

## Power Amplifier

0.3-2GHz /50 dB Gain/50 dBm Psat

**Model: TLPA0.3G2G-50-50**

TLPA0.3G2G-50-50 is a power amplifier with a typical small signal gain of 50 dB and Psat of 50 dBm across the frequency range of 0.3 to 2 GHz. The DC power requirement for the amplifier is +28 VDC. The input and output port configuration offers coax adapter structure with SMA Female/N Female.

### Features:

- Ultra Wide Band: 0.3-2GHz
- Small Signal Gain: 50dB Min
- 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		0.3-2		GHz
Gain	50			dB
Gain Flatness		±3		dB
Output Psat	50			dBm
Spurious@Pout=50dBm			-60	dBc
Harmonics@Pout=50dBm			-10	dBc
Input VSWR			2.0	:1
DC Voltage		+28		V DC
Power Consumption			850	W
Impedance	50			Ohms



Suzhou Talent Microwave,Inc  
sales@talentmw.com  
www.talentmw.com

## Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/N Female	
DC Power Interface	D-SUB5W5	
Size	271*264*113.5	mm
Weight	15	g

## Absolute Maximum Ratings:

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

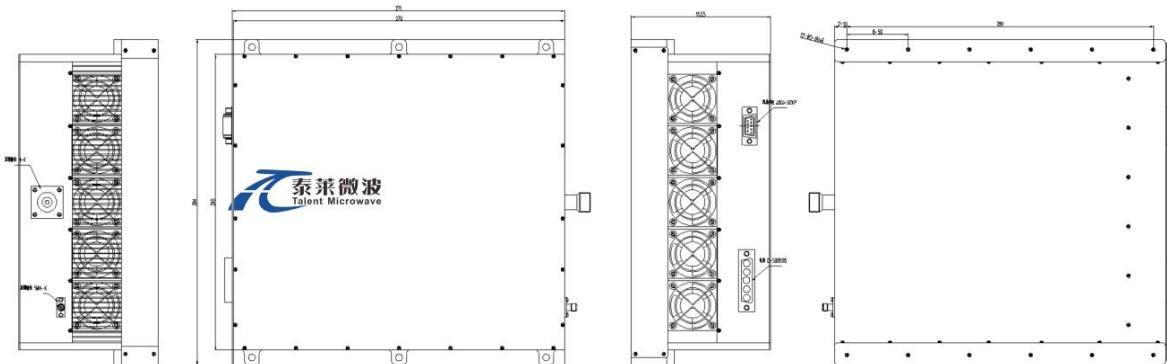
## Key Features:

Parameter	Advantages
Built-in protections	Output Power, Temperature, Voltage, Current
Protection functions	Over TEM, Over voltage, Over current protection, Over VSWR
Built-in Control	Shutdown

\*\*\*Heat Sink Required During Operation

## Outline Drawing:

Unit:mm



SUB-5W5 Define	
Pin	Function
A1-A2	+28V
A3-A5	GND

## Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature*	-40		+60	°C
Non-operating Temperature*	-50		+70	°C
Relative humidity		95		%
Altitude		50,000		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			

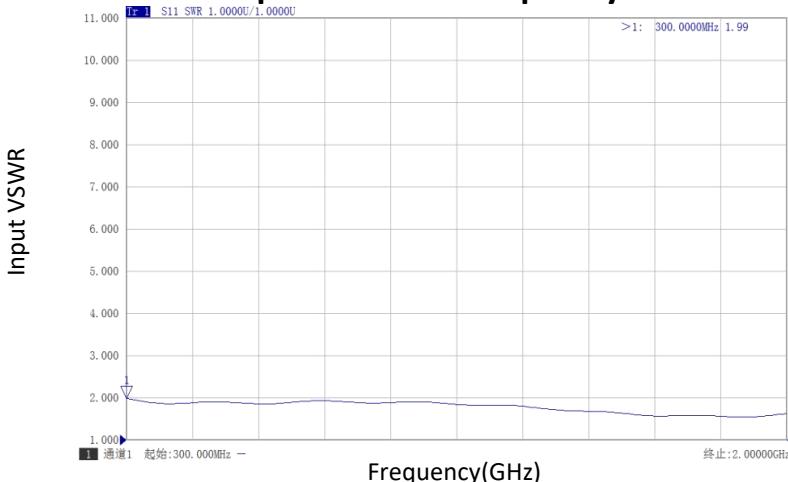
\*Note: For a wider temperature range, please consult the manufacturer.

## Ordering Information:

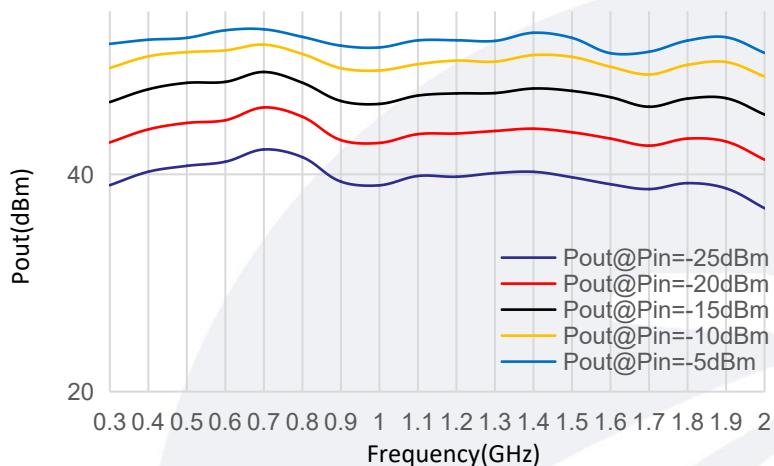
Base Number	Description	Revision
TLPA0.3G2G-50-50	Power amplifier 0.3-2GHz,Gain:50dB,Psat:50dBm,+28V DC,Protection:Over TEM,over voltage, over current,over reflection and Fault location Protection.	Rev.1.1

