

## Power Amplifier

2-6GHz /52dB Gain/50dBm Psat

Model: TLPA2G6G-52-50

TLPA2G6G-52-50 is a power amplifier with a typical small signal gain of 52 dB and Psat of 50 dBm across the frequency range of 2 to 6 GHz. The DC power requirement for the amplifier is +28 VDC/3 A. The input and output port configuration offers coax adapter structure with SMA female.

### Features:

- Frequency range: 2-6GHz
- Gain: 52dB Typ
- Output Power Psat: 50dBm 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	2-6			GHz
Small Signal Gain	50	52		dB
Gain Flatness		±3	±5	dB
Output P1dB	47			dBm
Output Psat	50			dBm
Harmonics		-12		dBc
Input VSWR		1.5	2	:1
DC Voltage		+28		V DC
DC Supply Current		3	22	A
Impedance	50			Ohms

### Mechanical Specifications:

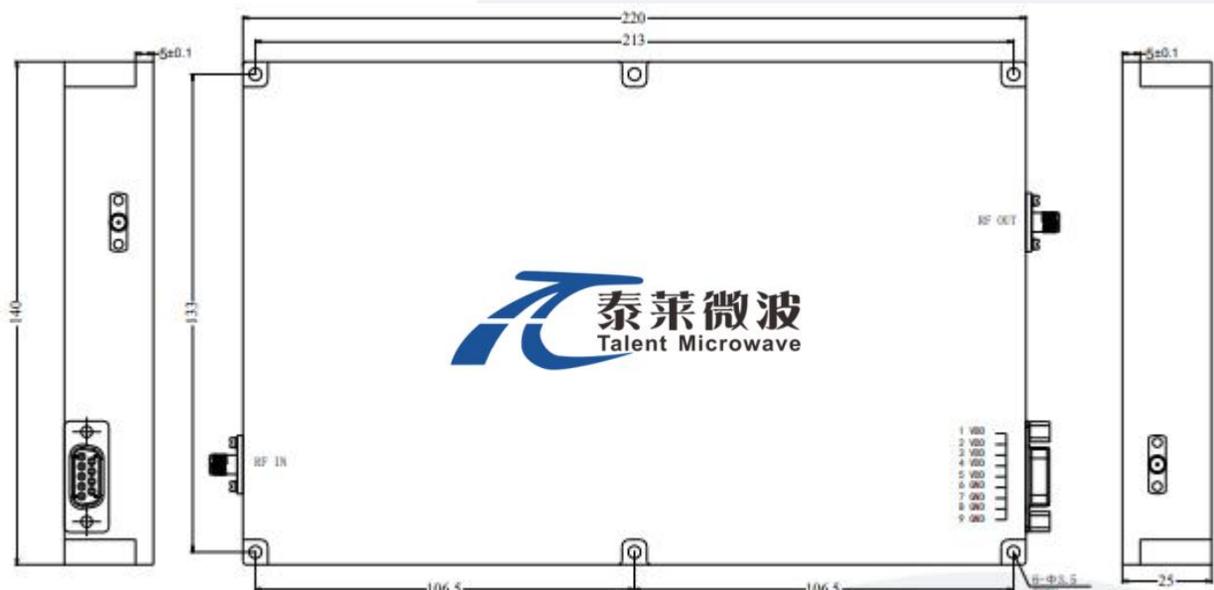
Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	DSUB-9	Pin1~5:+28V Pin6~9:GND
Size	220*140*25	mm
Weight	250	g

### Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+28 V
RF Input Power	+5 dBm
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*	-20		+50	°C
Non-operating Temperature*	-30		+60	°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			

