

Model:TLPA100K400M-52-52
Power Amplifier
0.1-400MHz,Gain:52dB,Psat:52dBm
Feature:

- Ultra Wide Band: 0.1-400MHz
- Gain: 52 dB Typ
- Psat Output Power: 52 dBm Typ
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Electrical Specifications:

Parameter	Min	Typ	Max	Units
Frequency range	0.1-400			MHz
Small Signal Gain	49	52		dB
Gain Flatness		±3	±5	dB
Output P1dB	49	50		dBm
Output Psat	50	52		dBm
Harmonic@Pout=50dBm		-12		dBC
Input VSWR		1.5	2.0	:1
DC Voltage	+26	+28	+30	V DC
DC Supply Current		10	20	A
Impedance	50			Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/N Female	
DC Bias	DB9	
Size	255*130*35	mm
Weight	2500	g

Absolute Maximum Ratings:

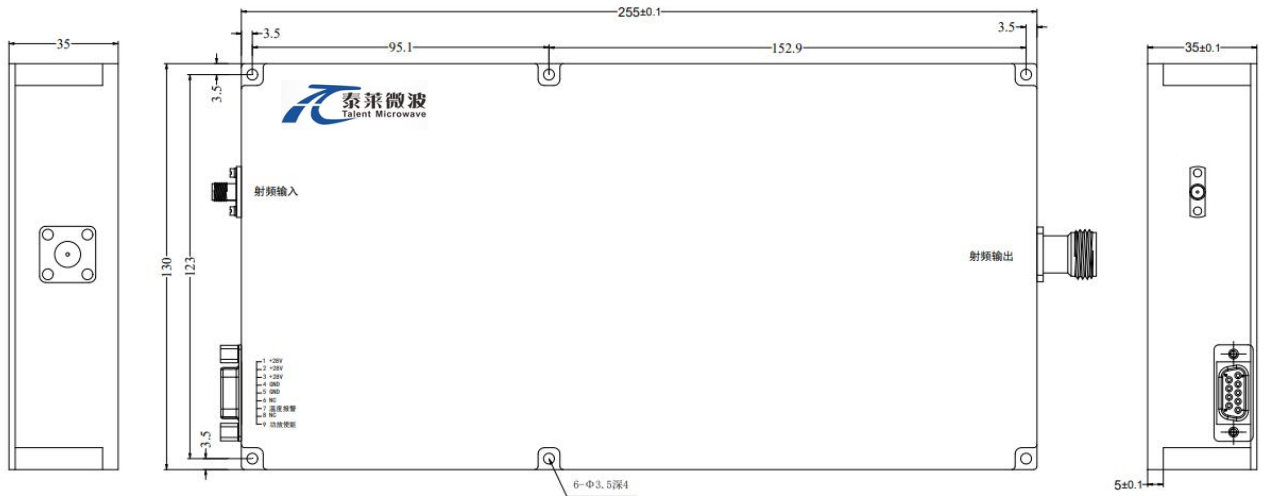
Parameter	Value
Supply Bias Voltage	+30 V
RF Input Power	+5 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



Available 220V System
 Benchtop Amplifier

Outline Drawing:

Unit: mm



*****Heat Sink Required During Operation**



OBSERVE PRECAUTIONS
ELECTROSTATIC SENSITIVE
DEVICES

Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature	-45		+85	°C
Non-operating Temperature	-55		+125	°C
Relative humidity		95		%
Altitude	30,000			feet
Shock / Vibration(MIL-STD-810F)	20g,11ms,saw-tooth			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

Ordering Information:

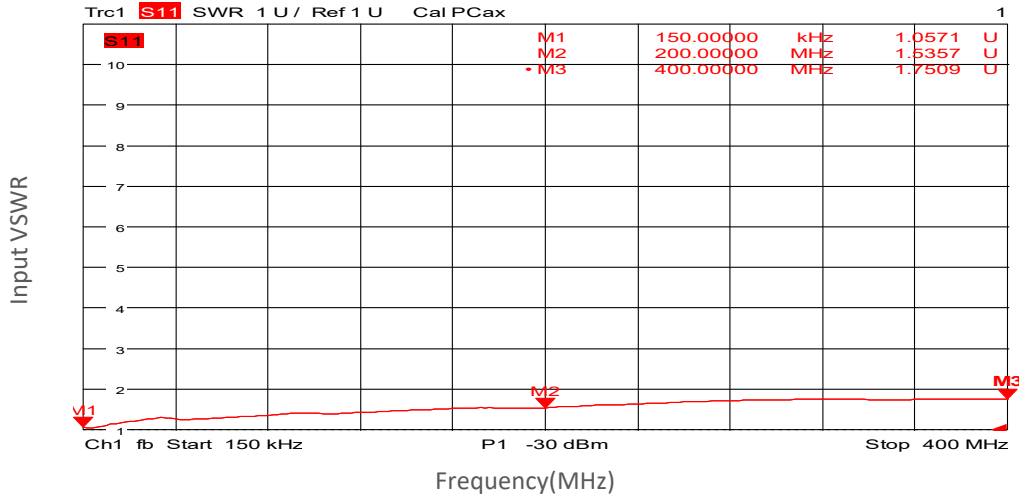
Part Number	Description	Revision
TLPA100K400M-52-52	Power amplifier 0.1-400MHz,Gain:52dB,Psat:52dBm, +28V DC,Without Heatsink	Rev.1.2
TLPA100K400M-52-52-HS	Power amplifier 0.1-400MHz,Gain:52dB,Psat:52dBm, +28V DC,With Heatsink	Rev.1.2

