

Power Amplifier

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

Model: TLPA15G43G-35-33

TLPA15G43G-35-33 is a power amplifier with 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:

- Ultra Wide Band: 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:

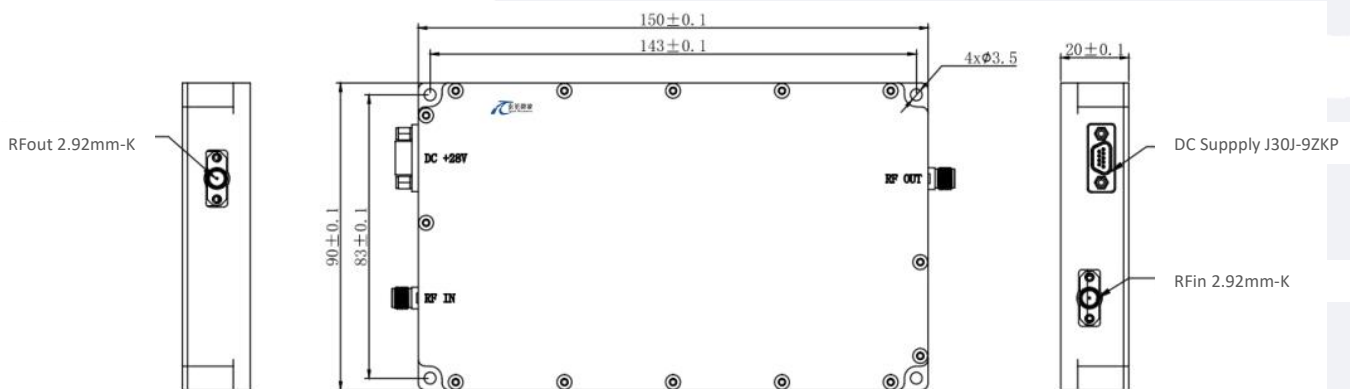
Parameter	Value	Units
Input /Output Connector	2.92mm Female/2.92mm Female	
DC Supply Connector	J30J-9ZKP	Pin1~5:+24V Pin6~9:GND
Size	150*90*20	mm
Weight	500	g

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**



OBSERVE PRECAUTIONS
ELECTROSTATIC SENSITIVE
DEVICES

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			

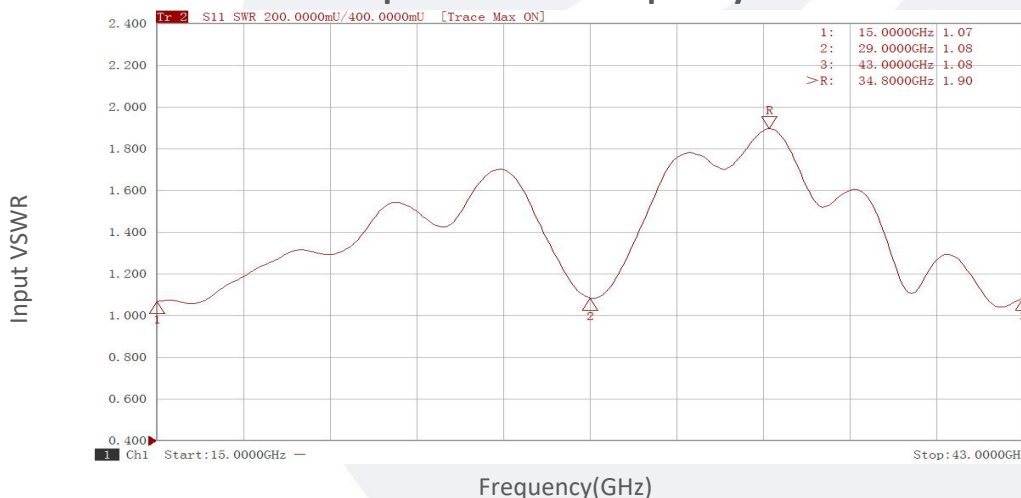
*Note: For a wider temperature range, please consult the manufacturer.

