



Power Amplifier

Model: PA-0G5-6G-10-A

0.5-6GHz 10W CW

Ultrabroad frequency range, high performance and exceptional RF characteristics

Features:

- Frequency range: 0.5-6GHz
- High output power at saturation, 10W Min.
- High gain, 40 dB Min.
- 50 Ohm Matched Input / Output.

Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

Product Overview:

The PA-0G5-6G-10-A is a power amplifier with a minimum small signal gain of 40 dB and a minimum P_{sat} of 10W across the frequency range of 0.5 to 6 GHz. The DC power requirement for the amplifier is +30 VDC/0.5 A. 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	0.5		6	GHz
Small Signal Gain	40	43		dB
Small Signal Gain Flatness		±2.5	±3.5	dB
Output P1dB	37	38		dBm
Output Psat	40			dBm
Supurious		-60		dBc
Harmonic		-15	-11	dBc
Input VSWR		1.5	2.5	:1
DC Voltage		+30		V DC
DC Supply Current		0.5	2	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	SMA Female/SMA 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	125*95*12	mm

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

Absolute Maximum Ratings:

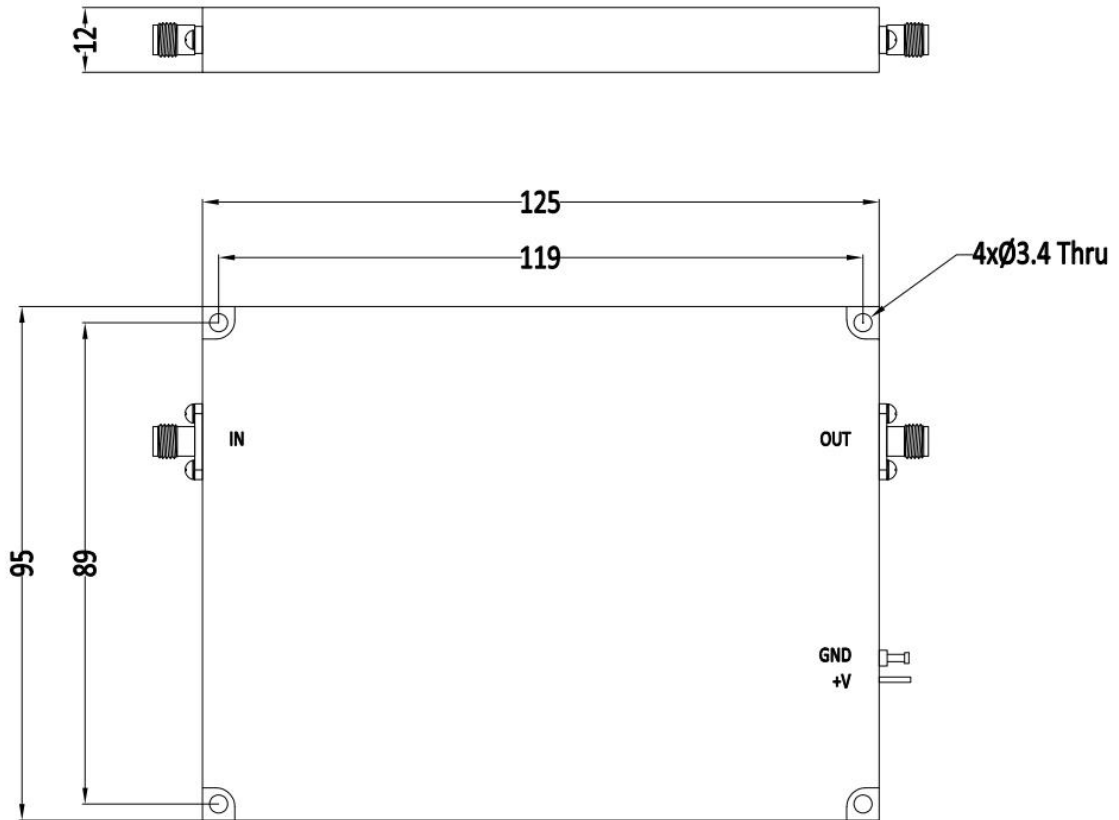
Parameter	Value
Supply Bias Voltage	+32 V
RF Input Power	+8 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



Outline Drawing:

