



Power Amplifier

Model: PA-10M-10G-1.2

0.01-10GHz 1.2W CW

Ultrabroad frequency range, high performance and exceptional RF characteristics

Features:

- Frequency range: 0.01-10GHz
- High output power at saturation, 1.2W Typ.
- High gain, 32 dB Typ.
- 50 Ohm Matched Input / Output.

Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

Product Overview:

The PA-10M-10G-1.2 is a power amplifier with a typical small signal gain of 32 dB and a nominal P_{sat} of 1.2W across the frequency range of 0.01 to 10GHz. The DC power requirement for the amplifier is +15 VDC/0.8 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	0.01		10	GHz
Small Signal Gain	30	32		dB
Small Signal Gain Flatness @1.1-10GHz*		±1	±2	dB
Output Psat	30	31		dBc
Harmonic		-15		dBc
Input VSWR		1.5	2.0	:1
DC Voltage		+15	+16	V DC
DC Supply Current		0.8		A
Impedance		50		Ohms

*Note: The gain flatness becomes worse at frequencies below 1.1GHz.

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	120*70*15	mm
Weight	150	g

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

Absolute Maximum Ratings:

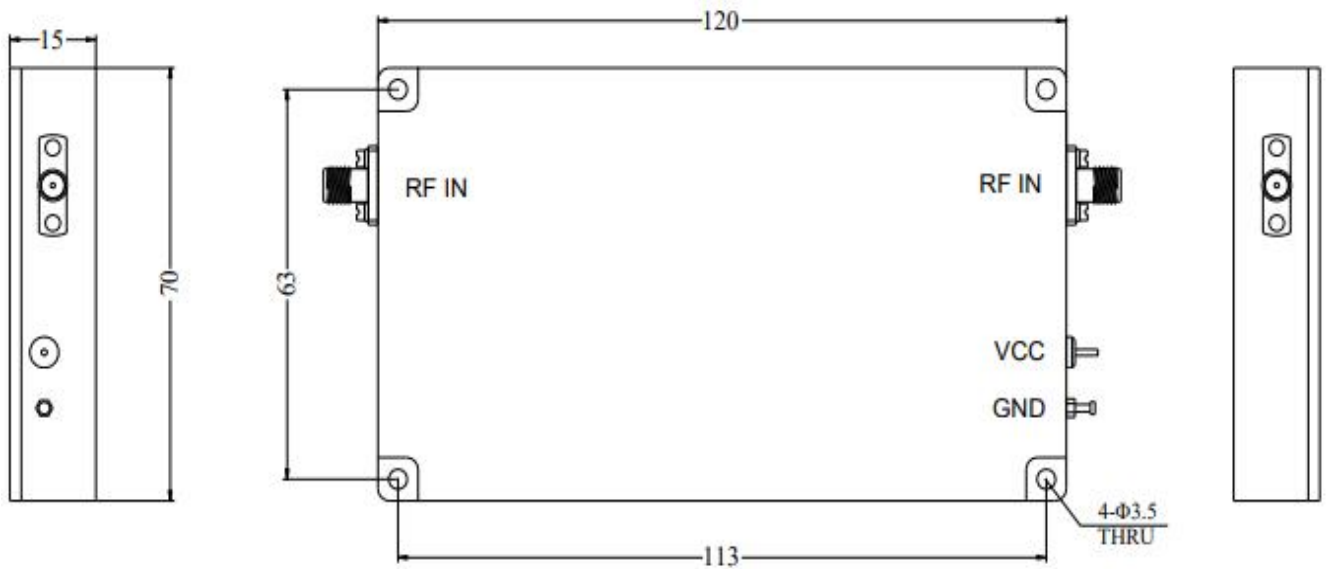
Parameter	Value
Supply Bias Voltage	+16 V
RF Input Power	+5 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



Outline Drawing:

