Suzhou Talent Microwave,Inc
sales@talentmw.com
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Power Amplifier

50KHz-6GHz/33dB Gain/33dBm Psat

Model: TLPA50K6G-33-33

TLPA50K6G-33-33 is a power amplifier with a minimum small signal gain of 33 dB and a nominal Psat of 33 dBm across the frequency range of 50KHz to 6GHz. The DC power requirement for the amplifier is +28 VDC/600 mA. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 50KHz-6GHz
- Gain: 33dB Min
- Output Power Psat: 33dBm Typ
- 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	50KHz		6GHz	
Small Signal Gain	33	34		dB
Gain Flatness			±4	dB
Output P1dB		30		dBm
Output Psat	32	33		dBm
Harmonic			-10	dBc
Input VSWR		1.5	2.0	:1
DC Voltage		+28		V DC
DC Supply Current		600		mA
Impedance		50		Ohms

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Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	Solder Pin	
Size	120*80*22	mm
Weight	200	g

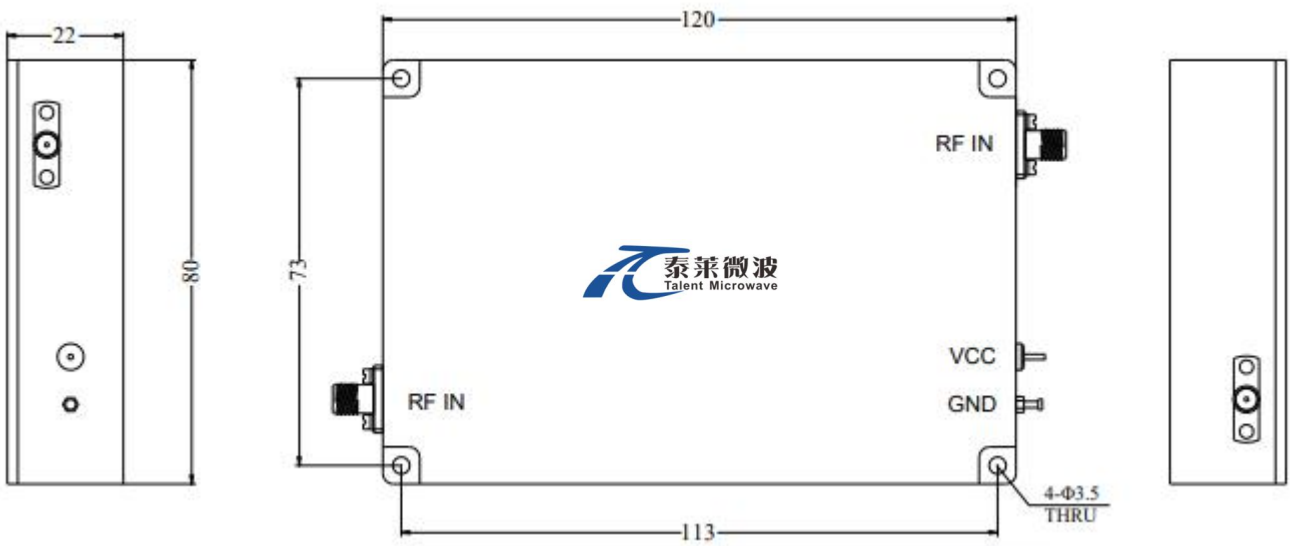
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+30 V
RF Input Power	0 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:

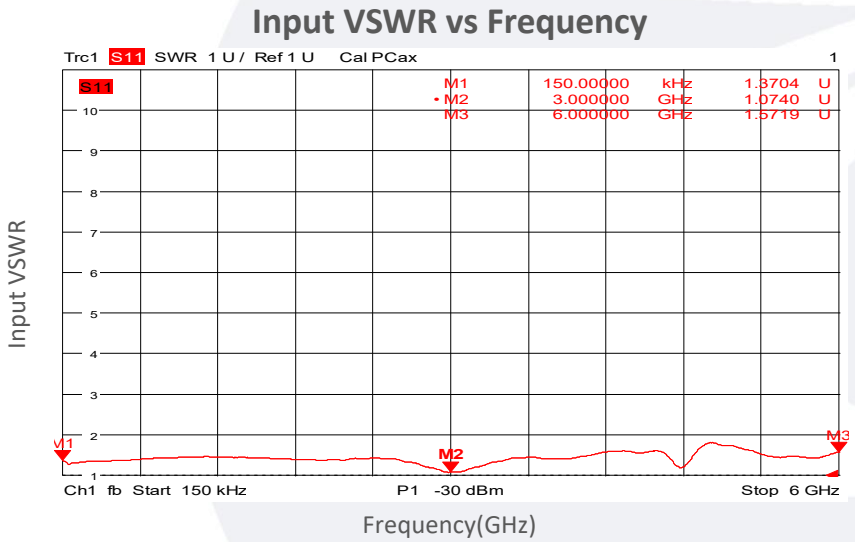
Parameter	Min	Typ	Max	Units
Operating Temperature*	-40		+60	℃
Non-operating Temperature*	-50		+70	℃
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	20g,11ms,saw-tooth			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

