

## Power Amplifier

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

Model: TLPA0.3G2G-50-50

TLPA0.3G2G-50-50 is a power amplifier with a minimum gain of 50 dB and a minimum Psat of 50 dBm across the frequency range of 0.3 to 2 GHz. The DC power requirement for the amplifier is +28 VDC/850W. The input port configuration offers coax adapter structure with SMA female and output port configuration offers coax adapter structure with N Female.

### Features:

- Frequency range: 0.3-2GHz
- 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

## Mechanical Specifications:

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

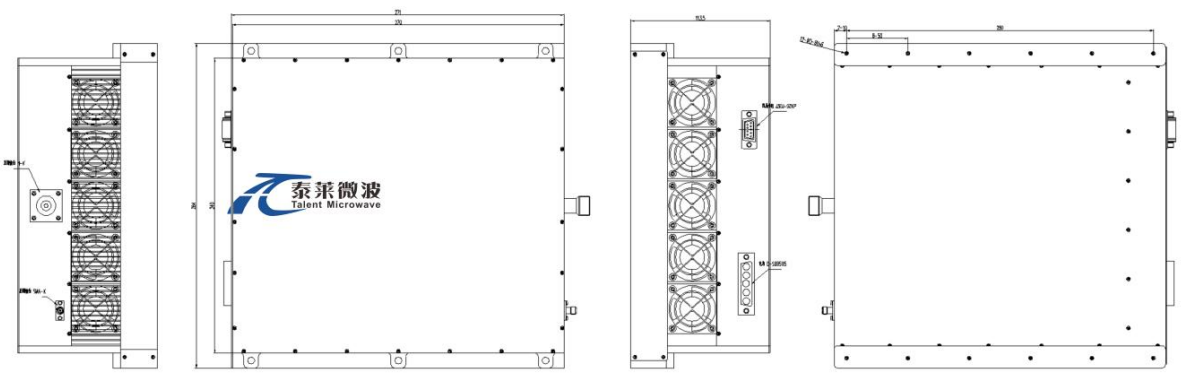
## Absolute Maximum Ratings:

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



## Outline Drawing:

Unit:mm



## SUB-5W5 Define

引脚 Pin	功能 Function
A1-A2	+28V
A3-A5	GND



ESD Protection: Strictly adhere to ESD precautions to prevent electrostatic damage.

### Key Features:

Parameter	Advantages
Monitoring protections	1,OutputPower 2,Temperature 3,Voltage 4,Current
Protection functions	1,Over TEM 2,Over voltage 3,Over current 4,Over VSWR
Control functions	Power setting on/off

### 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			

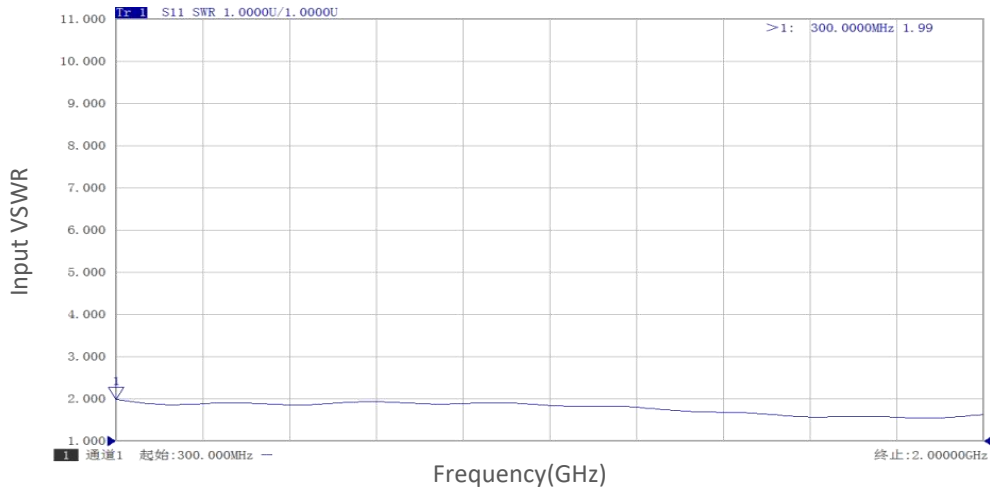
\*Note: For a wider temperature range, please consult the manufacturer.

