Suzhou Talent Microwave,Inc
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Power Amplifier

0.5-3GHz/47dB Gain/47dBm Psat

Model: TLPA0.5G3G-47-47

TLPA0.5G3G-47-47 is a power amplifier with a minimum small signal gain of 47 dB and a minimum Psat of 47 dBm across the frequency range of 0.5 to 3 GHz. The DC power requirement for the amplifier is +32 VDC/10 A. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 0.5-3GHz
- Gain: 47dB Min
- Output Power Psat: 47dBm 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	0.5		3	GHz
Small Signal Gain	47			dB
Gain Flatness			±3	dB
Output Psat	47			dBm
Spurious@Pout=50dBm			-65	dBc
Harmonics@Pout=50dBm			-10	dBc
Input VSWR			1.8	:1
DC Voltage		+32	+33	V DC
DC Supply Current		10		A
Impedance	50			Ohms

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Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Power Interface	Cap Feed	
Size	210*101.3*28.5	mm

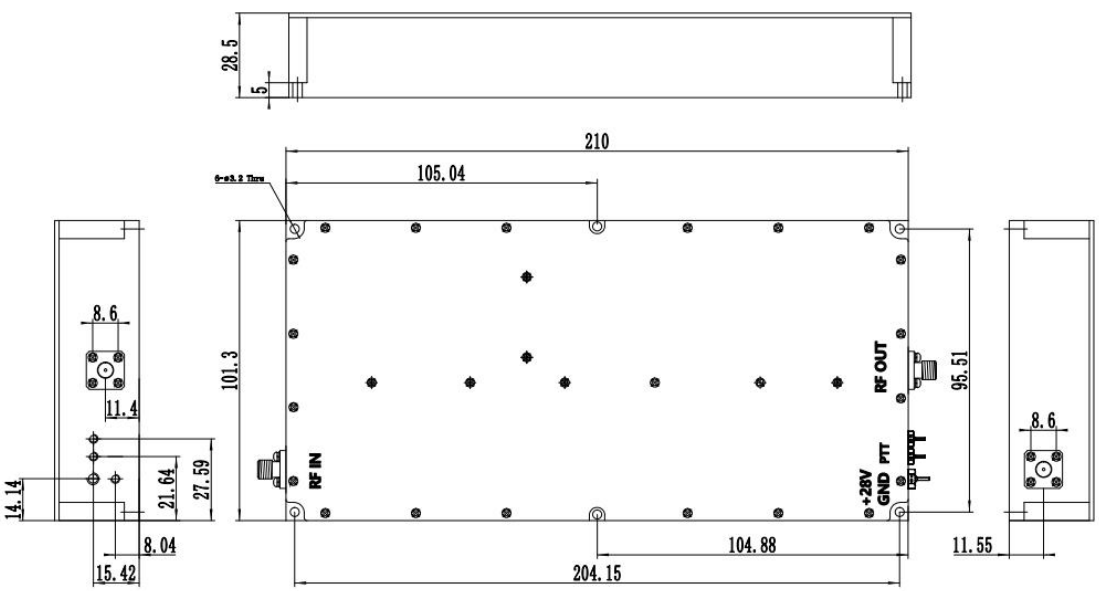
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+33 V
RF Input Power	+6 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:

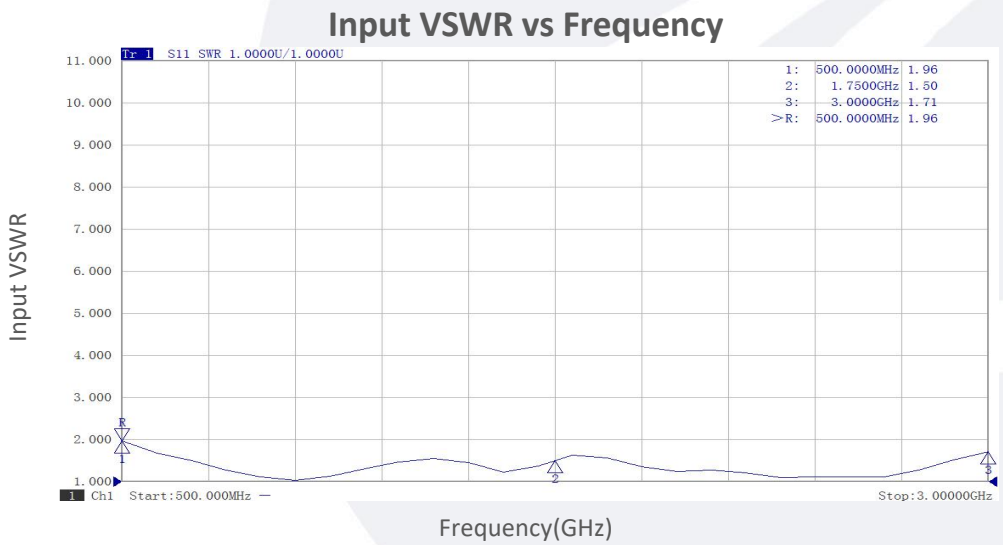
Parameter	Min	Typ	Max	Units
Operating Temperature*	-20		+50	℃
Non-operating Temperature*	-30		+60	℃
Relative humidity		95		%
Altitude	50,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