DC Interface Connector D-sub, 9-Pin, Female

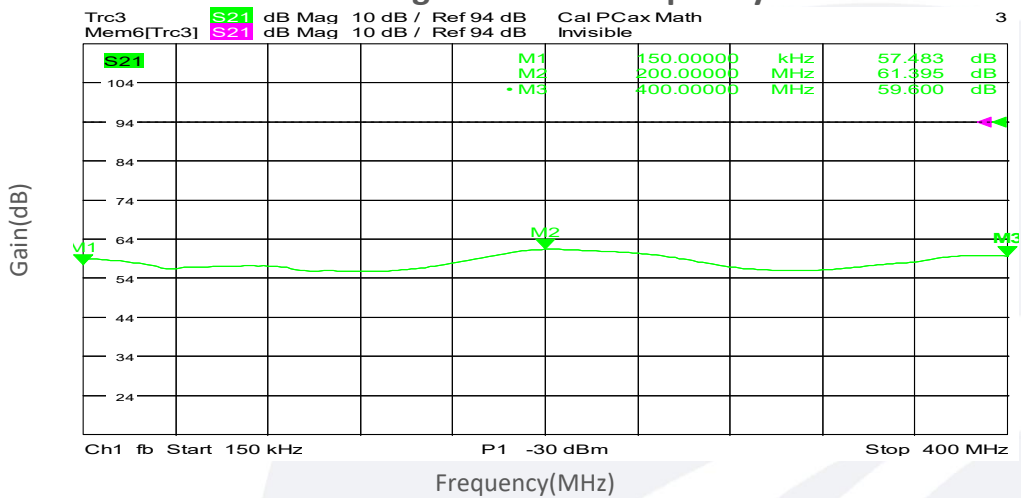
Pin #	Name	Function
1	+28V	+26.0-30.0VDC
2	+28V	+26.0-30.0VDC
3	+28V	+26.0-30.0VDC
4	GND	Ground
5	GND	Ground
6	NC	Not connected
7	Over Temperature	When the temperature of the case exceeds 85 °C, the power amplifier will turn off and this pin will be pulled high. If the temperature of case drops to 70 °C, the power amplifier will return to normal operation, and this pin will be pulled low.
8	NC	Not connected
9	EN	Amplifier Enable: TTL High (5V) (Internally Pulled-High) Amplifier Disable: Short to ground

Typical Performance Data:

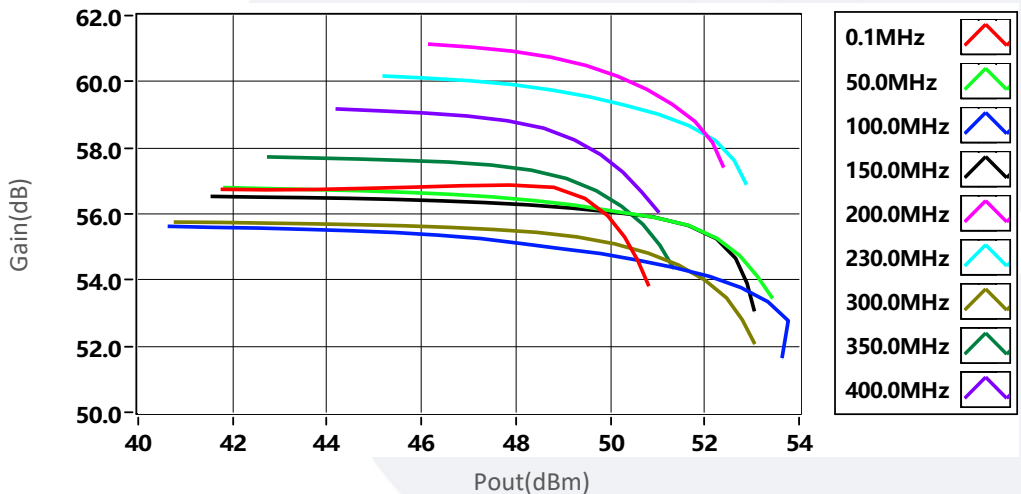
Input VSWR vs Frequency



Small Signal Gain vs Frequency



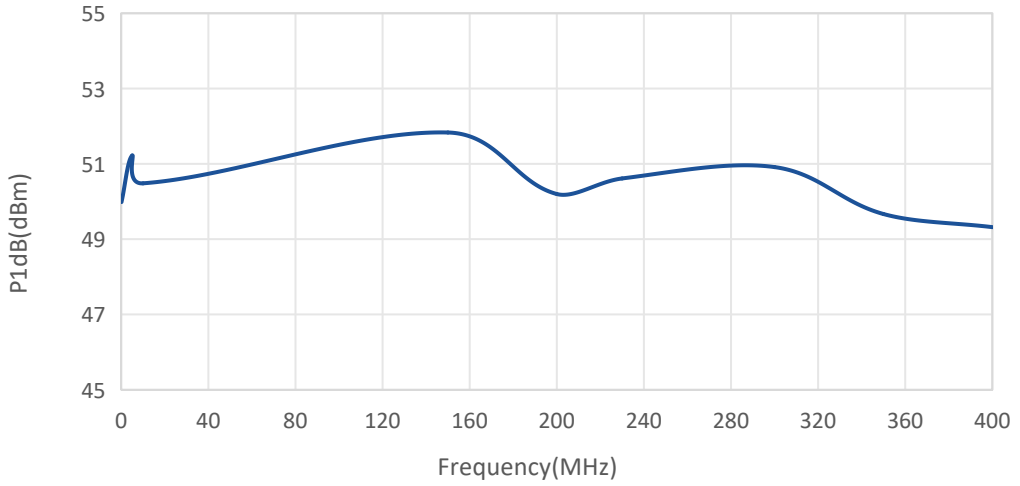
Gain vs Output Power



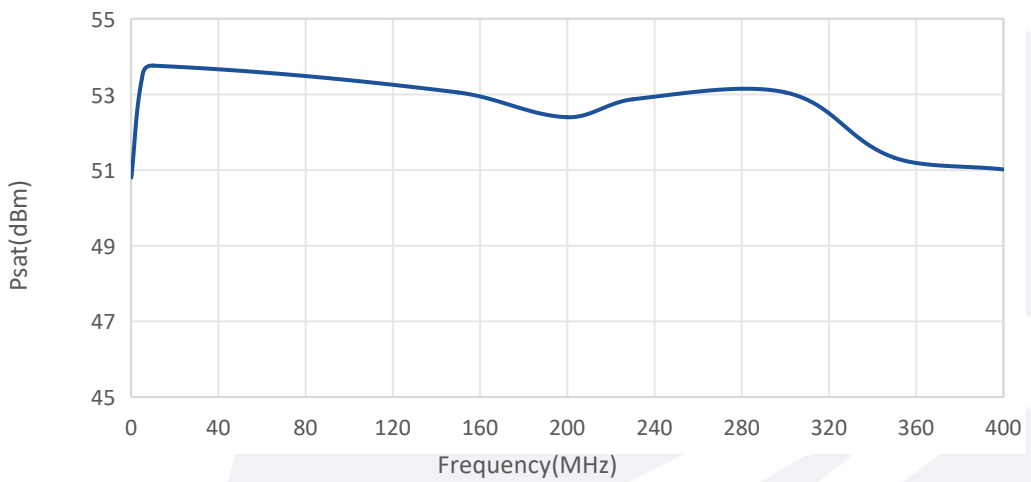
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

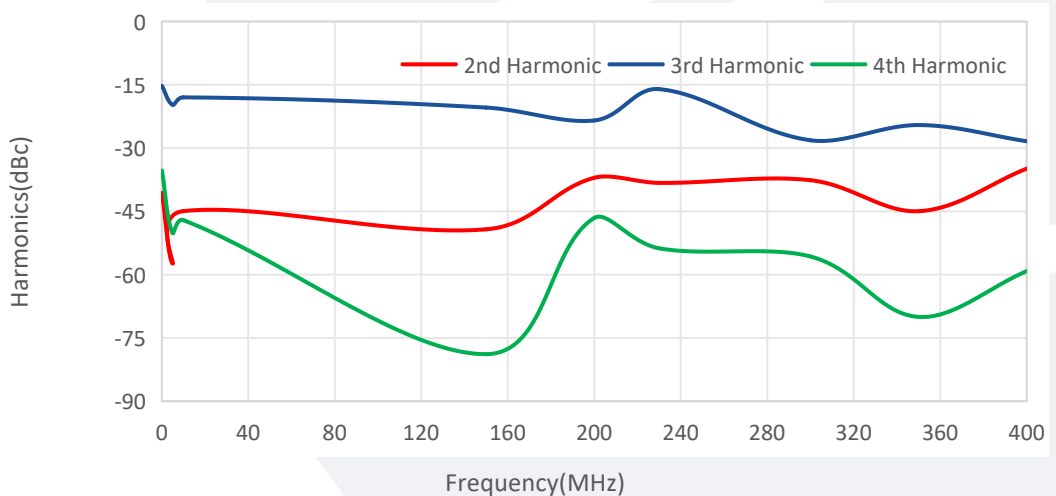
P1dB vs Frequency



Psat vs Frequency



Harmonics vs Frequency



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