Power Amplifier

Model: PA-18G-40G-2-L

18-40GHz 2W CW

Ultrabroad frequency range, high performanceand exceptional RF characteristics

Features:

- Frequency range: 18-40GHz
- High output power at saturation, 2W Typ.
- High gain, 30 dB Min.
- 50 Ohm Matched Input / Output.

Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

Product Overview：

The PA-18G-40G-2-L is a power amplifier with a minimum small signal gain of 30 dB and a nominal Psat of 2W across the frequency range of 18 to 40GHz. The DC power requirement for the amplifier is +24 VDC/1 A. The input and output port configuration offers coax adapter structure with 2.92mm female.

Electrical Specifications at 25℃:

Parameter	Min	Typ	Max	Units
Frequency range	18		40	GHz
Small Signal Gain	30			dB
Small Signal Gain Flatness		±5		dB
Output P1dB		30		dBm
Output Psat		33		dBm
Spurious			-50	dBc
Harmonic			-20	dBc
Input VSWR		2	2.5	:1
DC Voltage		+24		V DC
DC Supply Current		1		A
Impedance		50		Ohms

Mechanical Specifications:

Parameter	Value	Notes
Operating Temerature*	-40℃ to +60℃	
Non-operating Temperature*	-50℃ to +70℃	
Relative humidity	95%	
RF Input/Output Connector	2.92mm Female/2.92mm Female	
DC Bias	Solder Pin	
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	60*65*11	mm
Weight	≤500	g

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

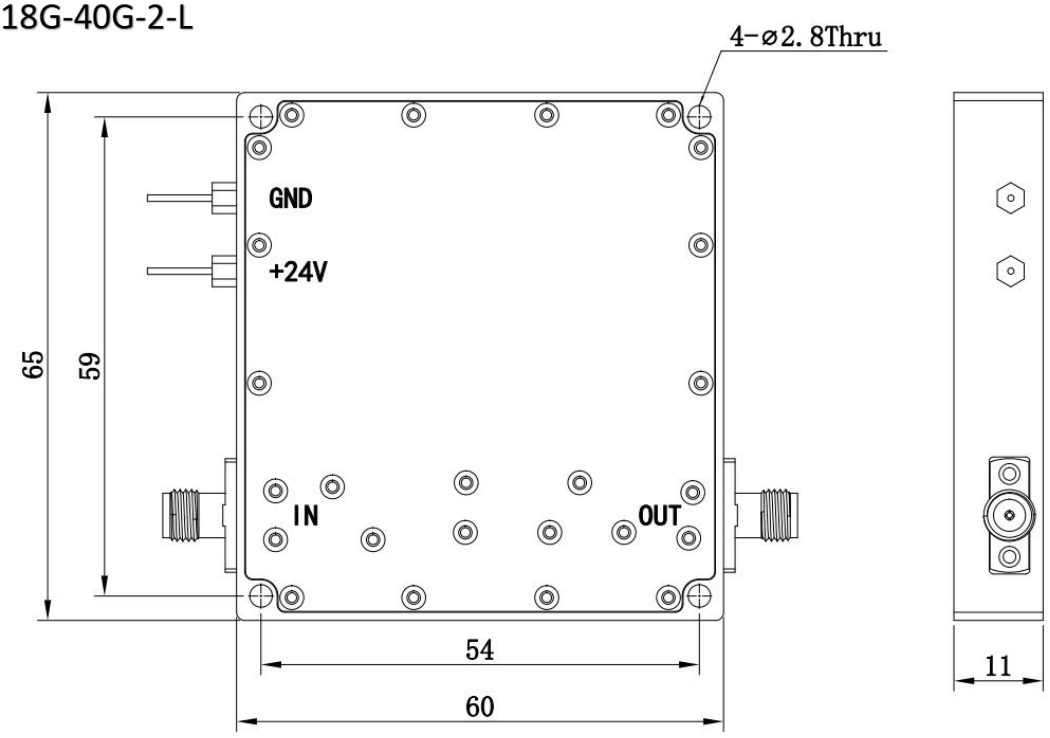
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	TBD
RF Input Power	+10 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Outline Drawing:

