



Power Amplifier

Model: PA-0M4-150M-1-HS

0.4-150MHz 1W CW

Ultrabroad frequency range, high performance and exceptional RF characteristics

Features:

- Frequency range: 0.4-150MHz
- Input 1 dB Gain Compression Point, 1W Min.
- High gain, 30 dB Typ.
- 50 Ohm Matched Input / Output.

Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

Product Overview:

The PA-0M4-150M-1-HS is a power amplifier with a typical small signal gain of 30 dB and a minimum P1dB of 1W across the frequency range of 0.4 to 150MHz. The DC power requirement for the amplifier is +24 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	0.4		150	MHz
Small Signal Gain	27	30		dB
Small Signal Gain Flatness		±0.5	±1	dB
Output P1dB	30	31		dBm
Output IP3		38		dBm
Input VSWR			2	:1
Output VSWR			2	:1
DC Voltage		+24	+28	V DC
DC Supply Current		0.5	0.6	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)	20g,11ms,saw-tooth	
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions	
Dimensions W x H x D	76*64*40	mm
Weight	200	g

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

Absolute Maximum Ratings:

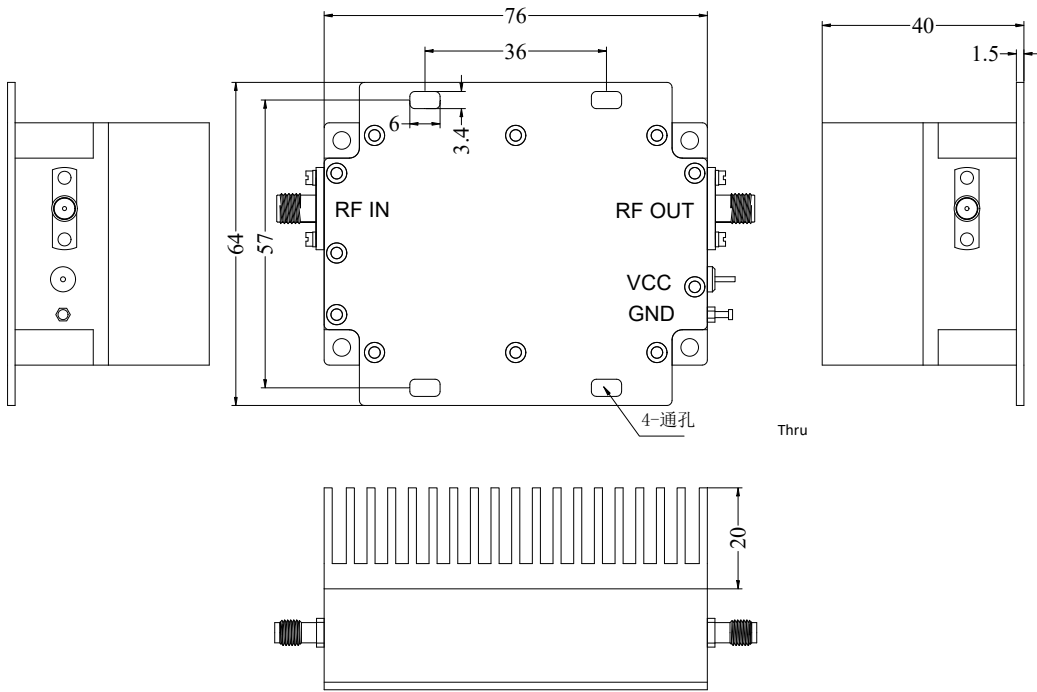
Parameter	Value
Supply Bias Voltage	+28 V
RF Input Power	+10 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



Outline Drawing:

Unit:mm

PA-0M4-150M-1-HS



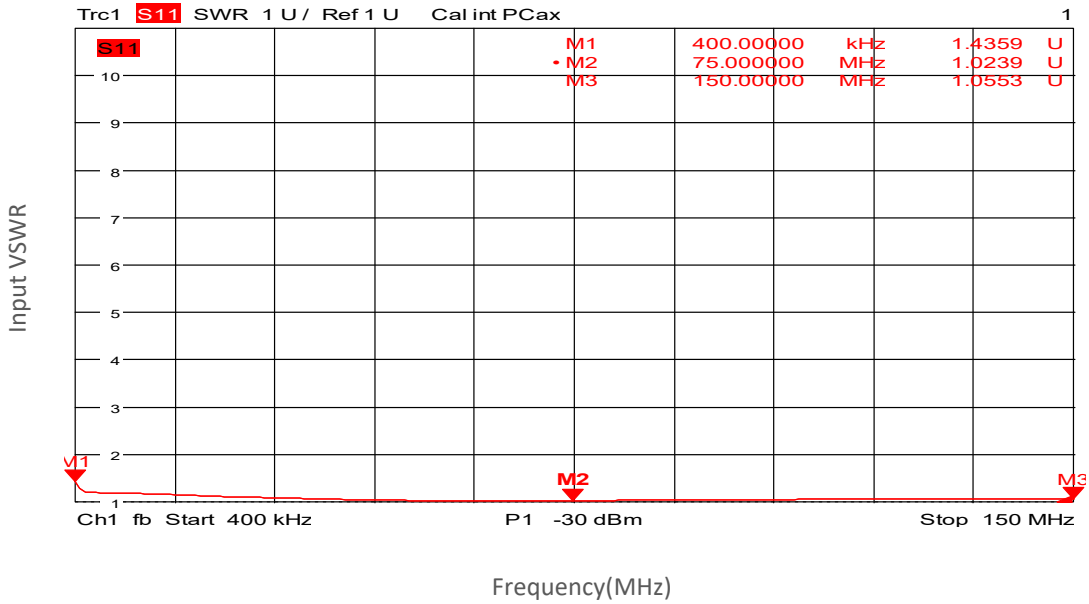
Ordering Information:

Base Number	Description	Optional
PA-0M4-150M-1-HS	Power Amplifier, 0.4-150MHz, Gain:30dB,P1dB:1W,+24V DC	With Heatsink

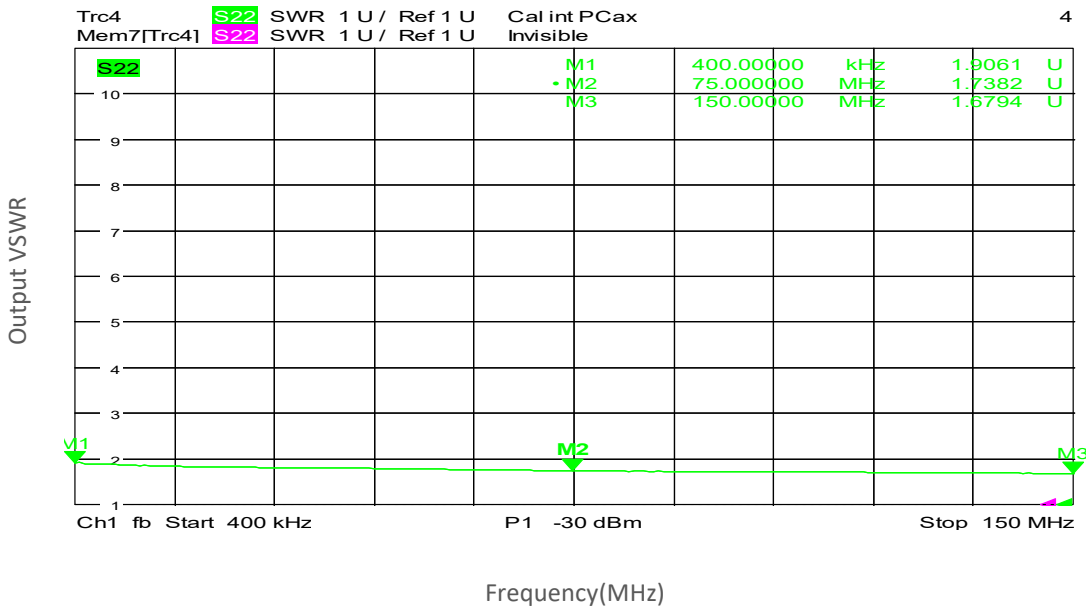


Typical Performance Data:

Input VSWR vs Frequency



Output VSWR vs Frequency

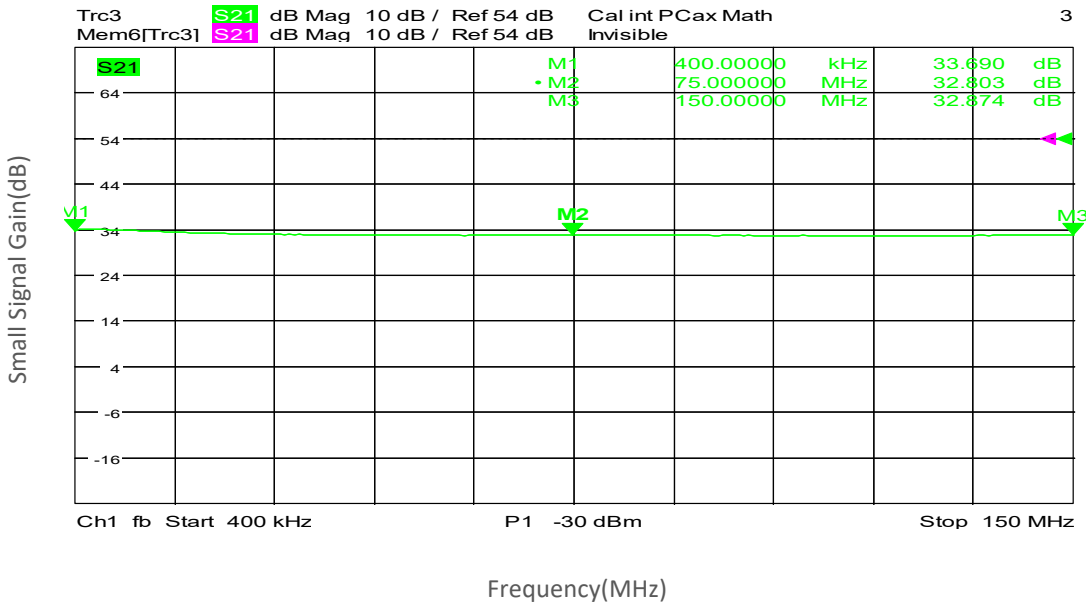


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

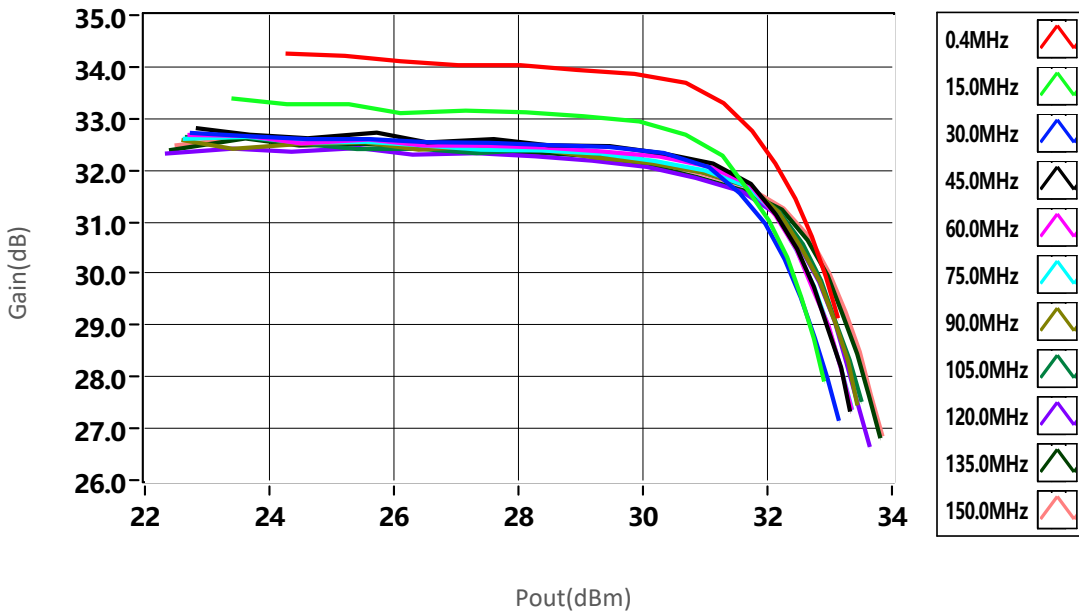


Typical Performance Data:

Small Signal Gain vs Frequency



Gain vs Output Power

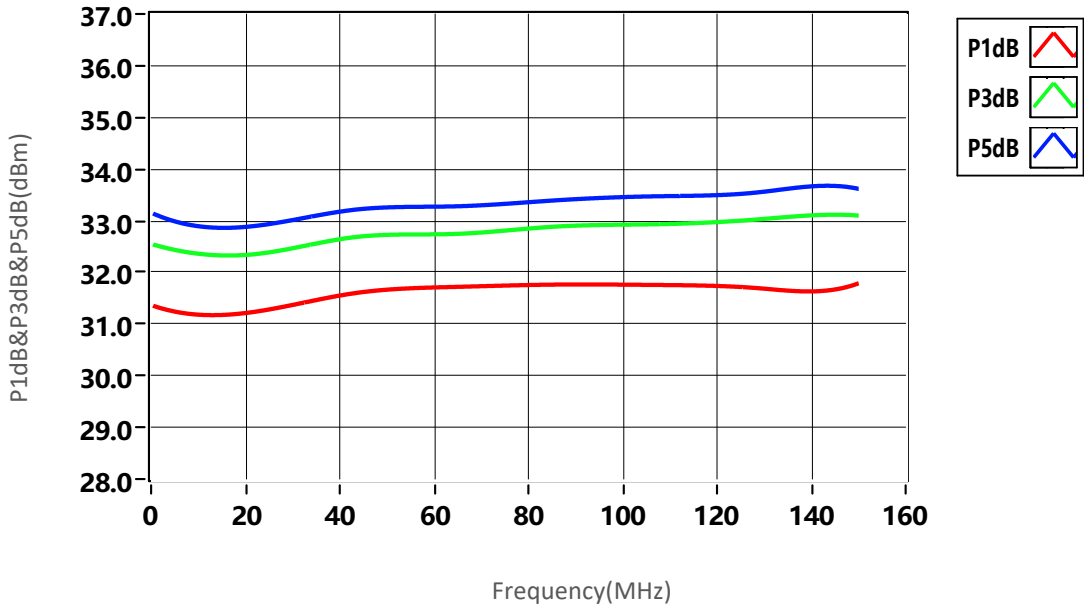


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

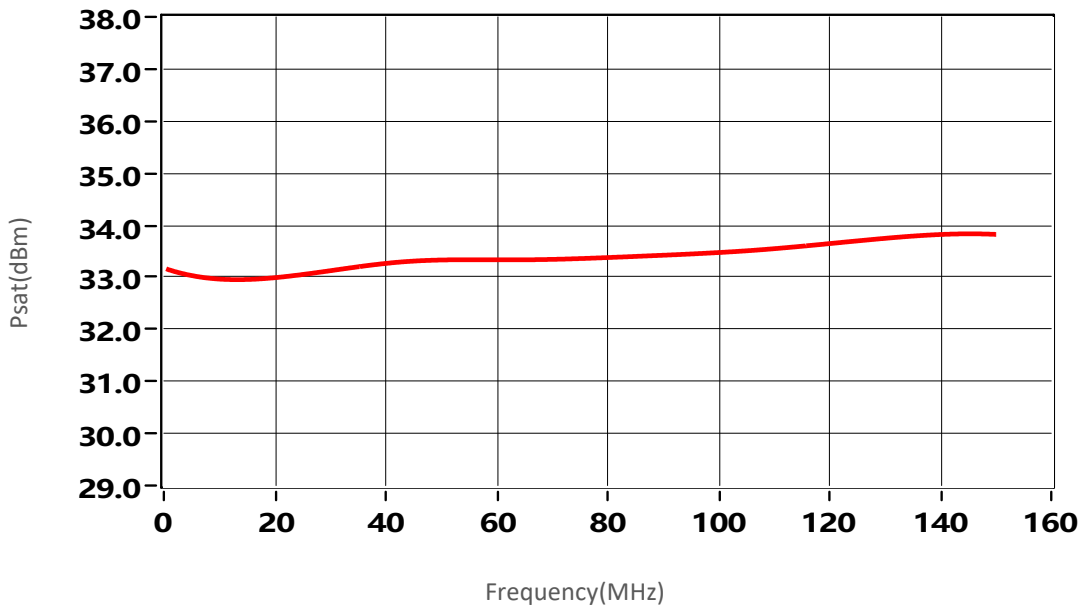


Typical Performance Data:

P1dB&P3dB&P5dB vs Frequency



Psat vs Frequency

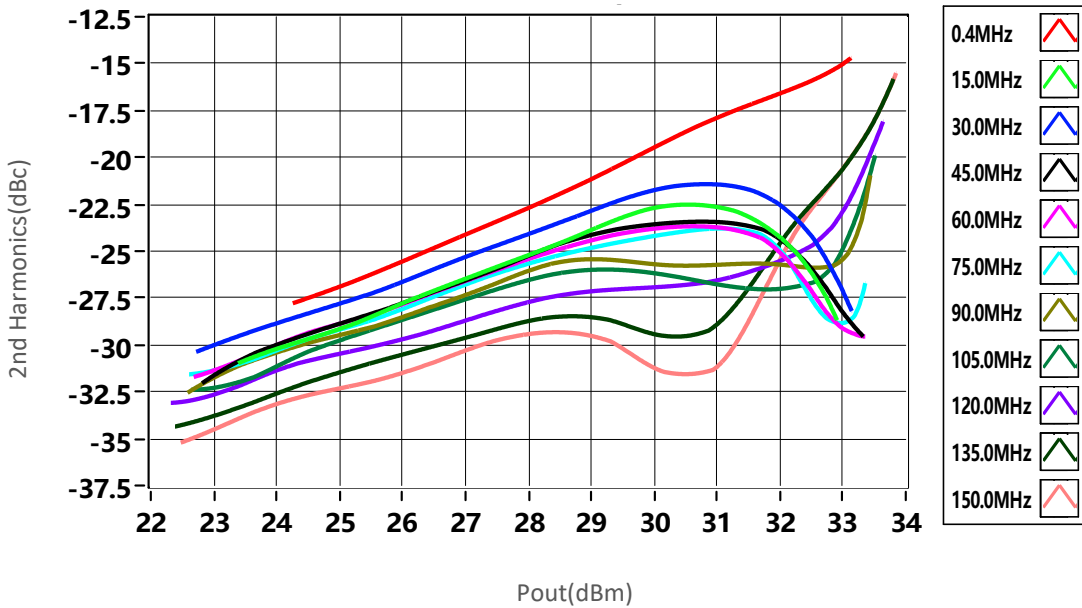


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

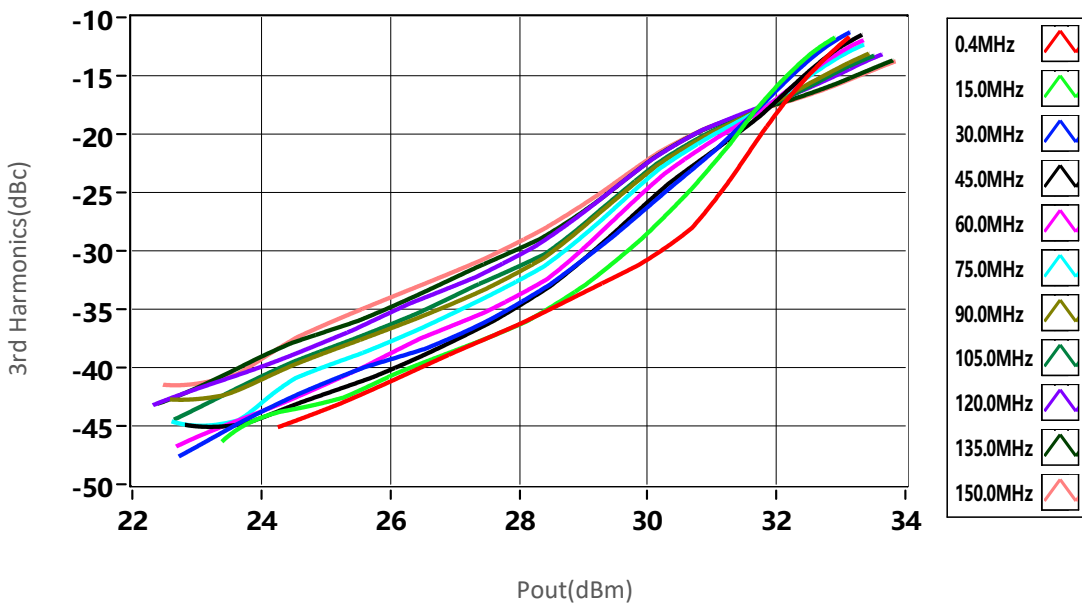


Typical Performance Data:

2nd Harmonics vs Output Power



