

## Power Amplifier

15-43GHz/35dB Gain/33dBm Psat

Model: TLPA15G43G-35-33

TLPA15G43G-35-33 is a power amplifier with a minimum small signal gain of 35 dB and a nominal Psat of 33 dBm across the frequency range of 15 to 43 GHz. The DC power requirement for the amplifier is +24 VDC/1.5 A. The input and output port configuration offers coax adapter structure with 2.92mm female.

### Features:

- Frequency range: 15-43GHz
- Gain: 35dB Min
- Output Power Psat: 33dBm 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	15		43	GHz
Small Signal Gain	35			dB
Gain Flatness		±3		dB
Output P1dB	30			dBm
Output Psat		33		dBm
Spurious@Pout=30dBm			-50	dBc
Input VSWR			2	:1
DC Voltage		+24		V DC
DC Supply Current		1.5		A
Impedance		50		Ohms

## Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	2.92mm Female/2.92mm Female	
DC Supply Connector	J30J-9ZKP	Pin1~5:+24V Pin6~9:GND
Size	150*90*20	mm
Weight	500	g

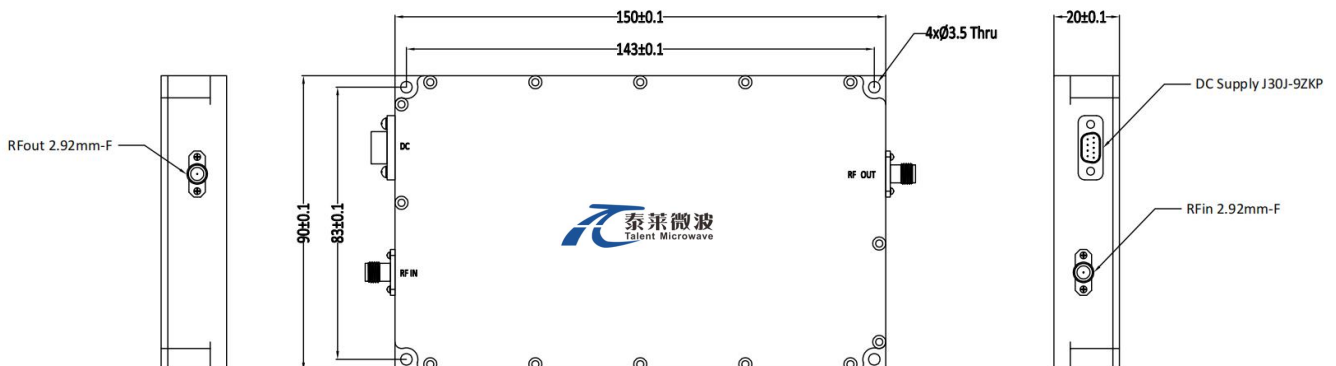
## Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	TBD
RF Input Power	0 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:

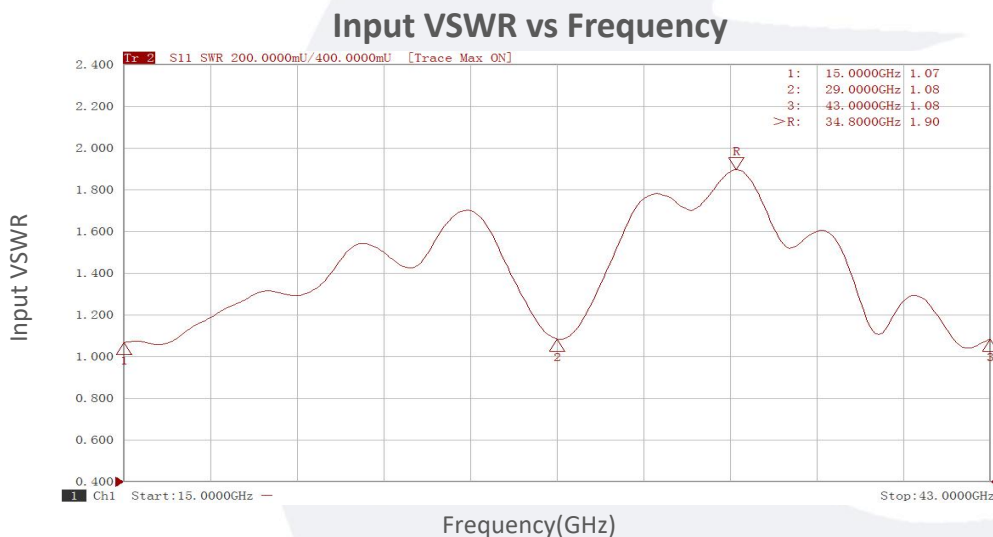
Parameter	Min	Typ	Max	Units
Operating Temperature*	-40		+60	°C
Non-operating Temperature*	-50		+70	°C
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