Unit:mm

PA-18G-40G-2-L

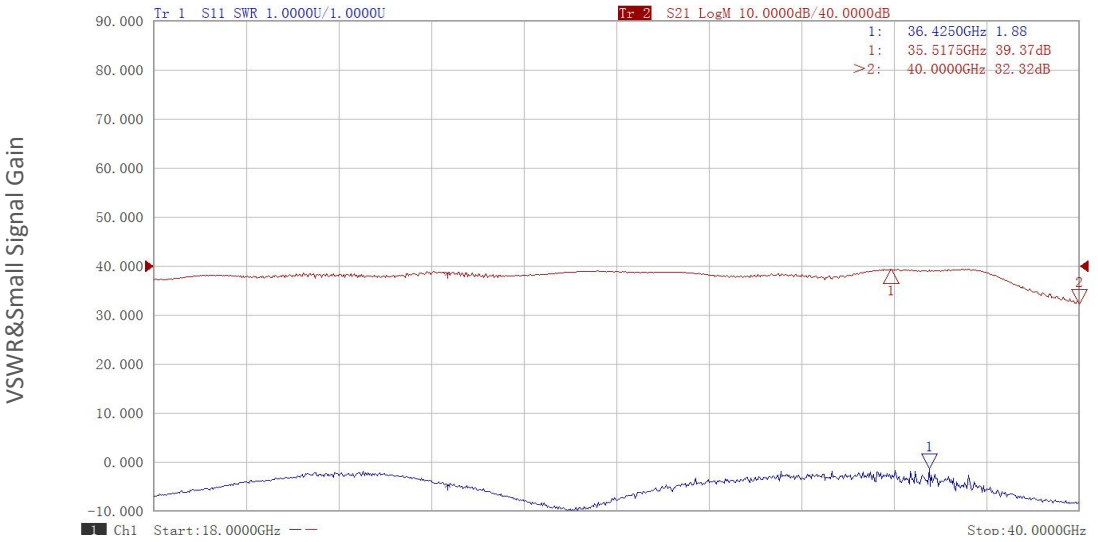


Ordering Information:

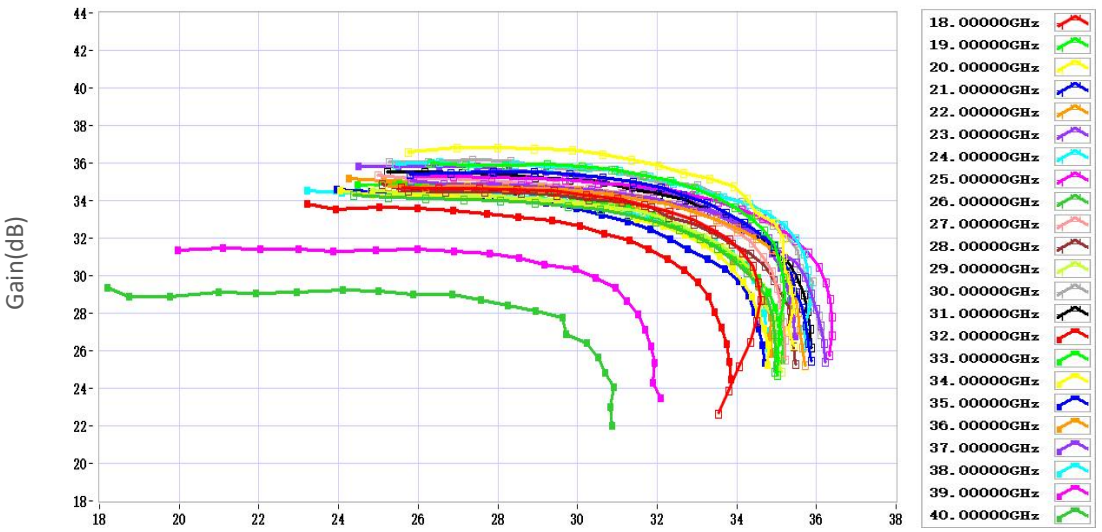
Base Number	Description	Optional
PA-18G-40G-2-L	Power Amplifier, 18-40GHz, Gain:30dB,Psat:2W,+24V DC	Without Heatsink
PA-18G-40G-2-L-HS	Power Amplifier, 18-40GHz, Gain:30dB,Psat:2W,+24V DC	With Heatsink