3rd Harmonics vs Output Power

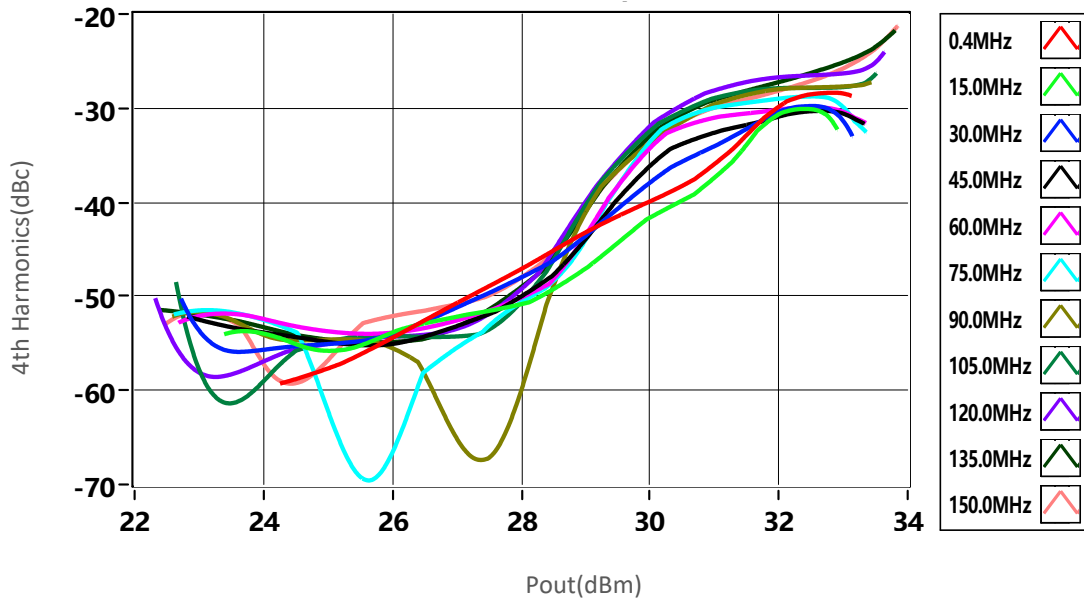


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.



Typical Performance Data:

4th Harmonics 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.