

Power Amplifier

1.5-2.5GHz/43dB Gain/37 dBm Psat

Model: TLPA1.5G2.5G-43-37

TLPA1.5G2.5G-43-37 is a power amplifier with a typical small signal gain of 43 dB and a minimum Psat of 37 dBm across the frequency range of 1.5 to 2.5 GHz. The DC power requirement for the amplifier is +28 VDC/2 A. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 1.5-2.5GHz
- Gain: 43dB Typ
- Output Power Psat: 37dBm 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	1.5		2.5	GHz
Small Signal Gain	40	43		dB
Gain Flatness		±1.5	±2	dB
Output P1dB	35	36		dBm
Output Psat	37			dBm
Spurious		-60		dBc
Input VSWR		1.5	2.5	:1
DC Voltage		+28		V DC
DC Supply Current		2		A
Impedance		50		Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	Solder Pin	
Size	95*85*18	mm

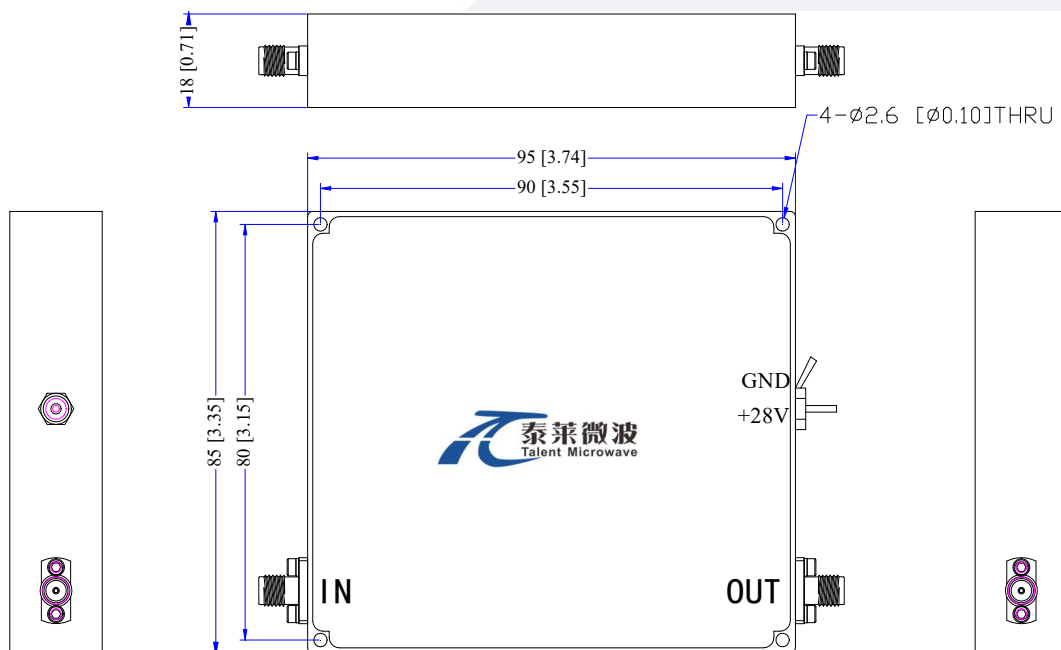
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	TBD
RF Input Power	+8 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			

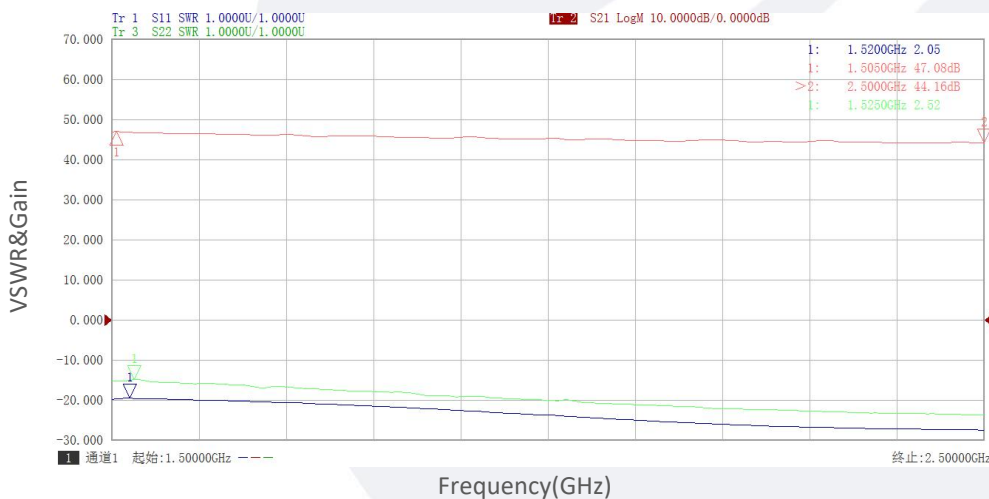
*Note: For a wider temperature range, please consult the manufacturer.

