

## Power Amplifier

6-18GHz/40dB Gain/30 dBm Psat

Model: TLPA6G18G-40-30

TLPA6G18G-40-30 is a power amplifier with a typical small signal gain of 40 dB and a minimum Psat of 30 dBm across the frequency range of 6 to 18 GHz. The DC power requirement for the amplifier is +8 VDC/1.4 A. The input and output port configuration offers coax adapter structure with SMA female.

### Features:

- Frequency range: 6-18GHz
- Gain: 40dB 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	6		18	GHz
Small Signal Gain		40		dB
Gain Flatness		±2.5		dB
Output Psat	30	33		dBm
Input VSWR		2		:1
Output VSWR		2		:1
DC Voltage		8		V DC
DC Supply Current		1.4		A
Impedance	50			Ohms

### Mechanical Specifications:

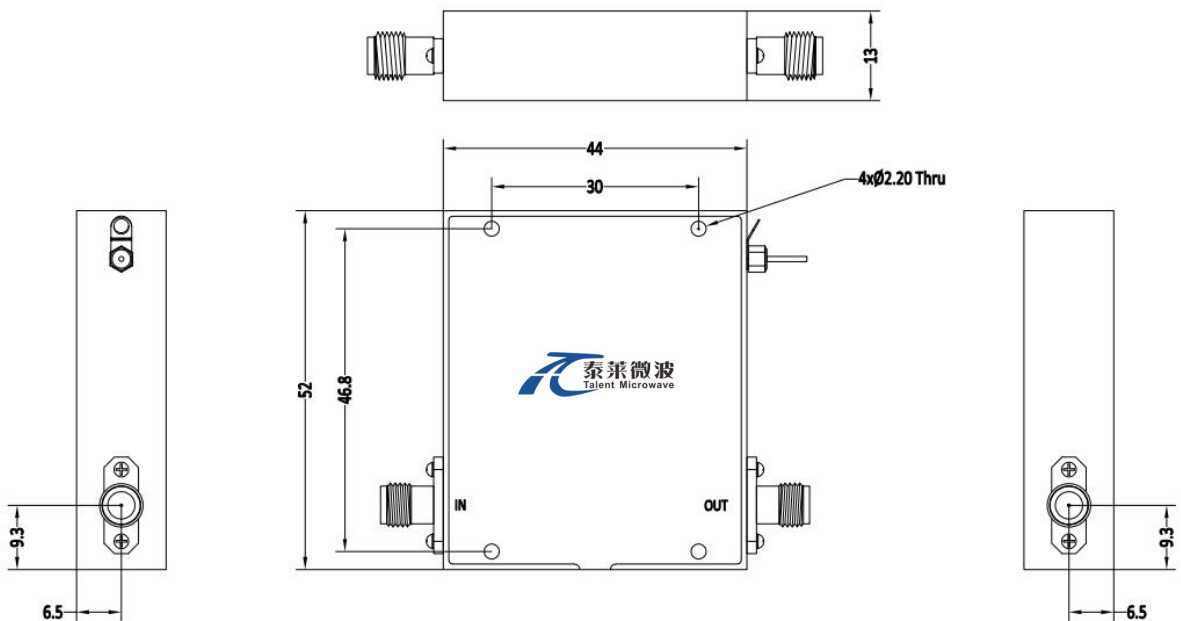
Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	Solder Pin	
Size	44*52*13	mm

### Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	TBD
RF Input Power	TBD
ESD sensitivity (HBm)	Class 0, passed 150V

### Outline Drawing:

Unit:mm



**\*\*\*Heat Sink Required During Operation**



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

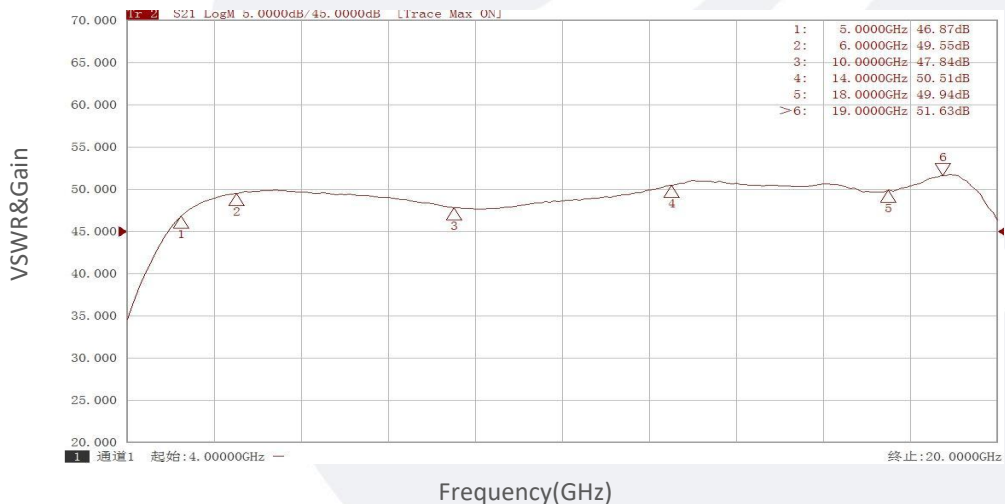
\*Note: For a wider temperature range, please consult the manufacturer.