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:

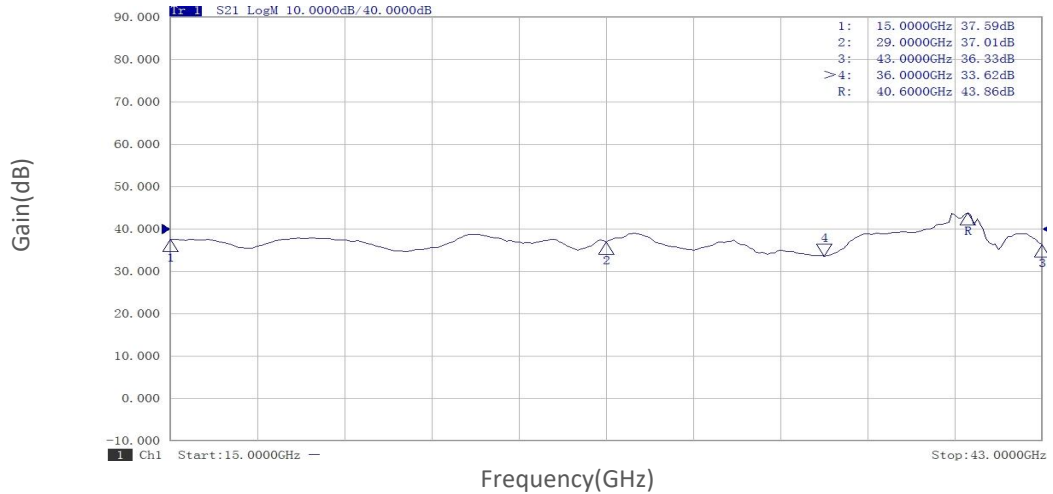
Input VSWR vs Frequency



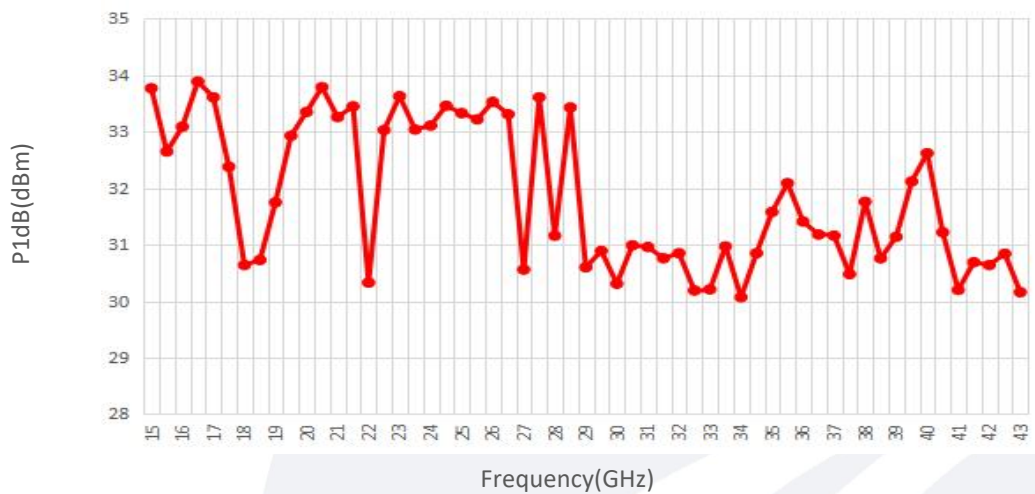
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

