

Power Amplifier

8-26.5GHz/42dB Gain/27dBm Psat

Model: TLPA8G26.5G-40-25

TLPA8G26.5G-40-25 is a power amplifier with a typical small signal gain of 42 dB and a nominal Psat of 27 dBm across the frequency range of 8 to 26.5 GHz. The DC power requirement for the amplifier is +12 VDC/420 mA. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 8-26.5GHz
- Gain: 42dB Typ
- Output Power Psat: 27dBm 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		8-26.5		GHz
Small Signal Gain	40	42		dB
Gain Flatness		±2.5		dB
Output P1dB				dBm
Output Psat	25	27		dBm
Input VSWR		2	2.5	:1
Output VSWR		1.8	2.4	:1
DC Voltage	10	12	15	V DC
DC Supply Current		420		mA
Impedance		50		Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	Solder Pin	
Size	52*44*13	mm

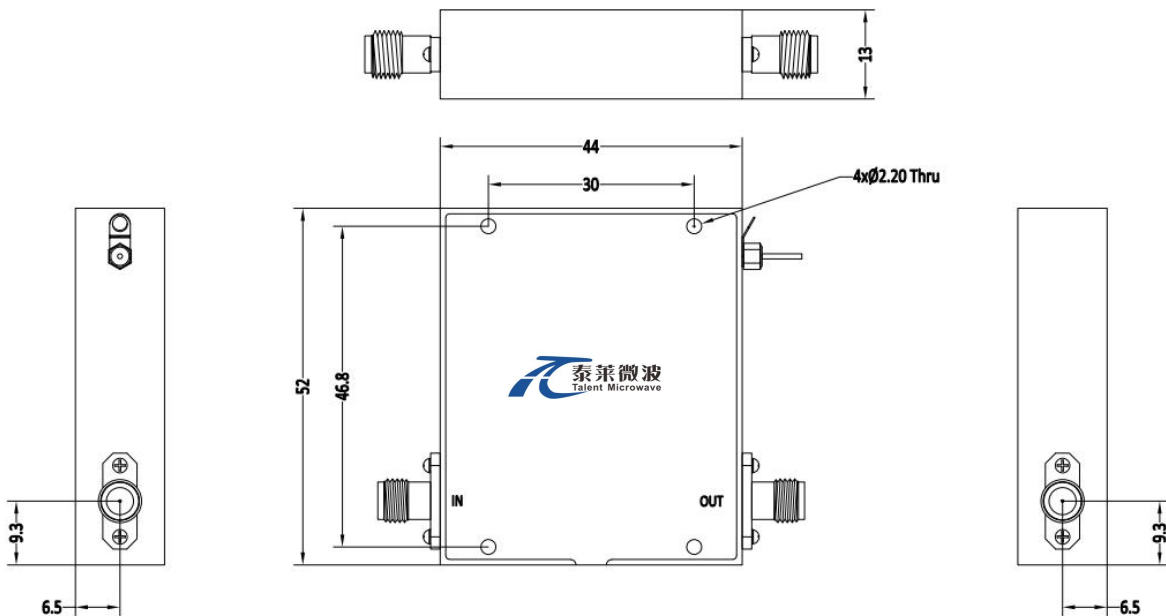
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+15 V
RF Input Power	+15 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:

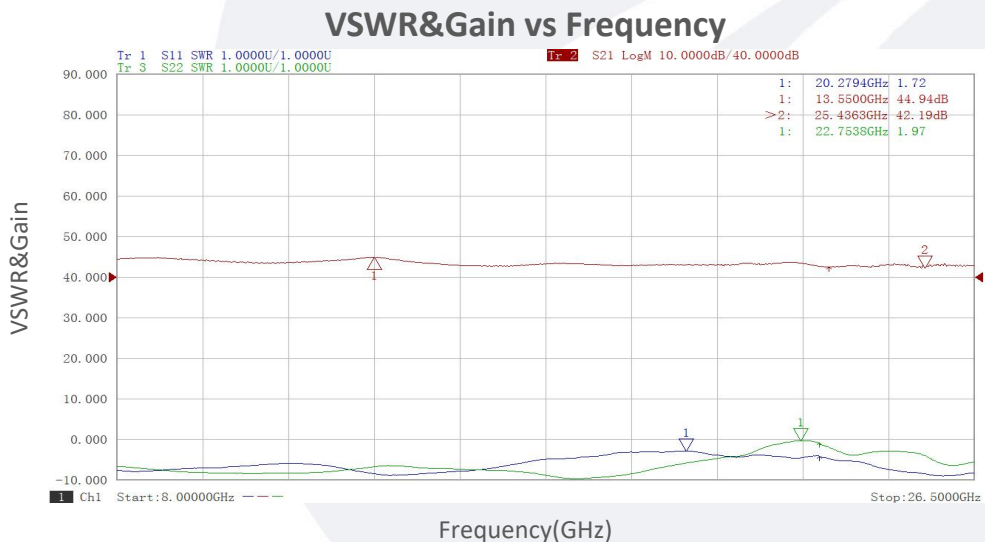
Parameter	Min	Typ	Max	Units
Operating Temperature*	-40		+60	°C
Non-operating Temperature*	-50		+70	°C
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

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

Ordering Information:

Base Number	Description	Revision
TLPA8G26.5G-40-25	Power amplifier 8-26.5GHz, Gain:42dB,Psat:27dBm,+12V DC,Without Heatsink	Rev.1.1
TLPA8G26.5G-40-25-HS	Power amplifier 8-26.5GHz, Gain:42dB,Psat:27dBm,+12V DC,With Heatsink	Rev.1.1

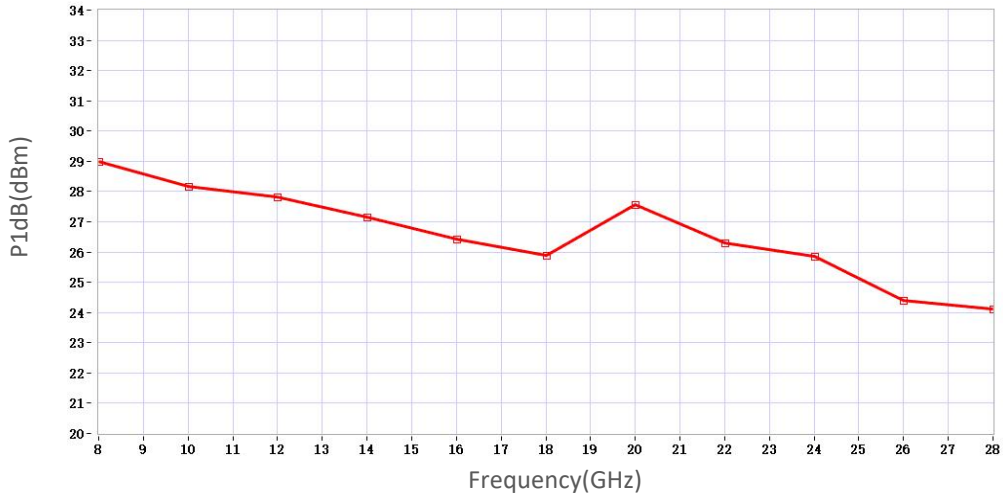
Typical Performance Data:



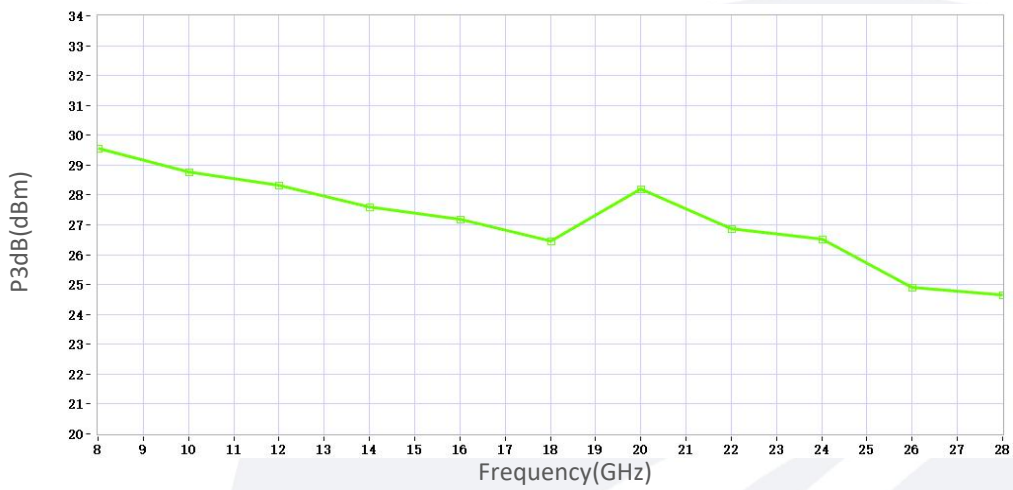
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

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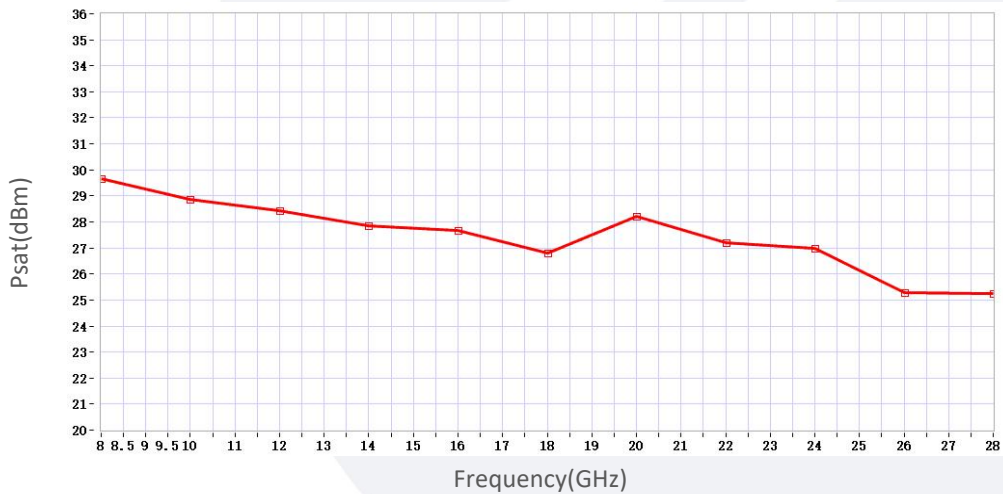
P1dB vs Frequency



P3dB vs Frequency



Psat vs Frequency



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