Unit:mm

PA-10M-10G-1.2



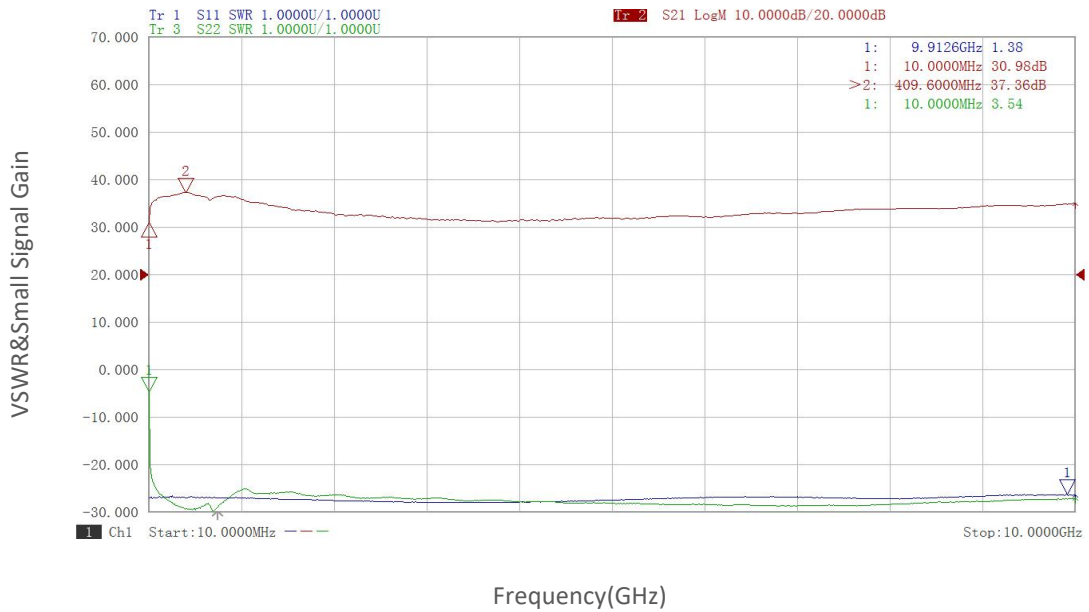
Ordering Information:

Base Number	Description	Optional
PA-10M-10G-1.2	Power Amplifier, 0.01-10GHz, Gain:32dB,Psat:1.2W,+15V DC	Without Heatsink
PA-10M-10G-1.2-HS	Power Amplifier, 0.01-10GHz, Gain:32dB,Psat:1.2W,+15V DC	With Heatsink

