Suzhou Talent Microwave,Inc
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Power Amplifier

10-1000MHz/39dB Gain/39dBm Psat

Model: TLPA10M1000M-39-39

TLPA10M1000M-39-39 is a power amplifier with a minimum small signal gain of 39 dB and a minimum Psat of 39 dBm across the frequency range of 10 to 1000 MHz. The DC power requirement for the amplifier is +28 VDC/1.5 A. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 10-1000MHz
- Gain: 39dB Min
- Output Power Psat: 39dBm Min
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	10		1000	MHz
Small Signal Gain	39	40		dB
Gain Flatness			±3	dB
Output P1dB	38			dBm
Output Psat	39			dBm
Input VSWR		1.5	2.0	:1
DC Voltage		+28		V DC
DC Supply Current		1.5		A
Impedance		50		Ohms

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Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	Solder Pin	
Size	90*48*15	mm
Weight	150	g

Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+30 V
RF Input Power	+3 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Simple 220V System
Available SAC option

Outline Drawing:

Unit:mm

***Heat Sink Required During Operation

ESD Protection: Strictly adhere to ESD precautions to prevent electrostatic damage.

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Environmental Conditions:

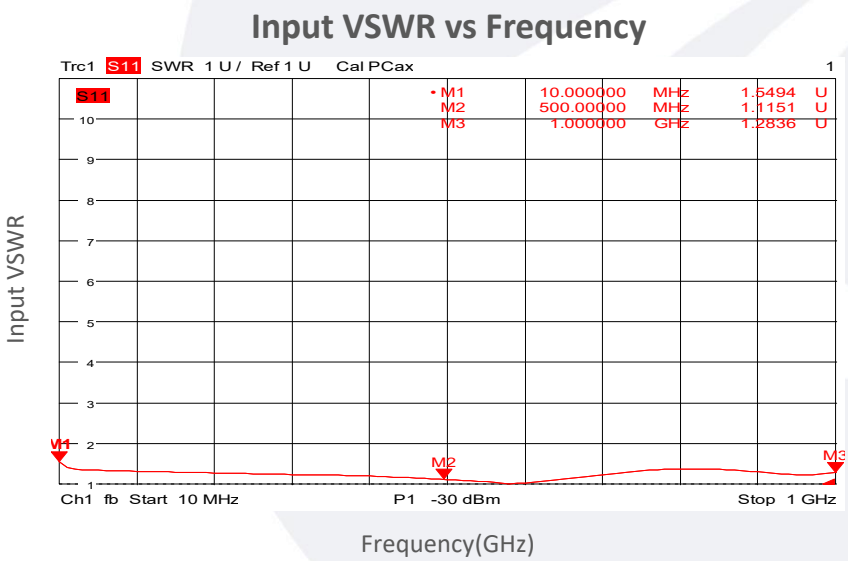
Parameter	Min	Typ	Max	Units
Operating Temperature*	-40		+60	℃
Non-operating Temperature*	-50		+70	℃
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

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

Ordering Information:

Base Number	Description	Revision
TLPA10M1000M-39-39	Power amplifier 10-1000MHz, Gain:39dB,Psat:39dBm,+28V DC,Without Heatsink	Rev.1.1
TLPA10M1000M-39-39-HS	Power amplifier 10-1000MHz, Gain:39dB,Psat:39dBm,+28V DC,With Heatsink	Rev.1.1

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.

