

## Power Amplifier

0.4-150MHz/30dB Gain/30dBm P1dB

Model: TLPA0.4M150M-30-30

TLPA0.4M150M-30-30 is a power amplifier with a typical small signal gain of 30 dB and a minimum P1dB of 30 dBm across the frequency range of 0.4 to 150 MHz. The DC power requirement for the amplifier is +24 VDC/0.5 A. The input and output port configuration offers coax adapter structure with SMA female.

### Features:

- Frequency range: 0.4-150MHz
- Gain: 30dB Typ
- Output Power P1dB: 30dBm 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	0.4		150	MHz
Small Signal Gain	27	30		dB
Gain Flatness		±0.5	±1	dB
Output P1dB	30	31		dBm
Output IP3		38		dBm
Input VSWR			2.0	:1
Output VSWR			2.0	:1
DC Voltage		+24	+28	V DC
DC Supply Current		0.5	0.6	A
Impedance		50		Ohms

### Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	Solder Pin	
Size	76*64*40(With heatsink)	mm
Weight	200	g

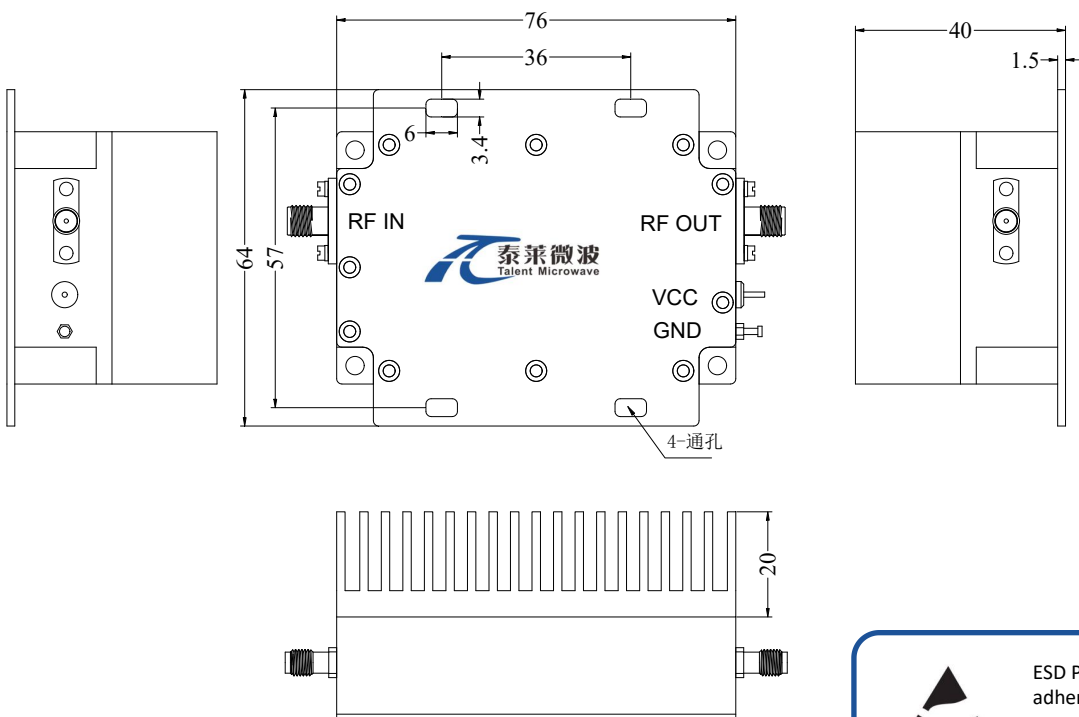
### Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+28 V
RF Input Power	+10 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



### Outline Drawing:

Unit:mm



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

### Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature*	-40		+60	°C
Non-operating Temperature*	-50		+70	°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			

