Power Amplifier

Model: PA-10M-6G5-2.5

0.01-6.5GHz 2.5W CW

Ultrabroad frequency range, high performanceand exceptional RF characteristics

Features:

- Frequency range: 0.01-6.5GHz
- High output power at saturation, 2.5W Typ.
- High gain, 30 dB Min.
- 50 Ohm Matched Input / Output.

Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

Product Overview：

The PA-10M-6G5-2.5 is a power amplifier with a minimum small signal gain of 30 dB and a nominal Psat of 2.5W across the frequency range of 0.01 to 6.5GHz. The DC power requirement for the amplifier is +12 VDC/0.5 A. The input and output port configuration offers coax adapter structure with SMA female.

Electrical Specifications at 25℃:

Parameter	Min	Typ	Max	Units
Frequency range	0.01		6.5	GHz
Small Signal Gain	30	35		dB
Small Signal Gain Flatness		±3	±4	dB
Output P1dB	30	32		dBm
Output Psat	33	34		dBc
Spurious@Pout=30dBm			-60	dBc
Harmonics@Pout=30dBm			-8	dBc
Input VSWR		1.5	2	:1
DC Voltage	+10	+12	+13	V DC
DC Supply Current		0.5	1.3	A
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	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	90.2*70*15	mm
Weight	250	g

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

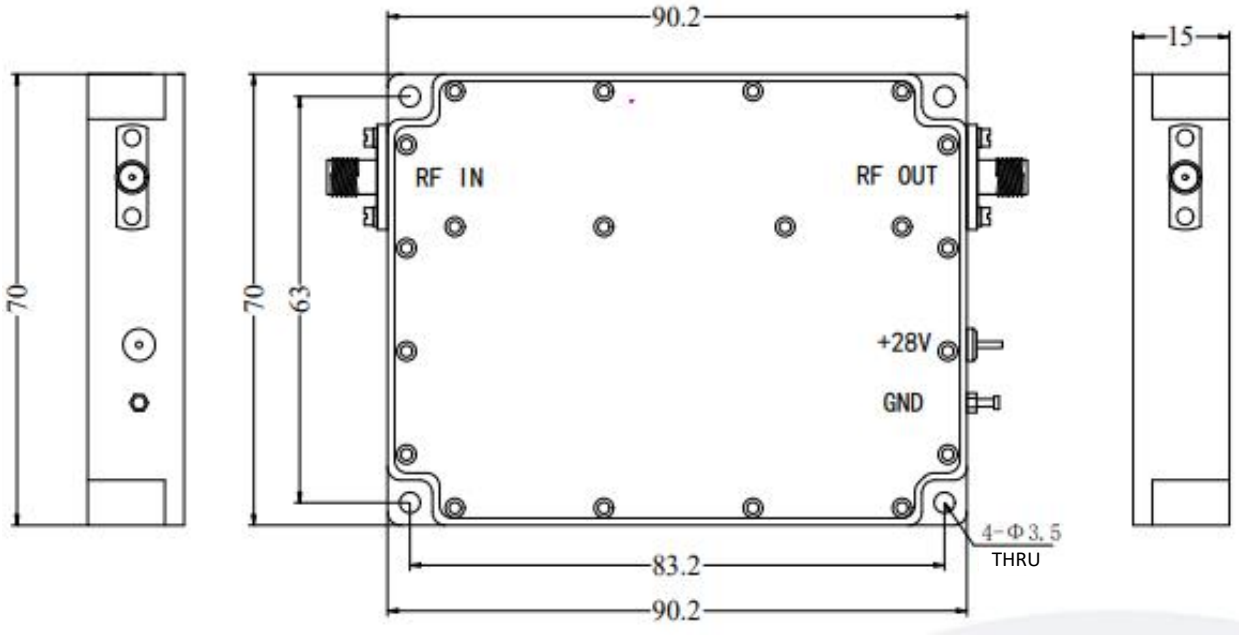
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+13 V
RF Input Power	+5 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Outline Drawing:

