



# Power Amplifier

## Model: PA-10M-1000M-4

10-1000MHz 4W CW

Ultrabroad frequency range, high performance and exceptional RF characteristics

### Features:

- Frequency range: 10-1000MHz
- High output power at saturation, 4W Min.
- High gain, 38 dB Typ.
- 50 Ohm Matched Input / Output.

### Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

### Product Overview:

The PA-10M-1000M-4 is a power amplifier with a typical small signal gain of 38 dB and a minimum Psat of 4W across the frequency range of 10 to 1000 MHz. The DC power requirement for the amplifier is +28 VDC/1.5 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	10		1000	MHz
Small Signal Gain	36	38	39	dB
Small Signal Gain Flatness		±1	±1.5	dB
Output P1dB	35	36		dBm
Output Psat	36	37		dBm
Input VSWR		1.5	2.0	:1
DC Voltage		+28		V DC
DC Supply Current		1.5		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	30,000	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	90*48*15	mm
Weight	150	g

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

## Absolute Maximum Ratings:

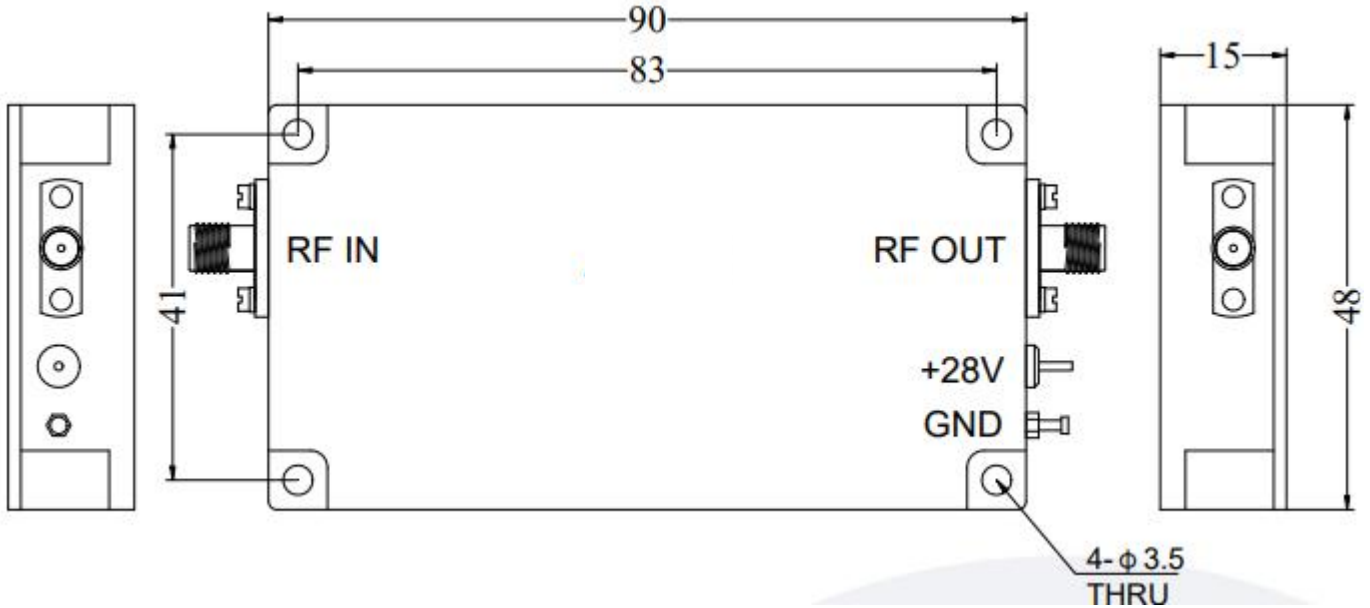
Parameter	Value
Supply Bias Voltage	+30 V
RF Input Power	+3 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