Typical Performance Data:

VSWR&Small Signal Gain vs Frequency



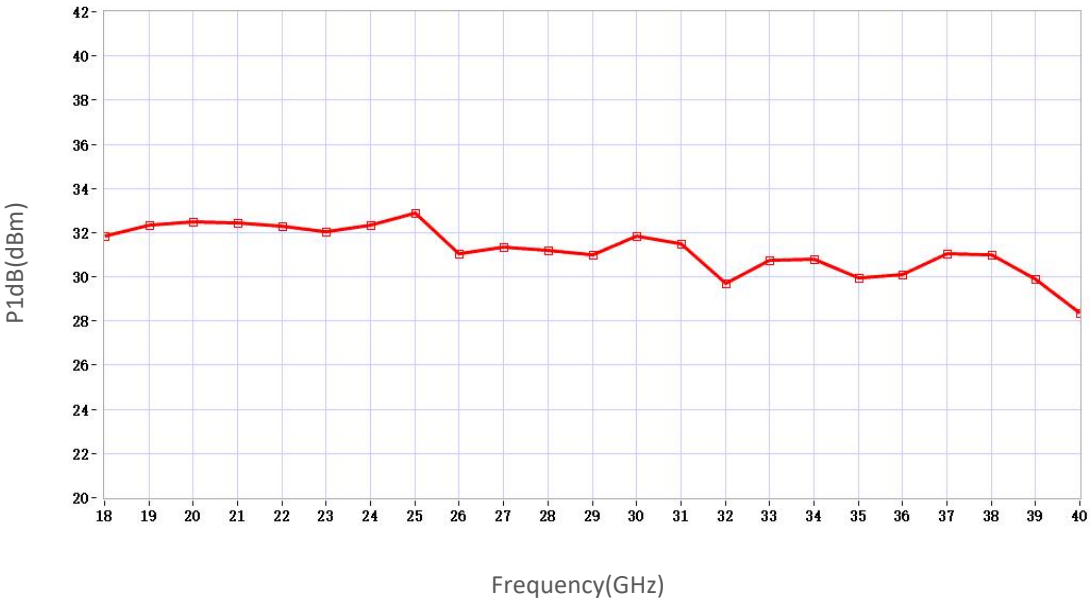
Gain vs Output Power



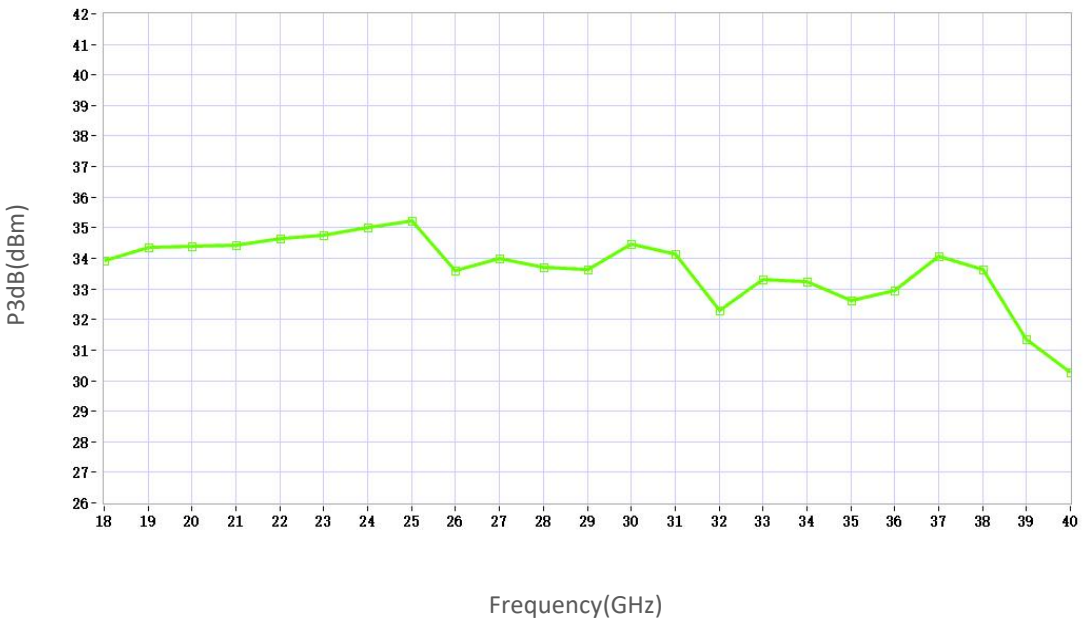
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

