

Power Amplifier

0.1-26GHz/15dB Gain/23dBm P1dB

Model: TLPA0.1G26G-15-23

TLPA0.1G26G-15-23 is a power amplifier with a typical small signal gain of 15 dB and a nominal P1dB of 23 dBm across the frequency range of 0.1 to 26 GHz. The DC power requirement for the amplifier is +12 VDC/200 mA. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 0.1-26GHz
- Gain: 15dB Typ
- Output Power P1dB: 23dBm 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	0.1		26	GHz
Small Signal Gain		15		dB
Gain Flatness		±1.5		dB
Output P1dB		23		dBm
Noise Figure		5		dB
Input VSWR		2		:1
Output VSWR		2		:1
DC Voltage	+10	+12	+15	V DC
DC Supply Current		200		mA
Impedance		50		Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	Solder Pin	
Size	44*36*12	mm

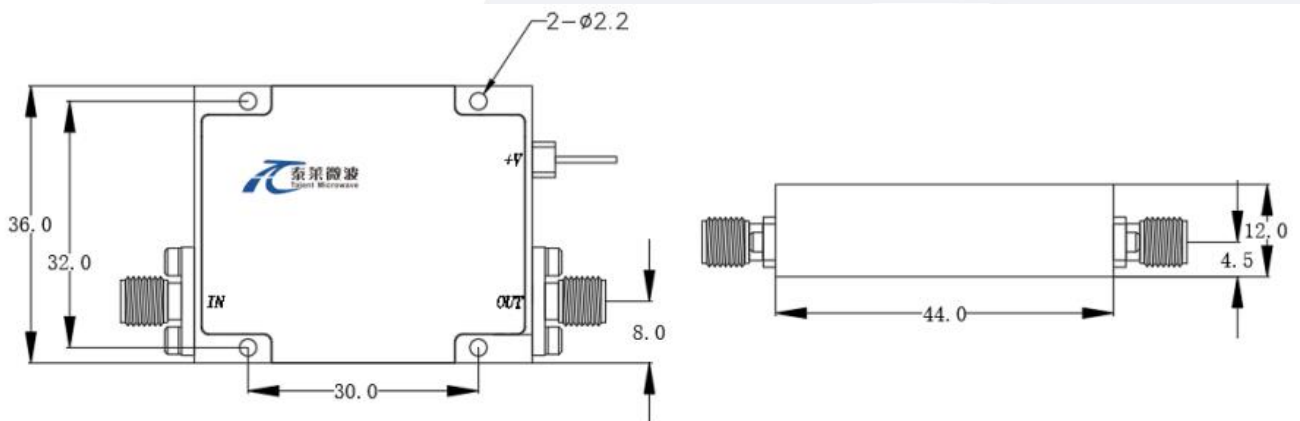
Absolute Maximum Ratings:

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			

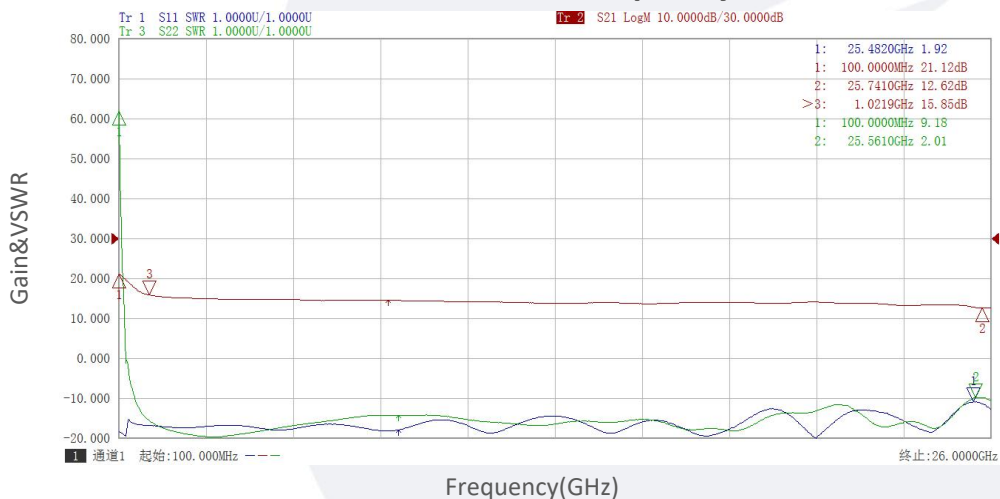
*Note: For a wider temperature range, please consult the manufacturer.