### Ordering Information:

Base Number	Description	Revision
TLPA6G18G-40-30	Power amplifier 6-18GHz, Gain:40dB,Psat:30dBm,+8V DC,Without Heatsink	Rev.1.1
TLPA6G18G-40-30-HS	Power amplifier 6-18GHz, Gain:40dB,Psat:30dBm,+8V DC,With Heatsink	Rev.1.1

### Typical Performance Data:

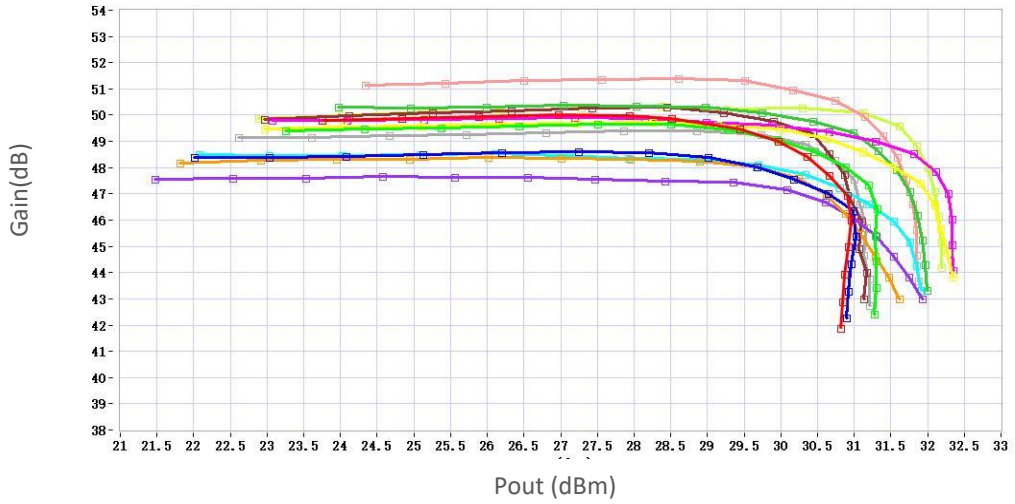
**VSWR&Gain vs Frequency**



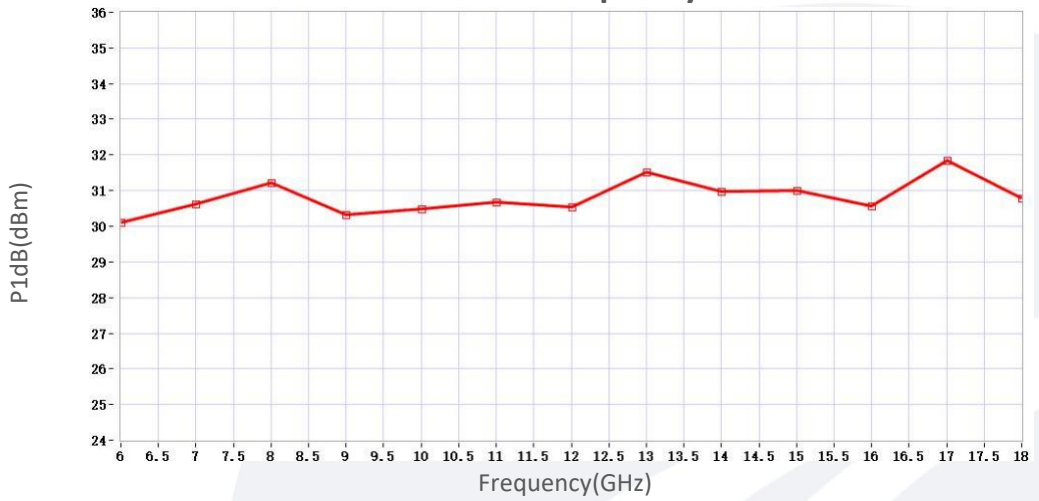
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

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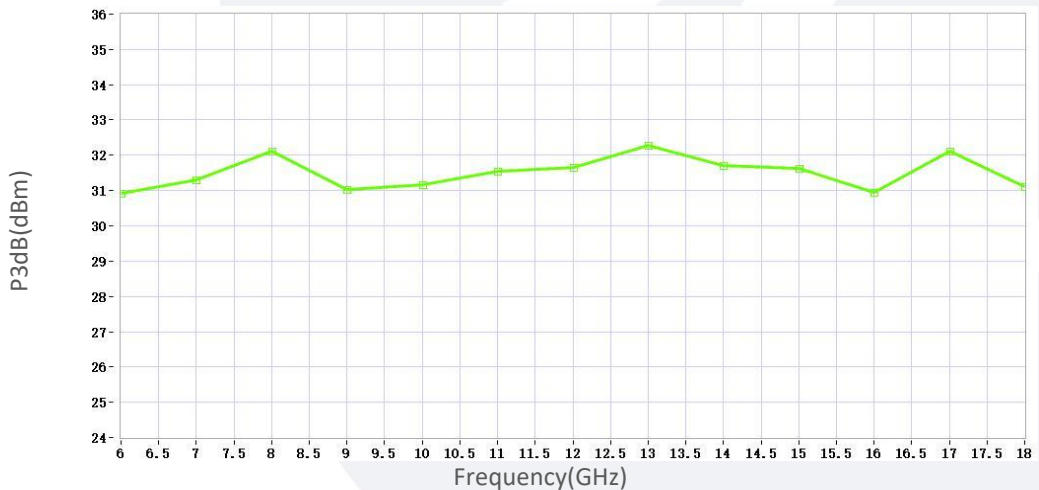
**Gain vs Output Power**



**P1dB vs Frequency**



**P3dB vs Frequency**



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