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

## Ordering Information:

Base Number	Description	Revision
TLPA15G43G-35-33	Power amplifier 15-43GHz, Gain:35dB,Psat:33dBm,+24V DC,Without Heatsink	Rev.1.1
TLPA15G43G-35-33-HS	Power amplifier 15-43GHz, Gain:35dB,Psat:33dBm,+24V DC,With Heatsink	Rev.1.1

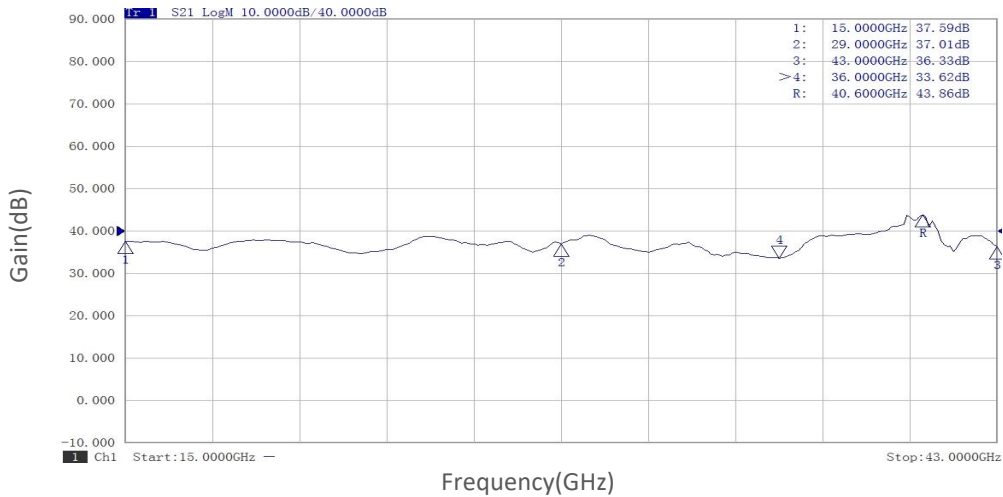
## Typical Performance Data:



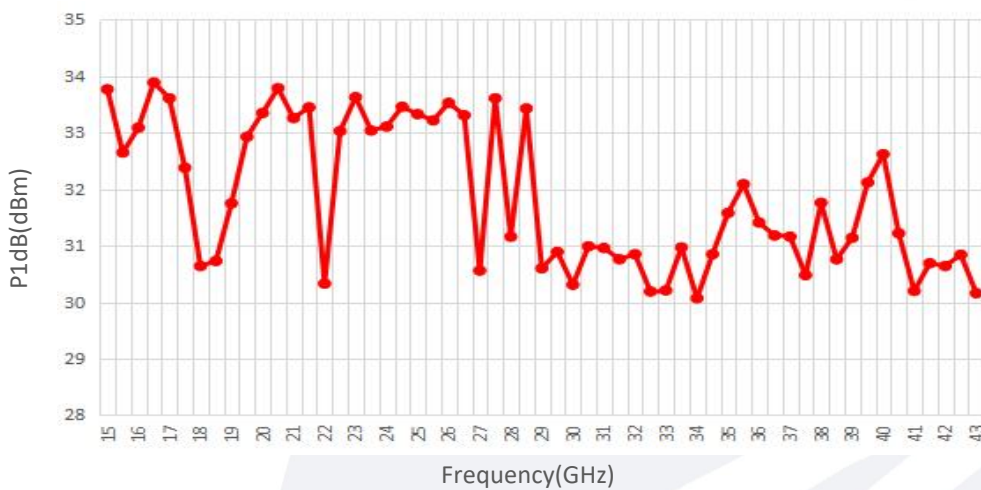
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