Ordering Information:

Base Number	Description	Revision
TLPA0.1G26G-15-23	Power amplifier 0.1-26GHz, Gain:15dB,P1dB:23dBm,+12V DC,Without Heatsink	Rev.1.1
TLPA0.1G26G-15-23-HS	Power amplifier 0.1-26GHz, Gain:15dB,P1dB:23dBm,+12V DC,With Heatsink	Rev.1.1

Typical Performance Data:

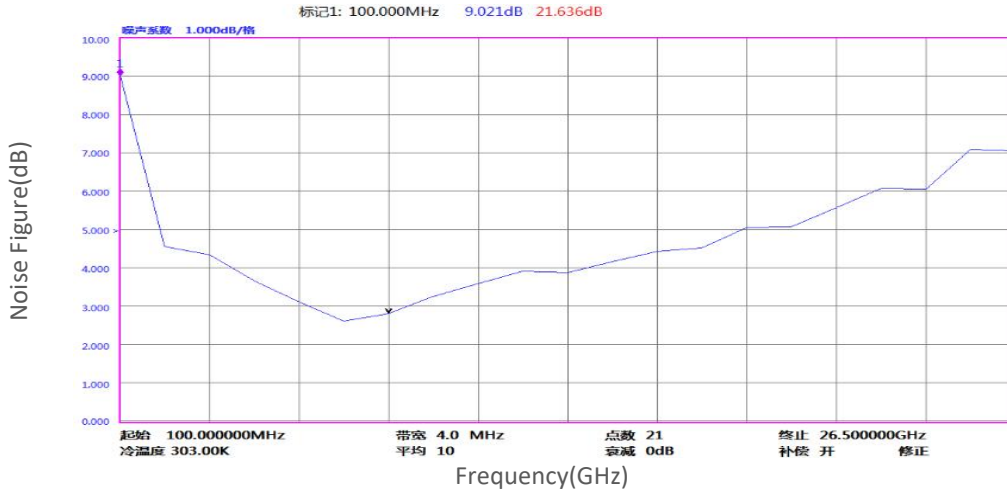
Gain&VSWR vs Frequency



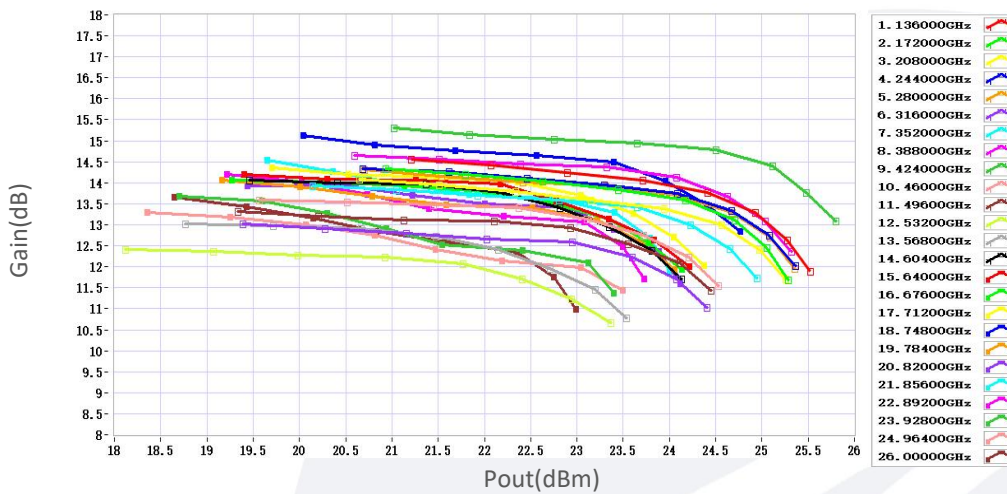
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

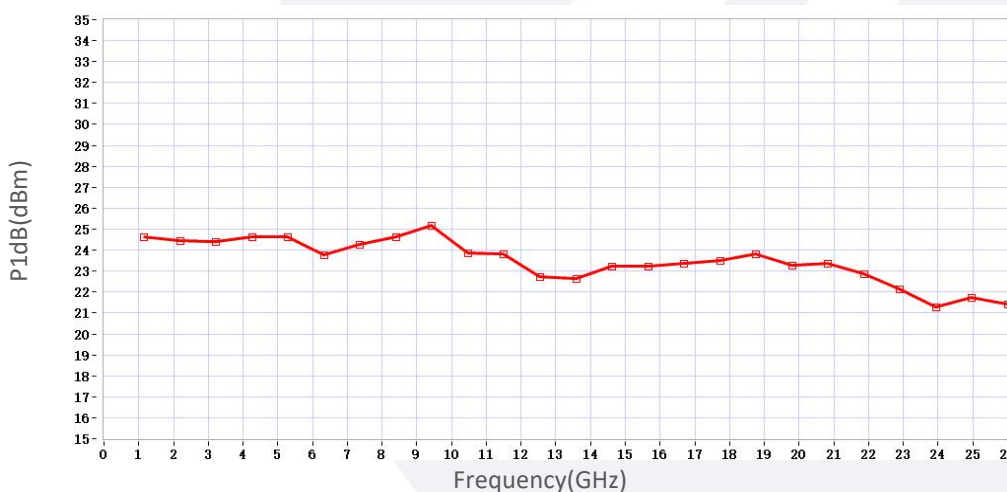
Noise Figure vs Frequency



Gain vs Output Power



P1dB vs Frequency



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