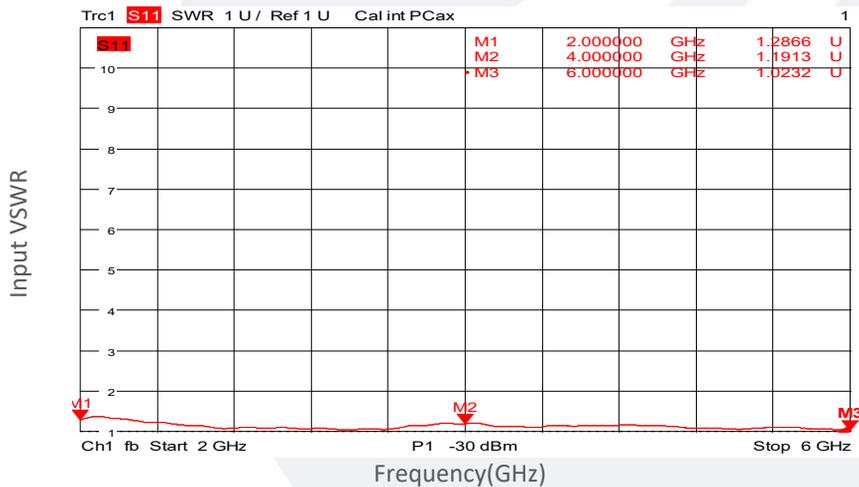
\*Note: For a wider temperature range, please consult the manufacturer.

### Ordering Information:

Base Number	Description	Revision
TLPA2G6G-52-50	Power amplifier 2-6GHz,Gain:52dB,Psat:50dBm, +28V DC,Without Heatsink	Rev.1.1
TLPA2G6G-52-50-HS	Power amplifier 2-6GHz,Gain:52dB,Psat:50dBm, +28V DC,With Heatsink	Rev.1.1

### Typical Performance Data:

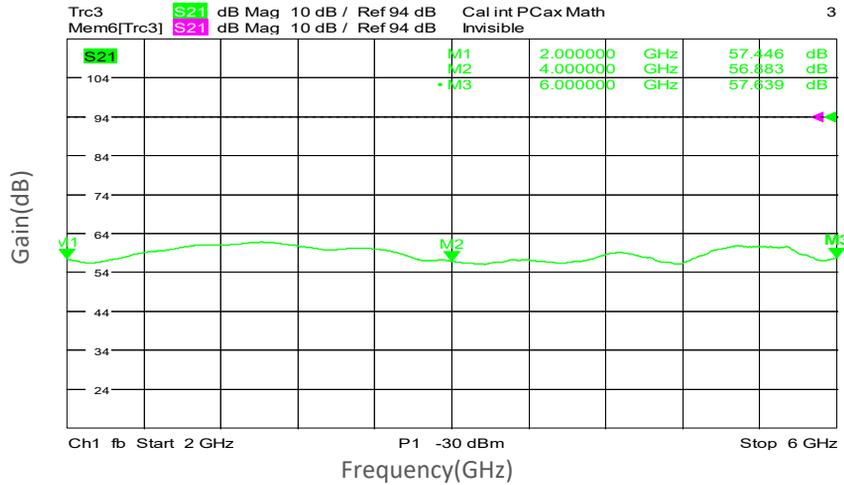
#### Input VSWR vs Frequency



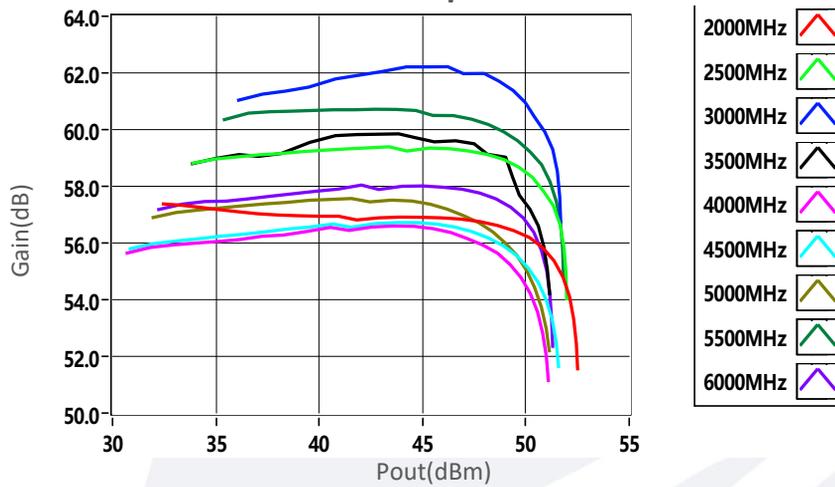
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