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

Ordering Information:

Base Number	Description	Revision
TLPA0.5G3G-47-47	Power amplifier 0.5-3GHz, Gain:47dB,Psat:47dBm,+32V DC,Without Heatsink	Rev.1.1
TLPA0.5G3G-47-47-HS	Power amplifier 0.5-3GHz, Gain:47dB,Psat:47dBm,+32V 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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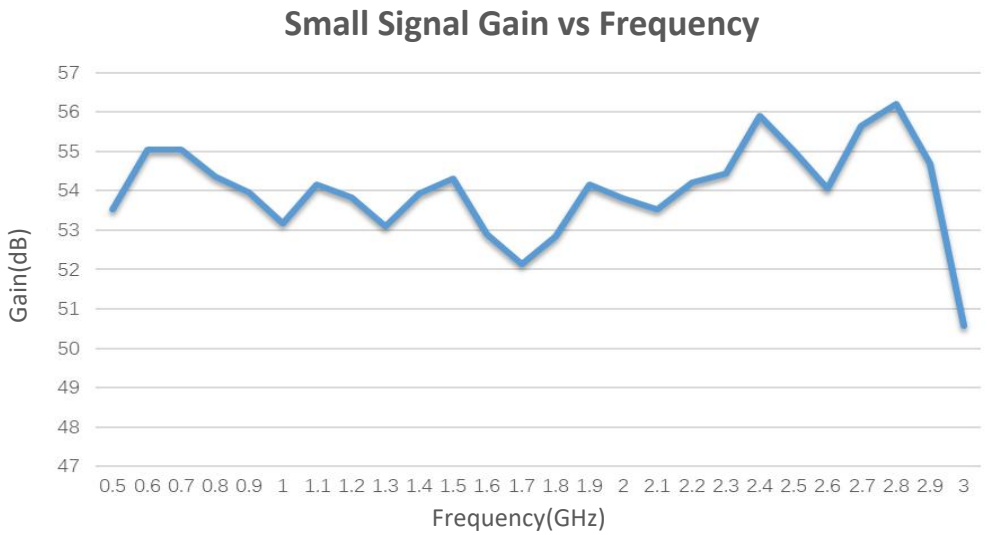

