

Model:TLPA2.9G3.1G-50-50-HS

Power Amplifier 2.9-3.1GHz,Gain:50dB,Psat:50dBm

Feature:

- Frequency range: 2.9-3.1 GHz
- Gain: 50 dB Min
- Psat Output Power: 50 dBm Min
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Electrical Specifications:

Parameter	Min	Typ	Max	Units
Frequency range	2.9-3.1			GHz
Small Signal Gain	50	52		dB
Gain Flatness		±1	±1.5	dB
Output Psat	50	51		dBm
Supurious			-60	dBc
Harmonic		-25	-20	dBc
Input VSWR			2.0	:1
DC Voltage	+28			V DC
DC Supply Current	15			A
Impedance	50			Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/N Female	
DC Bias	D-SUB 9PIN	
Size	200*130*20	mm

Absolute Maximum Ratings:

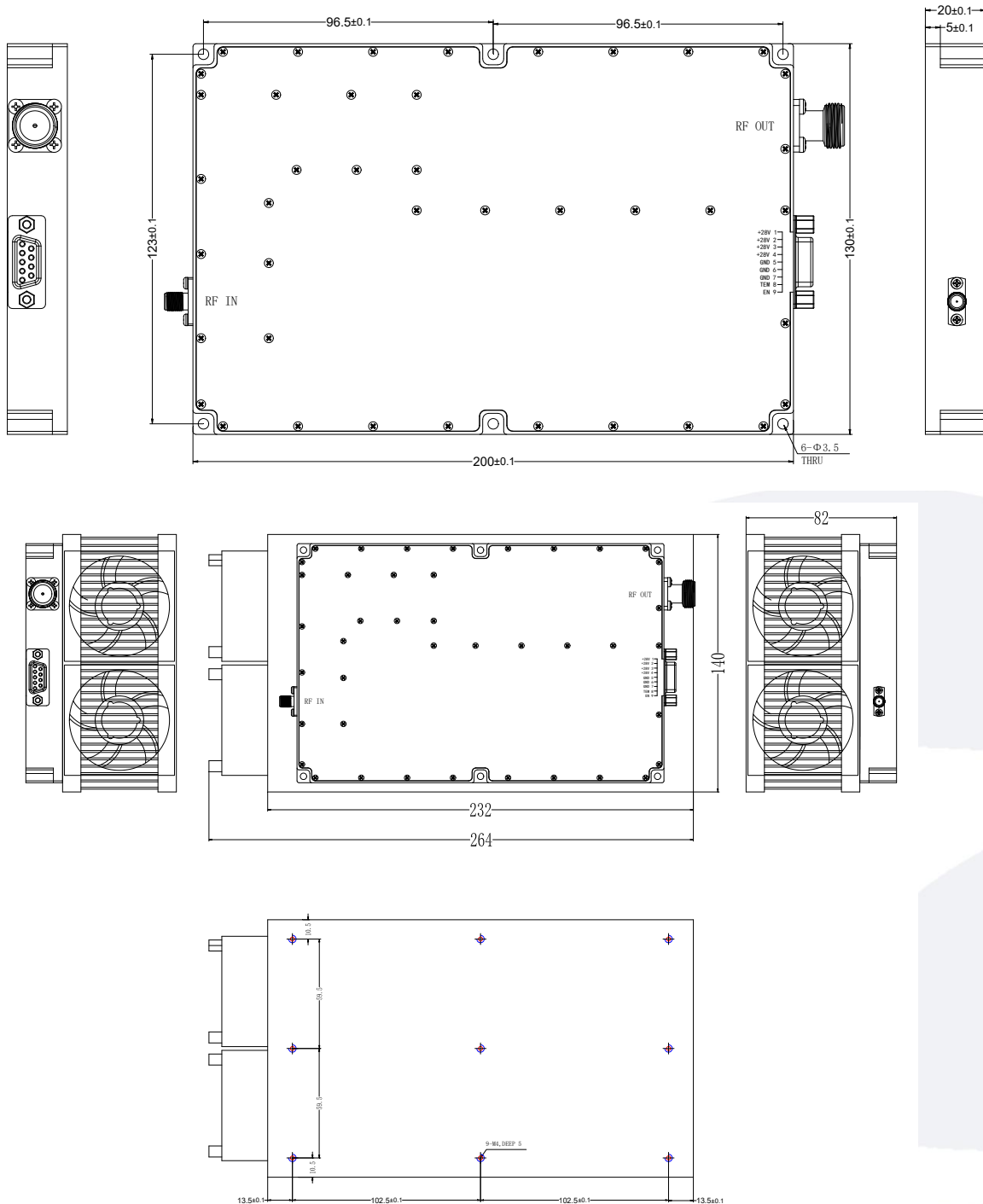
Parameter	Value
Supply Bias Voltage	+30 V
RF Input Power	+5 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