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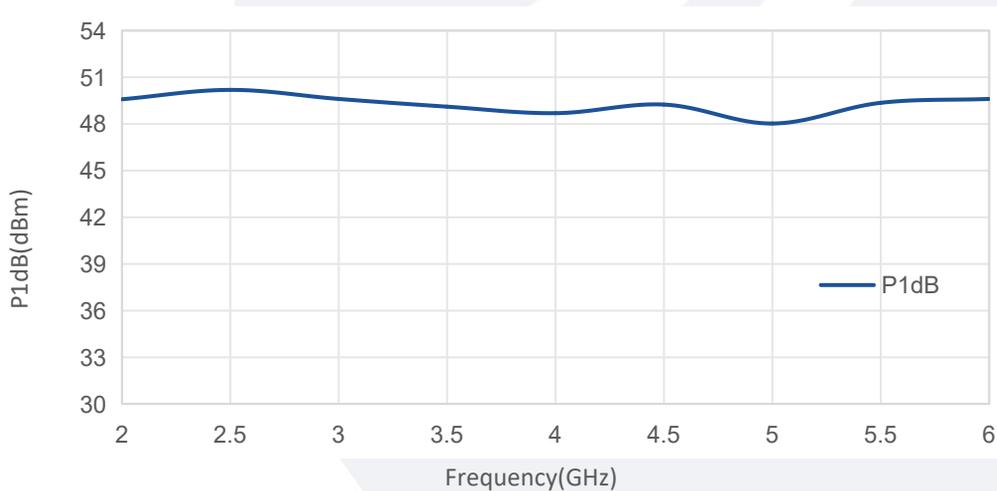
### Small Signal Gain vs Frequency



### Gain vs Output Power



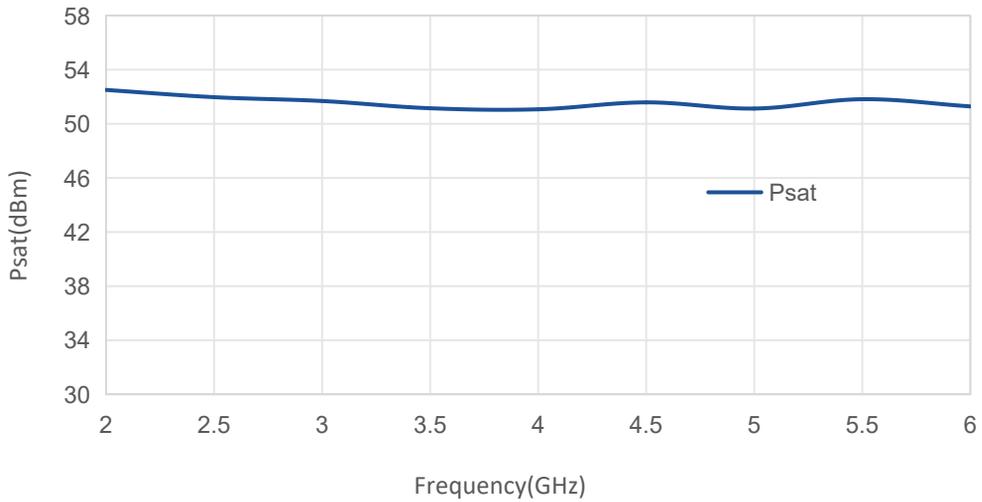
### P1dB vs Frequency



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## Typical Performance Data:

### Psat vs Frequency



### Harmonics vs Frequency



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