



Power Amplifier

Model: PA-15G-43G-2

15-43GHz 2W CW

Ultrabroad frequency range, high performance and exceptional RF characteristics

Features:

- Frequency range: 15-43GHz
- High output power at saturation, 2W Typ.
- High gain, 35 dB Min.
- 50 Ohm Matched Input / Output.

Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

Product Overview:

The PA-15G-43G-2 is a power amplifier with a minimum small signal gain of 35 dB and a nominal P_{sat} of 2W across the frequency range of 15 to 43GHz. 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.



Electrical Specifications at 25°C:

Parameter	Min	Typ	Max	Units
Frequency range	15		43	GHz
Small Signal Gain	35			dB
Small Signal Gain Flatness		±3		dB
Output P1dB	30			dBm
Output Psat		33		dBm
Spurious@Pout=30dBm			-50	dBc
Input VSWR			2.0	:1
DC Voltage		+24		V DC
DC Supply Current		1.5		A
Impedance		50		Ohms

Mechanical Specifications:

Parameter	Value	Notes
Operating Temperature*	-40°C to +60°C	
Non-operating Temperature*	-50°C to +70°C	
Relative humidity	95%	
RF Input/Output Connector	2.92mm Female/2.92mm Female	
DC Supply Connector	J30J-9ZKP	Pin1~5:+24V Pin6~9:GND
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	
Dimensions W x H x D	150*90*20	mm
Weight	500	g

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

Absolute Maximum Ratings:

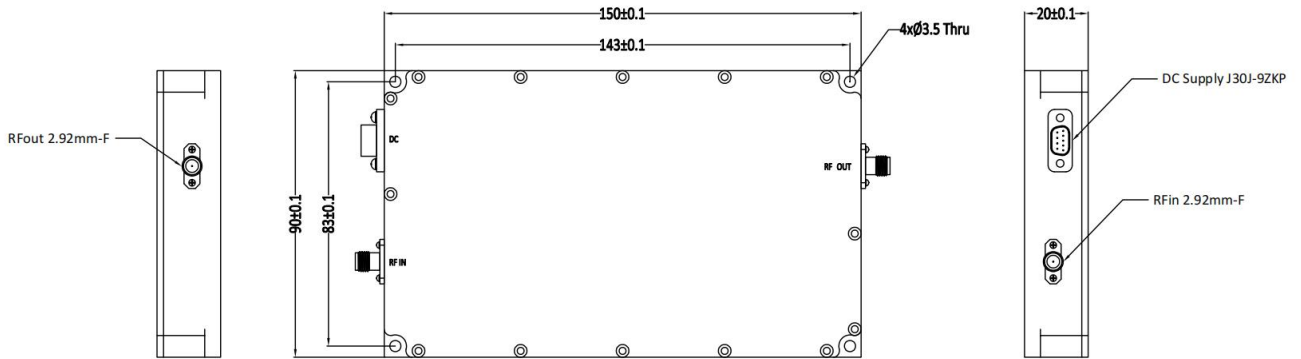
Parameter	Value
Supply Bias Voltage	TBD
RF Input Power	0 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



Outline Drawing:

Unit:mm

PA-15G-43G-2



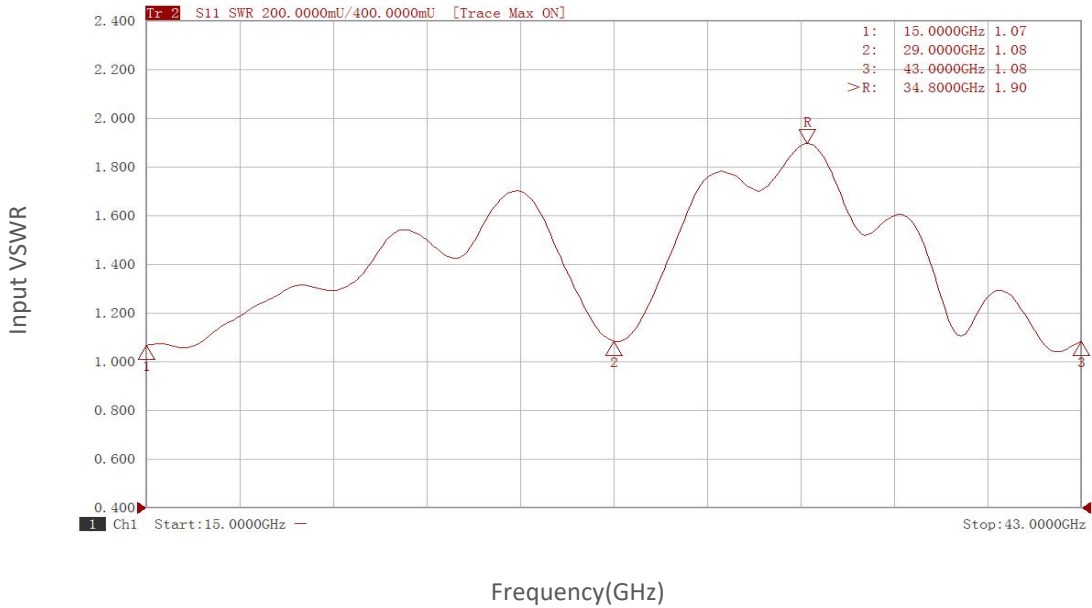
Ordering Information:

Base Number	Description	Optional
PA-15G-43G-2	Power Amplifier,15-43GHz, Gain:35dB,Psat:2W,+24V DC	Without Heatsink
PA-15G-43G-2-HS	Power Amplifier,15-43GHz, Gain:35dB,Psat:2W,+24V DC	With Heatsink

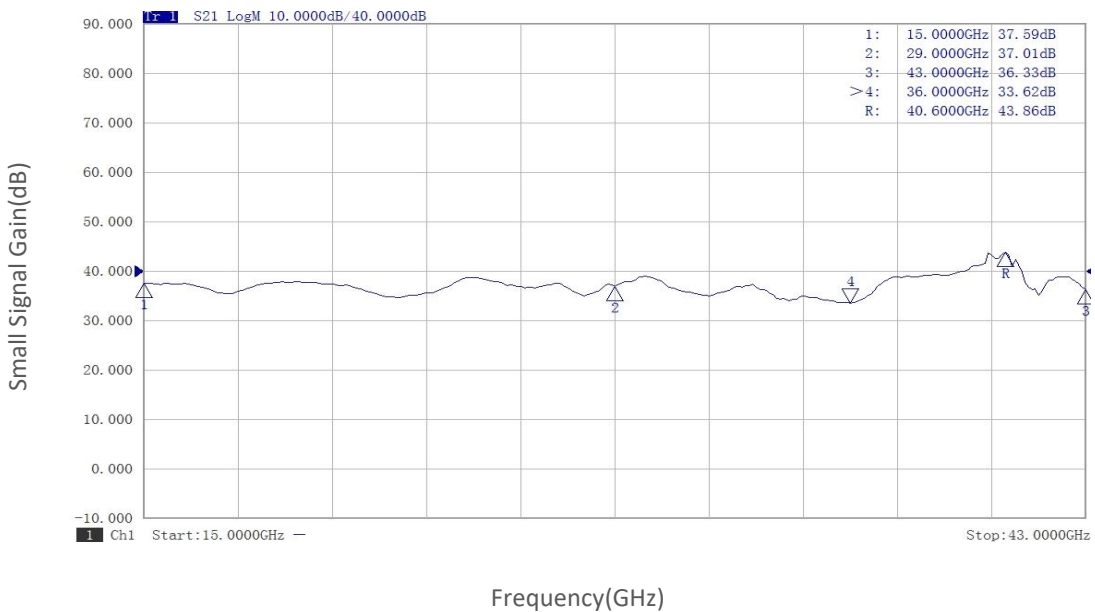


Typical Performance Data:

Input VSWR vs Frequency



Small Signal Gain vs Frequency

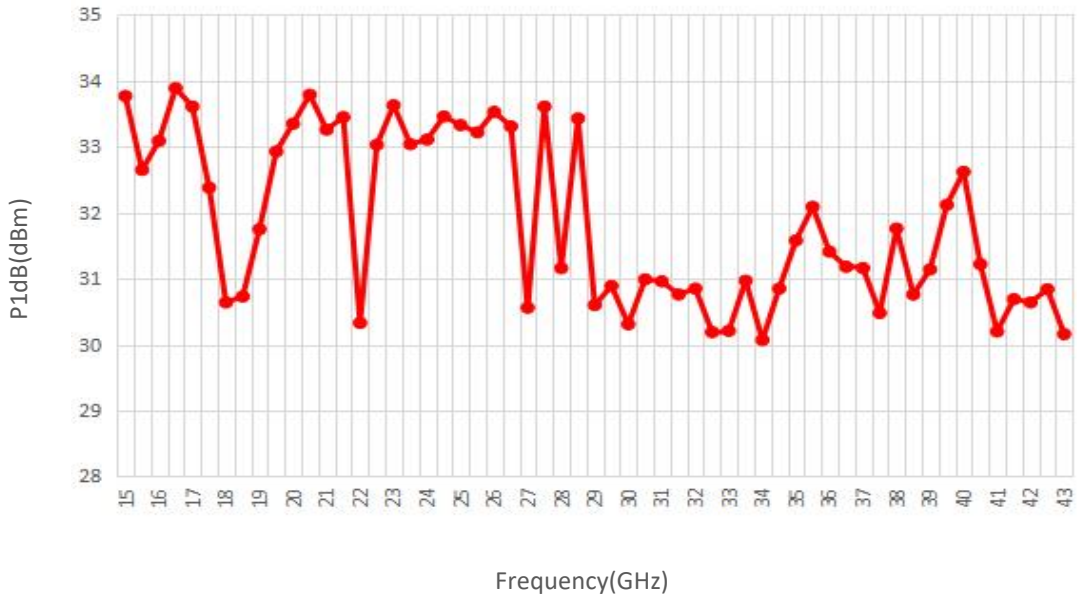


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

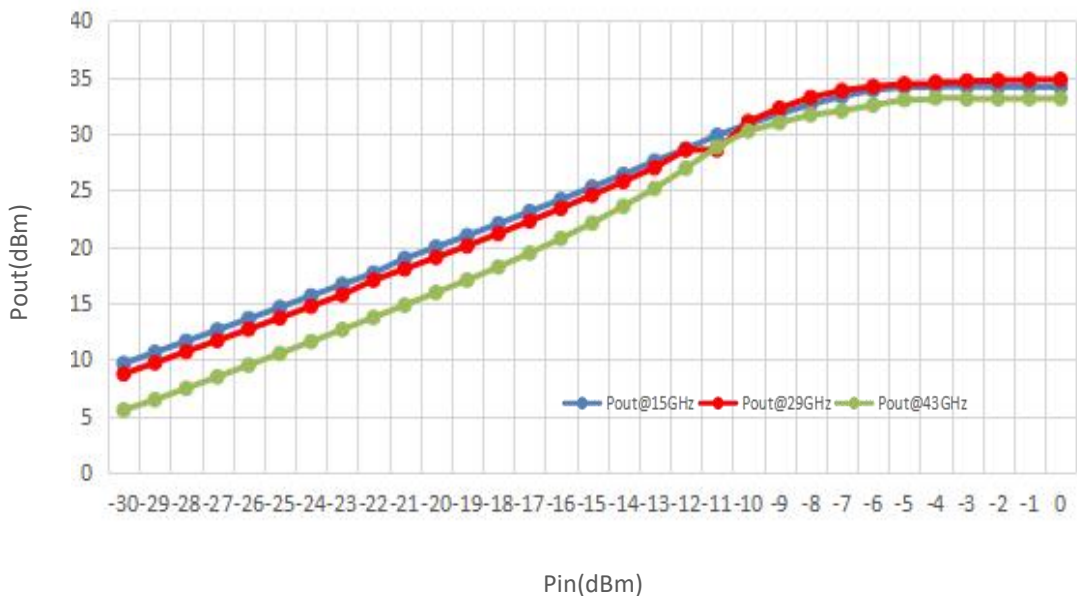


Typical Performance Data:

P1dB vs Frequency



Pout@Pin

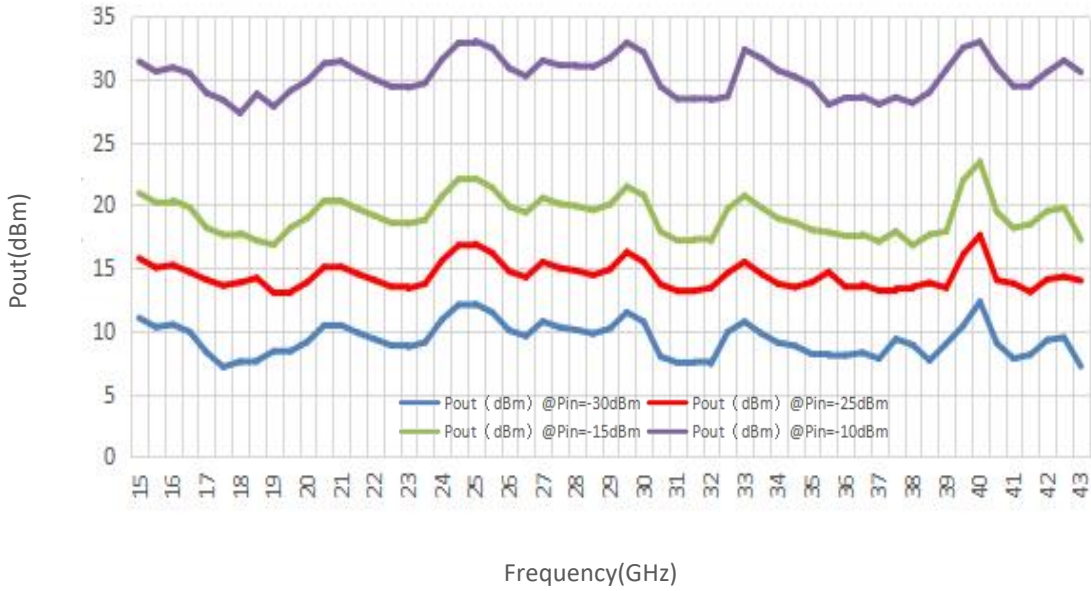


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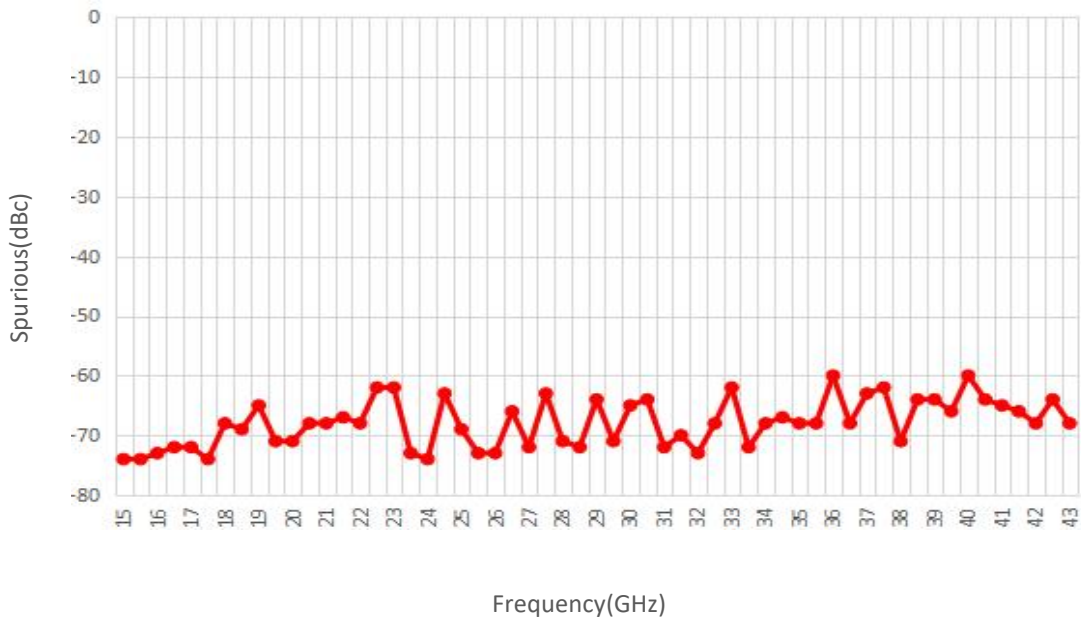


Typical Performance Data:

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.