Ordering Information:

Base Number	Description	Revision
TLPA1.5G2.5G-43-37	Power amplifier 1.5-2.5GHz, Gain:43dB,Psat:37dBm,+28V DC,Without Heatsink	Rev.1.1
TLPA1.5G2.5G-43-37-HS	Power amplifier 1.5-2.5GHz, Gain:43dB,Psat:37dBm,+28V DC,With Heatsink	Rev.1.1

Typical Performance Data:

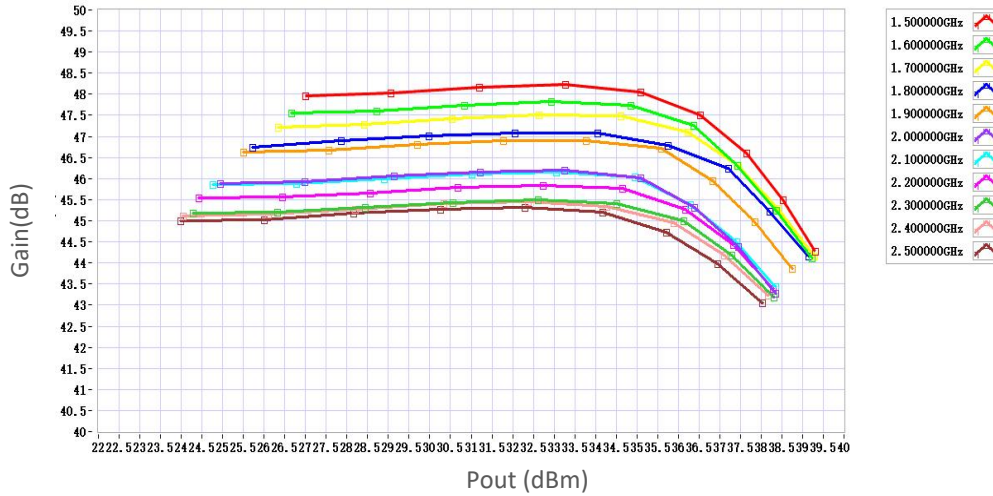
VSWR&Gain vs Frequency



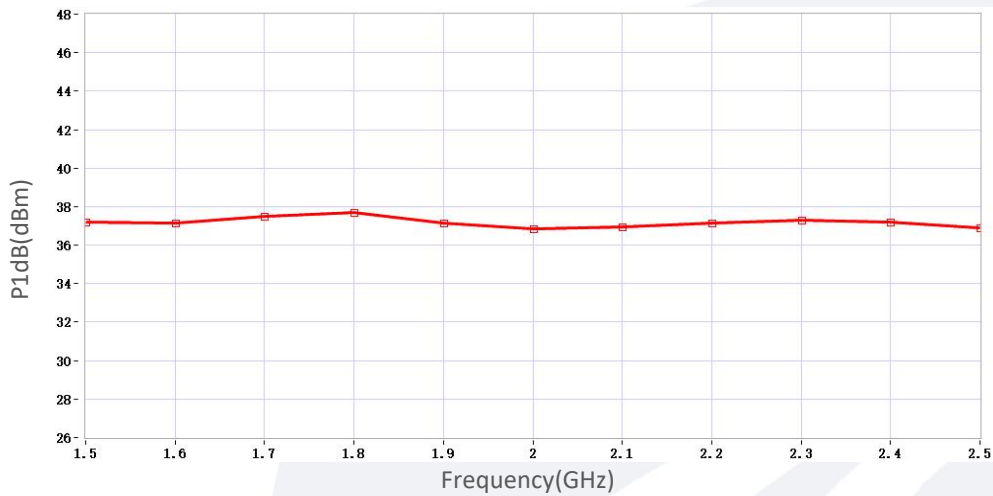
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

Gain vs Output Power



P1dB vs Frequency



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