

## Power Amplifier

0.1-6GHz /30dB Gain/30 dBm Psat

Model: TLPA100M6G-30-30

TLPA100M6G-30-30 is a power amplifier with a typical small signal gain of 30 dB and a Psat of 30 dBm across the frequency range of 0.1 to 6 GHz. The DC power requirement for the amplifier is +15 VDC/0.7 A. The input and output port configuration offers coax adapter structure with SMA female.

### Features:

- Frequency range: 0.1-6GHz
- Gain: 30dB Typ
- Output Power Psat: 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	0.1		6	GHz
Small Signal Gain	27	30		dB
Gain Flatness		±3	±4	dB
Output P1dB	30	31		dBm
Output Psat	30			dBm
Harmonics		-25	-20	dBc
Input VSWR		1.5	2	:1
DC Voltage		15	16	V DC
DC Supply Current		0.7	1	A
Impedance		50		Ohms



### 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)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

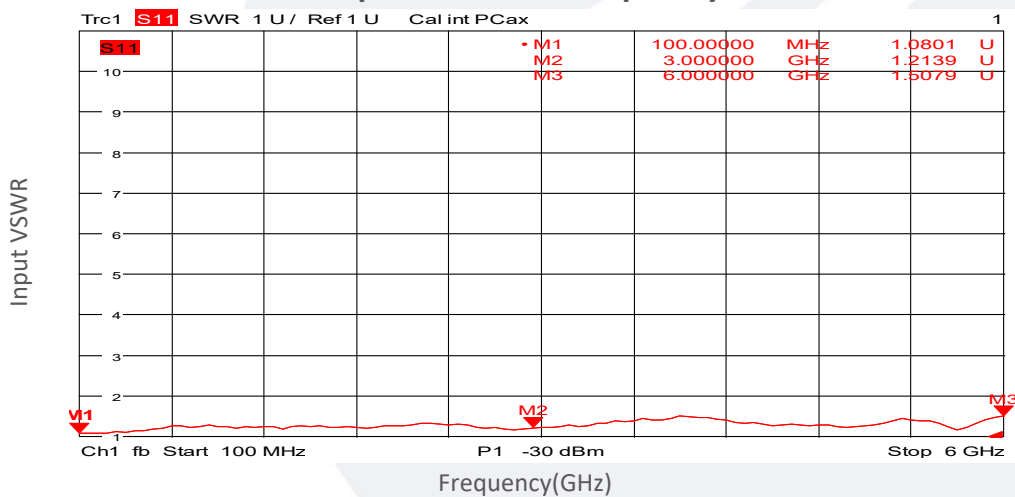
\*Note: For a wider temperature range, please consult the manufacturer.

### Ordering Information:

Base Number	Description	Revision
TLPA100M6G-30-30	Power amplifier 0.1-6GHz,Gain:30dB,Psat:30dBm, +15V DC,Without Heatsink	Rev.1.1
TLPA100M6G-30-30-HS	Power amplifier 0.1-6GHz,Gain:30dB,Psat:30dBm, +15V DC,With Heatsink	Rev.1.1

