Power Amplifier

Model: PA-0G1-22G-1-H

0.1-22GHz 1W CW

Ultrabroad frequency range, high performanceand exceptional RF characteristics

Features:

- Frequency range: 0.1-22GHz
- High output power at saturation, 1W Typ.
- High gain, 35 dB Typ.
- 50 Ohm Matched Input / Output.

Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

Product Overview：

The PA-0G1-22G-1-H is a power amplifier with a typical small signal gain of 35 dB and a nominal Psat of 1W across the frequency range of 0.1 to 22GHz. The DC power requirement for the amplifier is +24 VDC/850 mA. The input and output port configuration offers coax adapter structure with SMA female.

Electrical Specifications at 25℃:

Parameter	Min	Typ	Max	Units
Frequency range	0.1		22	GHz
Small Signal Gain	34	35		dB
Small Signal Gain Flatness		±2.5		dB
Output P1dB	26	28		dBm
Output Psat	27	30		dBm
Input VSWR		1.6	2	:1
Output VSWR		1.6	2.5	:1
DC Voltage		+24		V DC
DC Supply Current		850		mA
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	SMA Female/SMA Female	
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(Without Heatsink) 60*90*41(With Heatsink)	mm
Weight	200	g

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

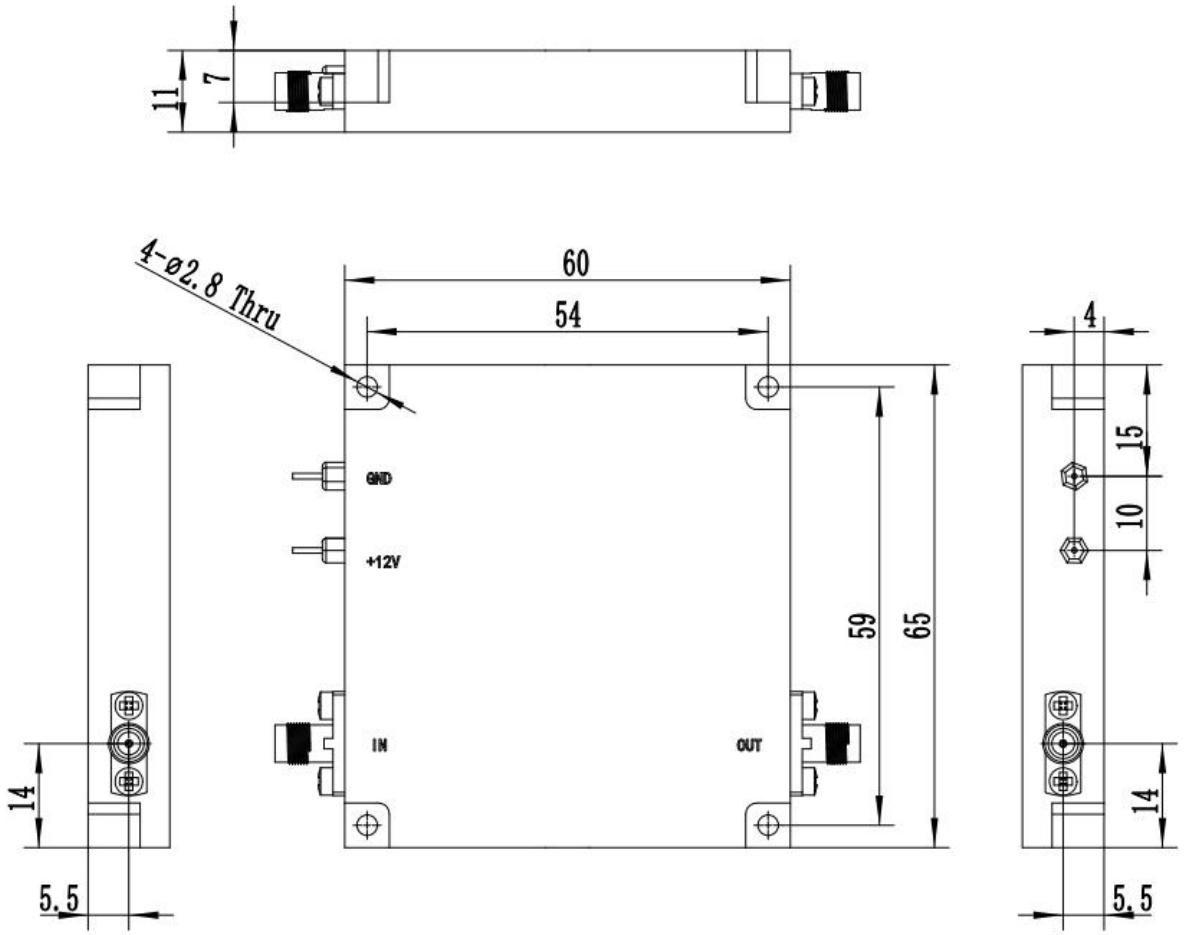
Absolute Maximum Ratings:

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

Outline Drawing:

Unit:mm

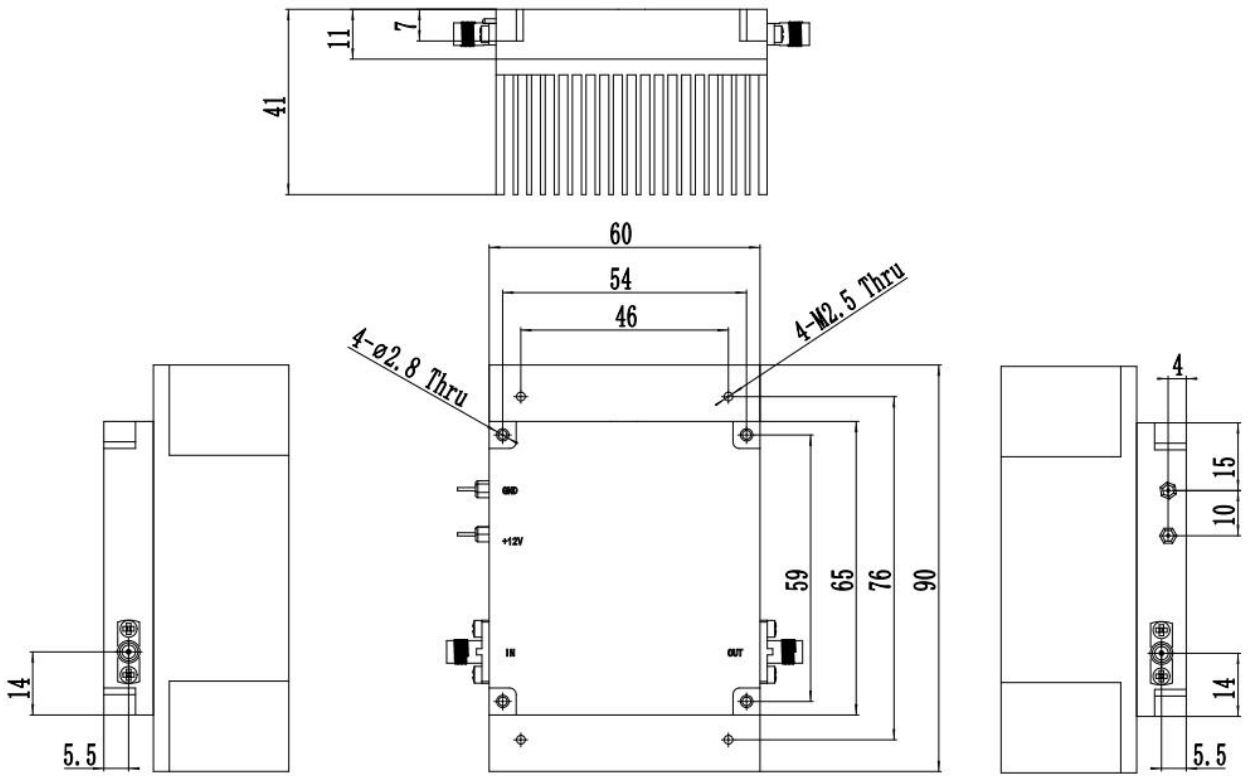
PA-0G1-22G-1-H



Outline Drawing:

Unit:mm

PA-0G1-22G-1-H-HS

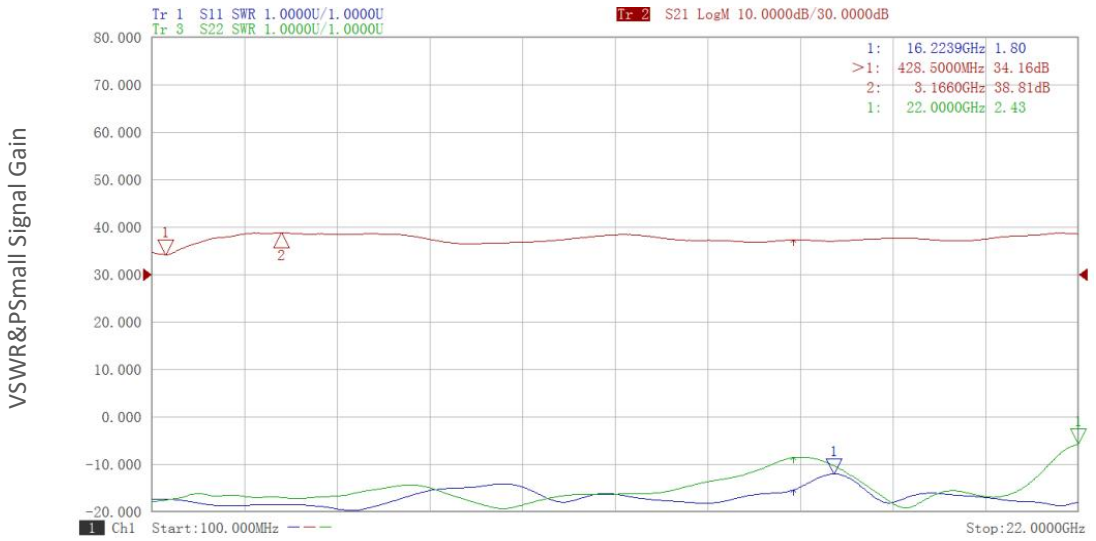


Ordering Information:

Base Number	Description	Optional
PA-0G1-22G-1-H	Power Amplifier, 0.1-22GHz, Gain:35dB,Psat:1W,+24V DC	Without Heatsink
PA-0G1-22G-1-H-HS	Power Amplifier, 0.1-22GHz, Gain:35dB,Psat:1W,+24V DC	With Heatsink

Typical Performance Data:

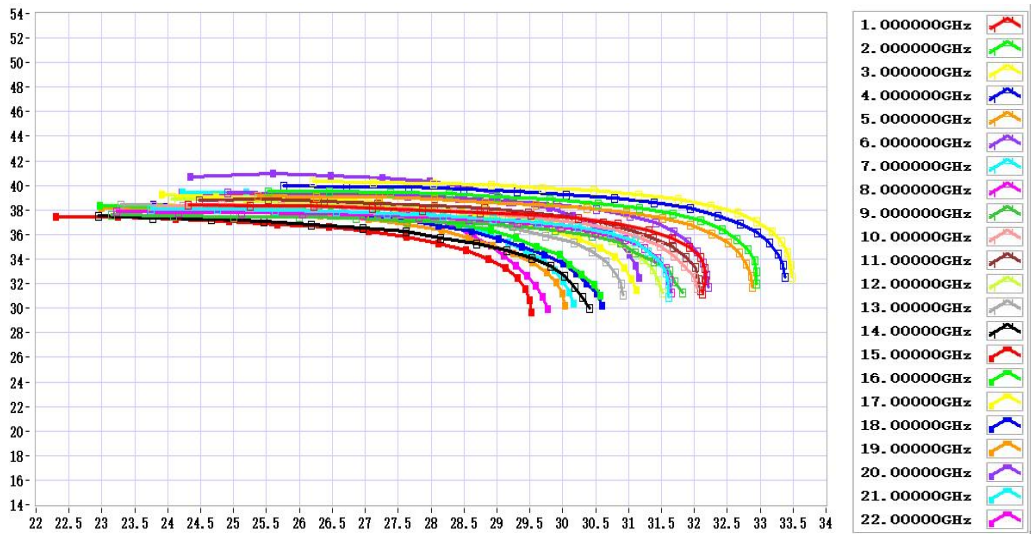
VSWR&Small Signal Gain vs Frequency



VSWR&PSmall Signal Gain

Frequency(GHz)