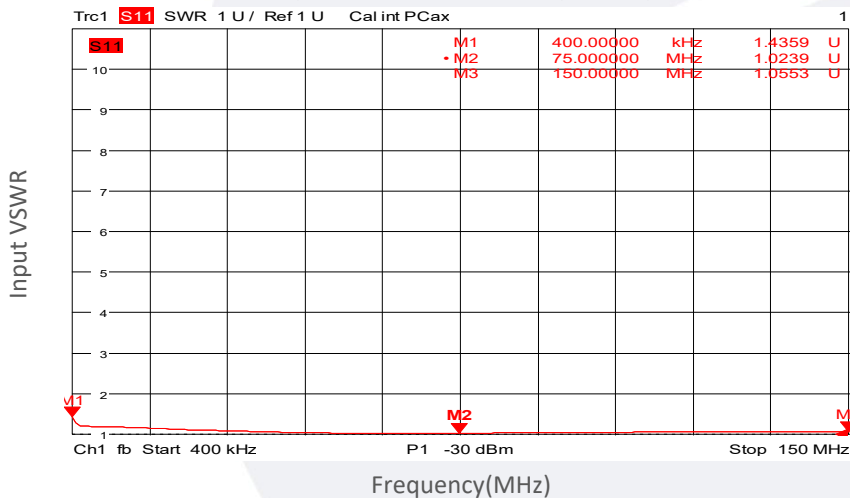
\*Note: For a wider temperature range, please consult the manufacturer.

### Ordering Information:

Base Number	Description	Revision
TLPA0.4M150M-30-30	Power amplifier 0.4-150MHz, Gain:30dB,P1dB:30dBm,+24V DC,Without Heatsink	Rev.1.1
TLPA0.4M150M-30-30-HS	Power amplifier 0.4-150MHz, Gain:30dB,P1dB:30dBm,+24V DC,With Heatsink	Rev.1.1

### Typical Performance Data:

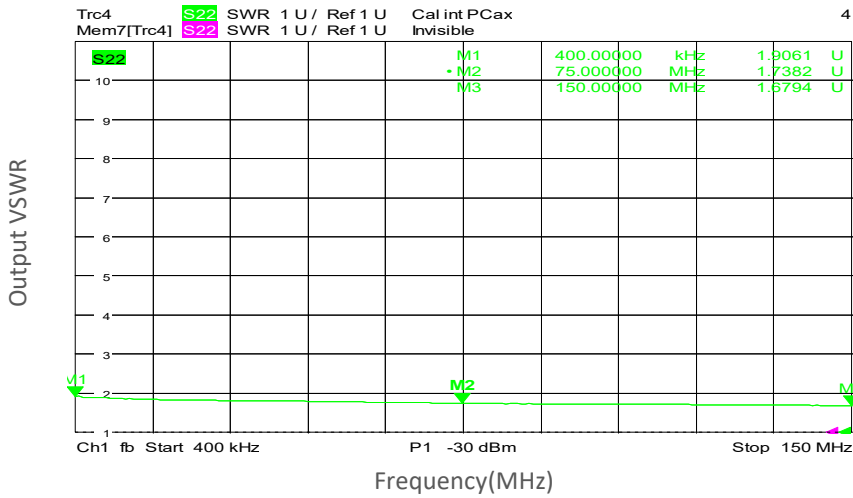
#### Input VSWR vs Frequency



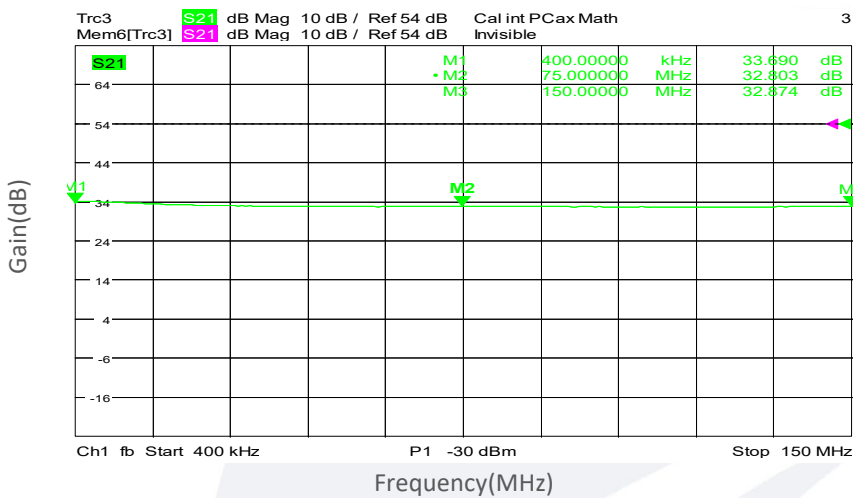
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