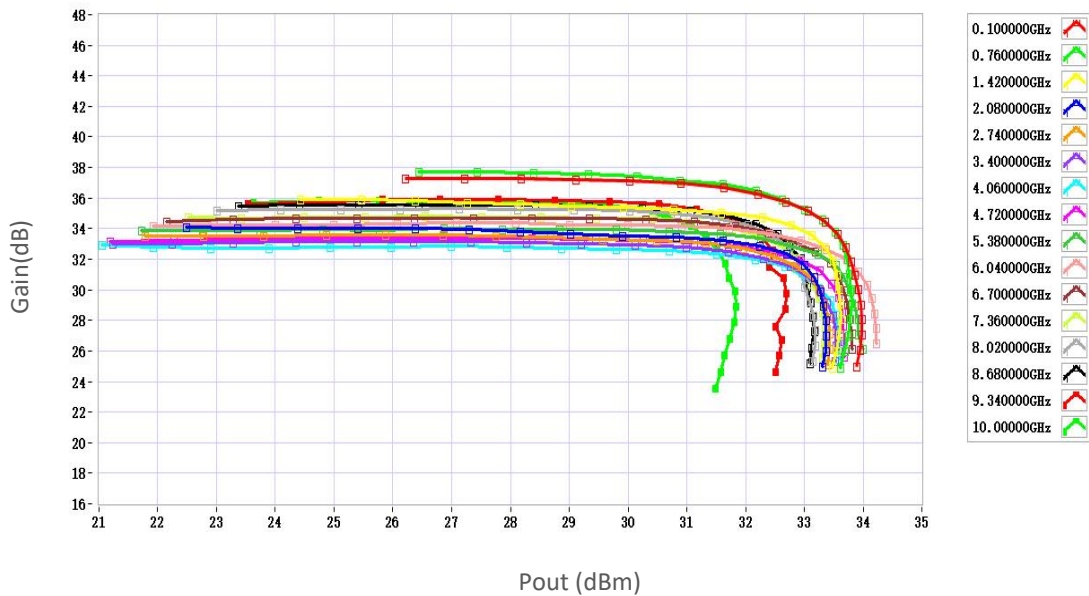


Typical Performance Data:

VSWR&Small Signal Gain vs Frequency



Gain vs Output Power

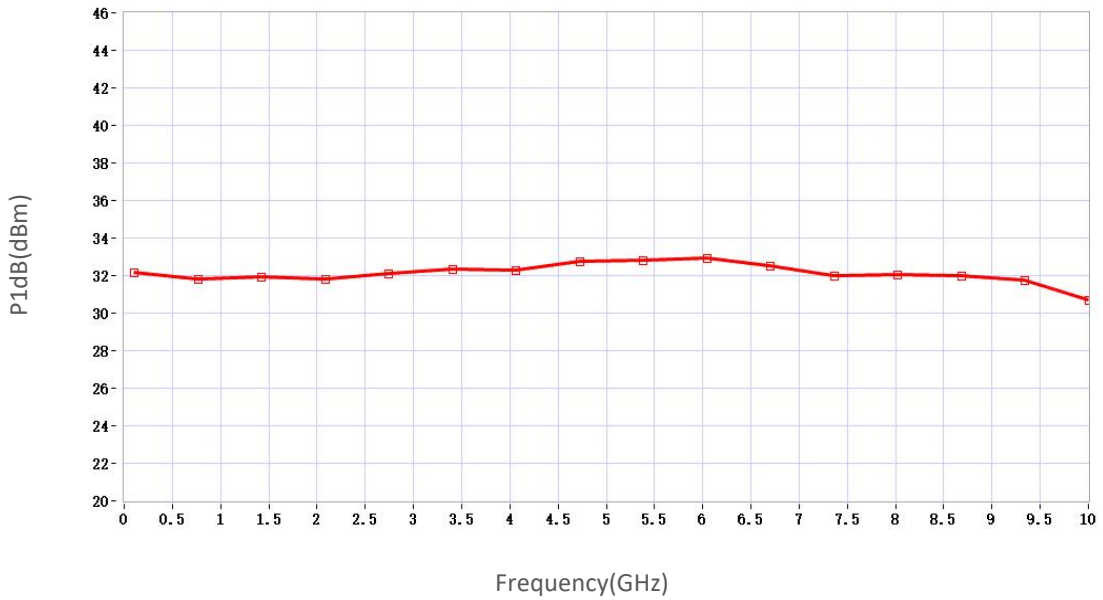


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

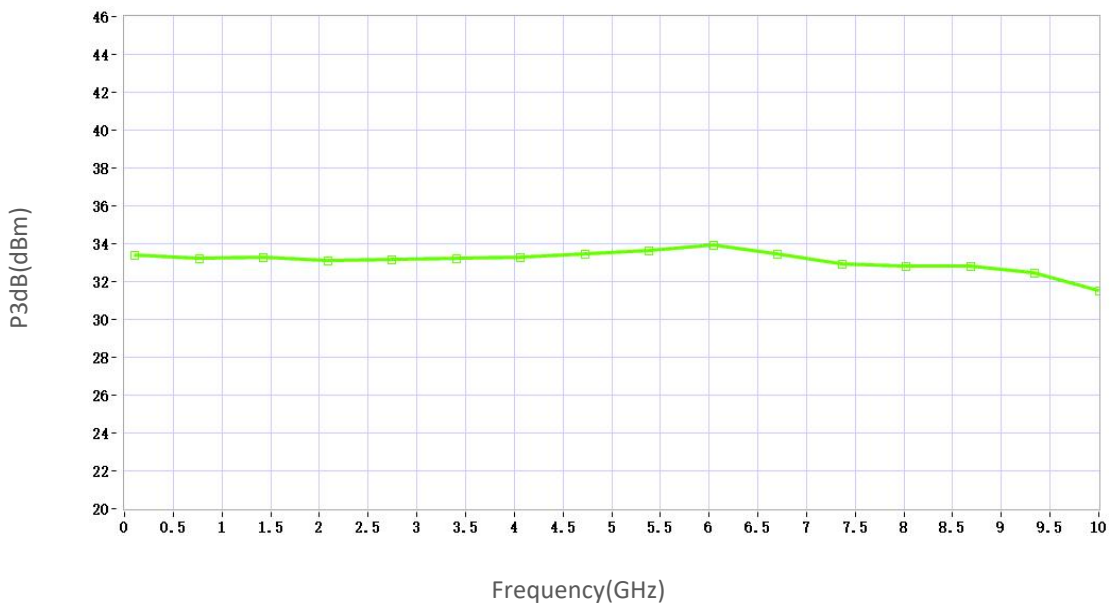


Typical Performance Data:

P1dB vs Frequency



P3dB vs Frequency

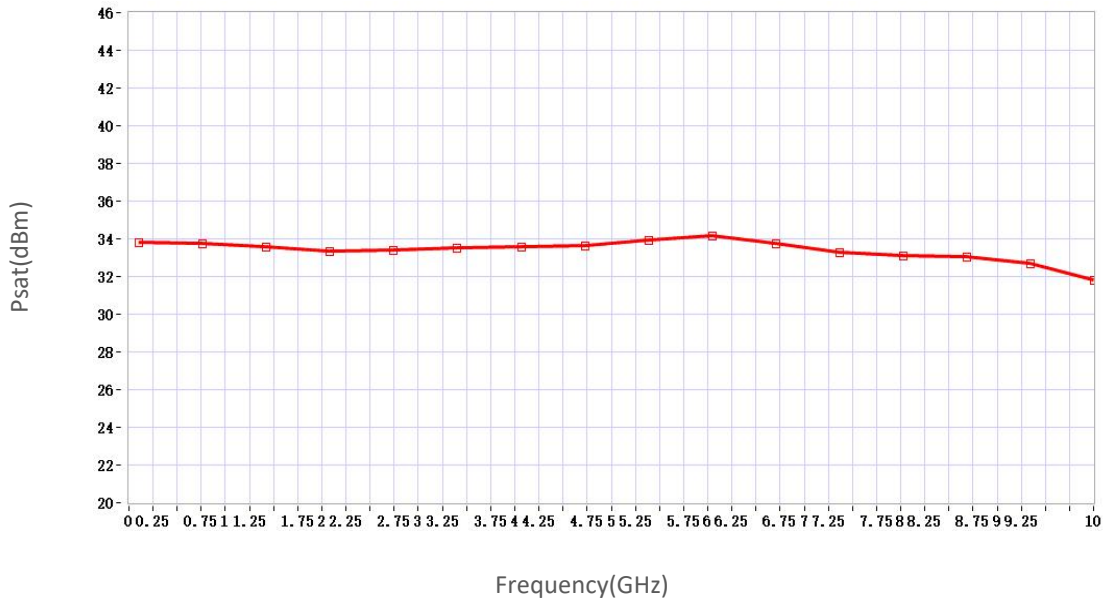


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Typical Performance Data:

Psat vs Frequency



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