Available 220V System
Benchtop Amplifier

Outline Drawing:

Unit: mm



Fans Supply Current: 0.4A@24V



OBSERVE PRECAUTIONS
ELECTROSTATIC SENSITIVE
DEVICES

D-sub,9-Pin,Female:

Pin #	Name	Function
1	+28V	+26.0-30.0VDC
2	+28V	+26.0-30.0VDC
3	+28V	+26.0-30.0VDC
4	+28V	+26.0-30.0VDC
5	GND	Ground
6	GND	Ground
7	GND	Ground
8	Over Temperature	When the temperature of the case exceeds 70 °C, the power amplifier will turn off and this pin will be pulled high. If the temperature of case drops to 60 °C, the power amplifier will return to normal operation, and this pin will be pulled low.
9	EN	Amplifier Enable: TTL High (5V) (Internally Pulled-High)

Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature*	-20		+50	°C
Non-operating Temperature*	-30		+60	°C
Relative humidity		95		%
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			

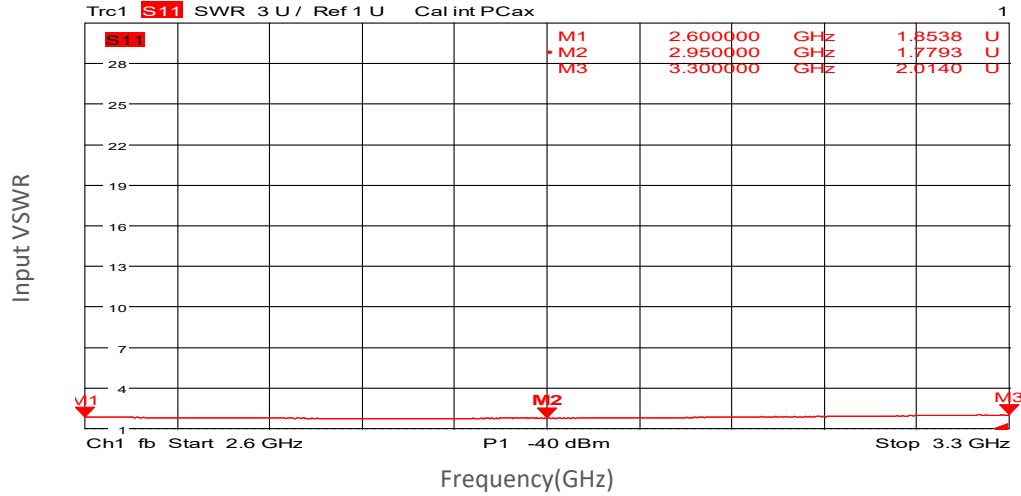
*Note: For a wider temperature range, please consult the manufacturer.

Ordering Information:

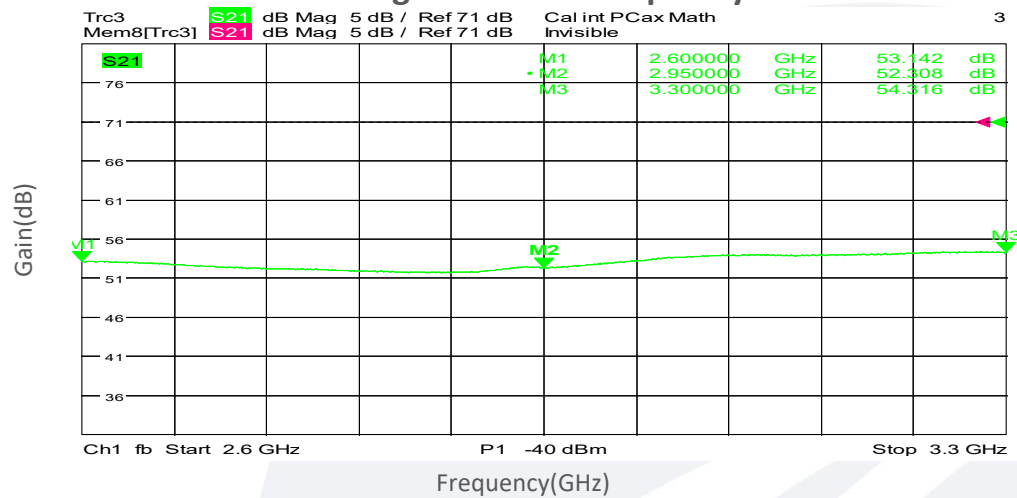
Part Number	Description	Revision
TLPA2.9G3.1G-50-50	Power amplifier 2.9-3.1GHz,Gain:50dB,Psat:50dBm, +28V DC,Without Heatsink	Rev.1.0
TLPA2.9G3.1G-50-50-HS	Power amplifier 2.9-3.1GHz,Gain:50dB,Psat:50dBm, +28V DC,With Heatsink	Rev.1.0

