

Power Amplifier

2-4GHz/43dB Gain/36dBm Psat

Model: TLPA2G4G-43-36

TLPA2G4G-43-36 is a power amplifier with a typical small signal gain of 43 dB and a minimum Psat of 36 dBm across the frequency range of 2 to 4 GHz. The DC power requirement for the amplifier is +28 VDC/0.7 A. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 2-4GHz
- Gain: 43dB Typ
- Output Power Psat: 36dBm 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		4	GHz
Small Signal Gain	42	43		dB
Gain Flatness		±2	±3	dB
Output P1dB		34		dBm
Output Psat	36	37		dBm
Harmonics@Pout=36dBm			-10	dBc
Input VSWR		1.5	2	:1
DC Voltage		+28		V DC
DC Supply Current		0.7	2	A
Impedance		50		Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Supply Connector	J30J-9ZKP	
Size	100*70*15	mm
Weight	150	g

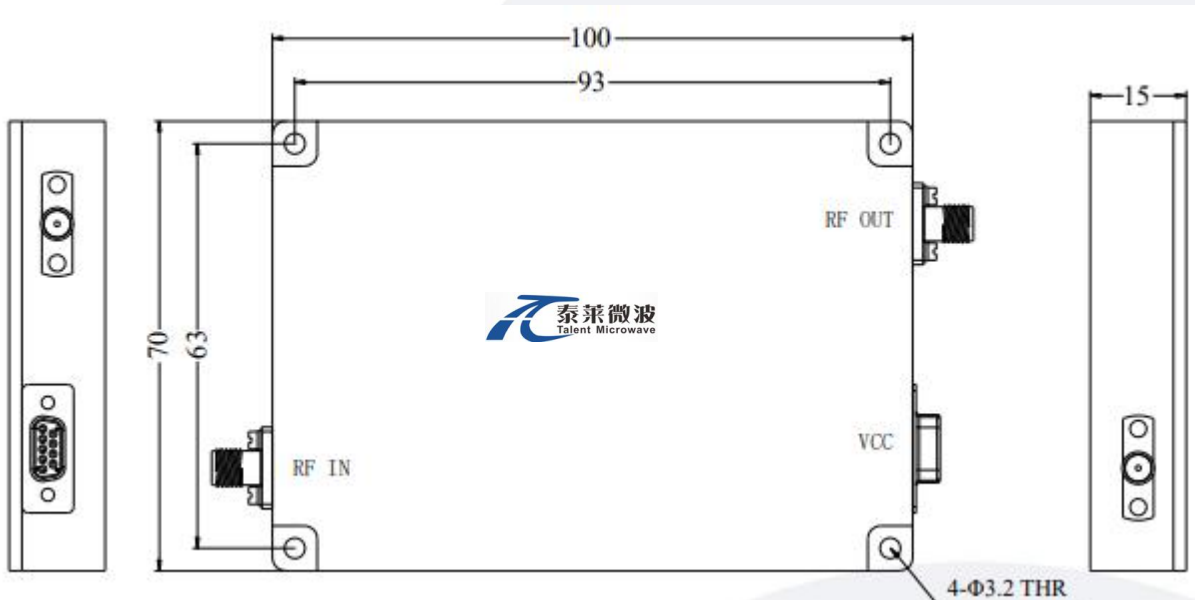
Absolute Maximum Ratings:

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



Outline Drawing:

Unit:mm



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



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

Environmental Conditions:

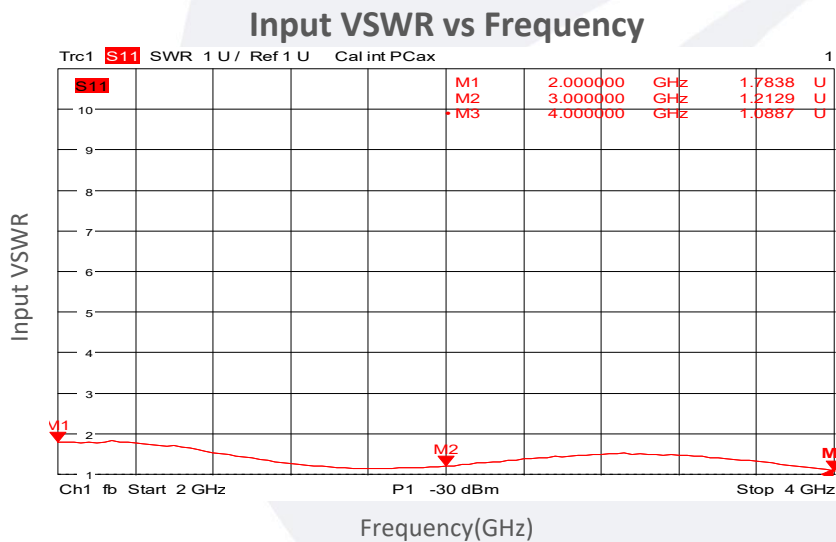
Parameter	Min	Typ	Max	Units
Operating Temperature*	-40		+60	°C
Non-operating Temperature*	-50		+70	°C
Relative humidity		95		%
Altitude	30,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