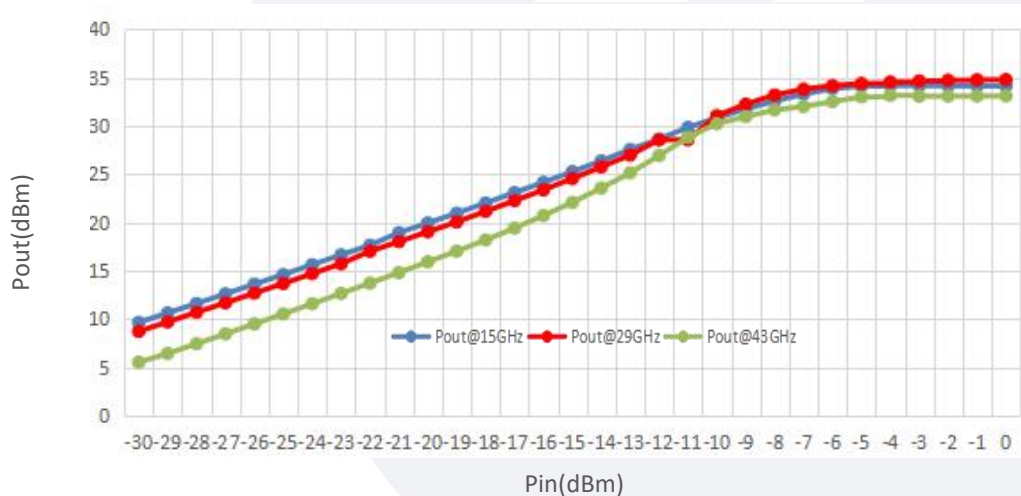
Small Signal Gain vs Frequency



P1dB vs Frequency



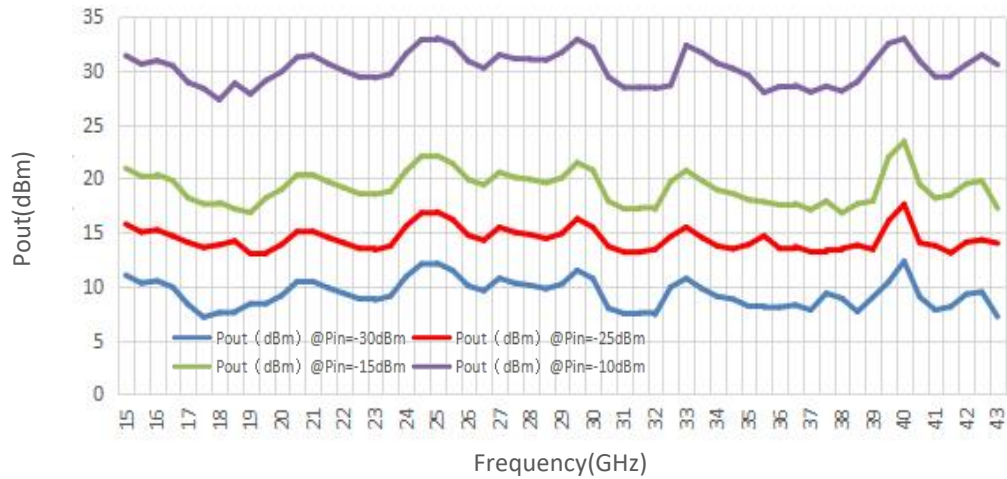
Pout@Pin



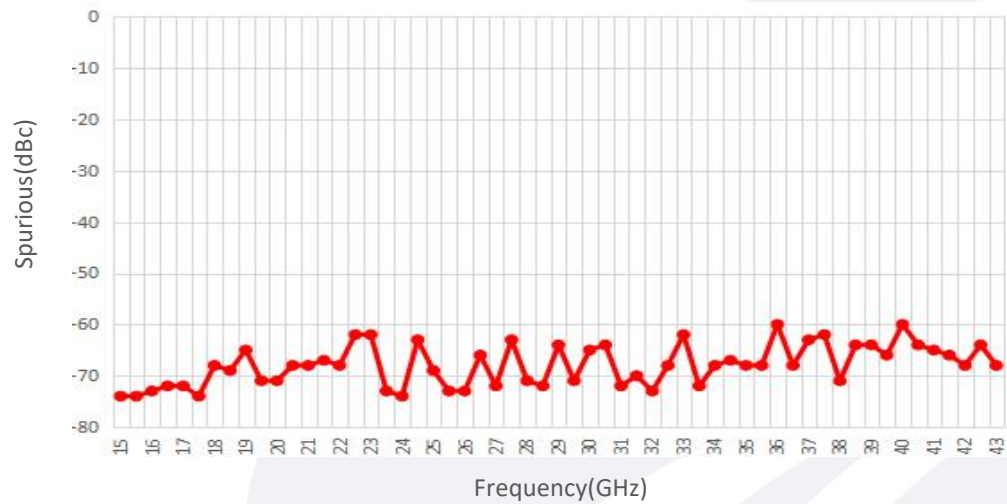
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

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.