## Outline Drawing:

Unit:mm

PA-10M-1000M-4



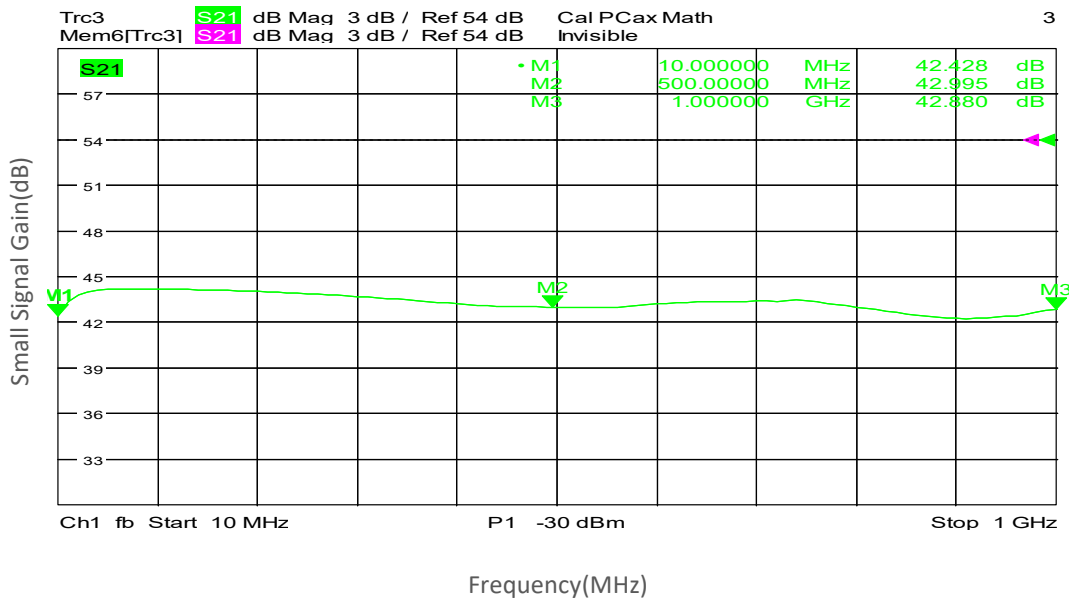
## Ordering Information:

Base Number	Description	Optional
PA-10M-1000M-4	Power Amplifier, 10-1000MHz, Gain:38dB,Psat:4W,+28V DC	Without Heatsink
PA-10M-1000M-4-HS	Power Amplifier, 10-1000MHz, Gain:38dB,Psat:4W,+28V DC	With Heatsink