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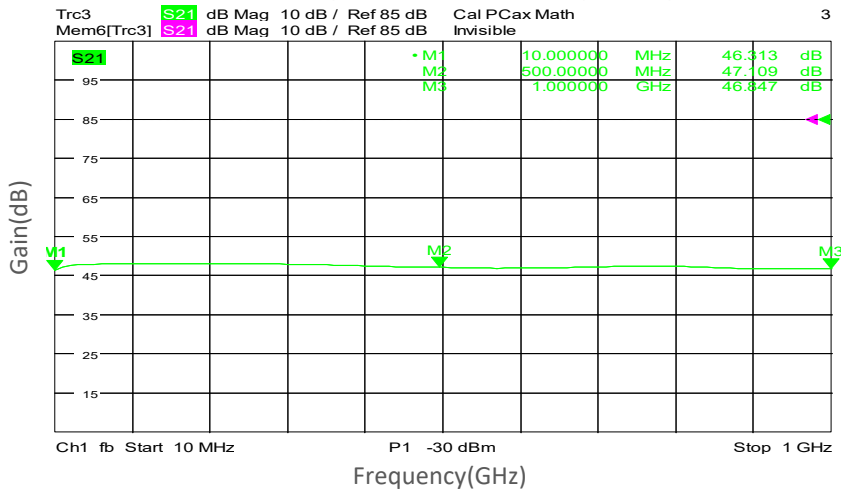
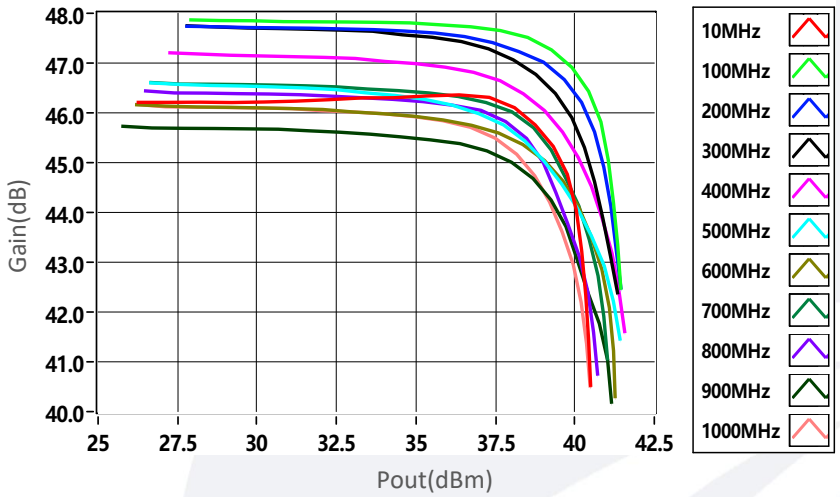
Typical Performance Data:

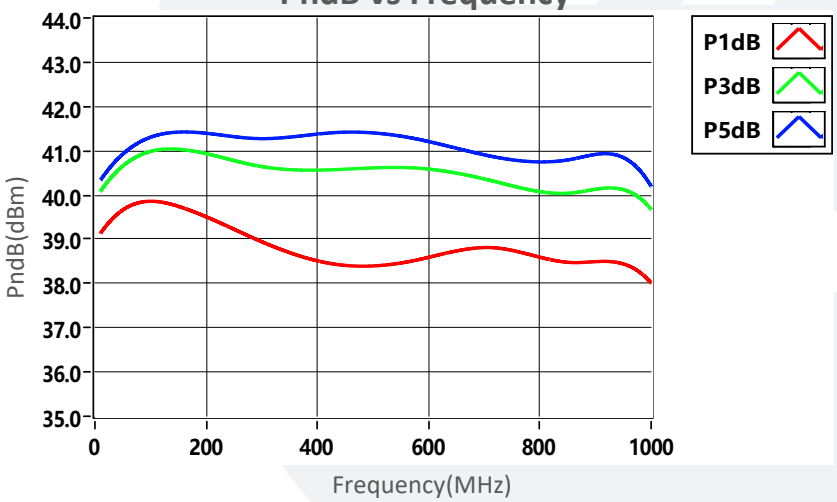
Small Signal Gain vs Frequency



Gain vs Output Power



PndB vs Frequency



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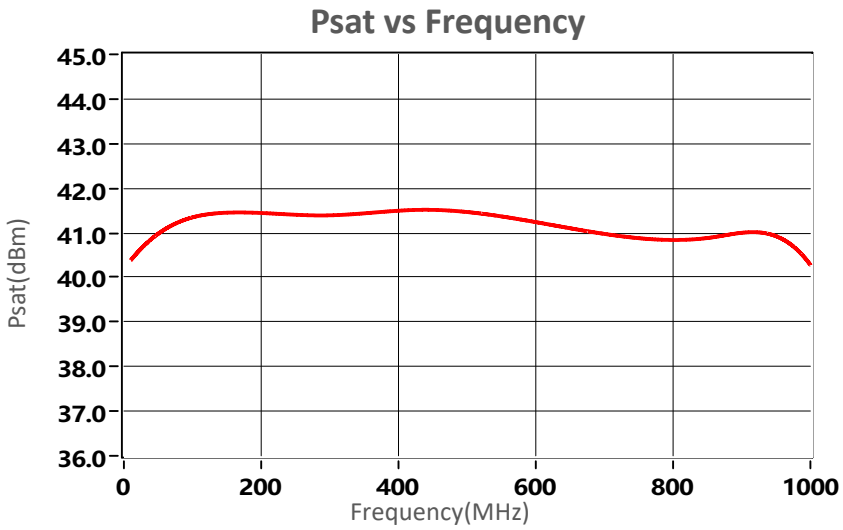

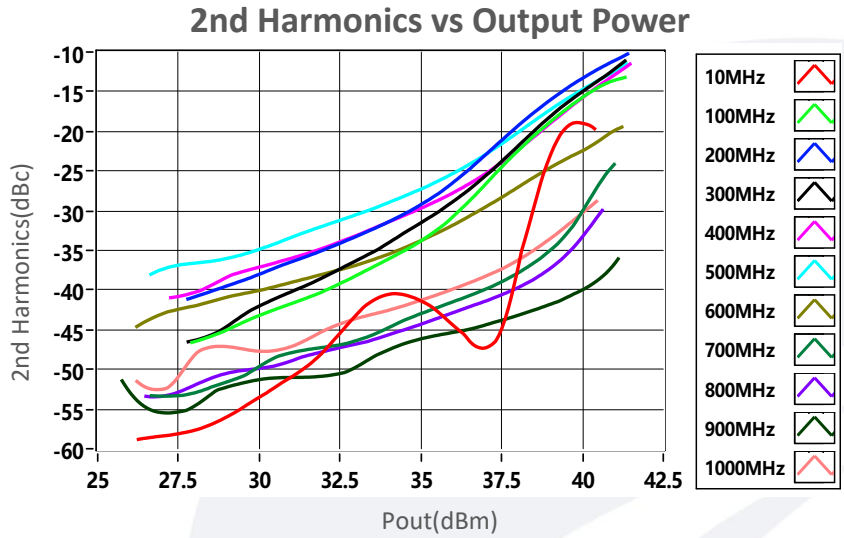

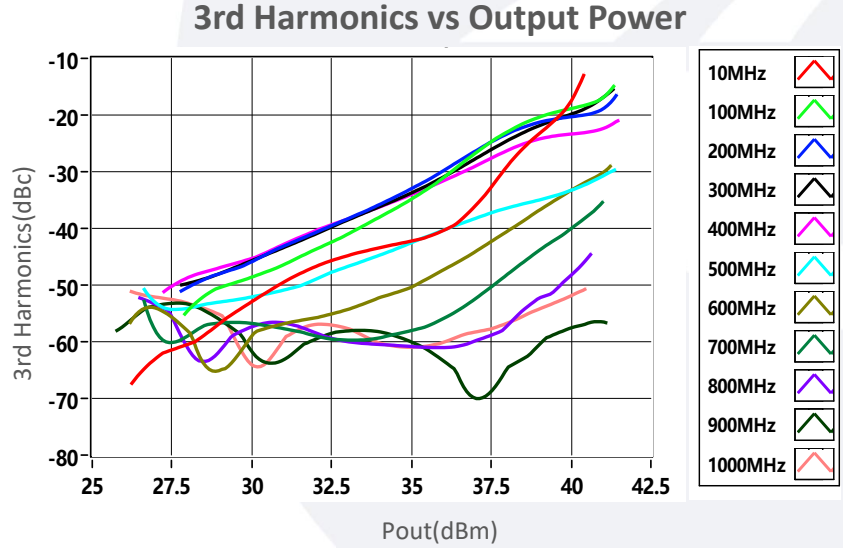

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