

Power Amplifier

1-6GHz /43dB Gain/43 dBm Psat

Model: TLPA1G6G-43-43-HP1

TLPA1G6G-43-43-HP1 is a power amplifier with power gain of 43 dB and Psat of 43 dBm across the frequency range of 1 to 6 GHz. The DC power requirement for the amplifier is +28 VDC/6 A. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 1-6 GHz
- Gain: 43dB Min
- Output Power Psat: 43dBm 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	1-6			GHz
Power Gain	43			dB
Gain Flatness		±3		dB
Output P1dB	40			dBm
Output Psat	43			dBm
Spurious@Pout=43dBm			-50	dBc
Input VSWR		1.5	2.5	:1
DC Voltage		28		V DC
DC Supply Current		6		A
Impedance	50			Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	Solder Pin	
Size	200*120*20(Without heatsink) 261.7*140*87(With heatsink)	mm
Weight	200	g

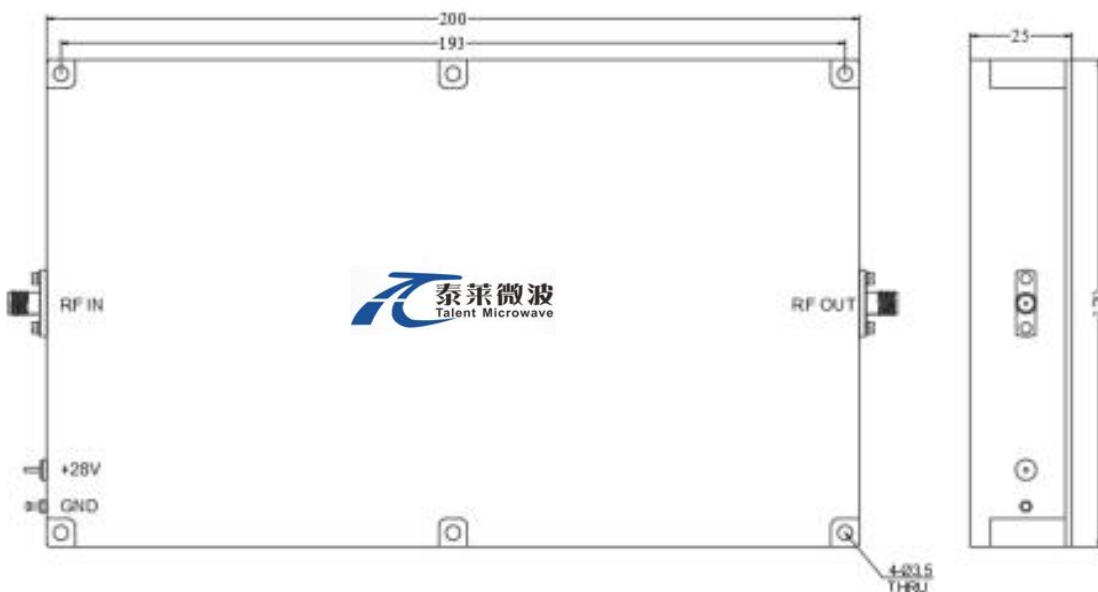
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+28V
RF Input Power	5 dBm
ESD sensitivity (HBM)	Class 0, passed 150V

Outline Drawing:

Unit:mm

Regulatory Compliance:

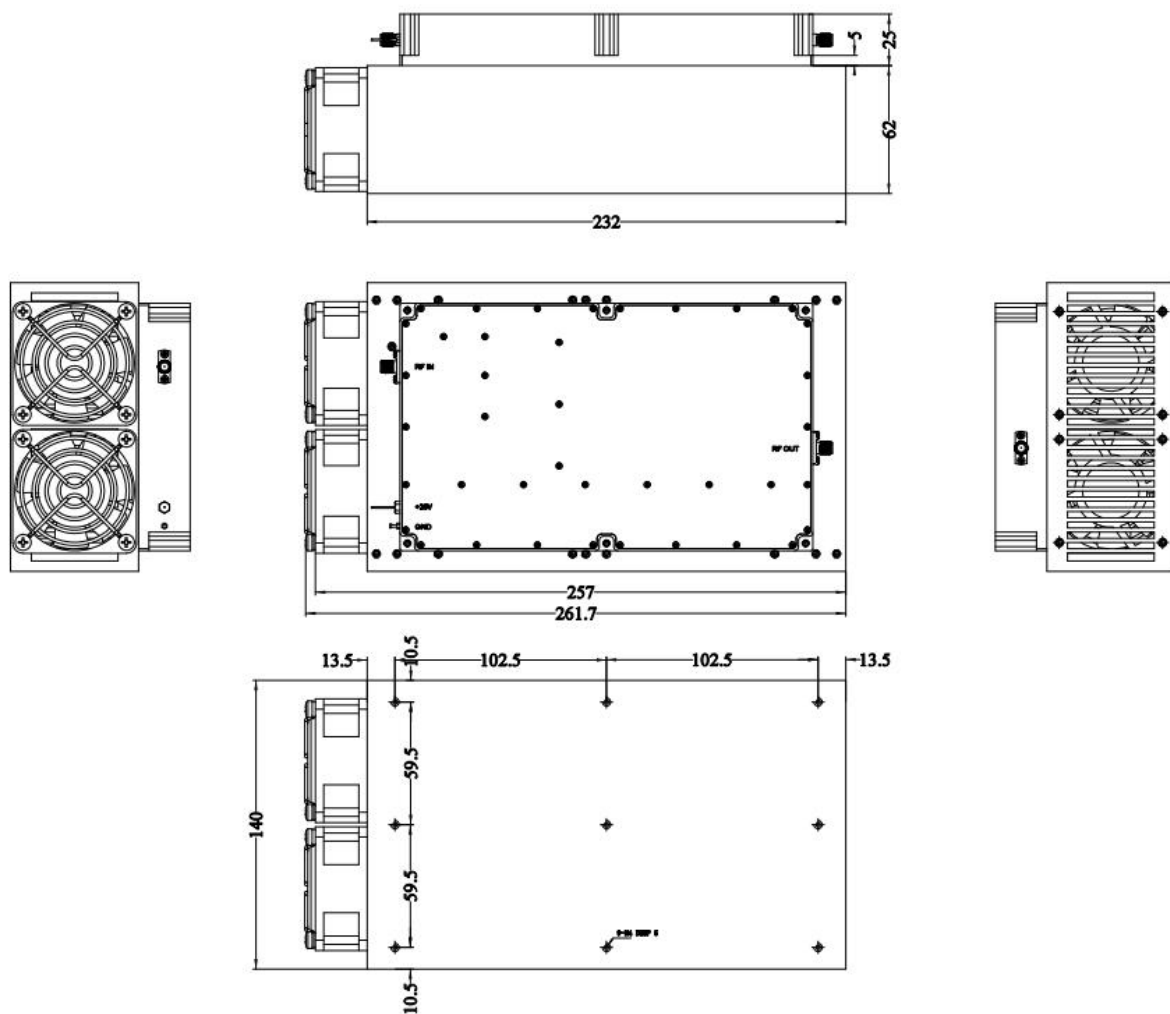


*****Heat Sink Required During Operation**



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

Unit:mm



Environmental Conditions:

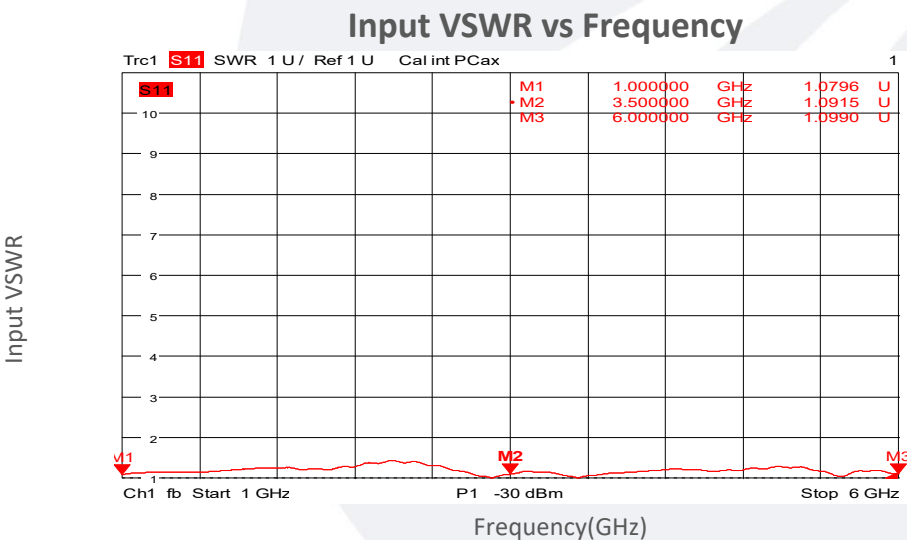
Parameter	Min	Typ	Max	Units
Operating Temperature*	-40		+50	°C
Non-operating Temperature*	-50		+60	°C
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

