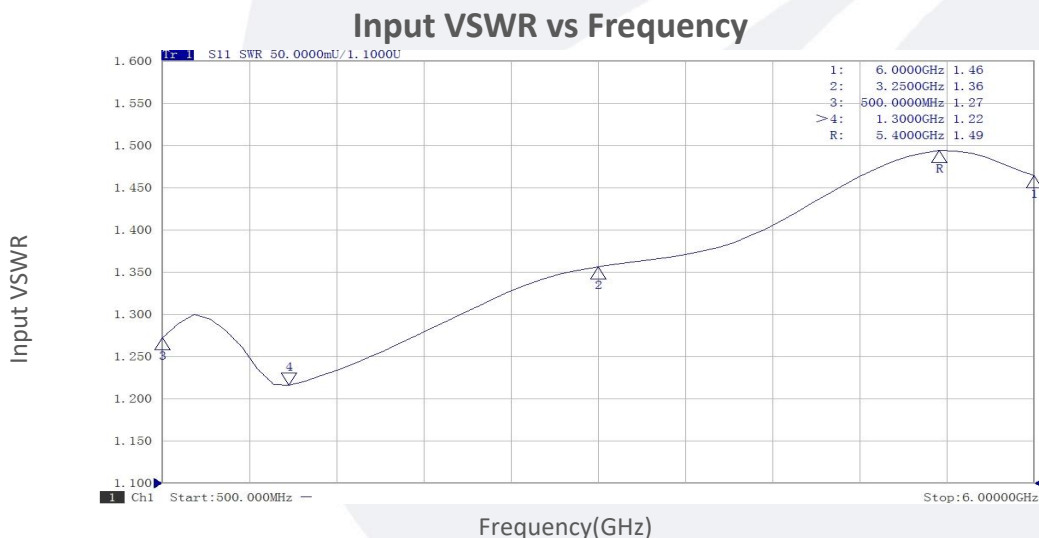
Parameter	Min	Typ	Max	Units
Operating Temperature*	-40		+50	°C
Non-operating Temperature*	-50		+60	°C
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

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

Ordering Information:

Base Number	Description	Revision
TLPA0.5G6G-45-43	Power amplifier 0.5-6GHz,Gain:45dB,Psat:43dBm, +36V DC,Without Heatsink	Rev.1.1
TLPA0.5G6G-45-43-HS	Power amplifier 0.5-6GHz,Gain:45dB,Psat:43dBm, +36V DC,With Heatsink	Rev.1.1

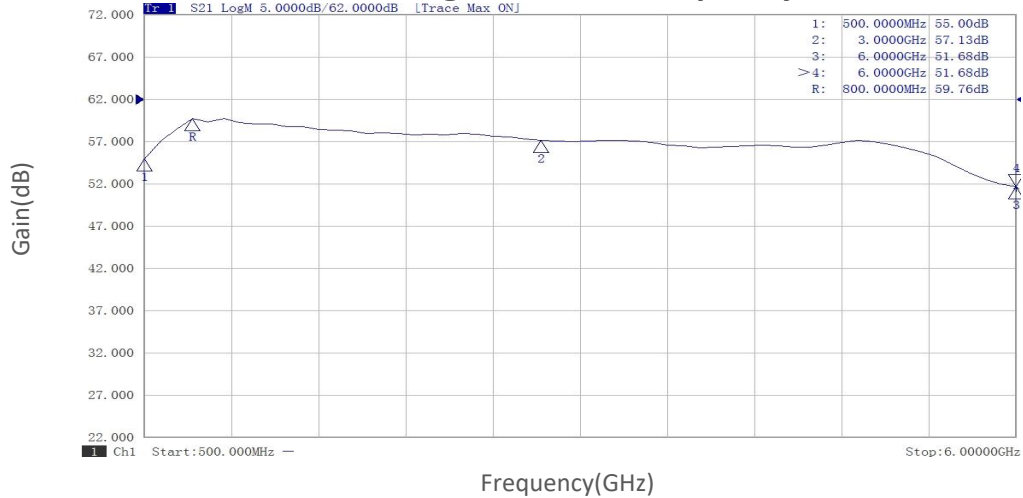
Typical Performance Data:



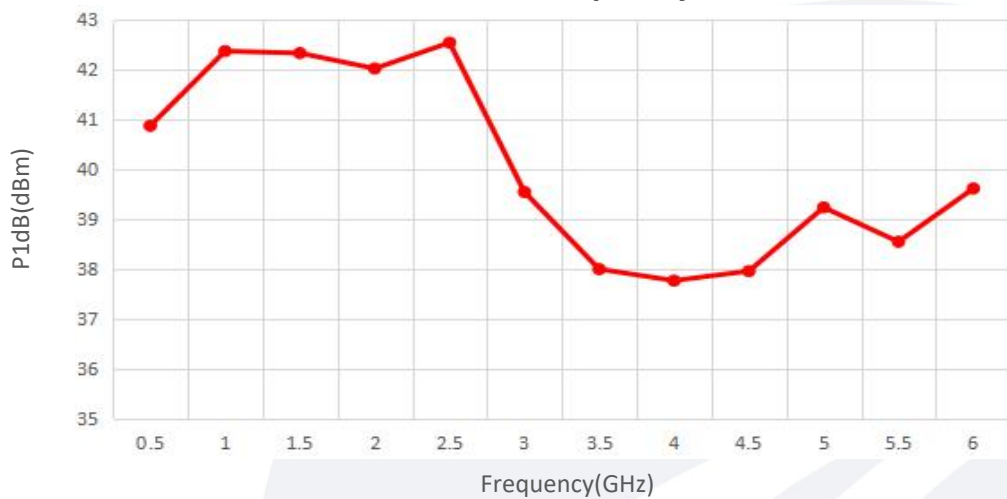
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

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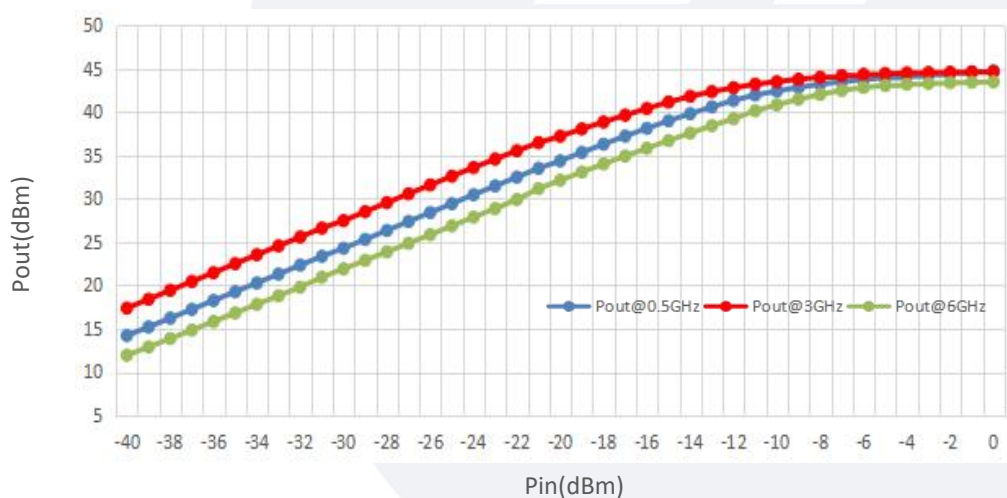
Small Signal Gain vs Frequency