Unit:mm

PA-10M-6G5-2.5

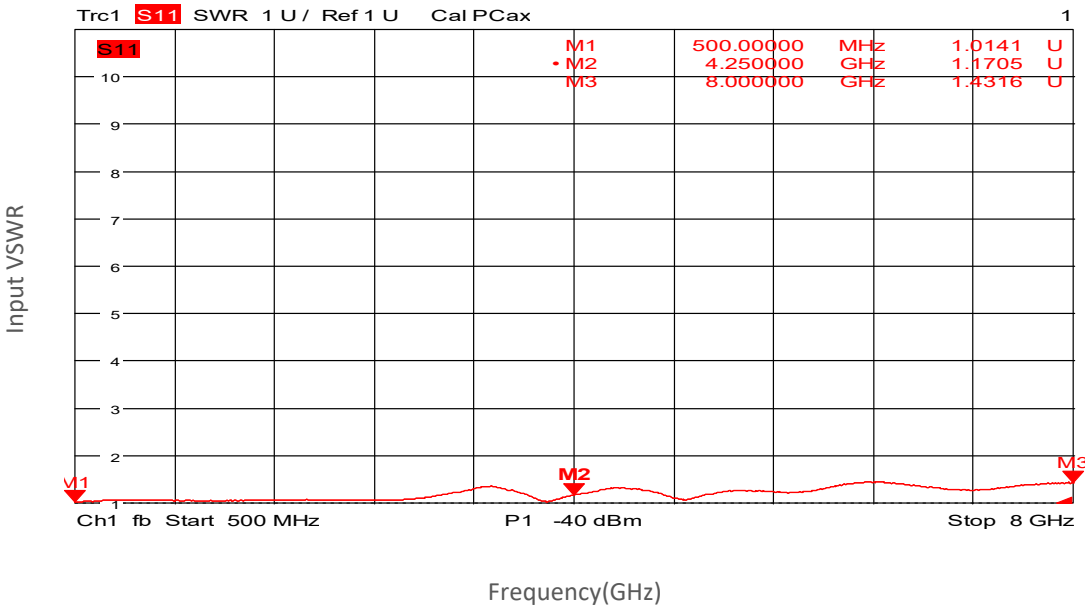


Ordering Information:

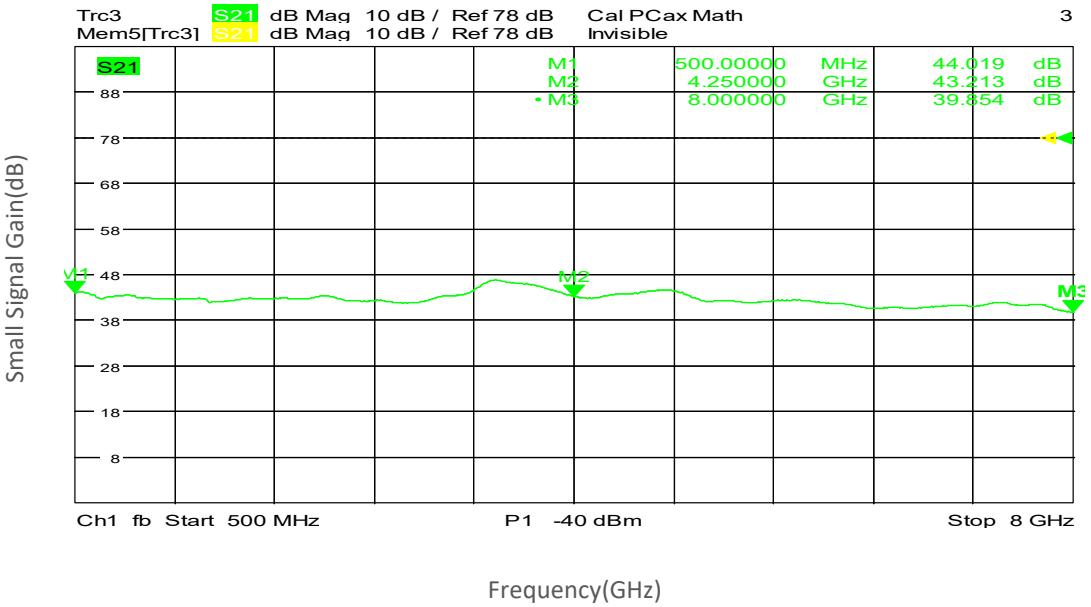
Base Number	Description	Optional
PA-10M-6G5-2.5	Power Amplifier, 0.01-6.5GHz, Gain:30dB,Psat:2.5W,+12V DC	Without Heatsink
PA-10M-6G5-2.5-HS	Power Amplifier, 0.01-6.5GHz, Gain:30dB,Psat:2.5W,+12V DC	With Heatsink