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

Ordering Information:

Base Number	Description	Revision
TLPA1G6G-43-43-HP1	Power amplifier 1-6GHz,Gain:43dB,Psat:43dBm, +28V DC,Without Heatsink	Rev.1.1
TLPA1G6G-43-43-HP1-HS	Power amplifier 1-6GHz,Gain:43dB,Psat:43dBm, +28V DC,With Heatsink	Rev.1.1

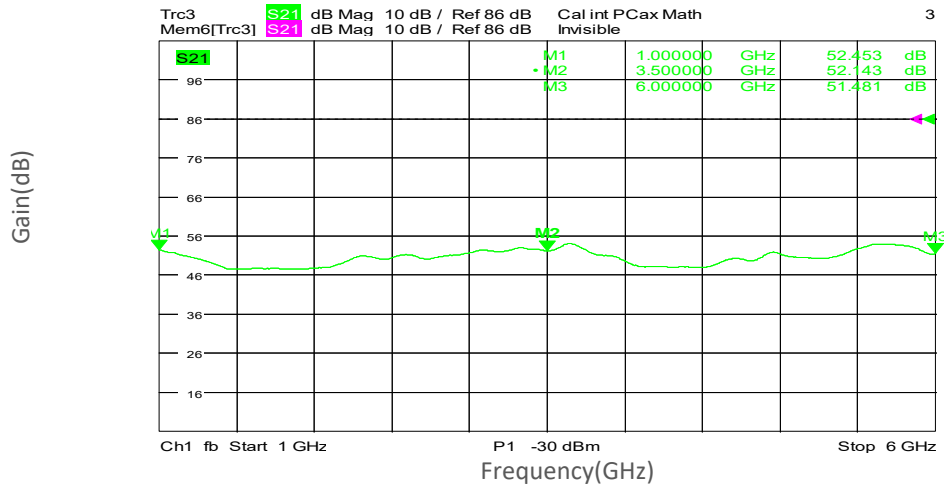
Typical Performance Data:



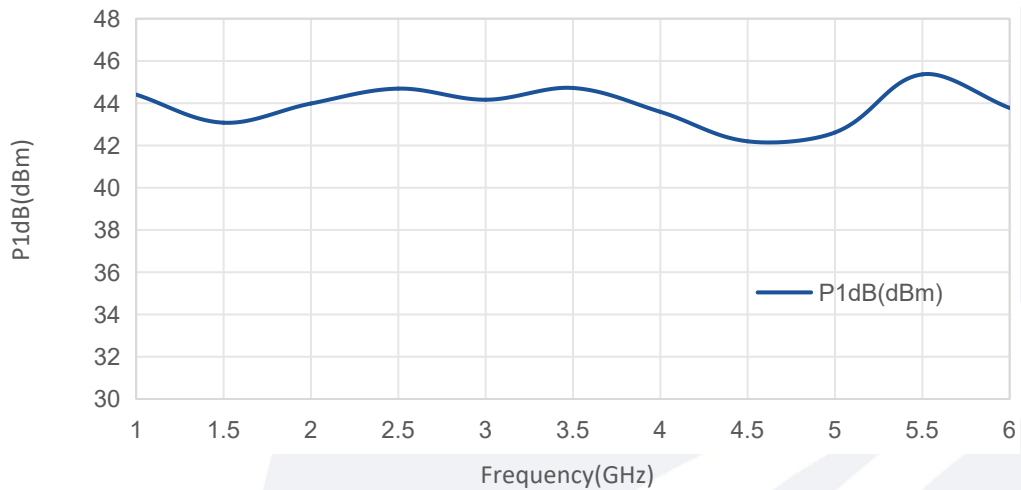
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