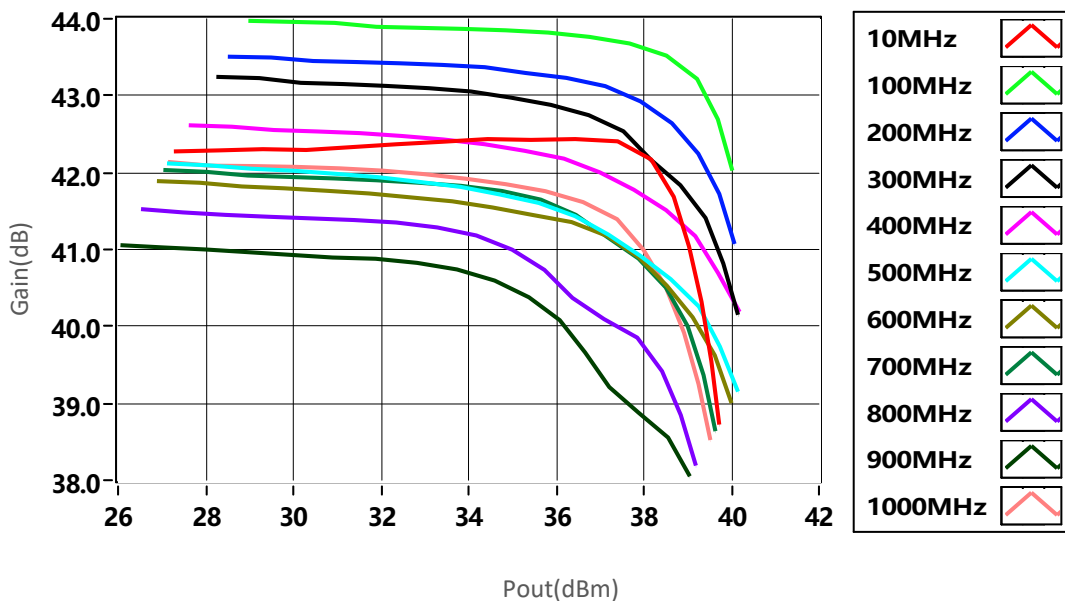


## Typical Performance Data:

### Small Signal Gain vs Frequency



### Gain vs Output Power

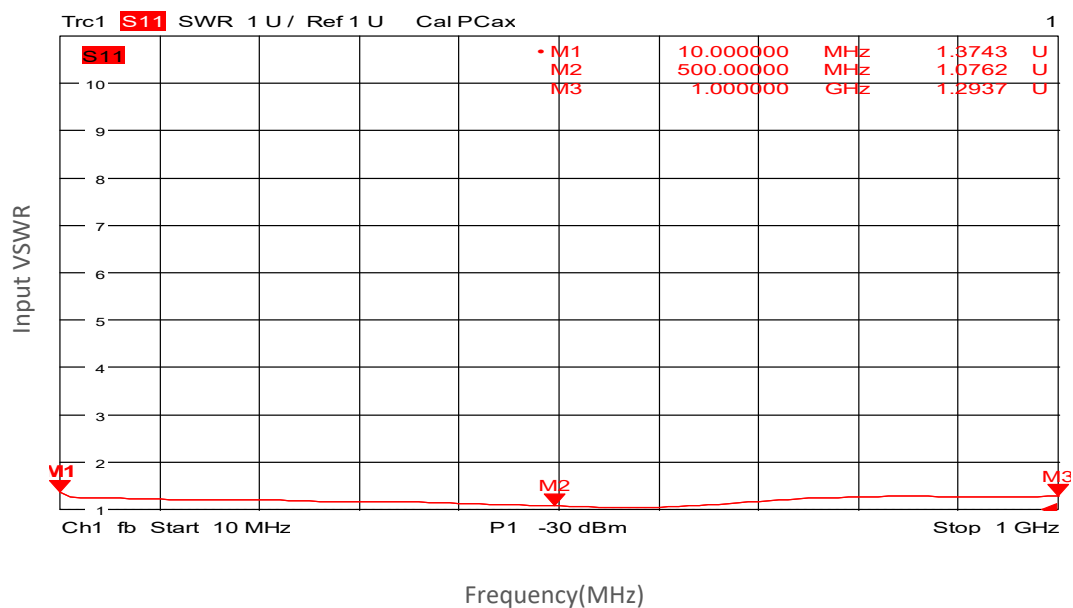


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

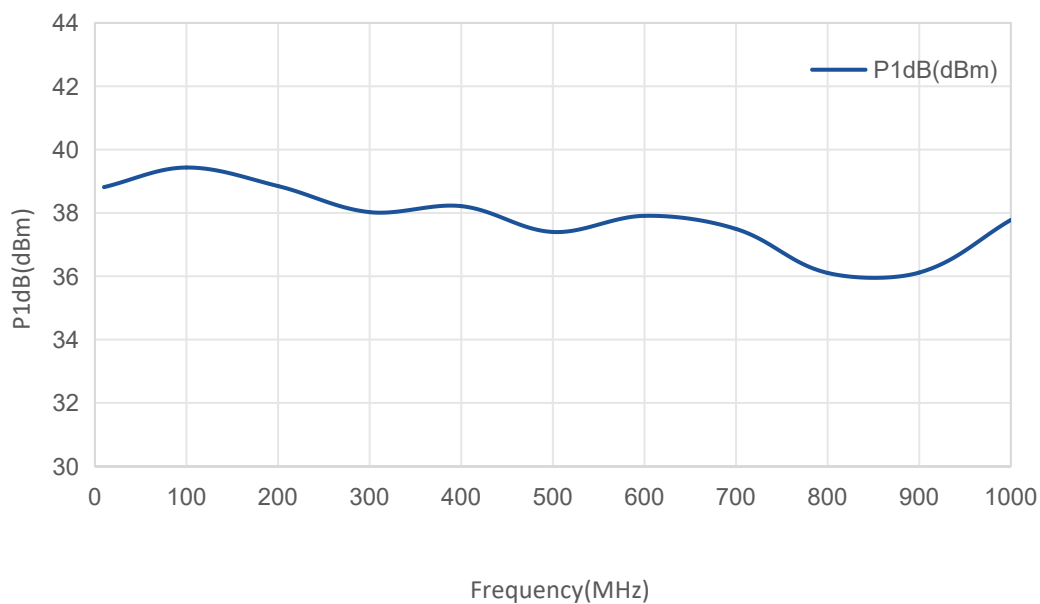