Typical Performance Data:

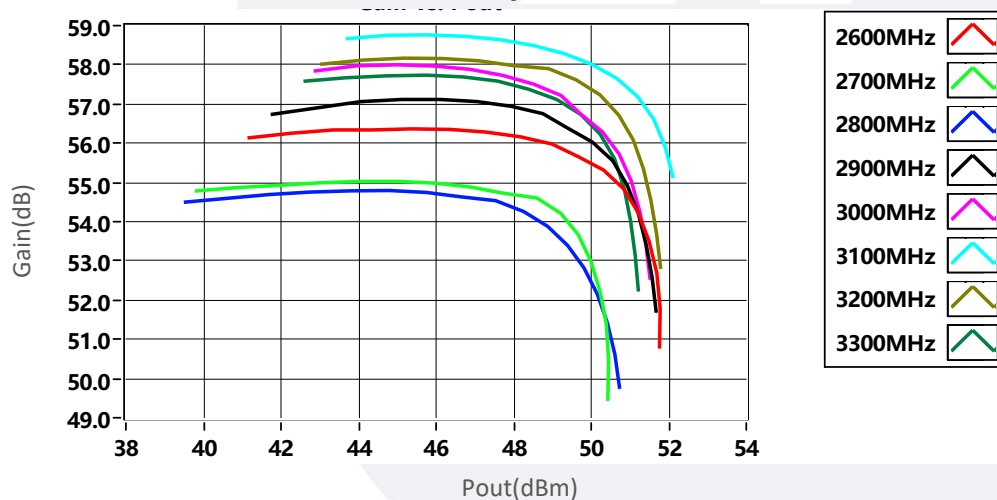
Input VSWR vs Frequency



Small Signal Gain vs Frequency



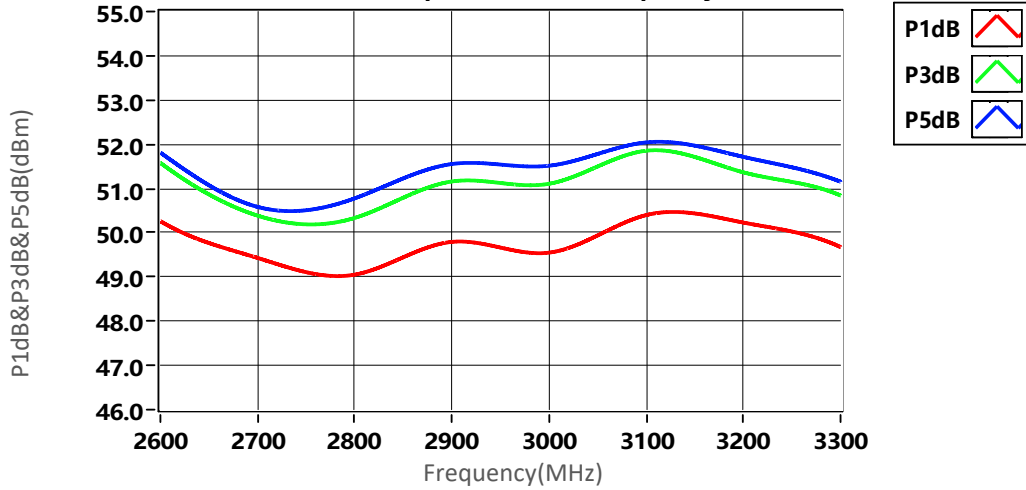
Gain vs Output Power



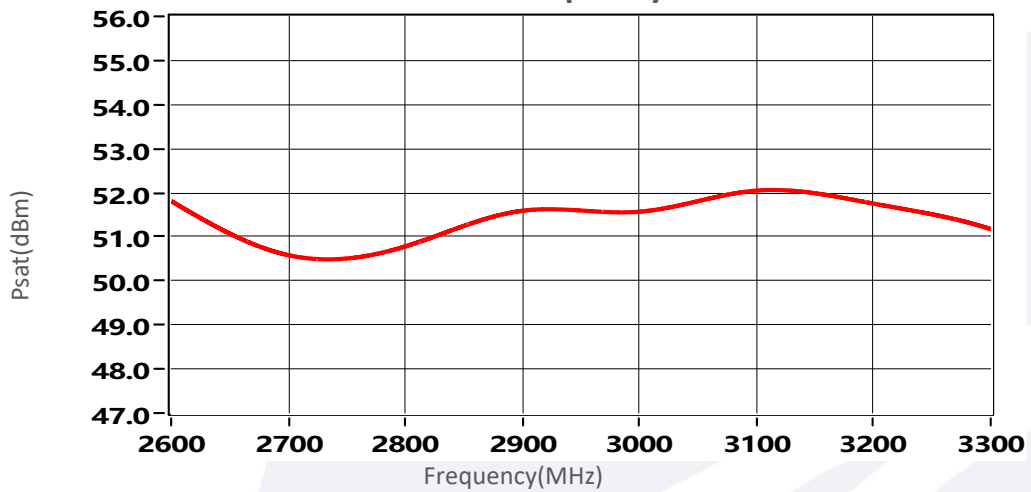
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