Typical Performance Data:

Input VSWR vs Frequency

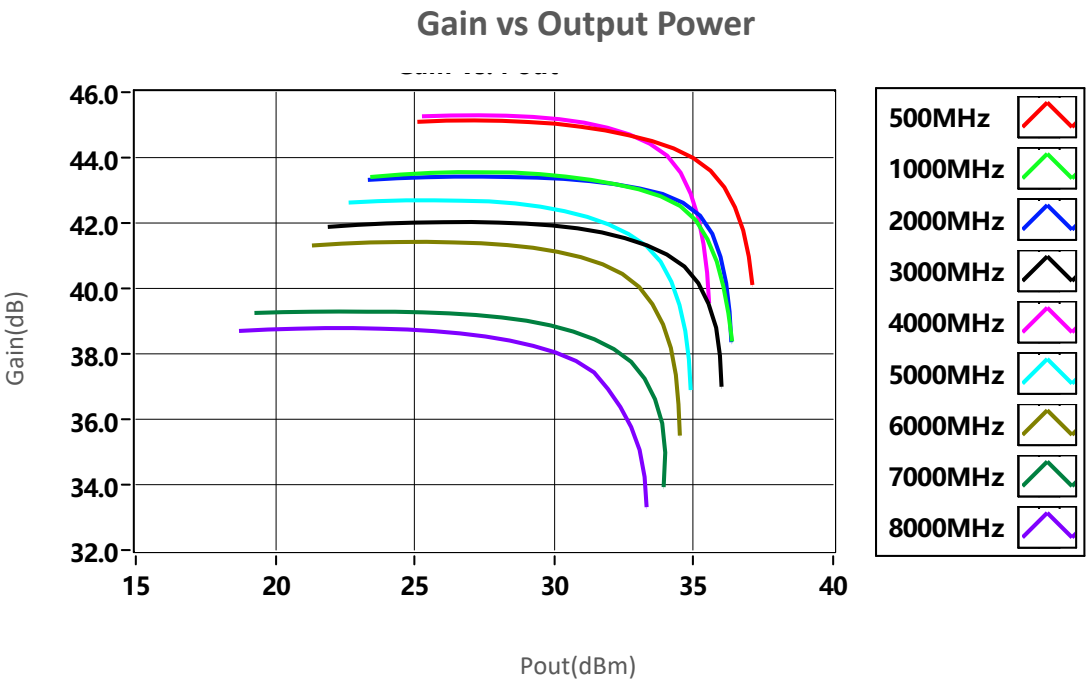


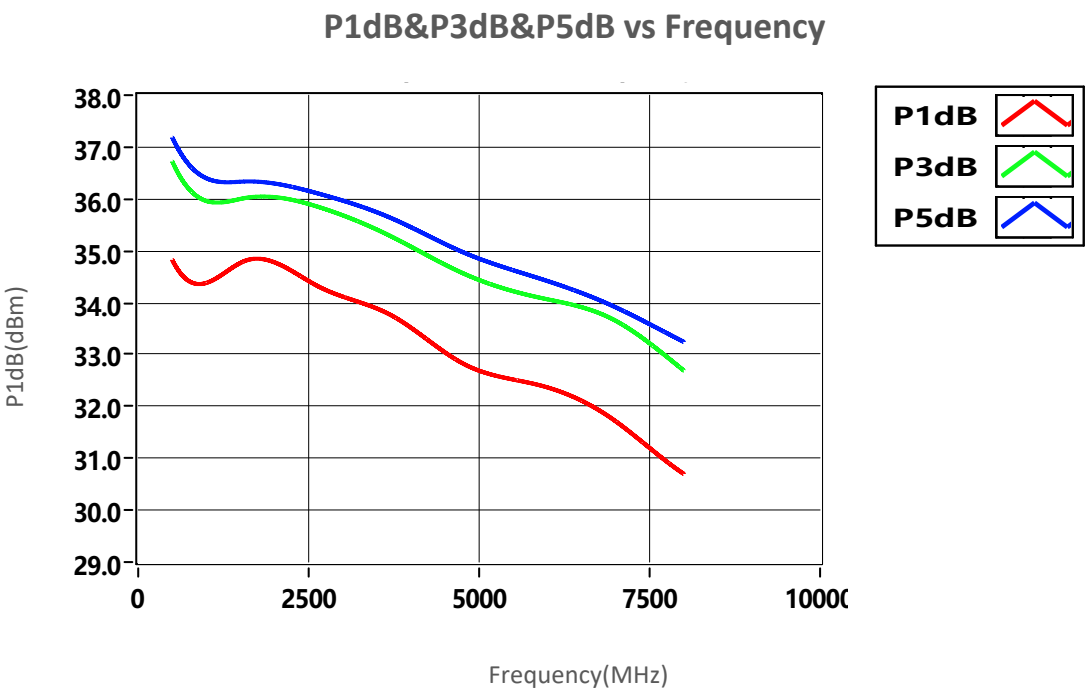