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

Ordering Information:

Base Number	Description	Revision
TLPA2G4G-43-36	Power amplifier 2-4GHz, Gain:43dB,Psat:36dBm,+28V DC,Without Heatsink	Rev.1.1
TLPA2G4G-43-36-HS	Power amplifier 2-4GHz, Gain:43dB,Psat:36dBm,+28V DC,With Heatsink	Rev.1.1

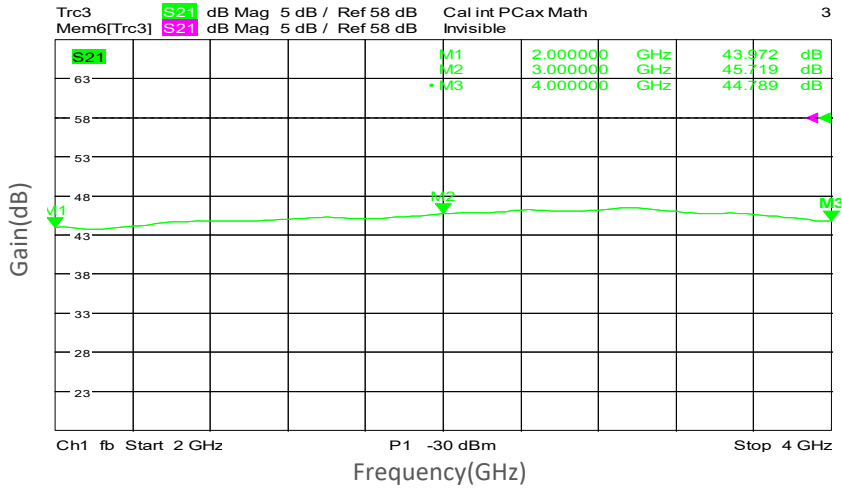
Typical Performance Data:



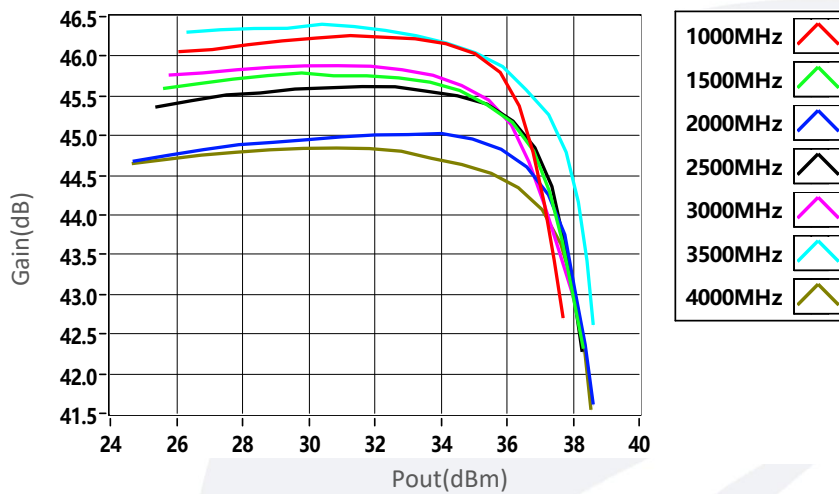
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

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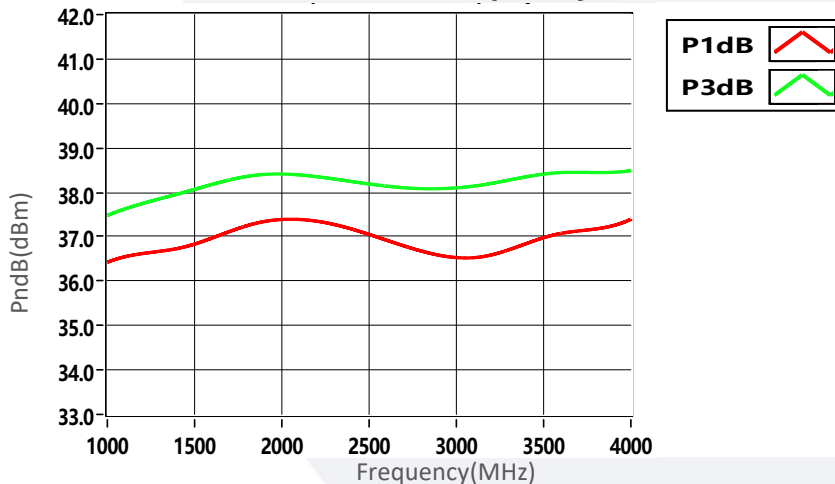
Small Signal Gain vs Frequency