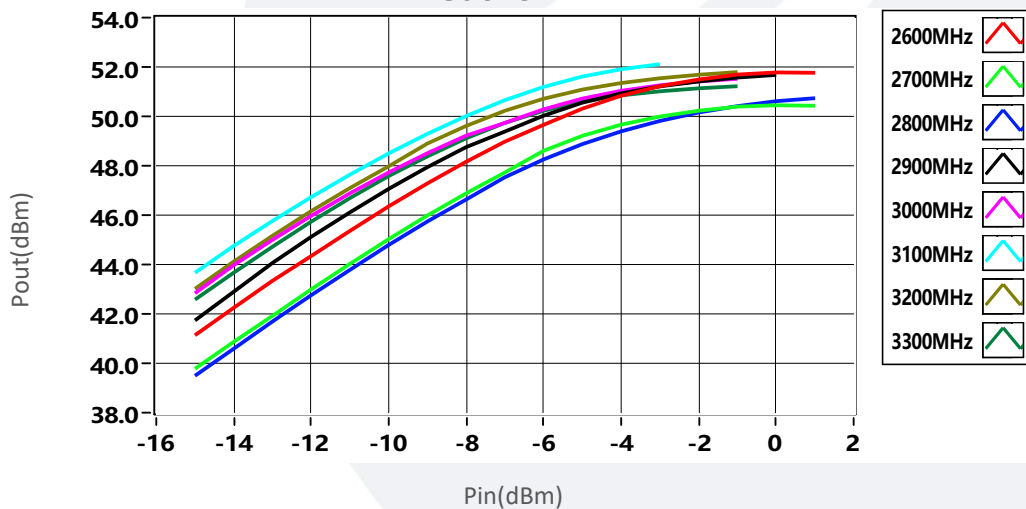
P1dB&P3dB&P5dB vs Frequency



Psat vs Frequency



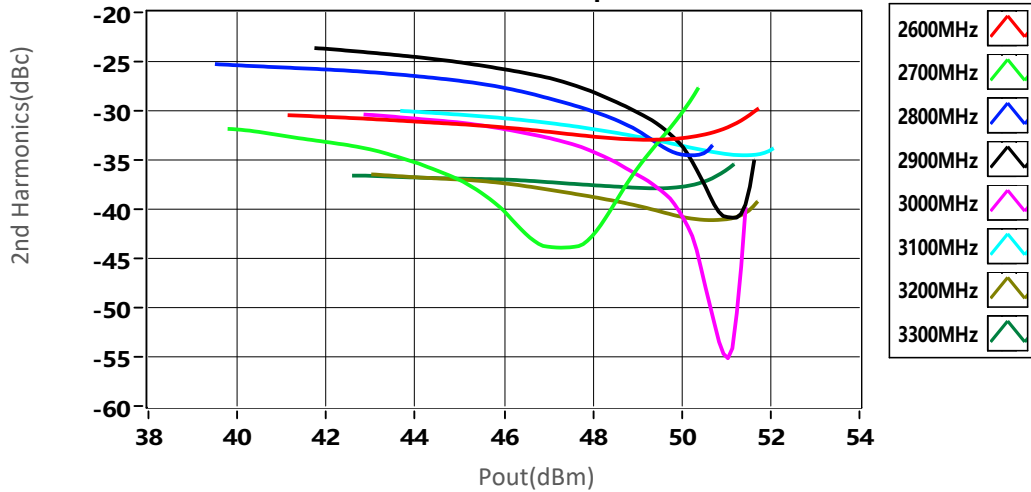
Pout vs Pin



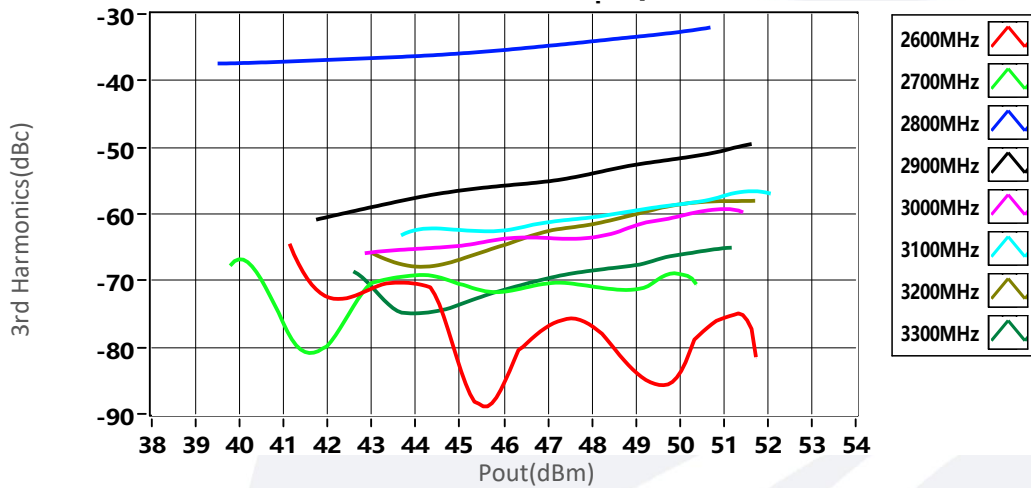
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Typical