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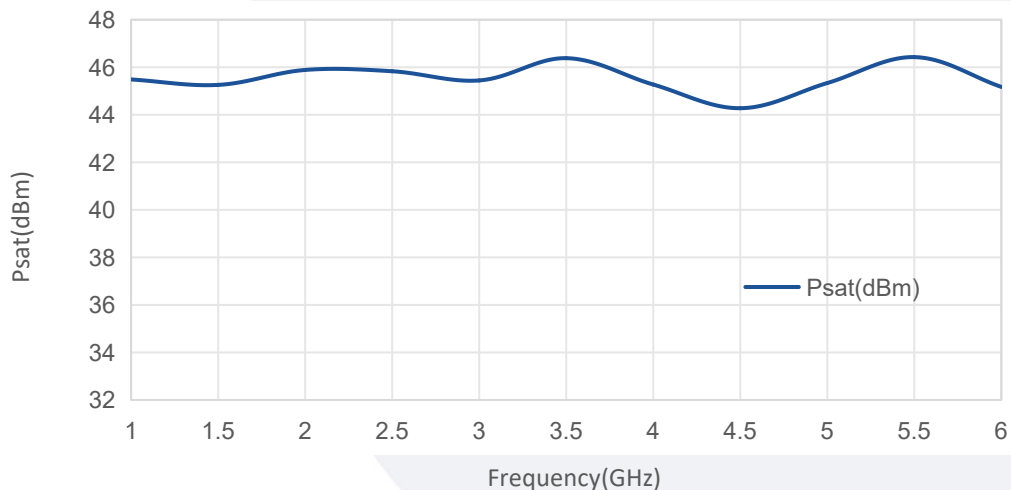
Small Signal Gain vs Frequency



P1dB vs Frequency

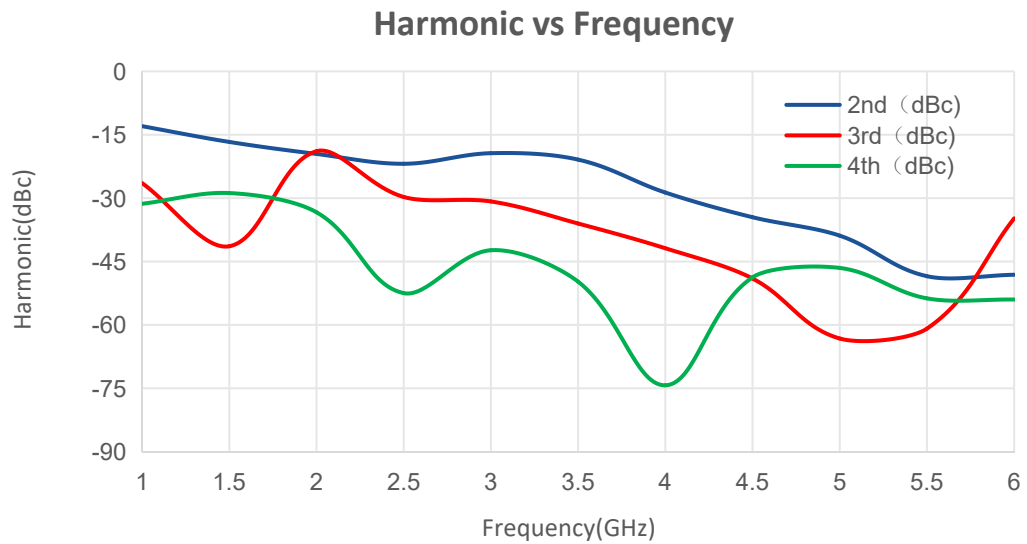


Psat vs Frequency



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