## Typical Performance Data:

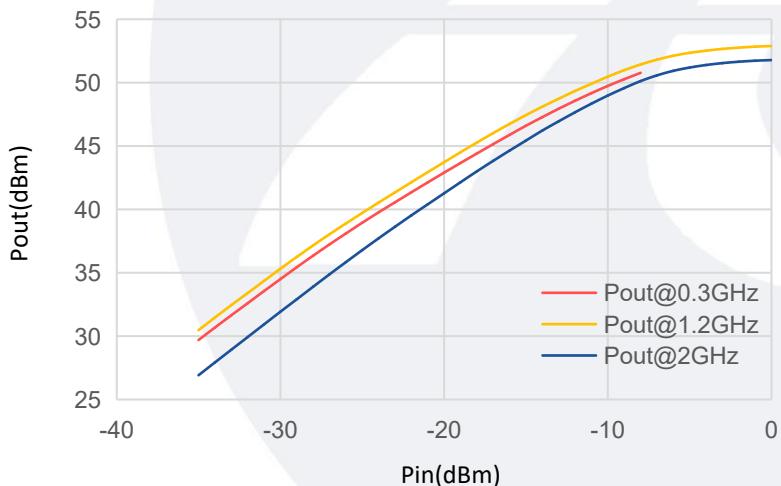
**Input VSWR vs Frequency**



**Pout@Equal\_Pin**

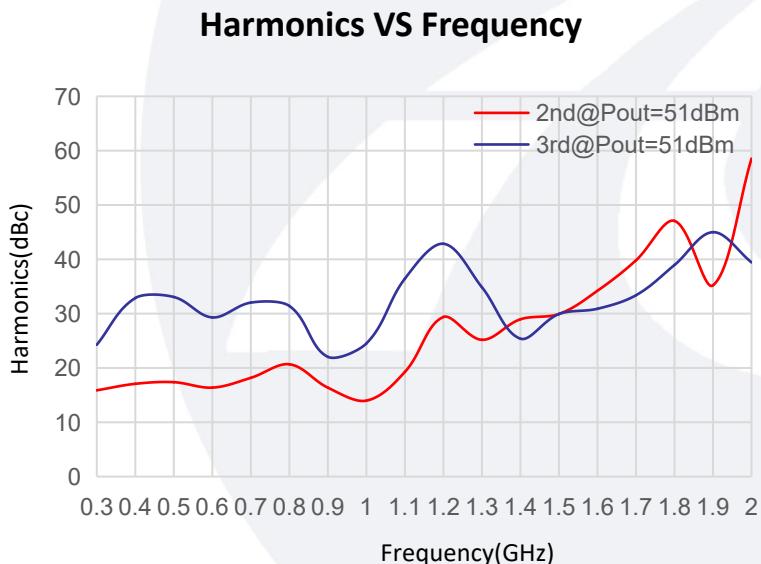
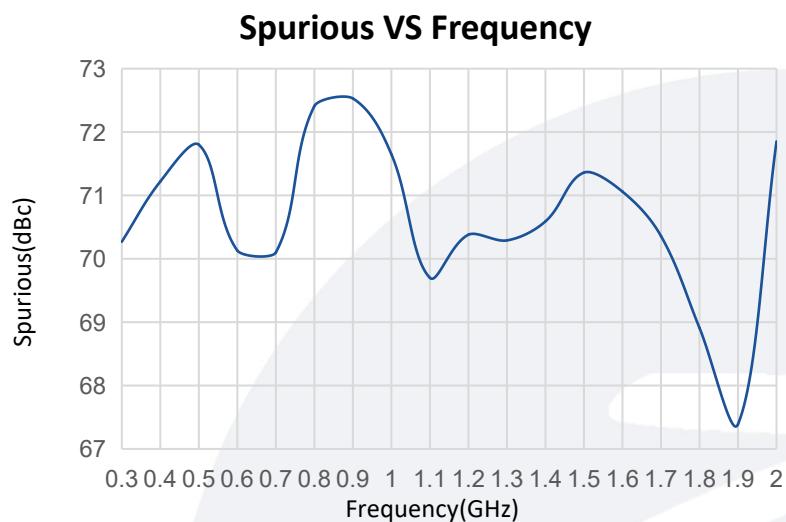
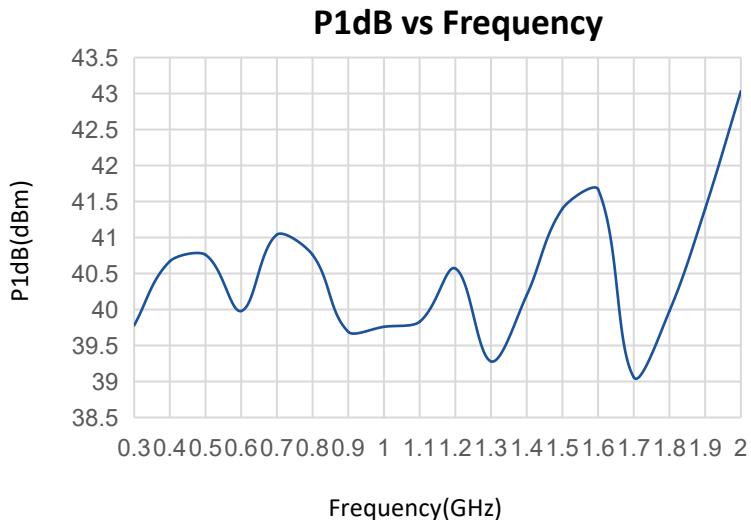


**Pout@Pin**



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:



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.