Gain vs Output Power



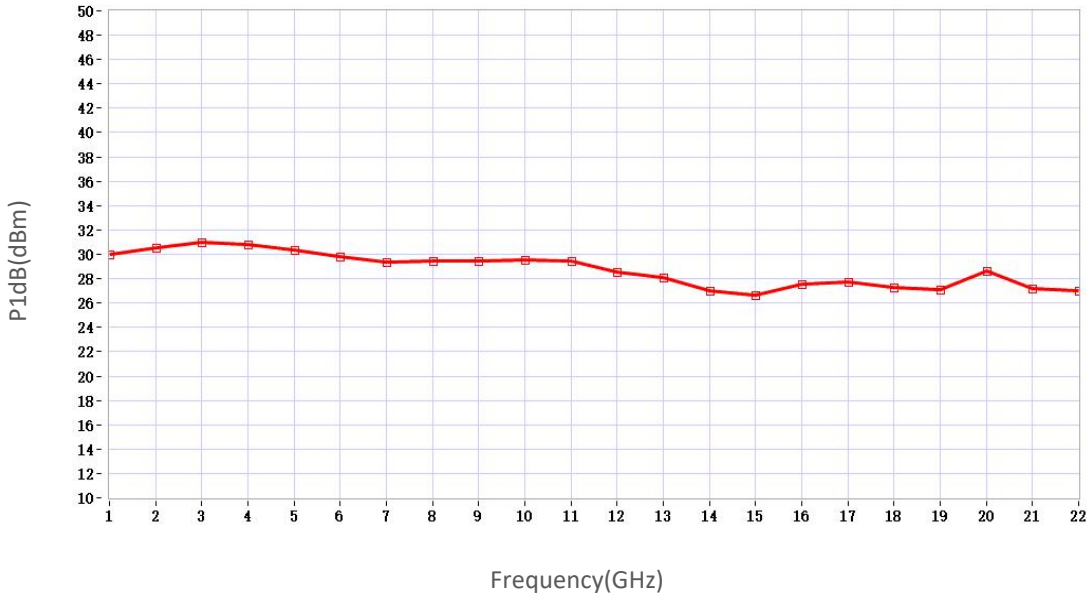
Gain(dB)

Pout (dBm)

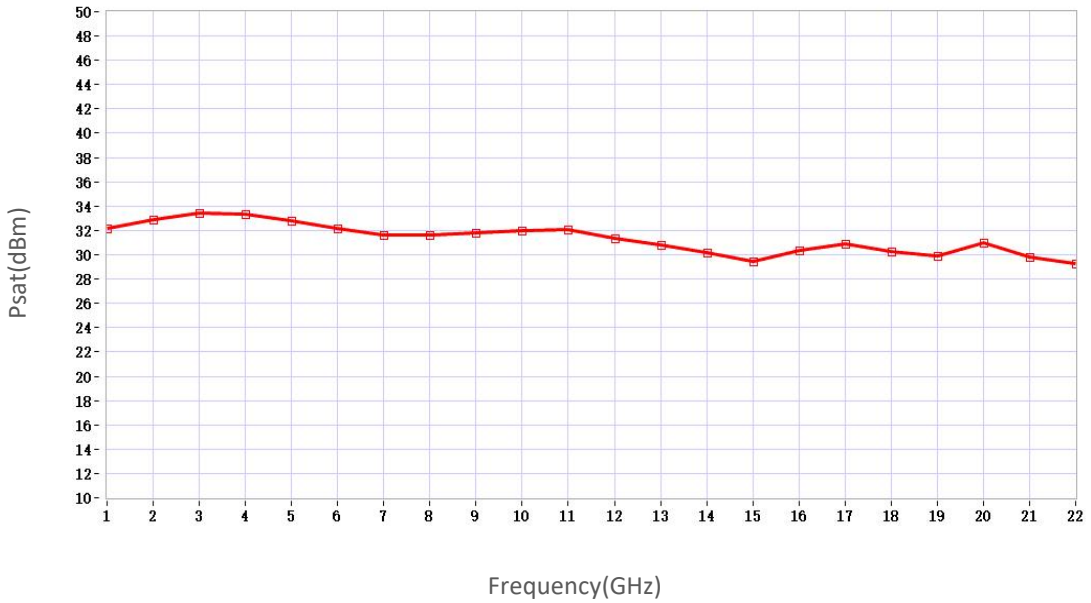
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

P1dB vs Frequency



Psat vs Frequency



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