### Ordering Information:

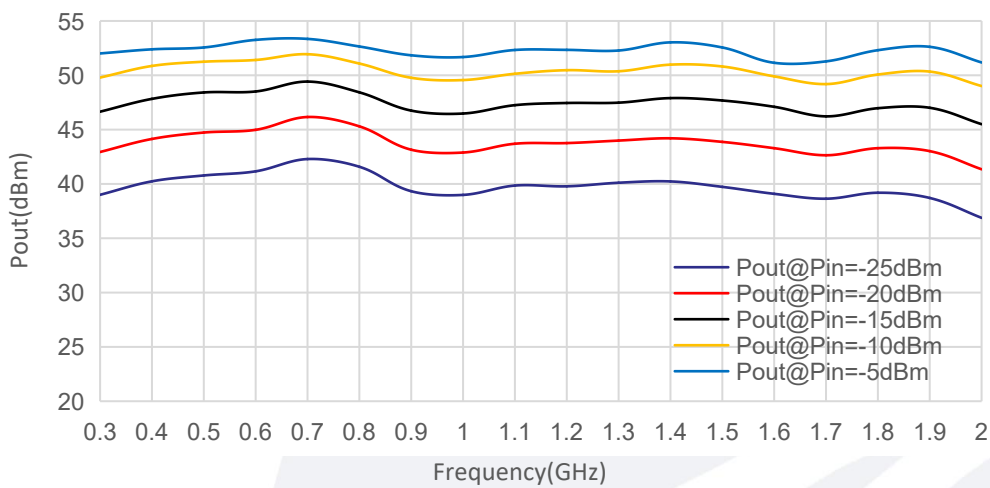
Base Number	Description	Revision
TLPA0.3G2G-50-50	Power amplifier 0.3-2GHz, Gain:50dB,Psat:50dBm,+28V DC,With Heatsink	Rev.1.1