## Typical Performance Data:

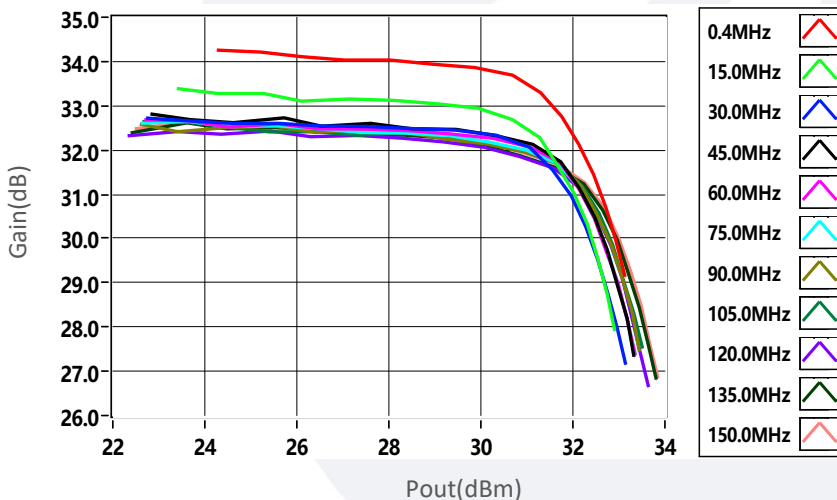
### Output VSWR vs Frequency



### Small Signal Gain vs Frequency



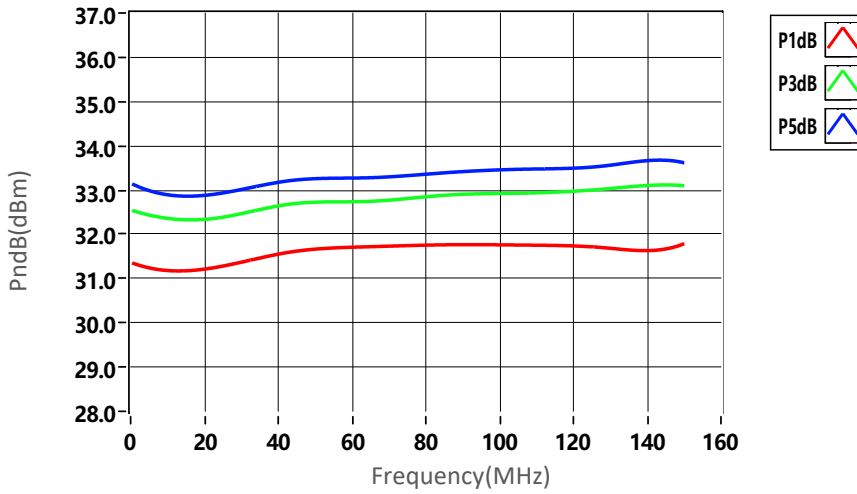
### Gain vs Output Power



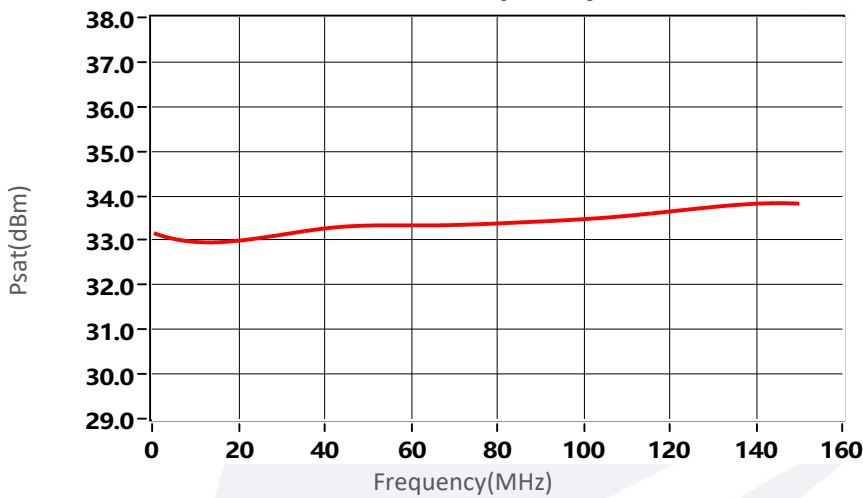
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## 典型曲线 Typical Performance Data:

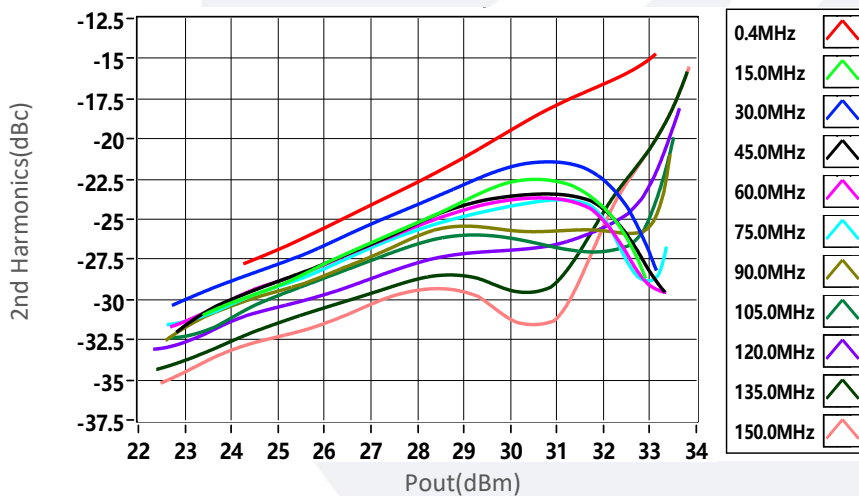
### PndB vs Frequency



### Psat vs Frequency



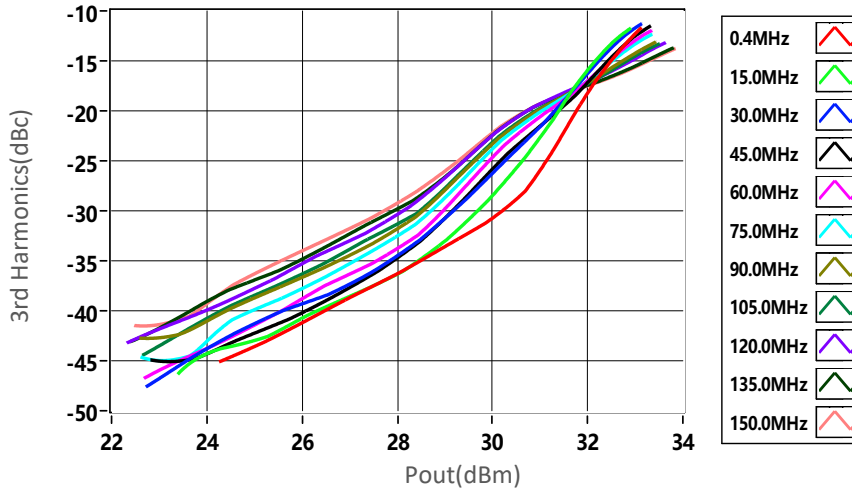
### 2nd Harmonics vs Output Power



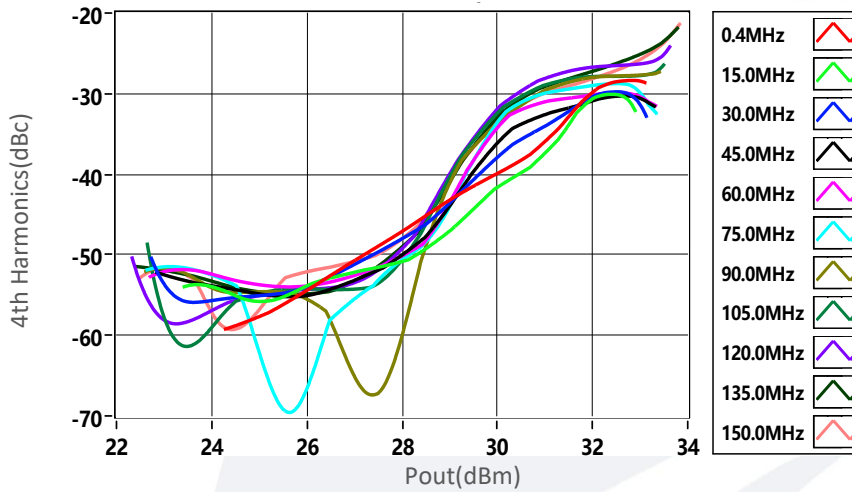
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

## Typical Performance Data:

### 3rd Harmonics vs Output Power



### 4th Harmonics 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.