Small Signal Gain vs Frequency



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.

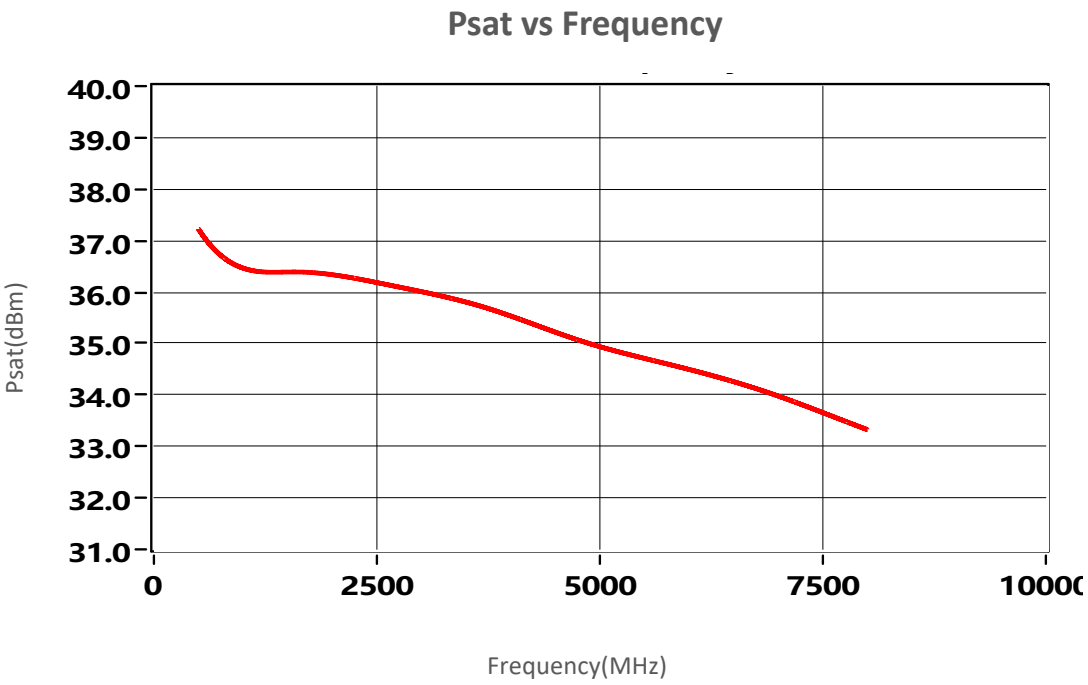
Typical Performance Data:

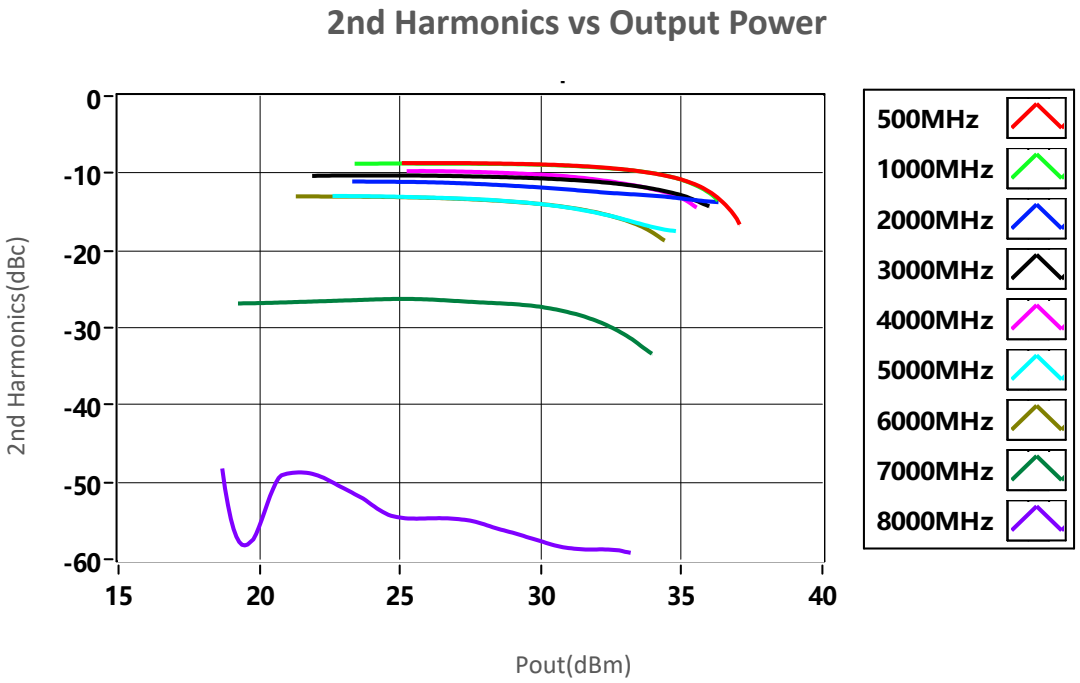




Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

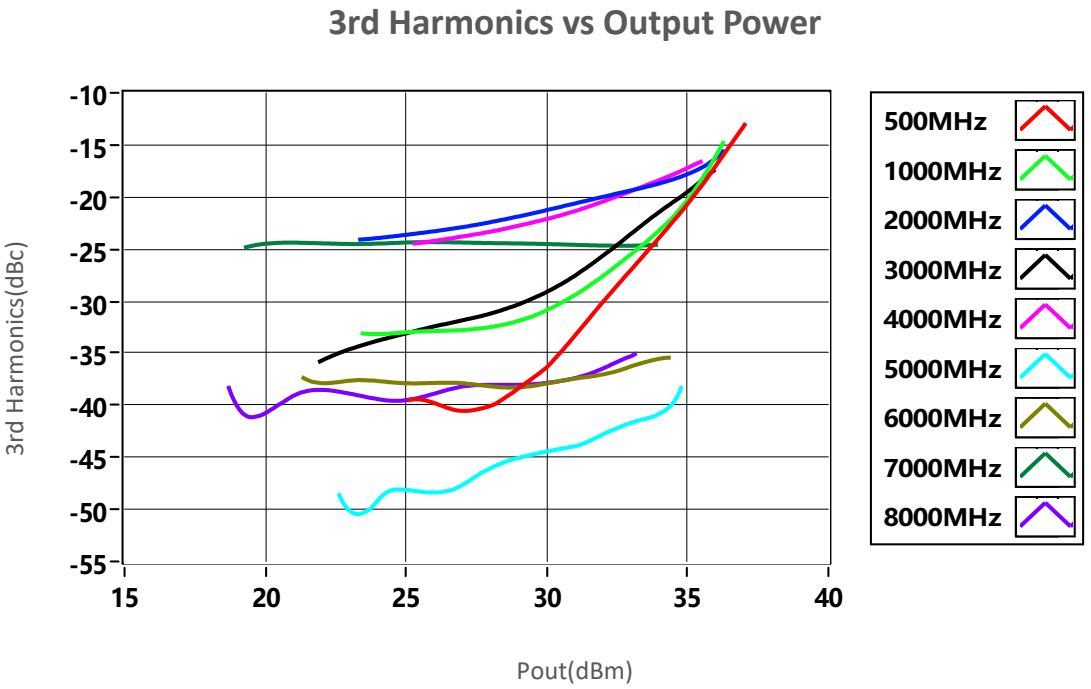
Typical Performance Data:





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.

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.