## Typical Performance Data:

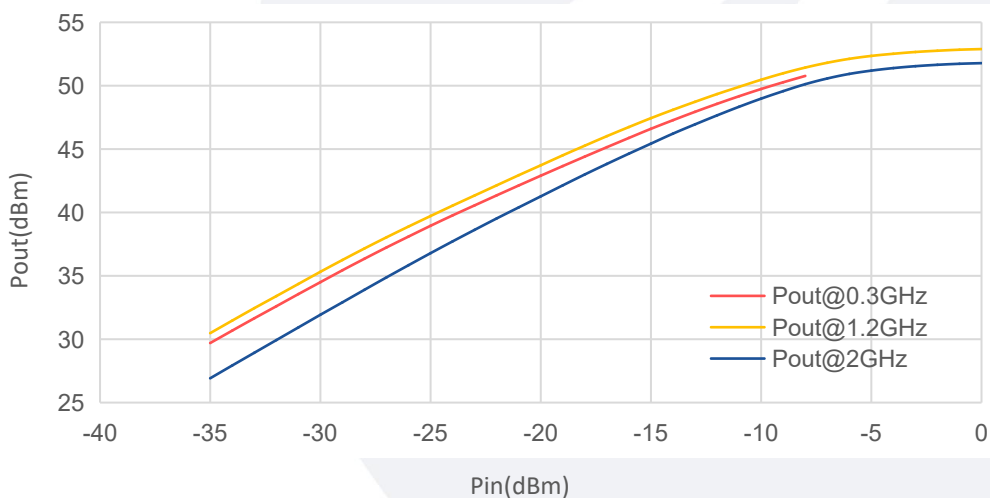
### Input VSWR vs Frequency



### Pout@Equal\_Pin



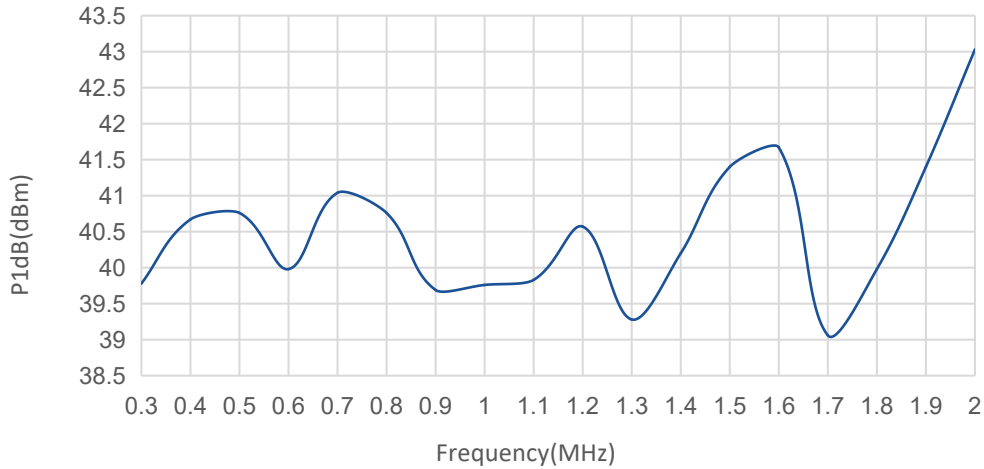
### Pout@Pin



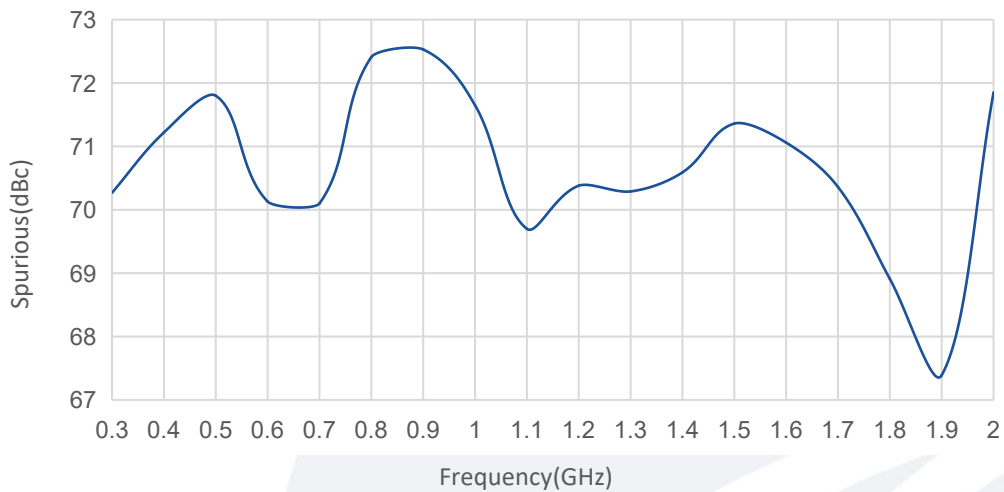
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

## Typical Performance Data:

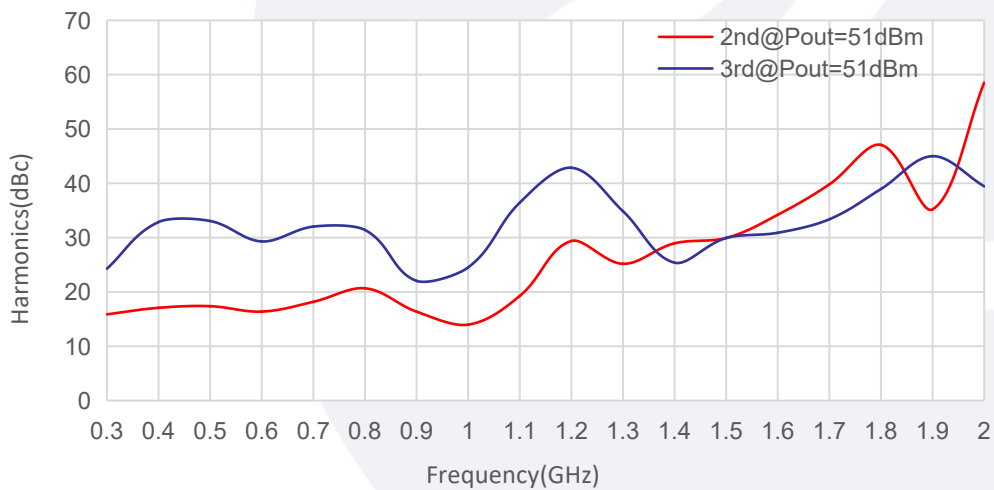
### P1dB vs Frequency



### Spurious VS Frequency



### Harmonics VS Frequency



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