

Model:TLPA100K250M-50-50

Power Amplifier 0.1-250MHz,Gain:50dB,Psat:50dBm

Feature:

- Ultra Wide Band: 0.1-250MHz
- 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	0.1-250			MHz
Gain	50	52		dB
Gain Flatness		±3	±5	dB
Output Psat	50	51		dBm
Harmonic@Pout=50dBm		-12		dBc
Input VSWR		1.5	2.0	:1
DC Voltage	+26	+28	+30	V DC
DC Supply Current		1.8	18	A
Impedance	50			Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	DB9	
Size	255*130*35	mm
Weight	500	g

Absolute Maximum Ratings:

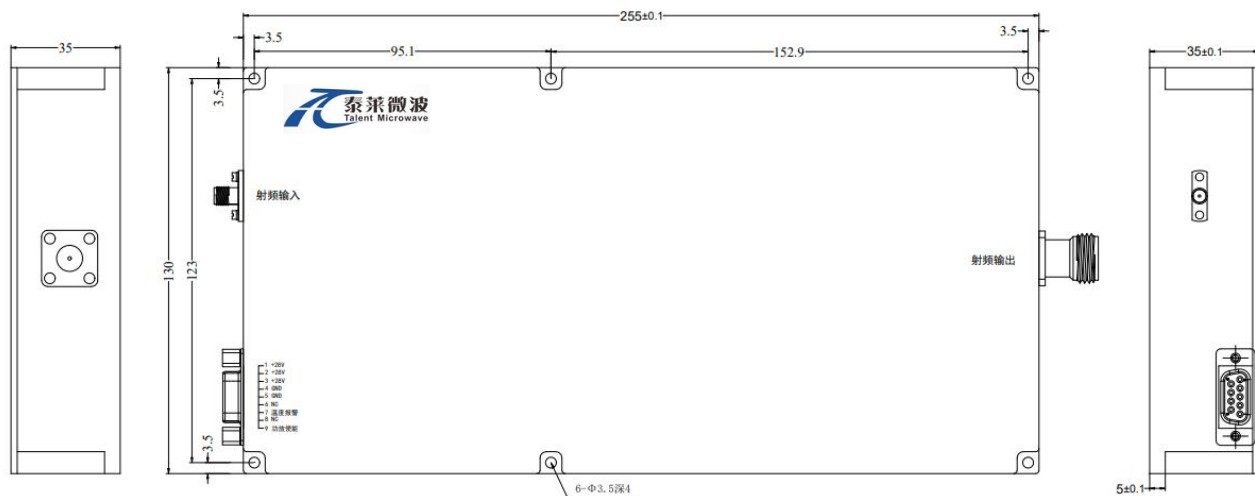
Parameter	Value
Supply Bias Voltage	+30 V
RF Input Power	+5 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



Available 220V System
Benchtop Amplifier

Outline Drawing:

Unit: mm



***Heat Sink Required During Operation



OBSERVE PRECAUTIONS
ELECTROSTATIC SENSITIVE
DEVICES

Pin	Identification	Type	Function specification
1	+28V	Input	Power supply positive +26.0-30.0VDC
2	+28V	Input	Power supply positive +26.0-30.0VDC
3	+28V	Input	Power supply positive +26.0-30.0VDC
4	GND	Input	Power supply negative
5	GND	Input	Power supply negative
6	NC	Input	
7	Over Temp	Output	Power supply positive +26.0-30.0VDC
8	NC	Input	When the temperature of the power amplifier housing is greater than 70° C, the power amplifier is closed and this pin will output a high level. When the temperature of the power shell is reduced to 60°C, the power amplifier returns to normal operation, and this pin will output a low level.
9	Power amplifier enable	Input	A high (or suspended) level turns on the power amplifier, and a low level turns it off

Notes:

1, TTL is 5V. 2, Optional radiator fan power supply, 24V/0.2A

Environmental Conditions:

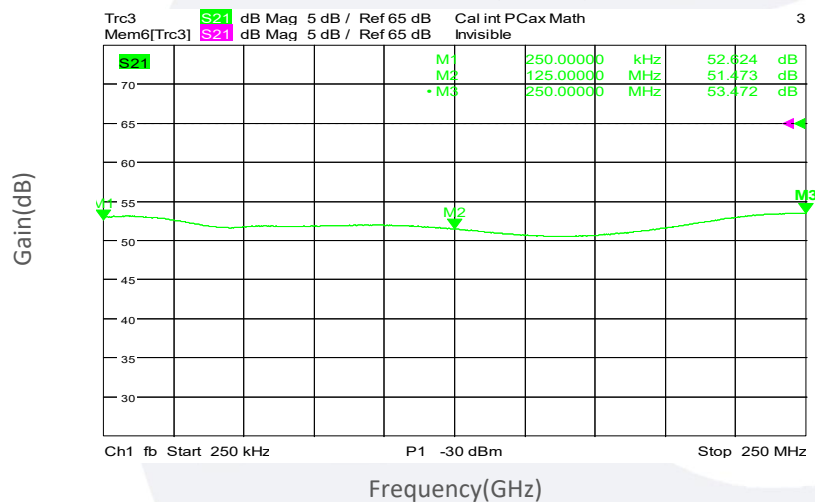
Parameter	Min	Typ	Max	Units
Operating Temperature	-45		+85	°C
Non-operating Temperature	-55		+125	°C
Relative humidity		95		%
Altitude	30,000			feet
Shock / Vibration(MIL-STD-810F)	20g,11ms,saw-tooth			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

Ordering Information:

Part Number	Description	Revision
TLPA100K250M-50-50	Power amplifier 0.1-250MHz,Gain:50dB,Psat:50dBm, +28V DC,Without Heatsink	Rev.1.1
TLPA100K250M-50-50- HS	Power amplifier 0.1-250MHz,Gain:50dB,Psat:50dBm, +28V DC,With Heatsink	Rev.1.1

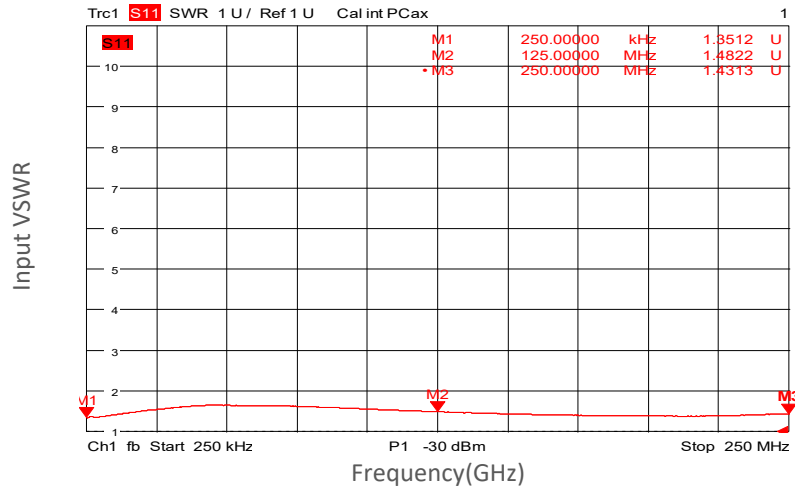
Typical Performance Data:

Gain vs Frequency

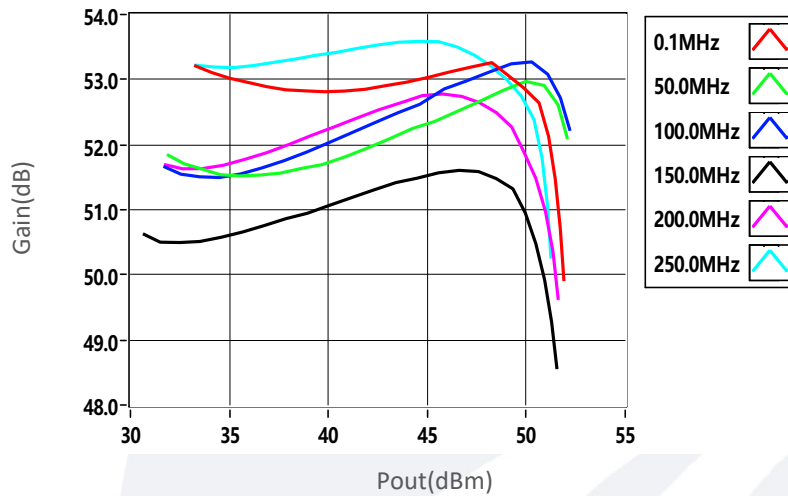


Typical Performance Data:

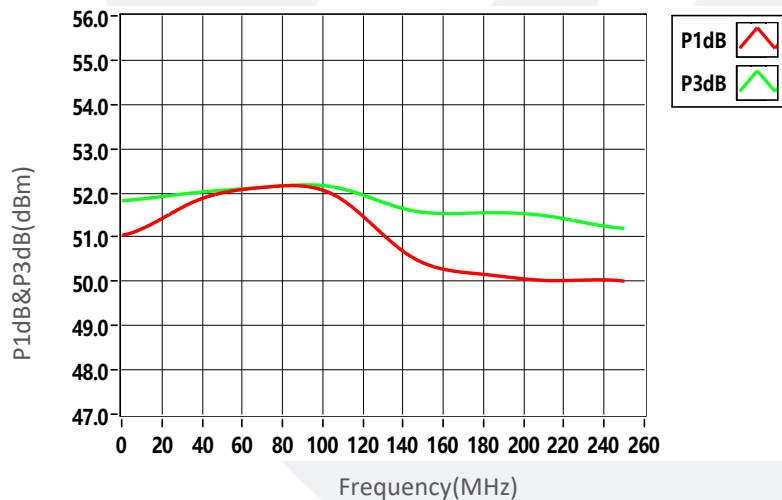
Input VSWR vs Frequency



Gain vs Output Power

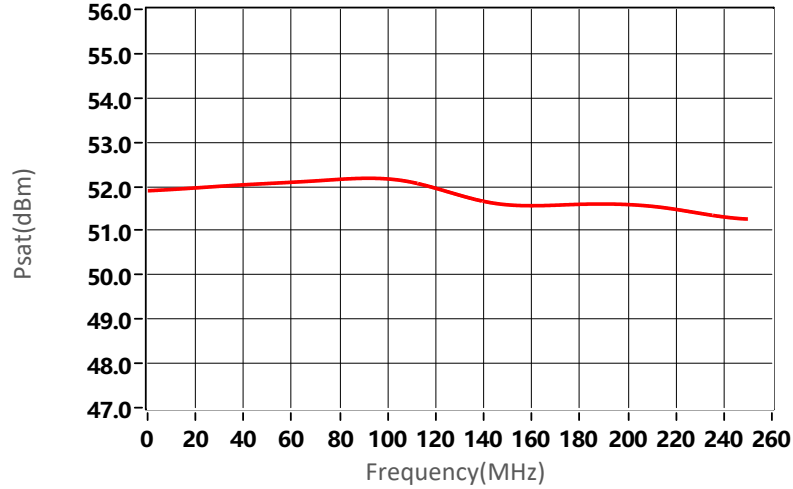


P1dB&P3dB vs Frequency

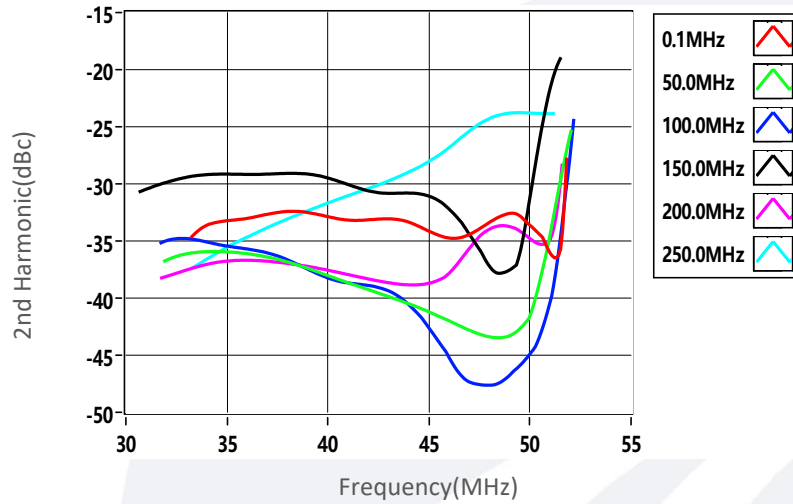


Typical Performance Data:

Psat vs Frequency



2nd Harmonic vs Frequency



3rd Harmonic vs Frequency