### Typical Performance Data:

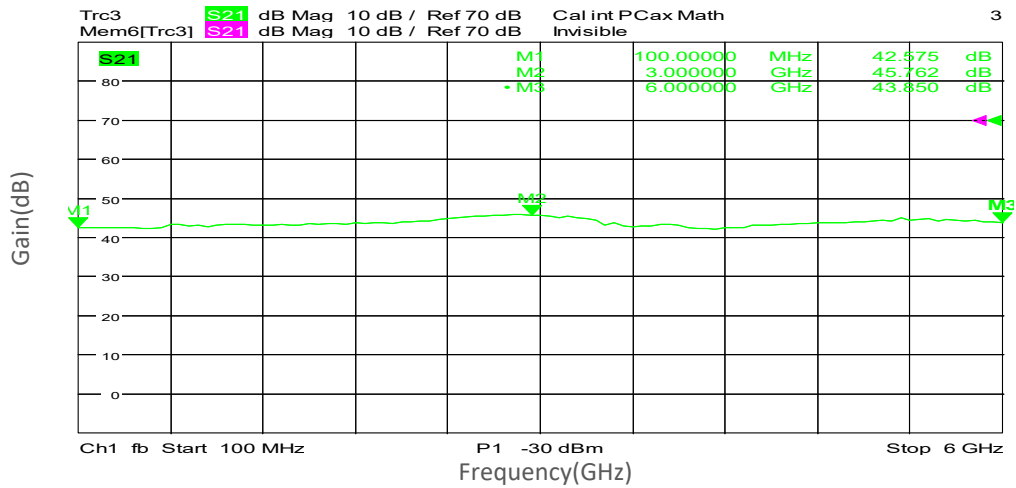
Input VSWR vs Frequency



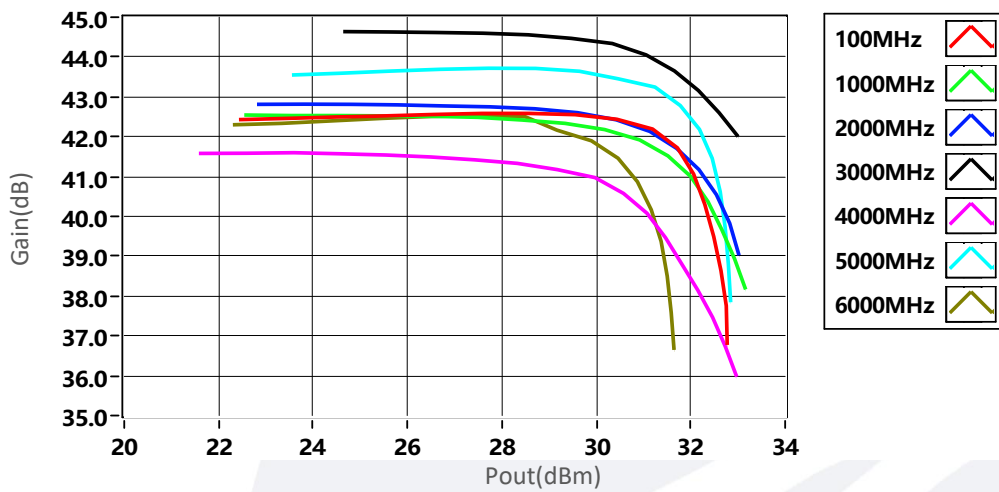
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