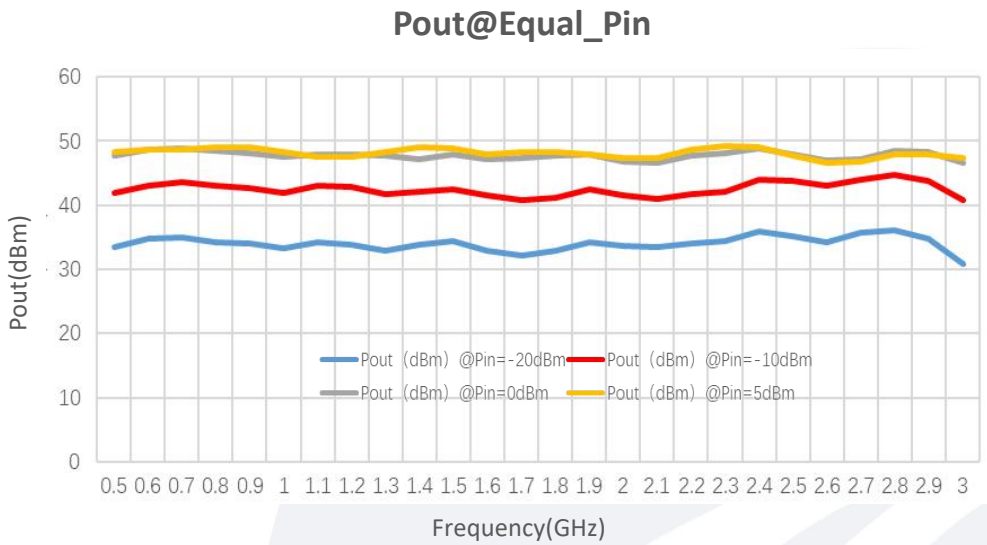

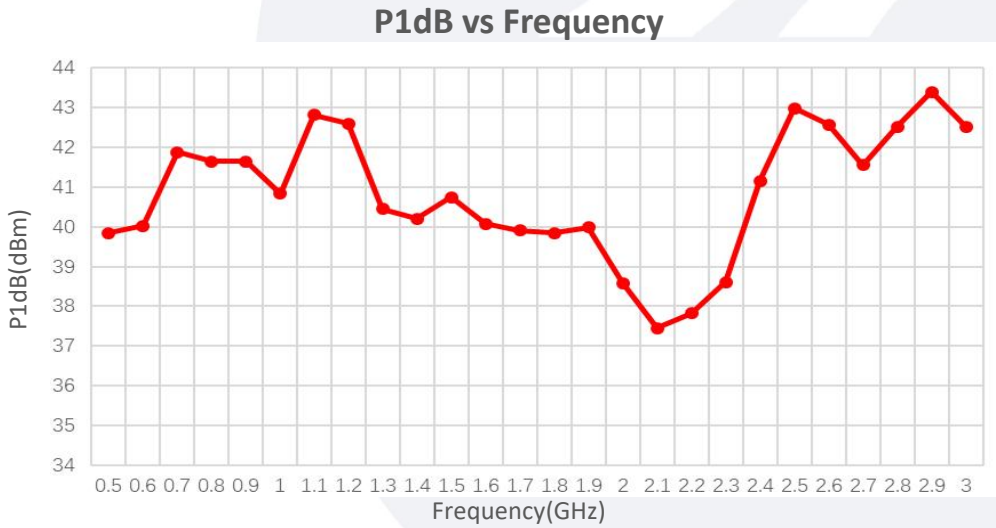

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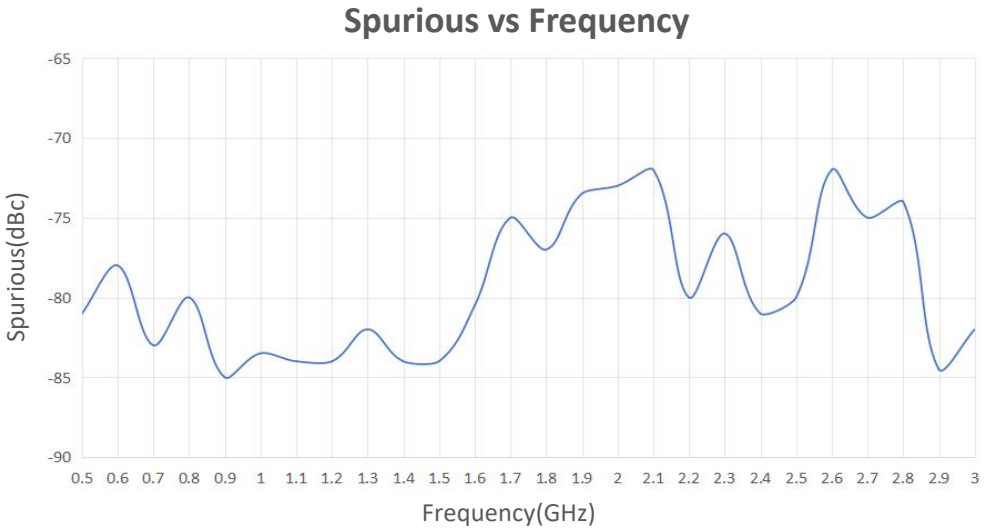

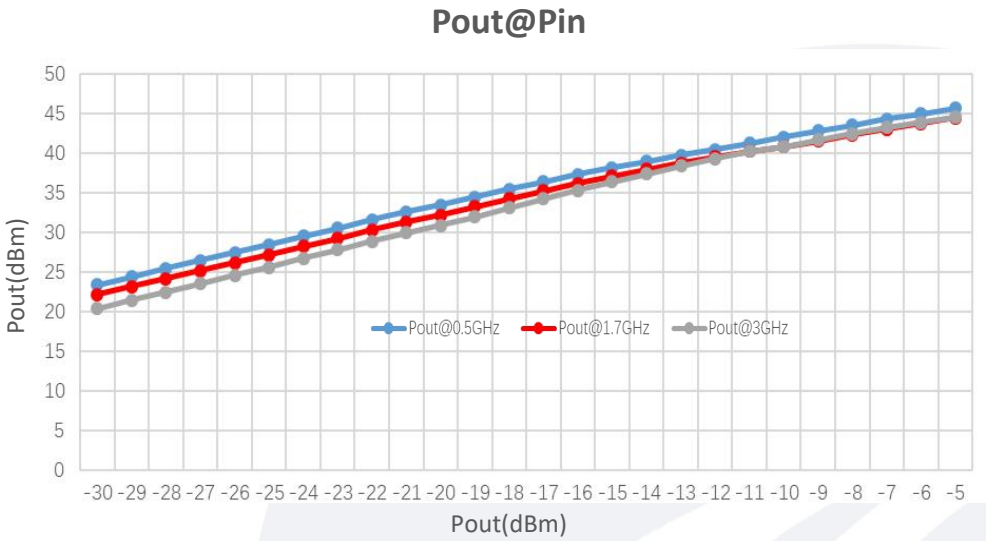

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