## Typical Performance Data:

### Input VSWR vs Frequency



### P1dB vs Frequency

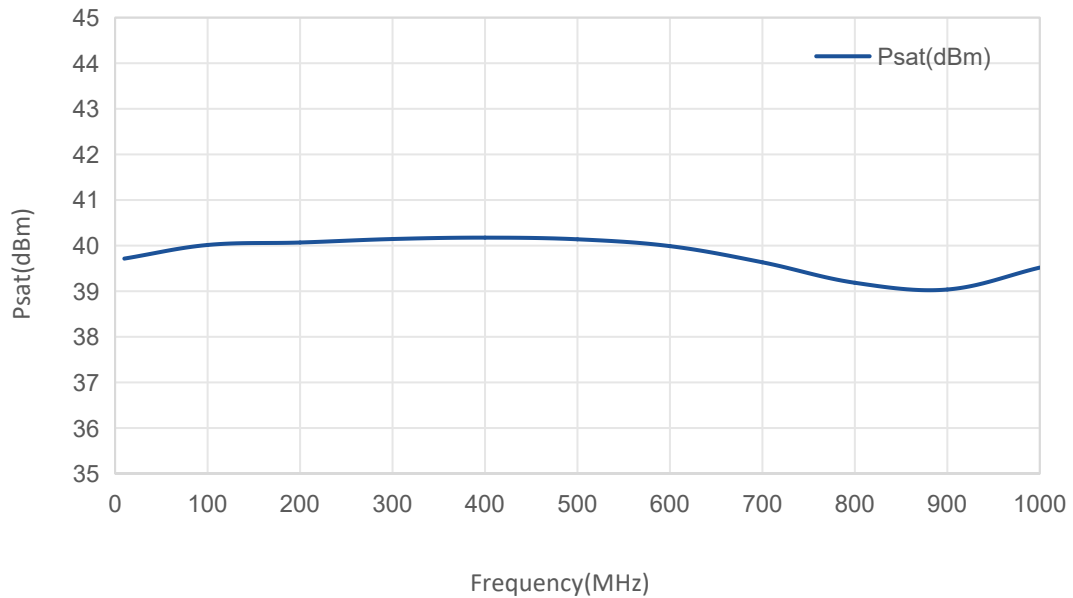


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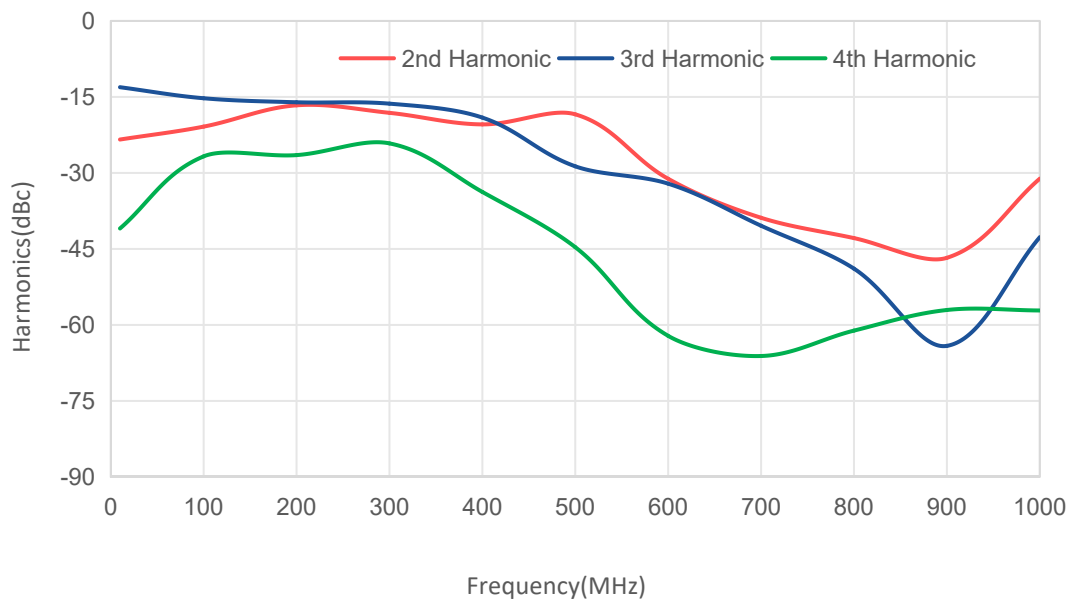


## Typical Performance Data:

### 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.