Gain vs Output Power



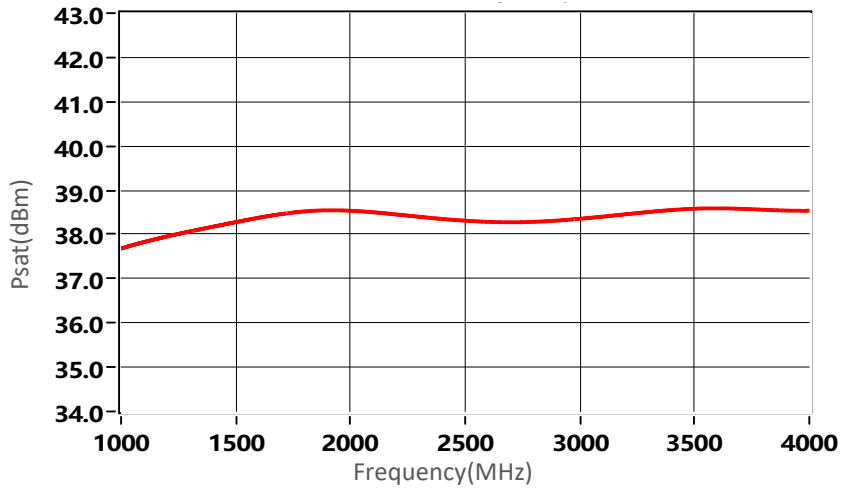
PndB vs Frequency



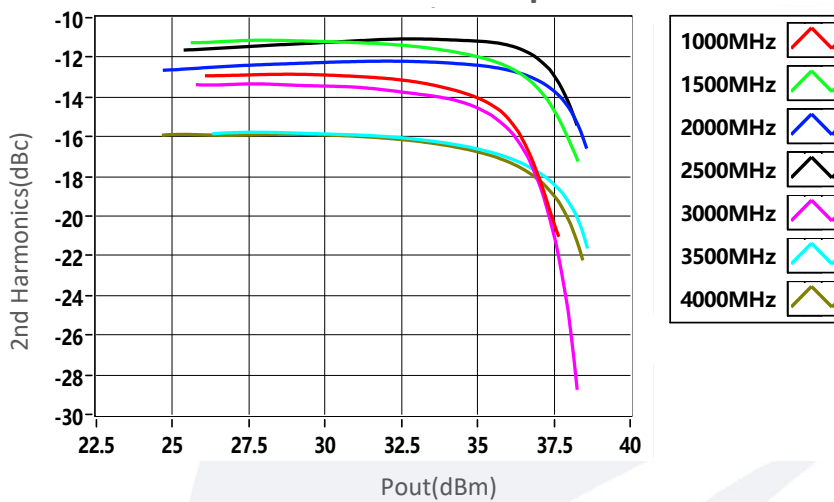
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Typical Performance Data:

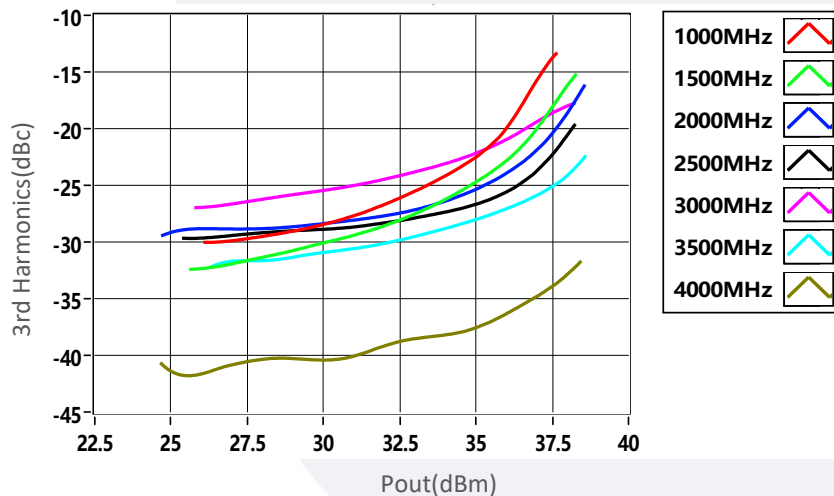
Psat vs Frequency



2nd Harmonics vs Output Power



3rd Harmonics vs Output Power



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