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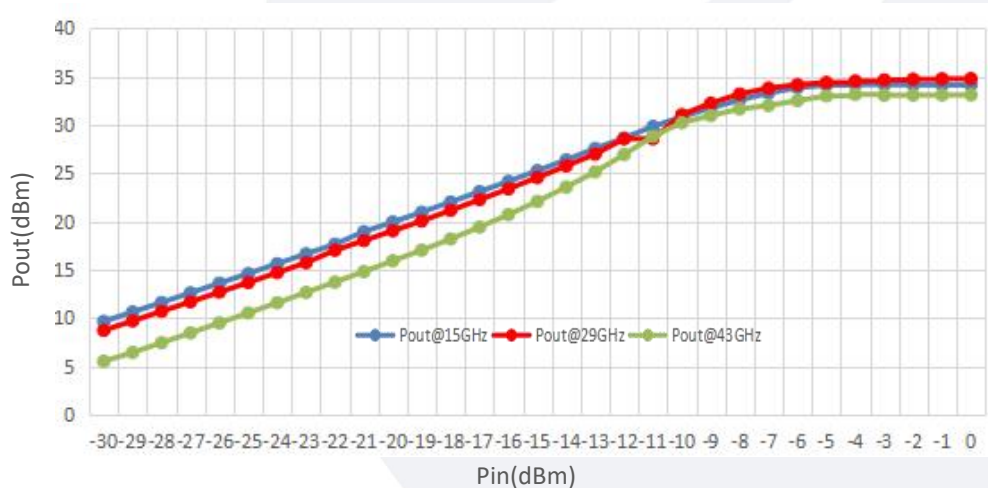
### Gain vs Frequency



### P1dB vs Frequency



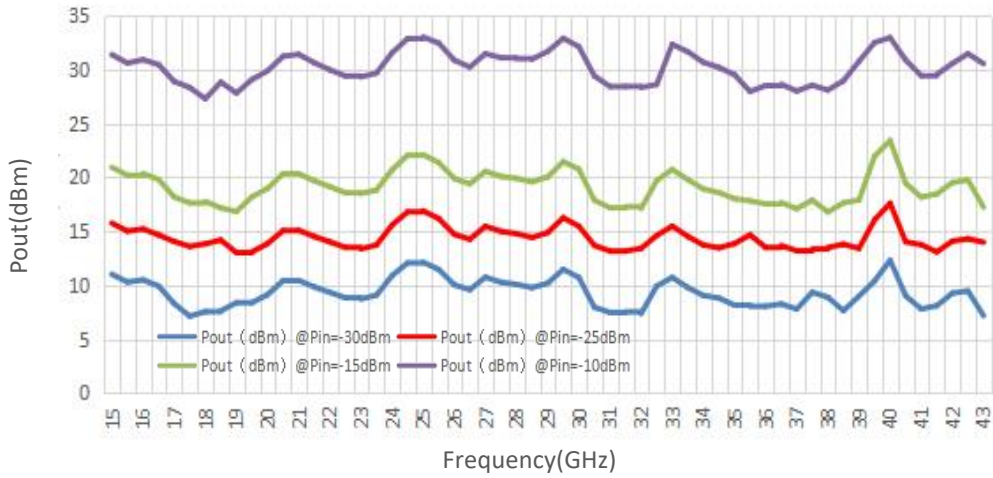
### Pout@Pin



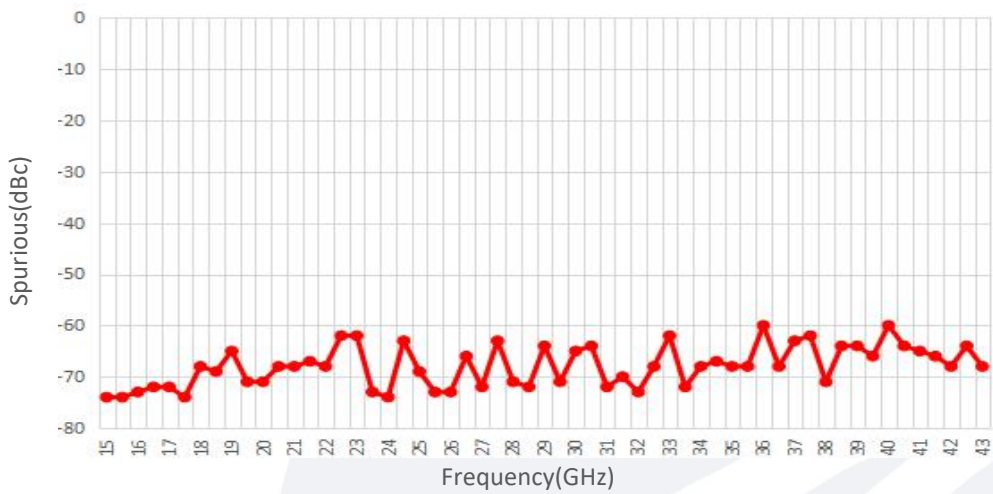
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## Typical Performance Data:

### Pout@Equal\_Pin



### Spurious 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.