



Power Amplifier

Model: PA-0G1-22G-1.6

0.1-22GHz 1.6W CW

Ultrabroad frequency range, high performance and exceptional RF characteristics

Features:

- Frequency range: 0.1-22GHz
- High output power at saturation, 1.6W Typ.
- High gain, 35 dB Typ.
- 50 Ohm Matched Input / Output.

Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

Product Overview:

The PA-0G1-22G-1.6 is a power amplifier with a typical small signal gain of 35 dB and a nominal P_{sat} of 1.6W 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°C:

Parameter	Min	Typ	Max	Units
Frequency range	0.1		22	GHz
Small Signal Gain	33	35		dB
Small Signal Gain Flatness		±2.5		dB
Output P1dB		30		dBm
Output Psat		32		dBm
Input VSWR		2		:1
Output VSWR		2		:1
DC Voltage		+24	+25	V DC
DC Supply Current		850		mA
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	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

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

Absolute Maximum Ratings:

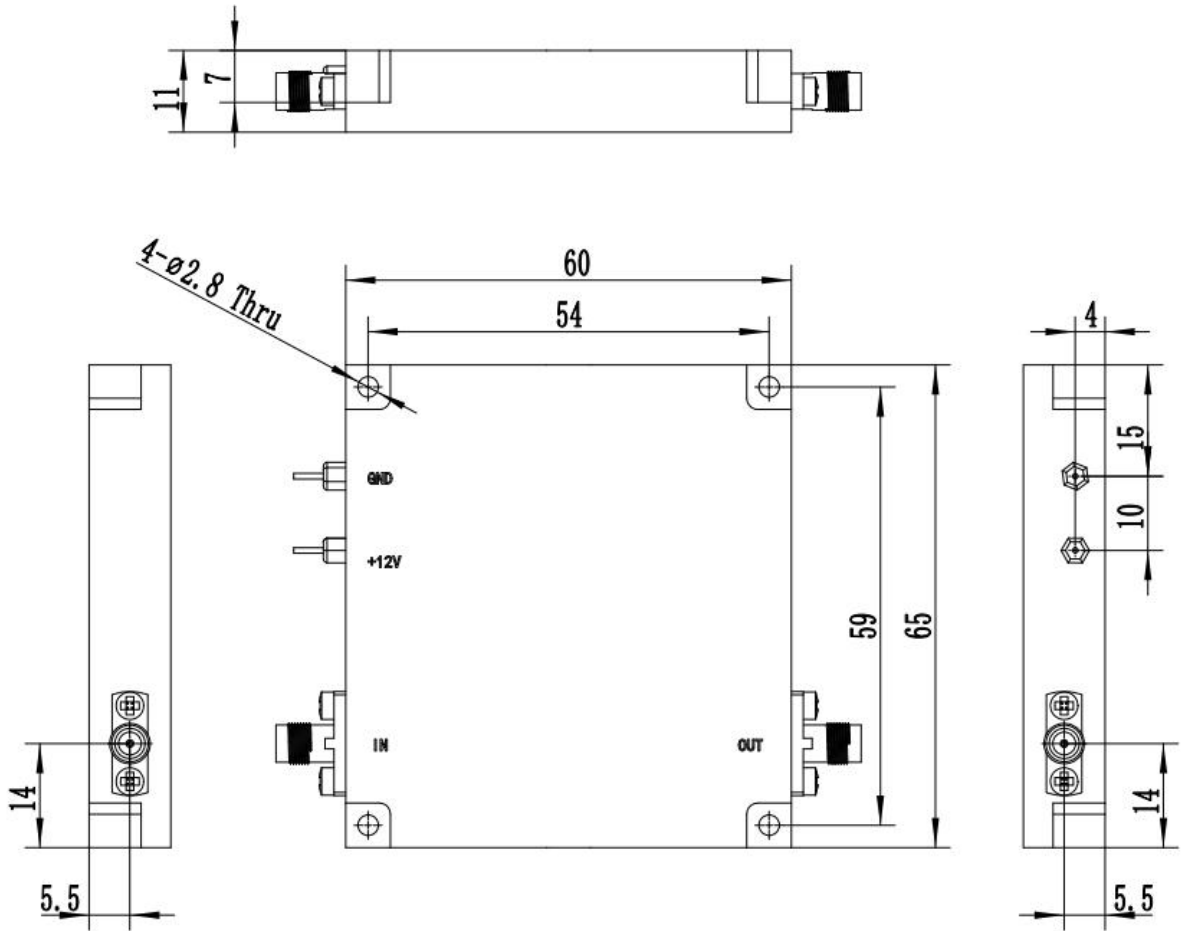
Parameter	Value
Supply Bias Voltage	+25V
RF Input Power	0 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