P1dB vs Frequency



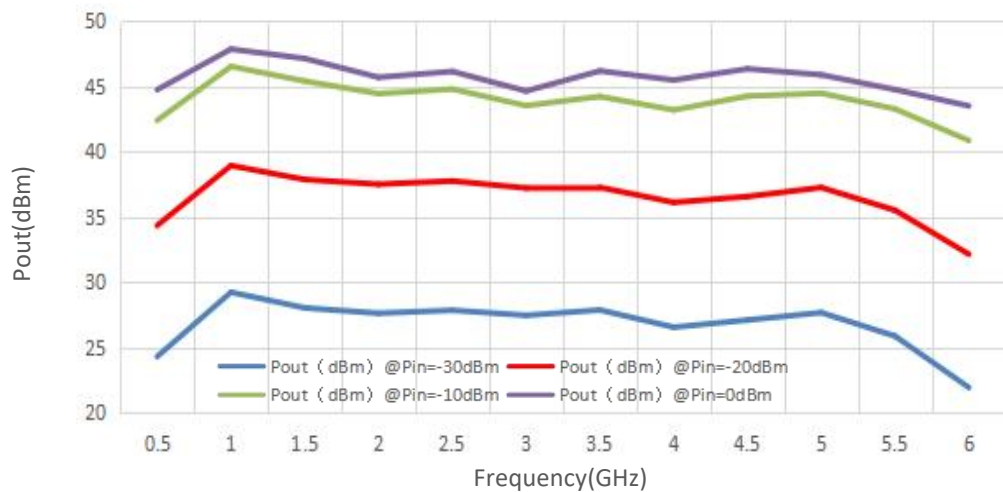
Pout@Pin



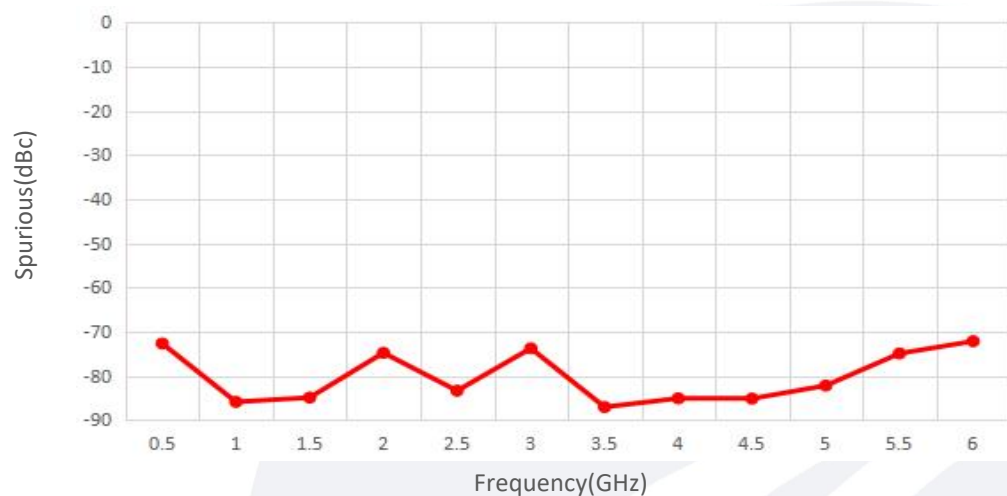
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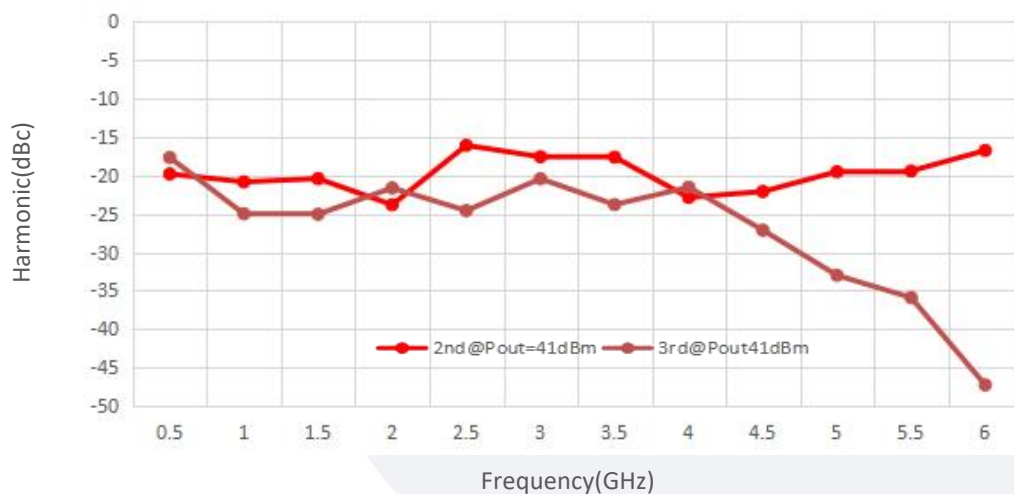
Pout@Equal_Pin



Spurious vs Frequency



Harmonic vs Frequency



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