P1dB vs Frequency



P3dB vs Frequency



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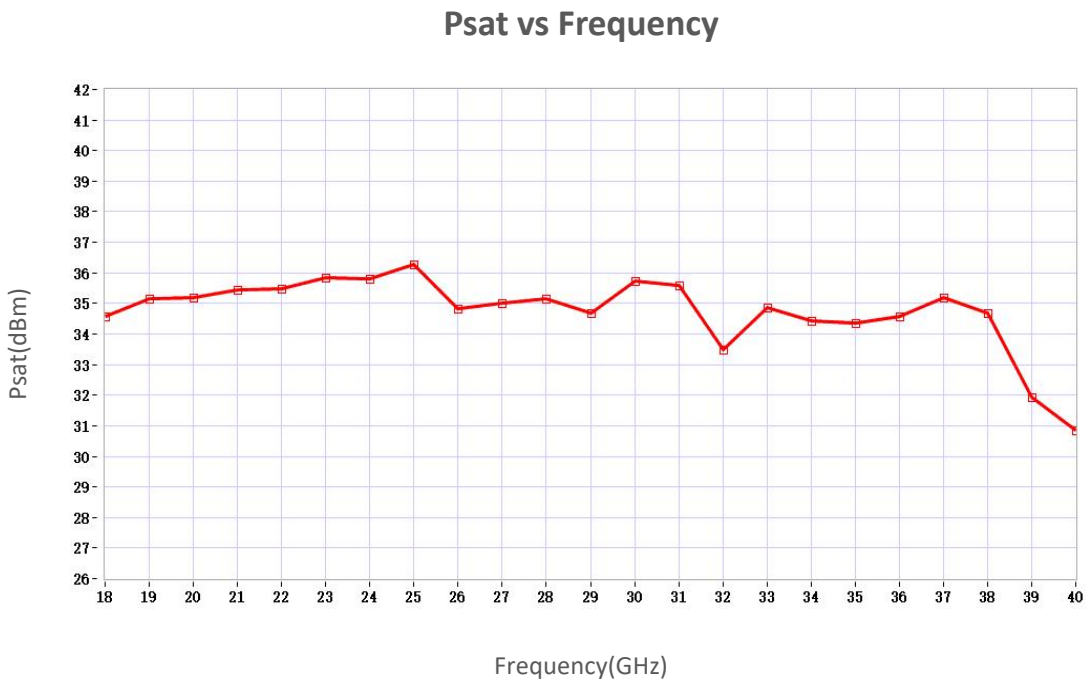
Typical Performance Data:



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