## Typical Performance Data:

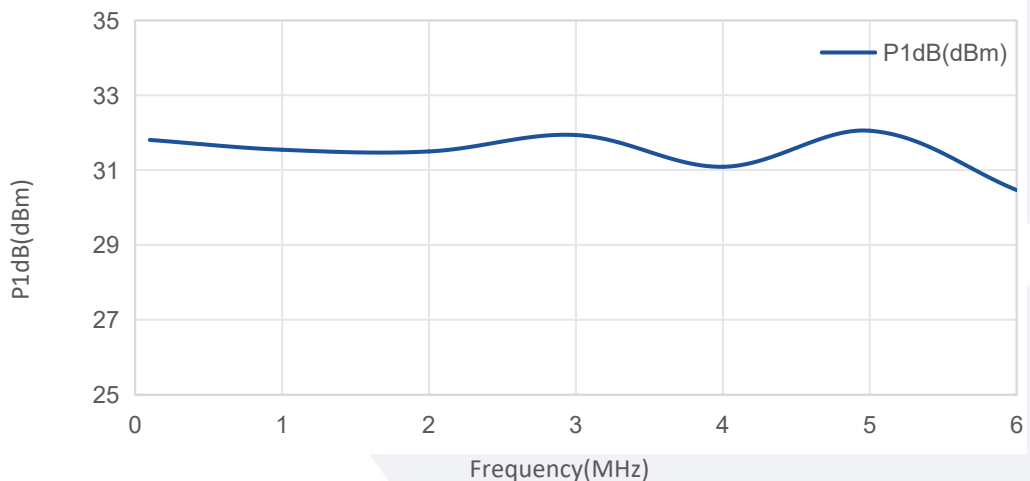
### Small Signal Gain vs Frequency



### Gain vs Output Power



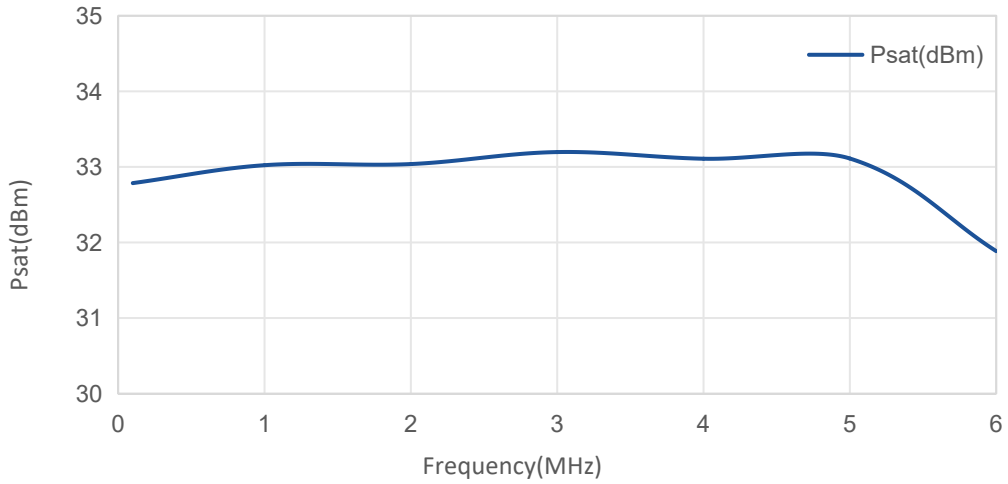
### P1dB vs Frequency



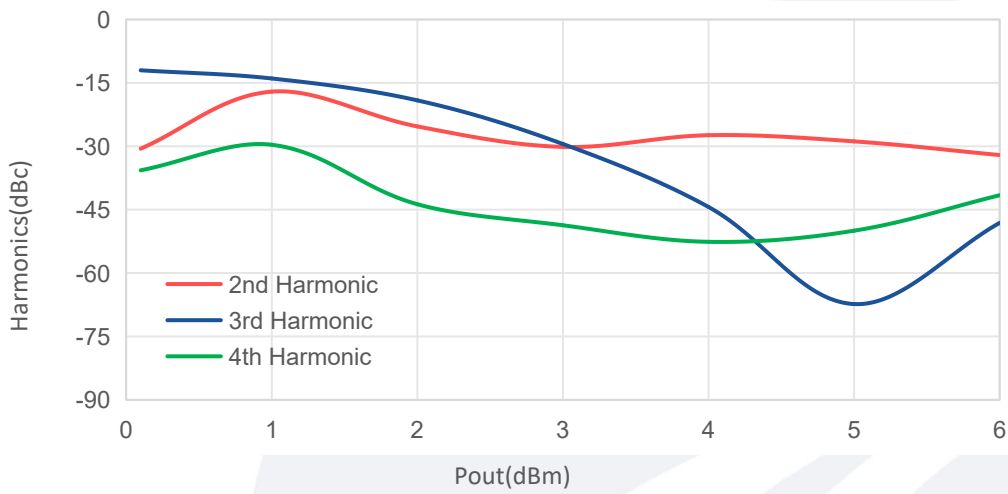
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

## Typical Performance Data:

### Psat vs Frequency



### 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.