Power Amplifier

Model: PA-300M-6G-1.6

0.3-6GHz 1.6W CW

Ultrabroad frequency range, high performanceand exceptional RF characteristics

Features:

- Frequency range: 0.3-6GHz
- High output power at saturation, 1.6W Typ.
- High gain, 42 dB Typ.
- 50 Ohm Matched Input / Output.

Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

Product Overview：

The PA-300M-6G-1.6 is a power amplifier with a typical small signal gain of 42 dB and a nominal Psat of 1.6W across the frequency range of 0.3 to 6GHz. The DC power requirement for the amplifier is +12 VDC/700 mA. The input and output port configuration offers coax adapter structure with SMA female.

Electrical Specifications at 25℃:

Parameter	Min	Typ	Max	Units
Frequency range	0.3		6	GHz
Small Signal Gain	40	42		dB
Small Signal Gain Flatness		±0.5	±1	dB
Output P1dB	30	31		dBm
Output Psat		32		dBm
Harmonics@Pout=30dBm		-15		dBc
Input VSWR		1.8		:1
DC Voltage		+12	+15	V DC
DC Supply Current		700	1000	mA
Impedance		50		Ohms

Mechanical Specifications:

Parameter	Value	Notes
Operating Temerature*	-40℃ to +60℃	
Non-operating Temperature*	-50℃ to +70℃	
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	100*50*15	mm
Weight	140	g

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

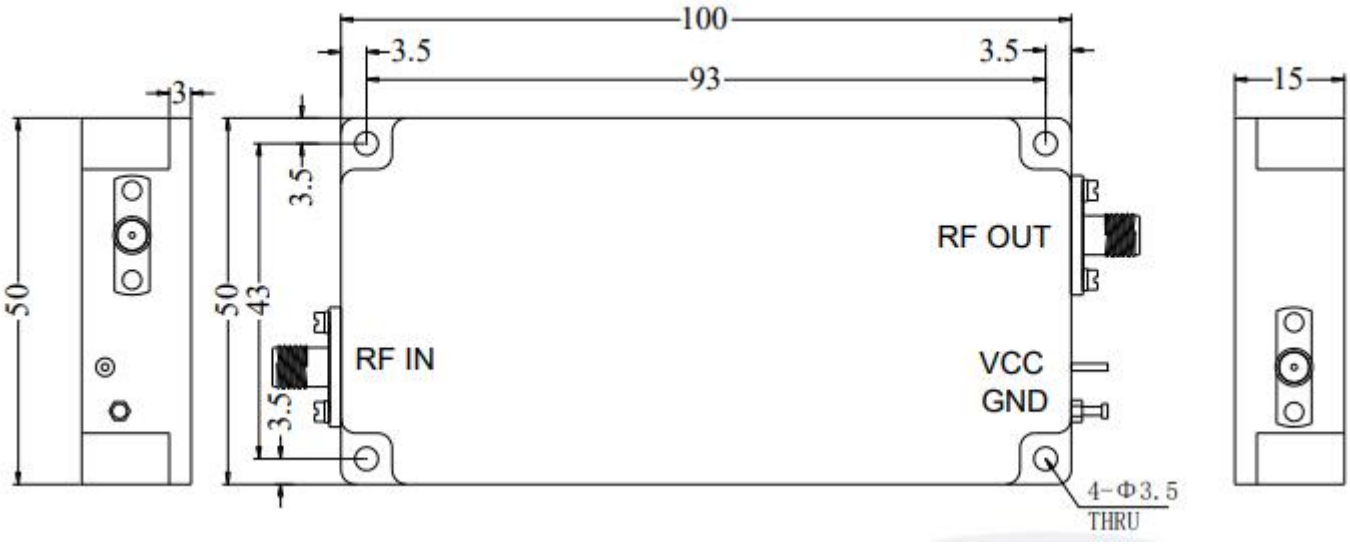
Absolute Maximum Ratings:

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

Outline Drawing:

Unit:mm

PA-300M-6G-1.6

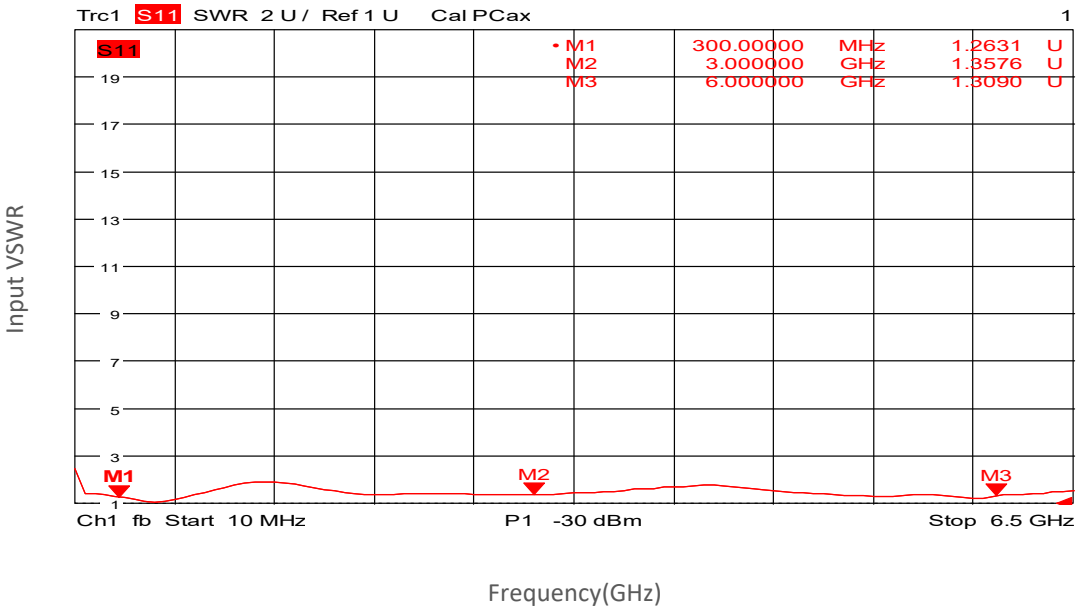


Ordering Information:

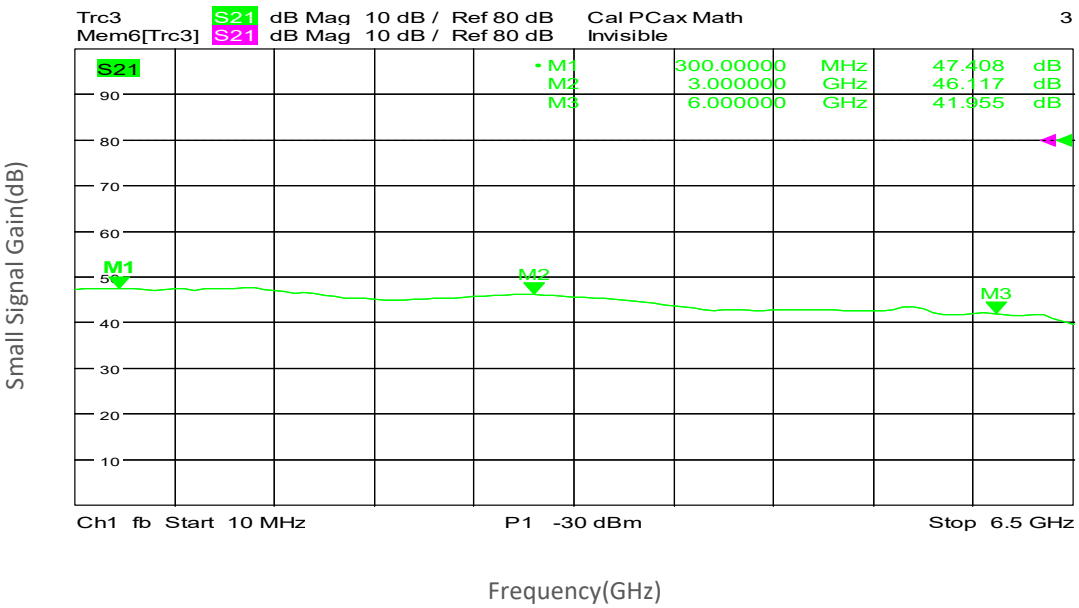
Base Number	Description	Optional
PA-300M-6G-1.6	Power Amplifier, 0.3-6GHz, Gain:42dB,Psat:1.6W,+12V DC	Without Heatsink
PA-300M-6G-1.6-HS	Power Amplifier, 0.3-6GHz, Gain:42dB,Psat:1.6W,+12V DC	With Heatsink

Typical Performance Data:

Input VSWR vs Frequency

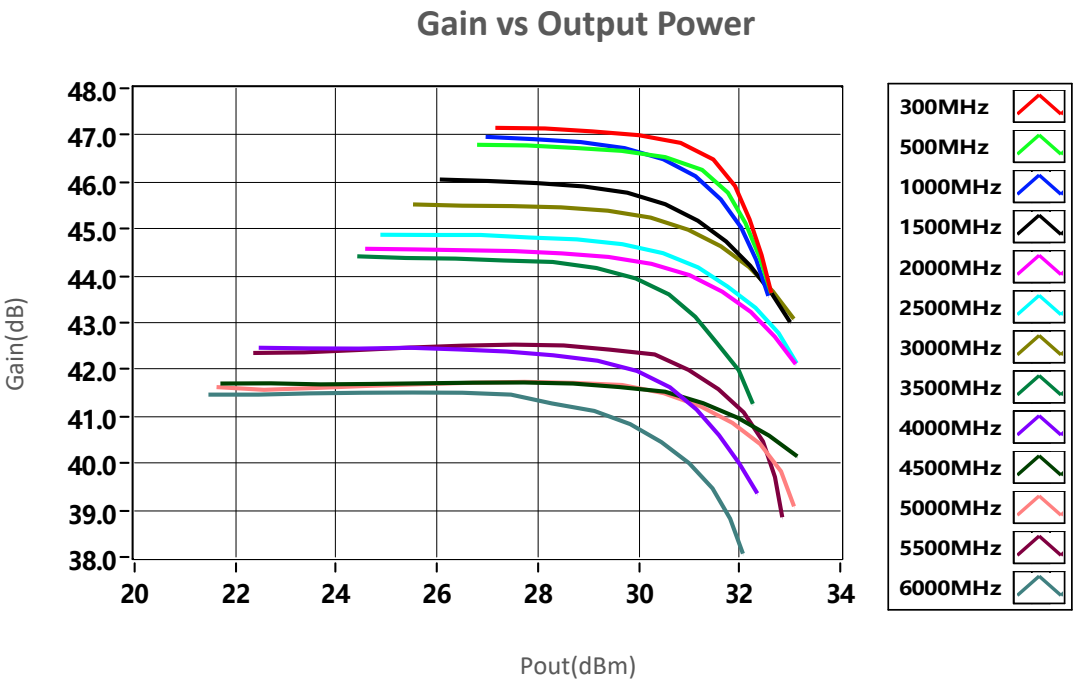


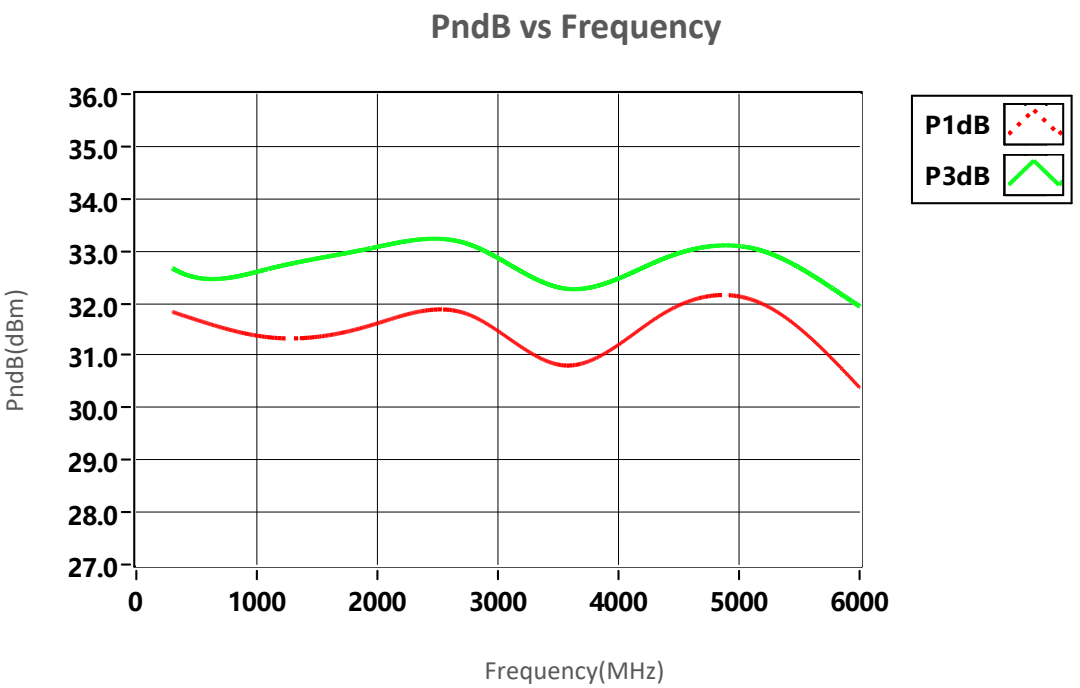
Small Signal Gain vs Frequency



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.