Performance Data:

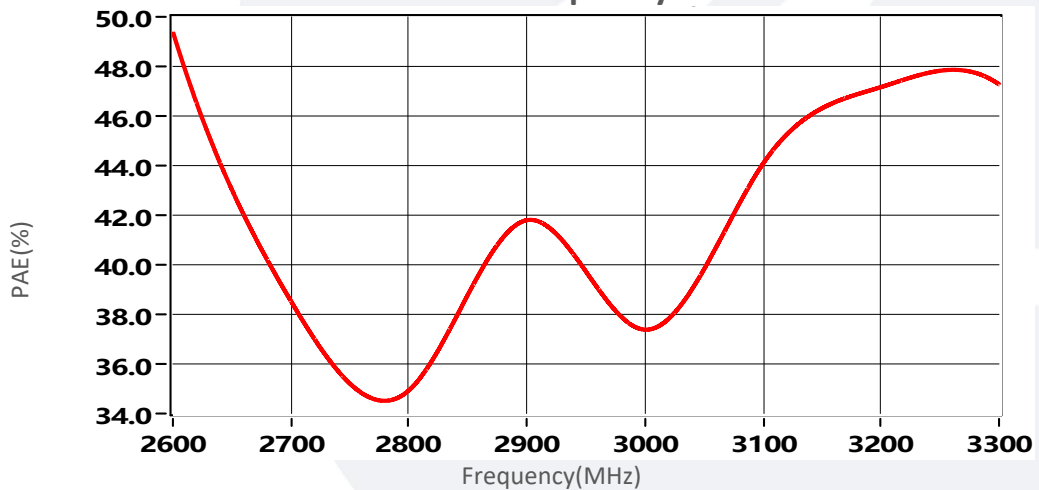
2nd Harmonics vs Output Power



3rd Harmonics vs Output Power



PAE vs Frequency



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