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

Ordering Information:

Base Number	Description	Revision
TLPA50K6G-33-33	Power amplifier 50KHz-6GHz, Gain:33dB,Psat:33dBm,+28V DC,Without Heatsink	Rev.1.1
TLPA50K6G-33-33-HS	Power amplifier 50KHz-6GHz, Gain:33dB,Psat:33dBm,+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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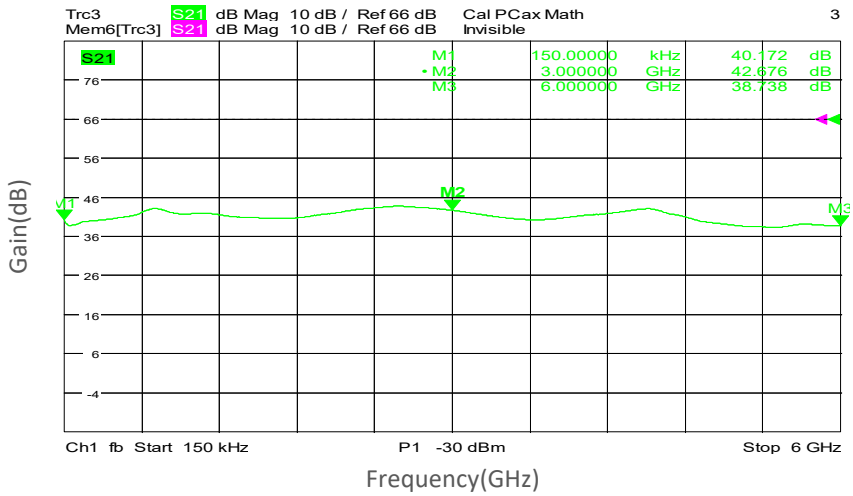
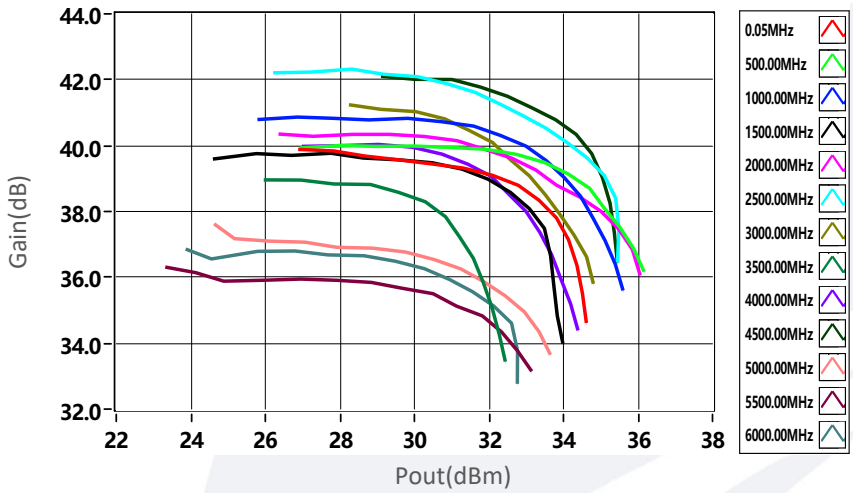
Typical Performance Data:

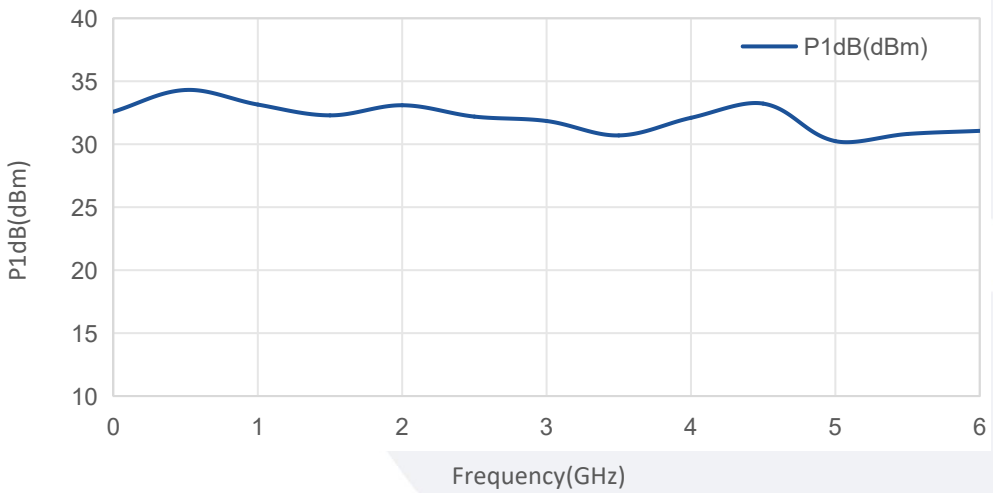
Small Signal Gain vs Frequency



Gain vs Output Power



P1dB vs Frequency



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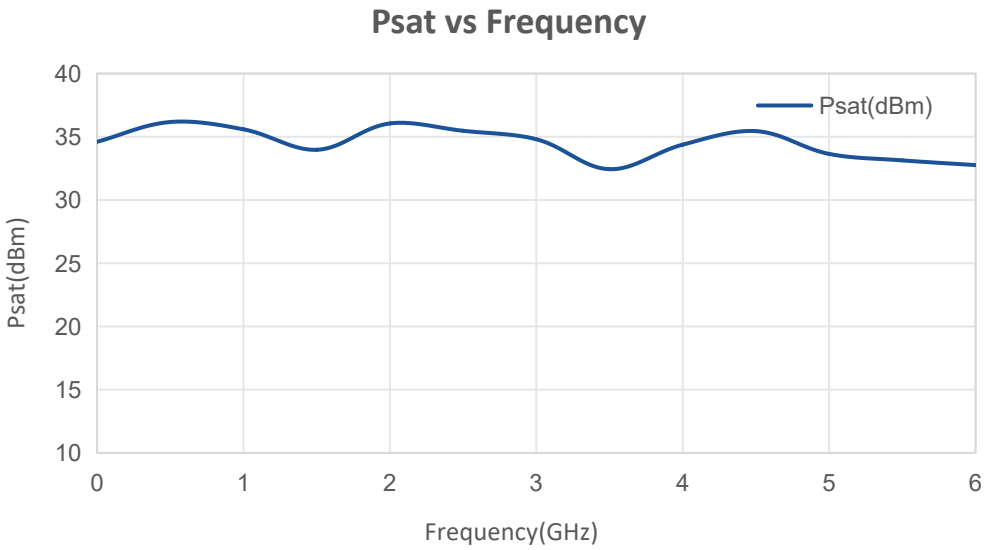

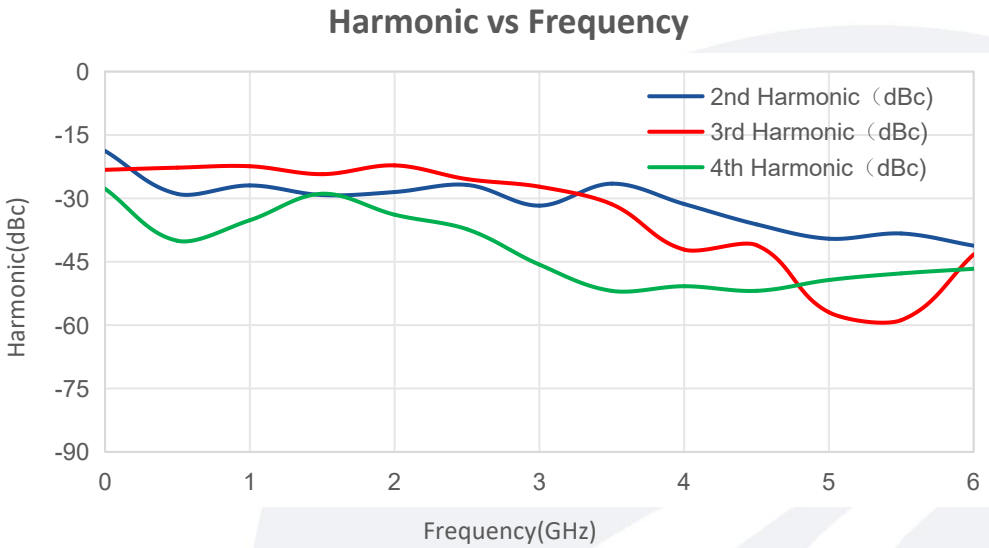

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