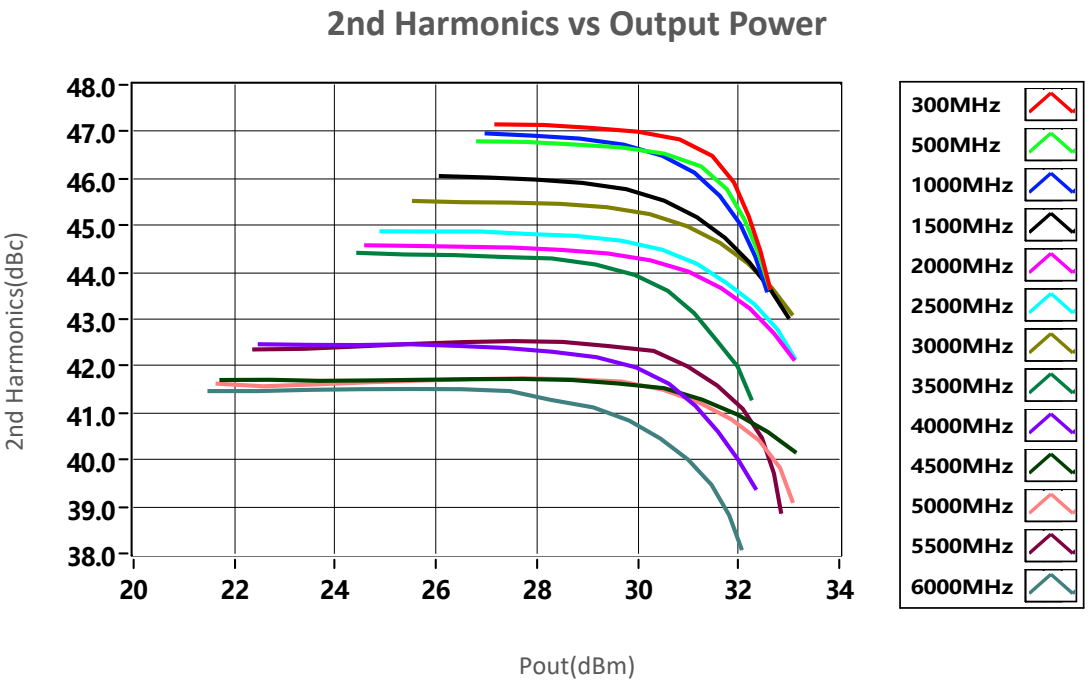
Typical Performance Data:

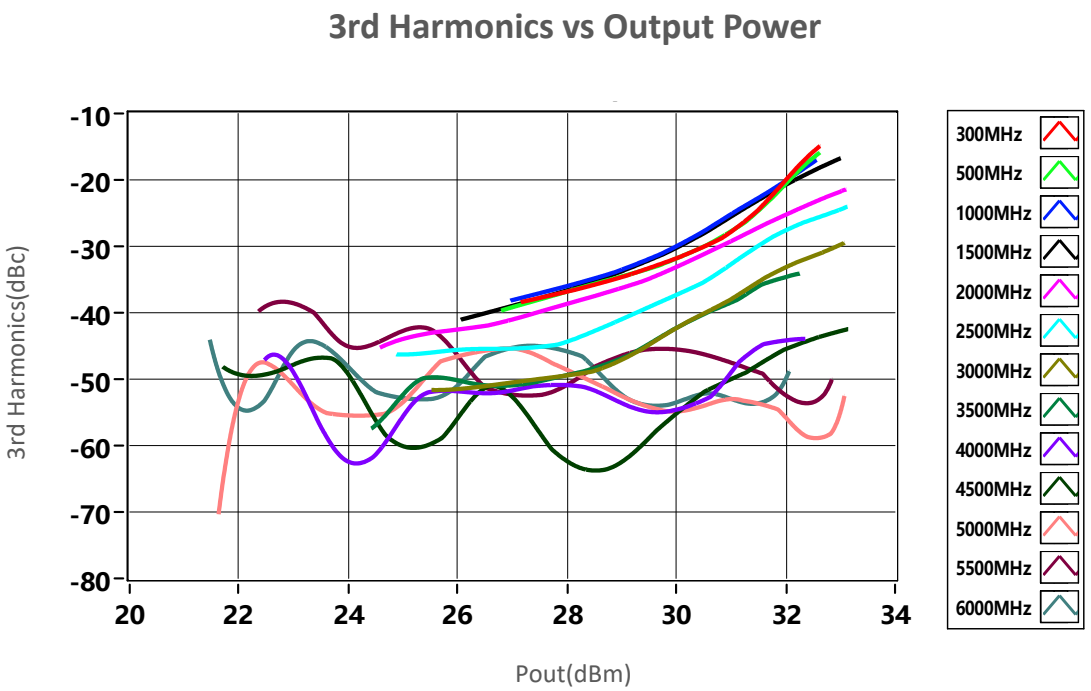




Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:





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.