Outline Drawing:

Unit:mm

PA-0G1-22G-1.6

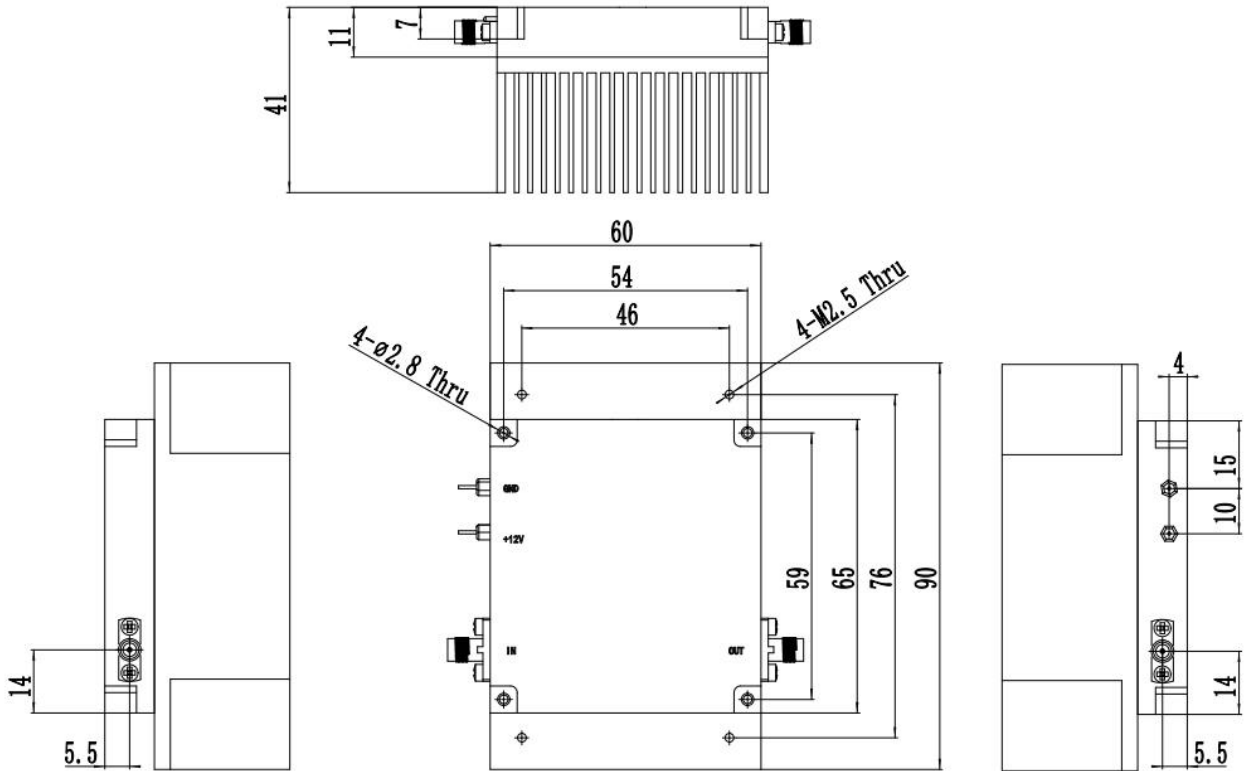




Outline Drawing:

Unit:mm

PA-0G1-22G-1.6-HS



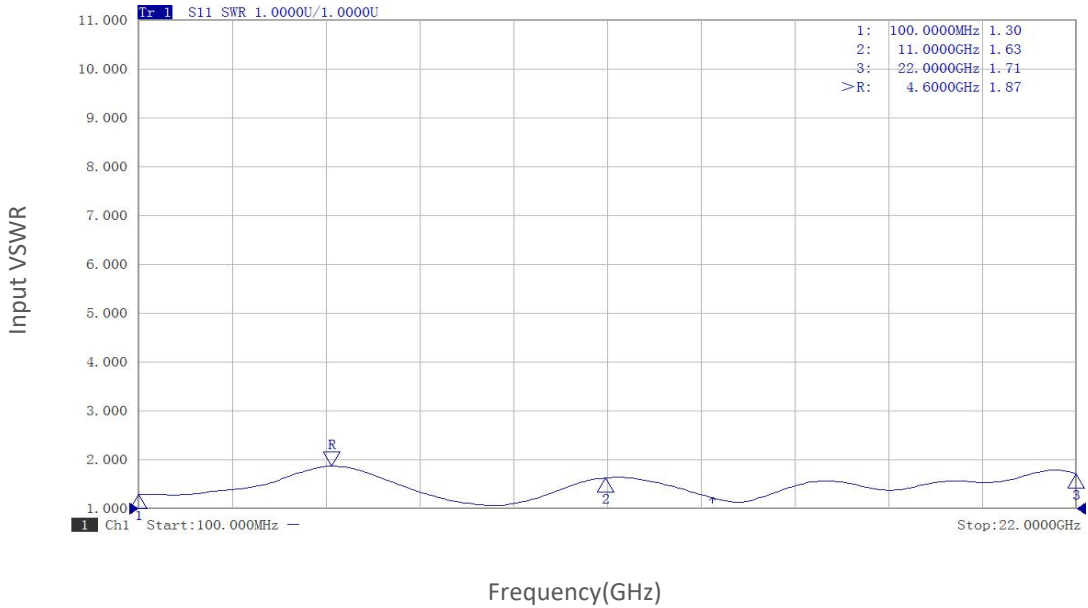
Ordering Information:

Base Number	Description	Optional
PA-0G1-22G-1.6	Power Amplifier, 0.1-22GHz, Gain:35dB,Psat:1.6W,+24V DC	Without Heatsink
PA-0G1-22G-1.6-HS	Power Amplifier, 0.1-22GHz, Gain:35dB,Psat:1.6W,+24V DC	With Heatsink

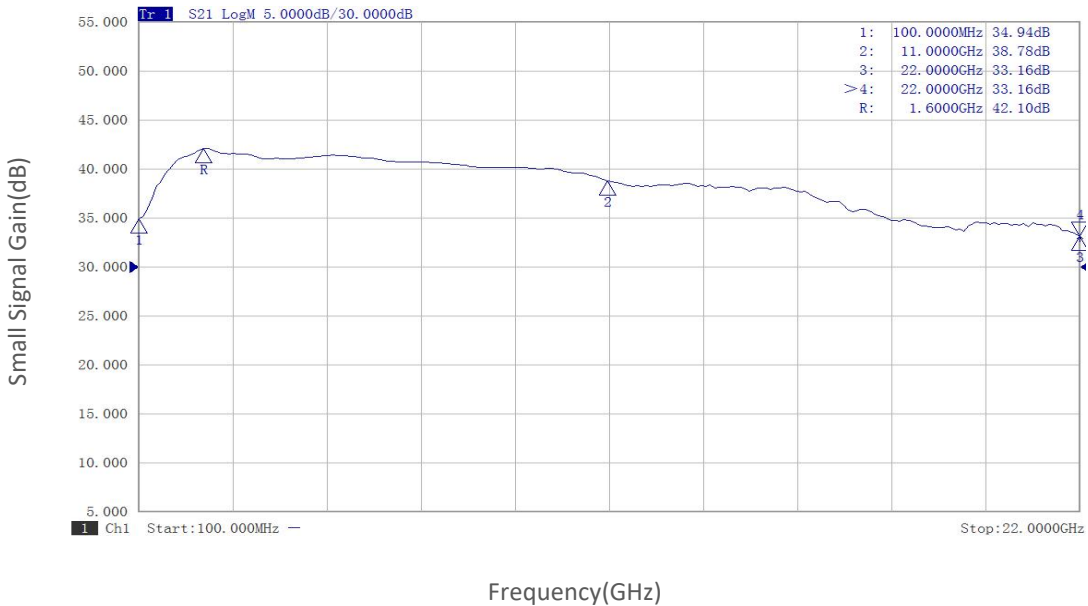


Typical Performance Data:

Input VSWR vs Frequency



Small Signal Gain vs Frequency

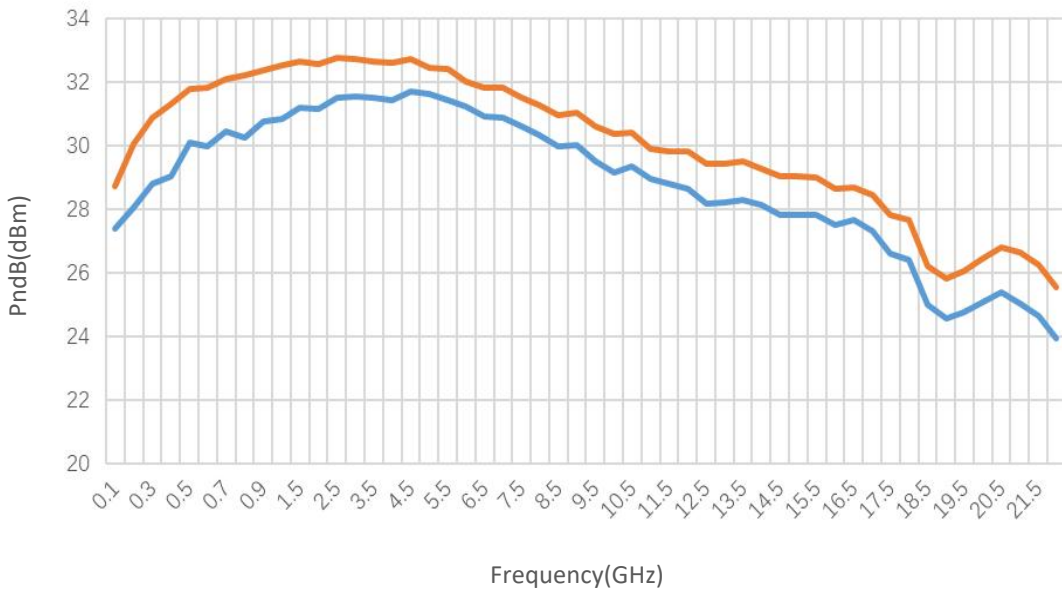


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

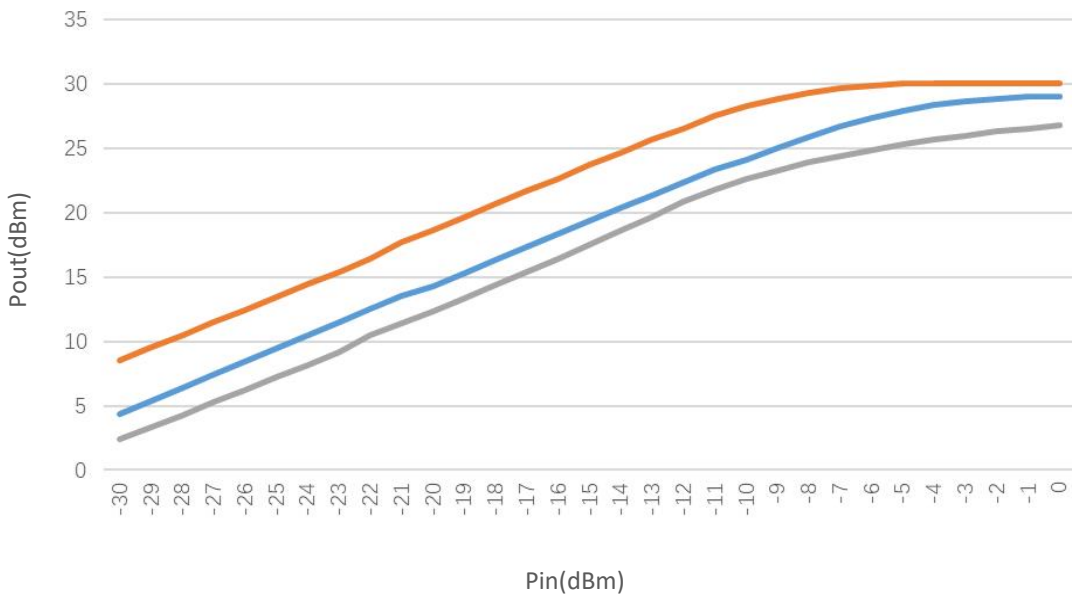


Typical Performance Data:

PndB vs Frequency



Pout@Pin

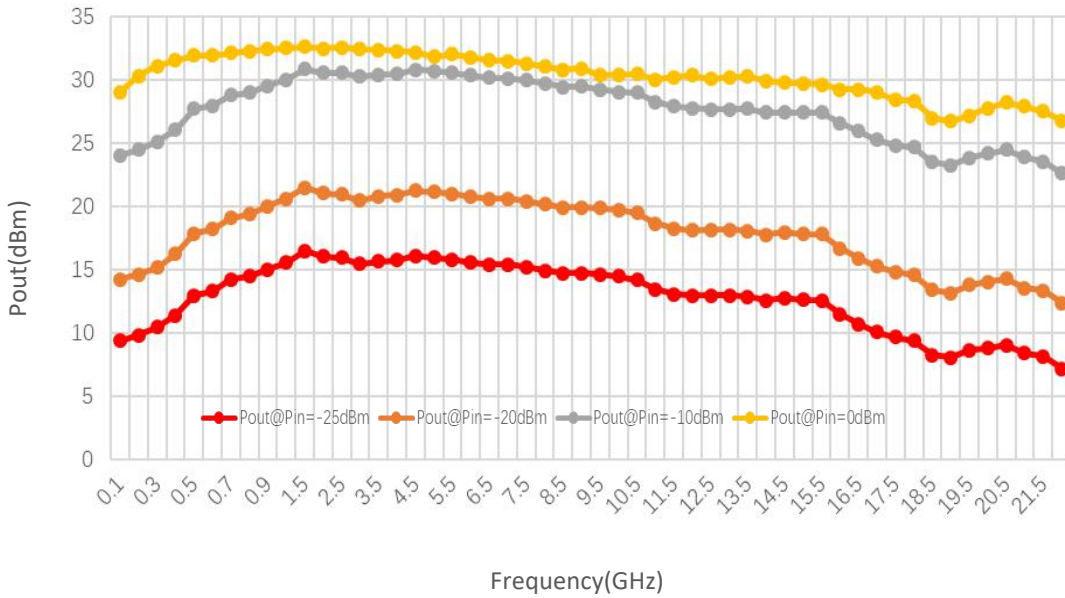


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

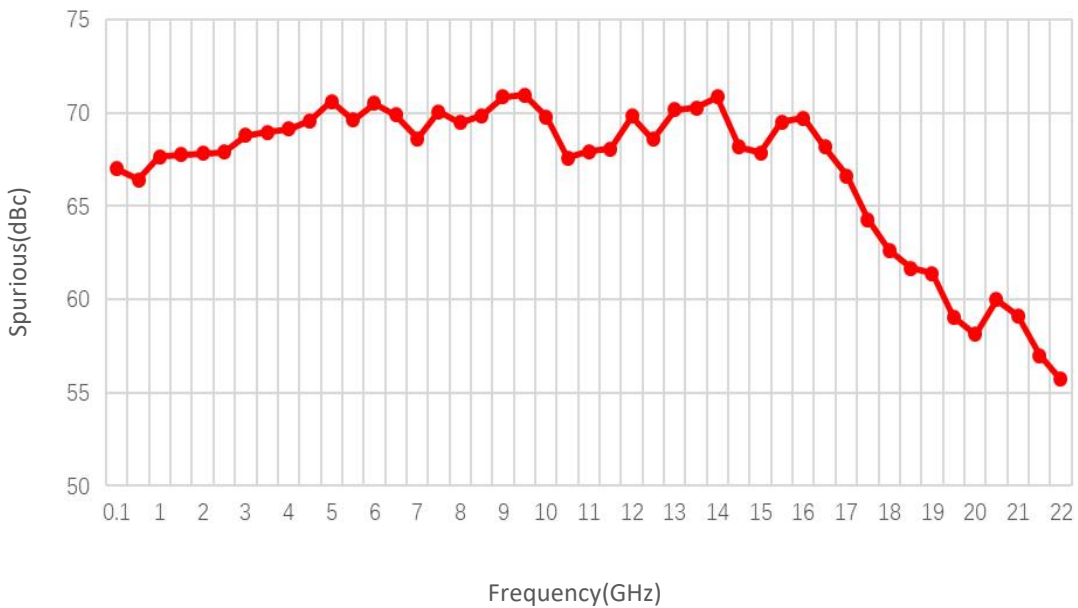


Typical Performance Data:

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.