

Power Amplifier

2-20GHz /18dB Gain/21dBm Psat

Model: TLPA2G20G-19-22-LC

TLPA2G20G-19-22-LC is a power amplifier with a typical small signal gain of 18 dB and Psat of 21 dBm across the frequency range of 2 to 20 GHz. The DC power requirement for the amplifier is +12 VDC/140mA. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 2-20GHz
- Small Signal Gain:18 dB Typ
- Output Power Psat: 21dBm 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		2-20		GHz
Small Signal Gain		18		dB
Gain Flatness		±2.5		dB
Output P-1 dB		20		dBm
Output Psat		21		dBm
Input VSWR		2		:1
Output VSWR		2		:1
DC Voltage		+12	+15	V DC
DC Supply Current		140		mA
Impedance		50		Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	Solder Pin	
Size	25*25*9	mm

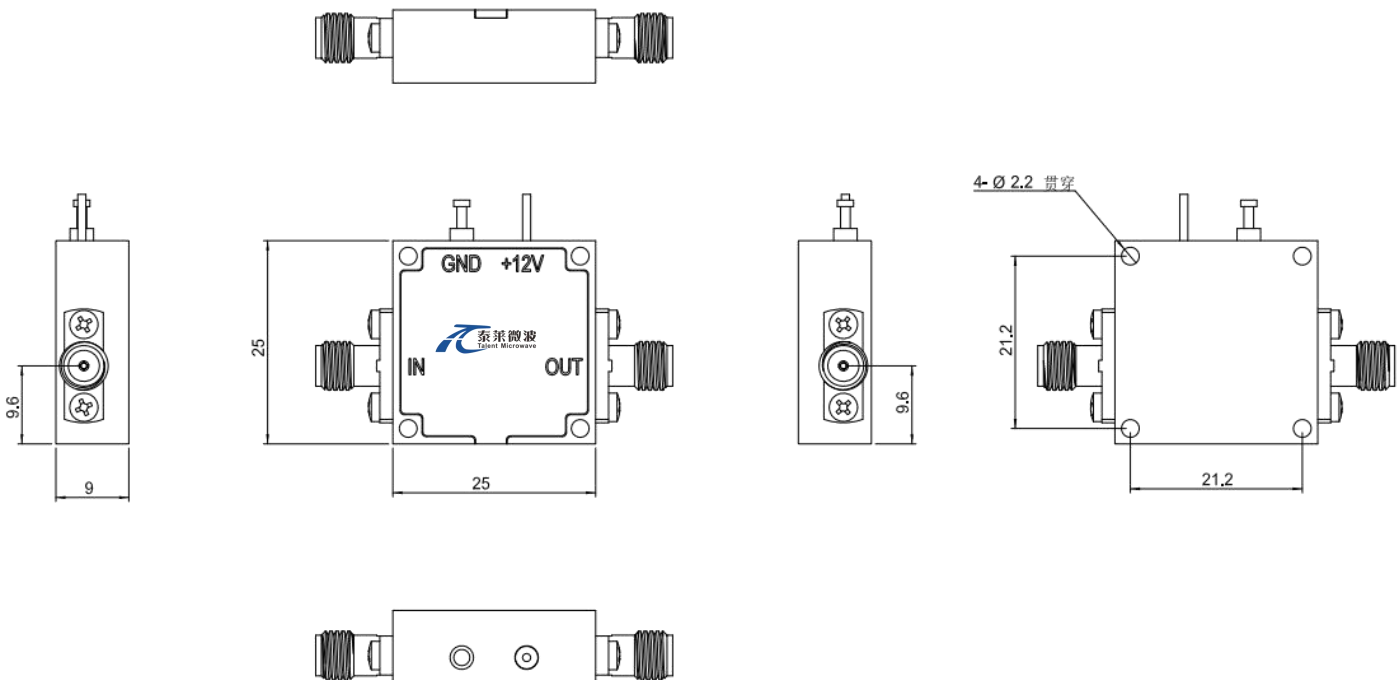
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+15 V
RF Input Power	+20 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Outline Drawing:

Unit:mm

Regulatory Compliance:



Environmental Conditions:

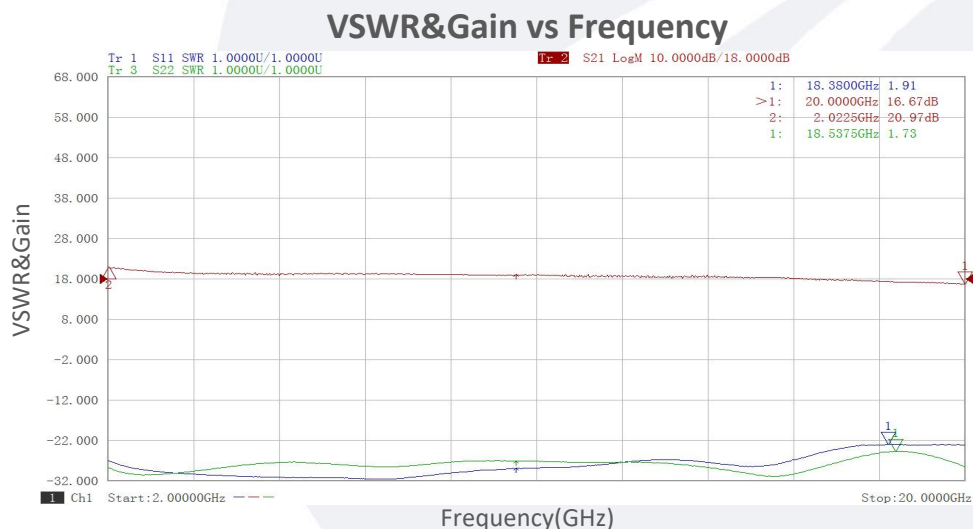
Parameter	Min	Typ	Max	Units
Operating Temperature*	-40		+60	°C
Non-operating Temperature*	-50		+70	°C
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

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

Ordering Information:

Base Number	Description	Revision
TLPA2G20G-19-22-LC	Power amplifier 2-20GHz,Power Gain:18dB,Psat:21dBm, +12V DC,Without Heatsink	Rev.1.1

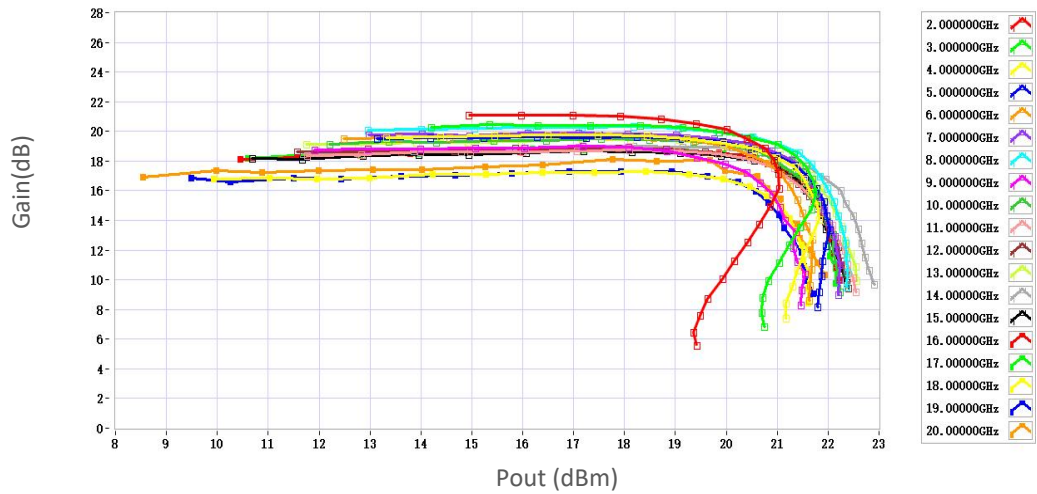
Typical Performance Data:



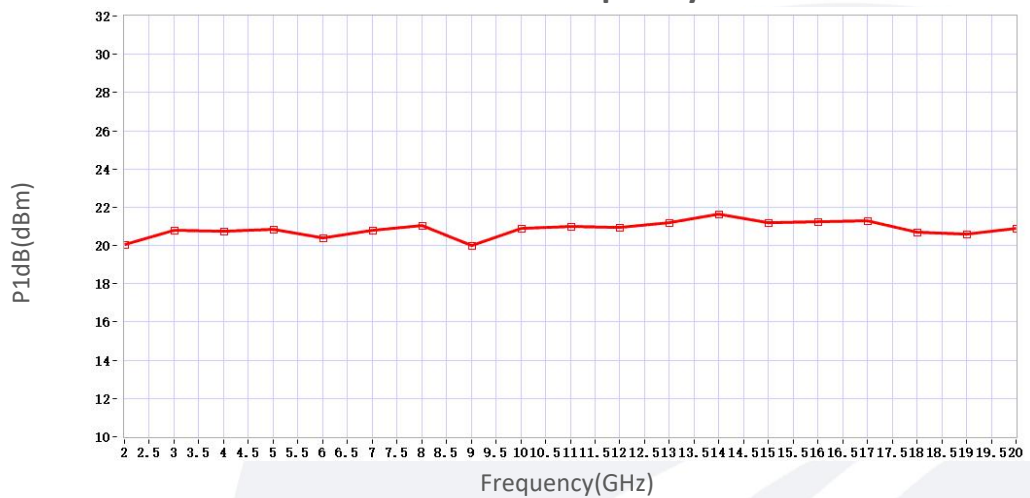
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

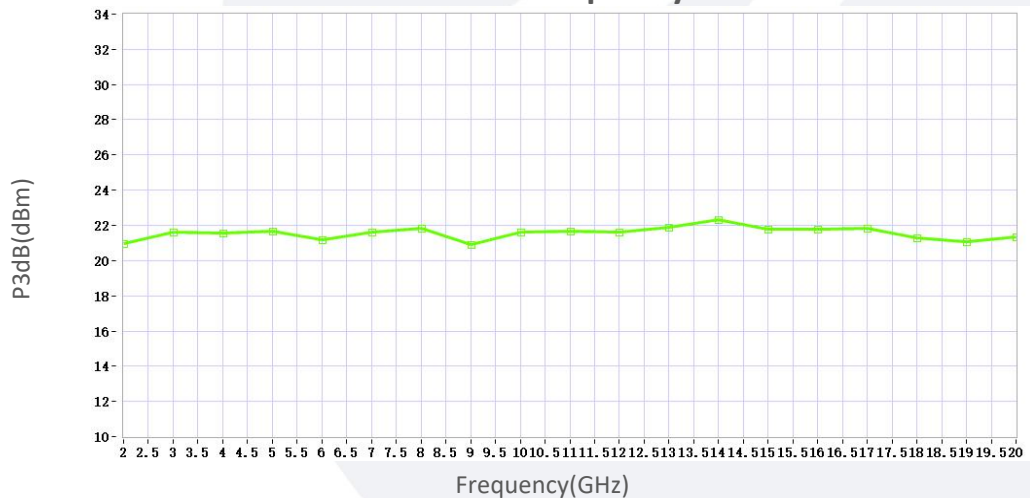
Gain vs Output Power



P1dB vs Frequency



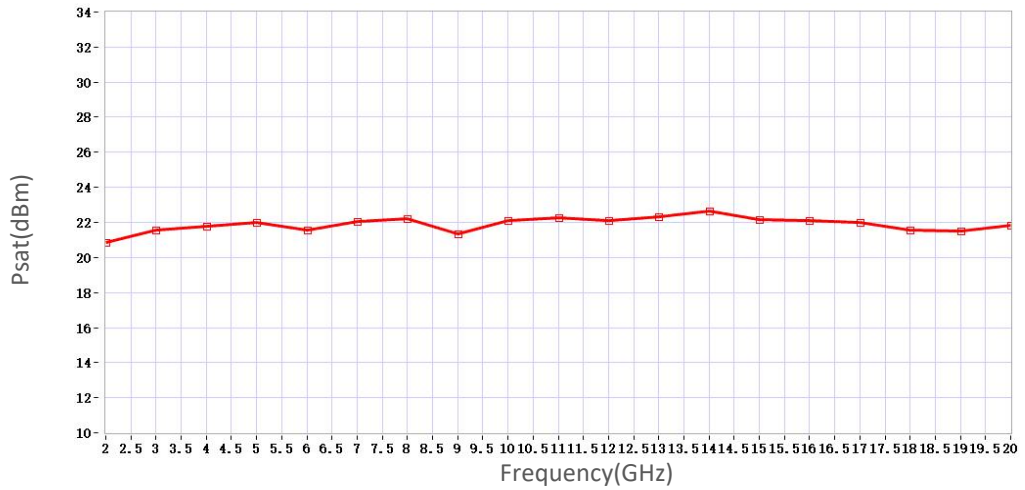
P3dB vs Frequency



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Typical Performance Data:

Psat vs Frequency



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