Unit:mm

PA-0G5-6G-10-A



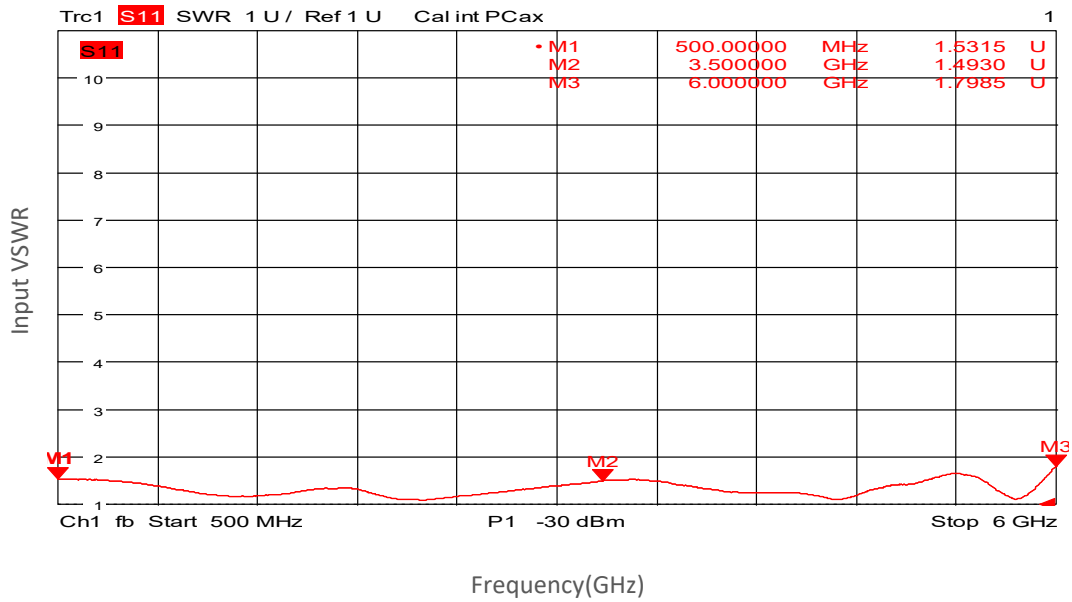
Ordering Information:

Base Number	Description	Optional
PA-0G5-6G-10-A	Power Amplifier, 0.5-6GHz, Gain:40dB,Psat:10W,+30V DC	Without Heatsink
PA-0G5-6G-10-A-HS	Power Amplifier, 0.5-6GHz, Gain:40dB,Psat:10W,+30V DC	With Heatsink

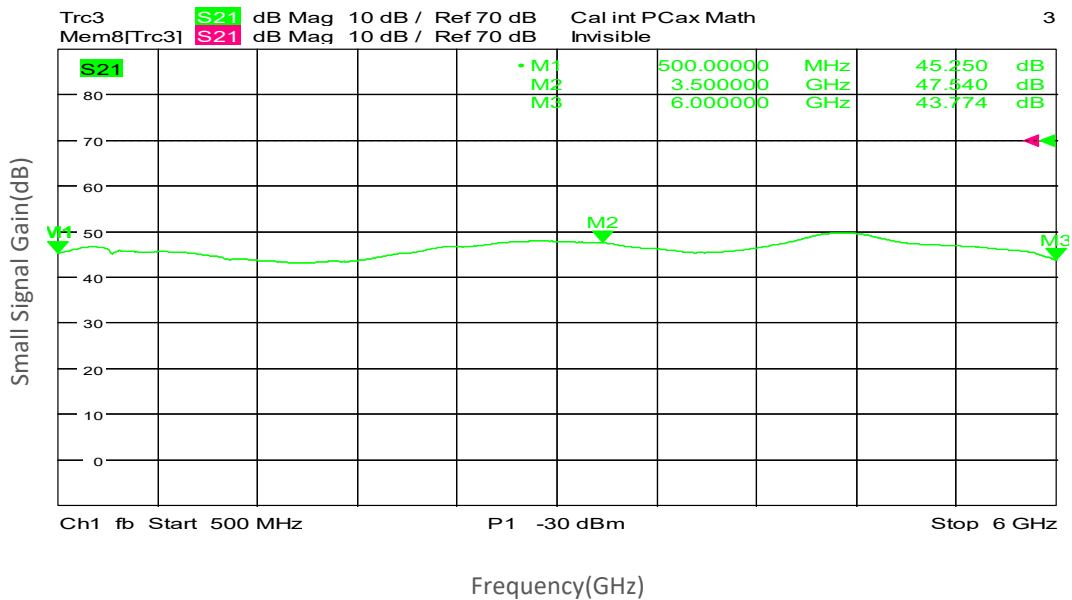


Typical Performance Data:

Input VSWR vs Frequency



Small Signal Gain vs Frequency

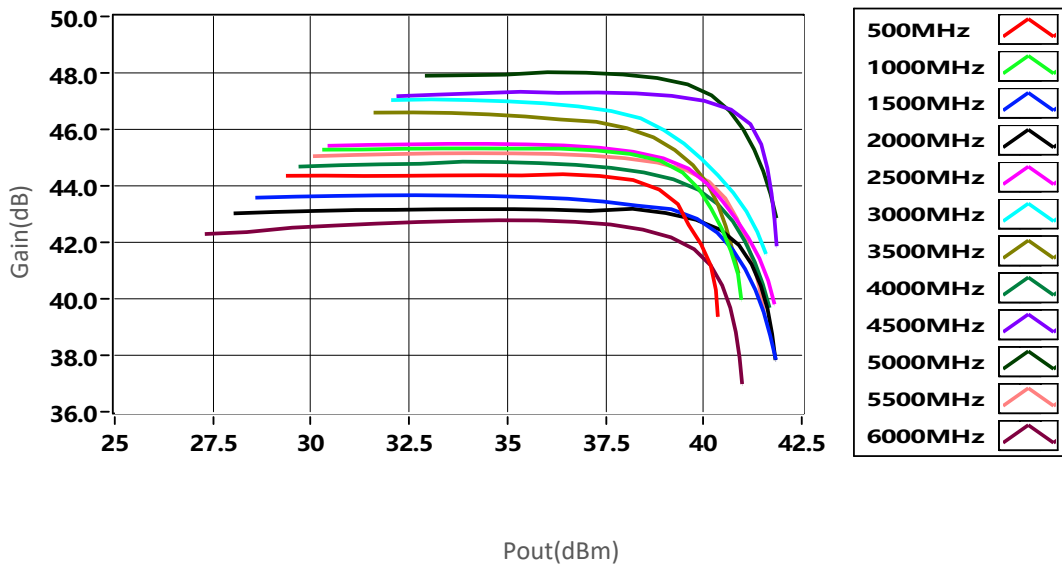


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

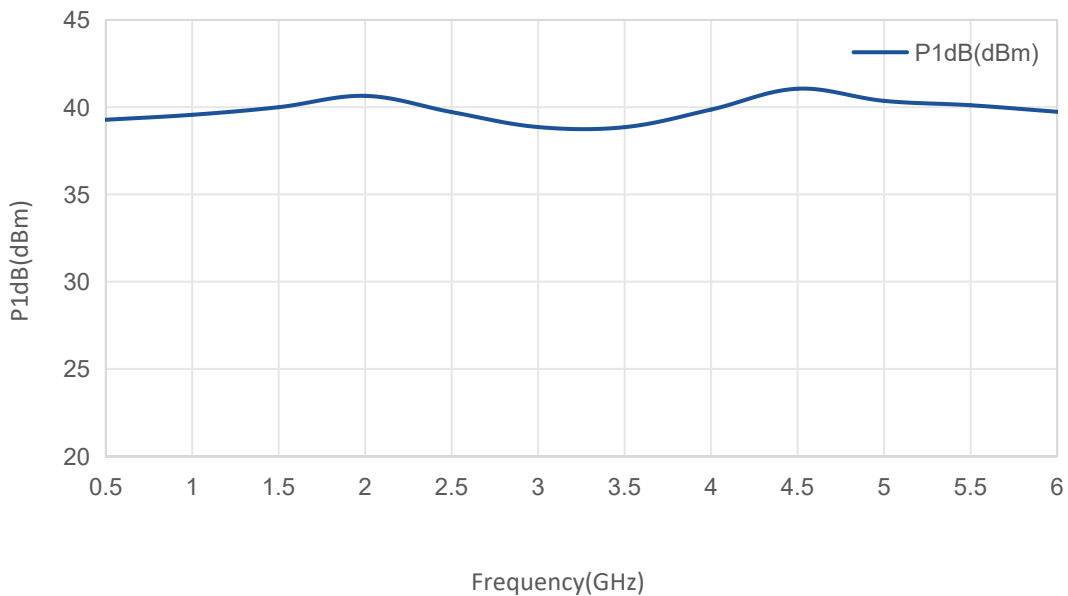


Typical Performance Data:

Gain vs Output Power



P1dB vs Frequency

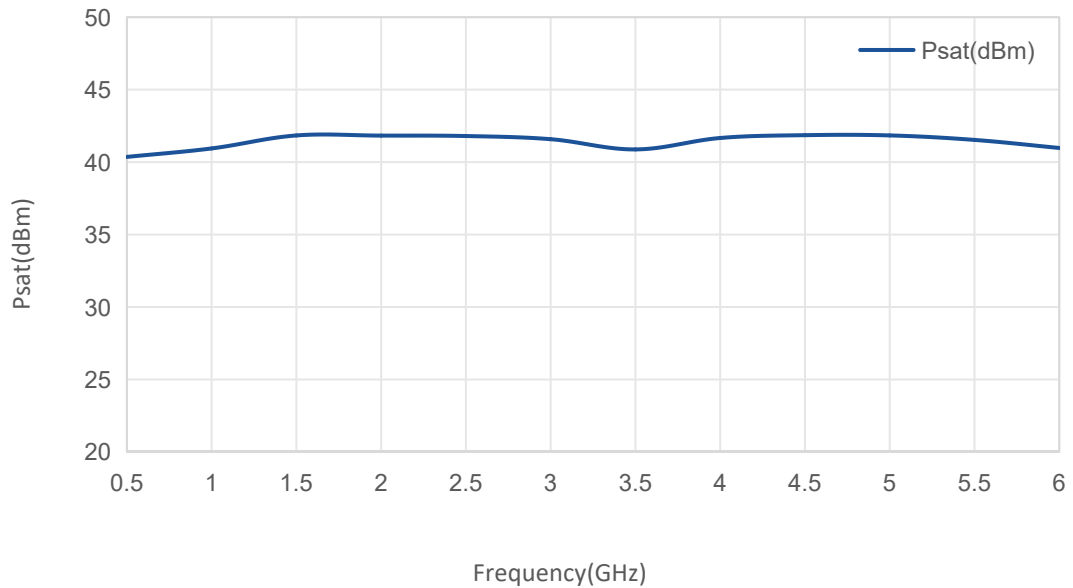


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

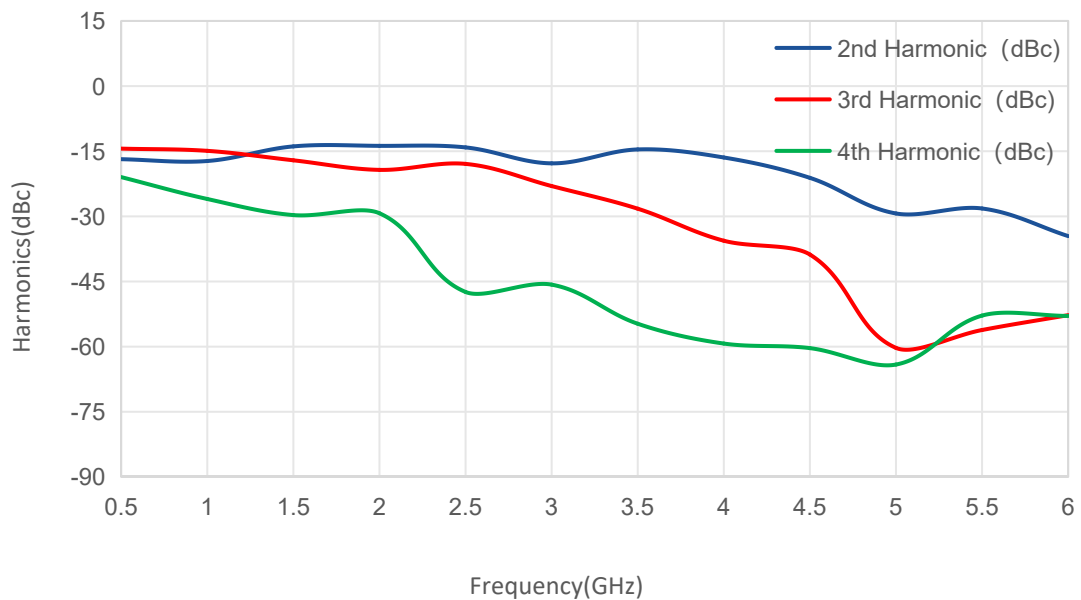


Typical Performance Data:

Psat vs Frequency



Harmonics 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.