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

Power Amplifier

0.5-6GHz /50dB Gain/50 dBm Psat

Model: TLPA0.5G6G-50-50-WATERPROOF

TLPA0.5G6G-50-50-WATERPROOF is a power amplifier with a power gain of 50 dB and a nominal Psat of 50 dBm across the frequency range of 0.5 to 6 GHz. The DC power requirement for the amplifier is +36 VDC/800 W. The input port configuration offers coax adapter structure with SMA female and output port configuration offers coax adapter structure with N Female.

Features:

- Ultra Wide Band: 0.5-6GHz
- 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	Symbol	Min	Typ	Max	Units
Frequency range	BW		0.5-6		GHz
Operating Mode	OPM		CW/PULSE compatible		
Power Gain	GP	50			dB
Gain flatness	ΔGL		±3.5		dB
Output Psat	Psat	50			dBm
Spurious@Pout=50dBm	Spur			-60	dBc
2rd Harmonics@Pout=50dBm	HAM		-10		dBc
Input VSWR	VSWRin			2	:1
DC Voltage	Vdc		36		V DC
Power Consumption	Pdiss			800	W
Ingress Protection Grade	IPG		IP-65		
Impedance	I/O-IMP		50		Ohms

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Mechanical Specifications:

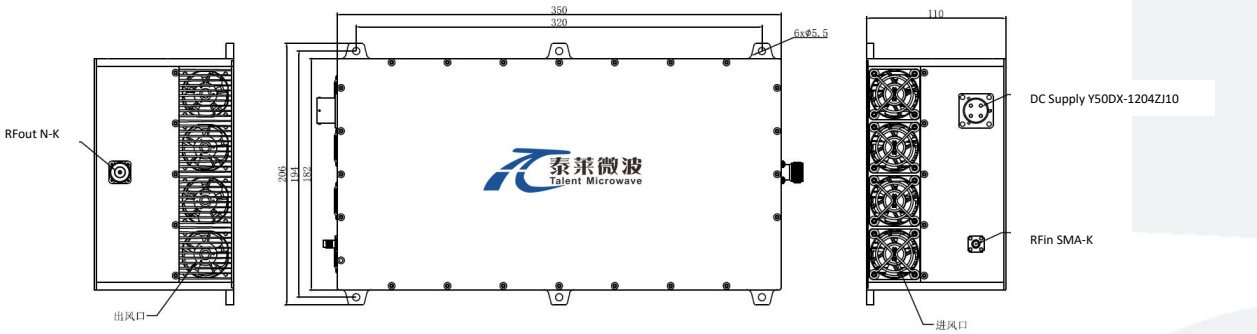
Parameter	Value	Units
Input /Output Connector	SMA Female/N Female	
Size	350*206*110	mm
Weight	≤7.5	Kg

Absolute Maximum Ratings:

Parameter	Value
RF Input Power	+10 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Outline Drawing:

Unit:mm



OBSERVE PRECAUTIONS
ELECTROSTATIC SENSITIVE
DEVICES

DC Interface Connector(Y50DX-1204ZJ10):

Pin #	Description	Specification
1	VCC	+36 V DC
2	VCC	+36 V DC
3	GND	Ground
4	GND	Ground

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Physical picture:

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Environmental Conditions:

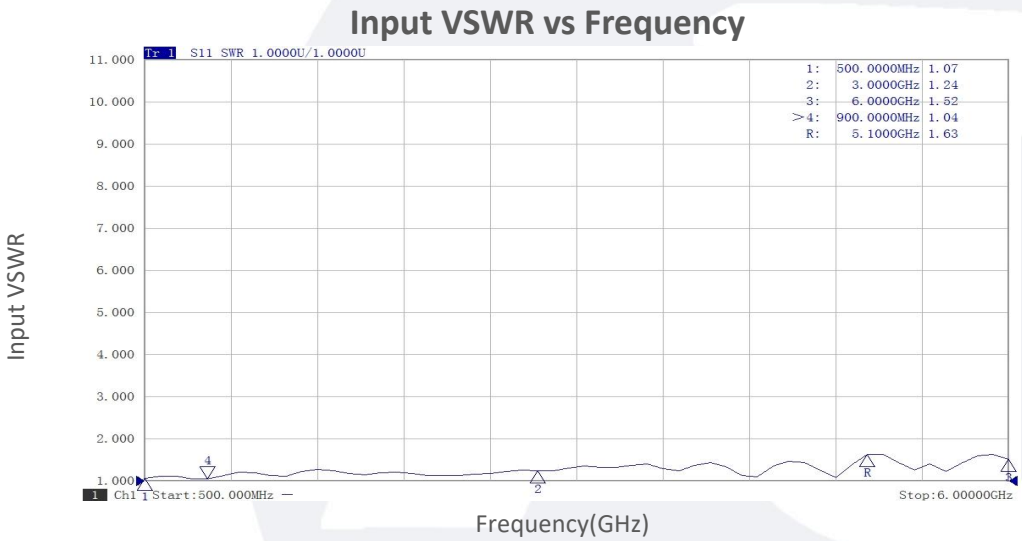
Parameter	Min	Typ	Max	Units
Operating Temperature*	-20		+50	℃
Non-operating Temperature*	-30		+60	℃
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

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

Ordering Information:

Base Number	Desciption	Revision
TLPA0.5G6G-50-50-WATERPROOF	Power amplifier 0.5-6GHz,Gain:50dB,Psat:50dBm, +36V 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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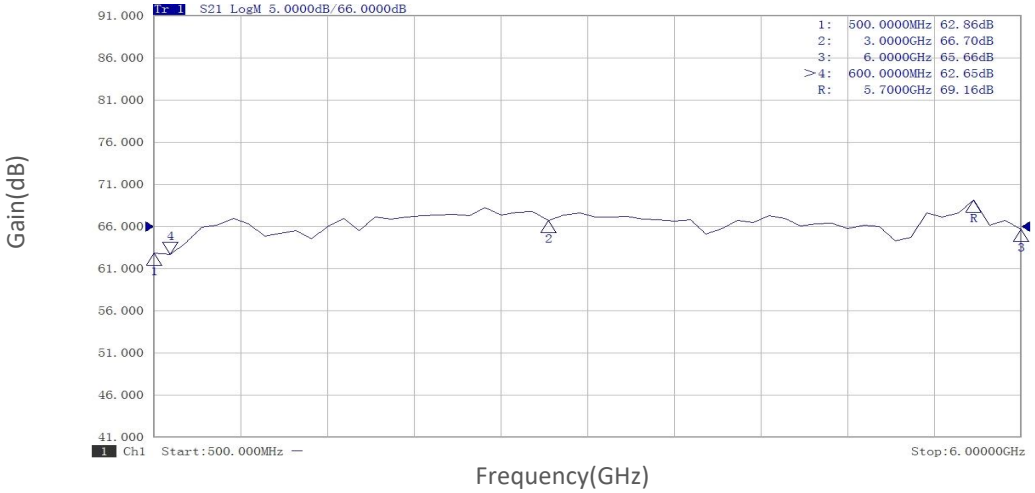
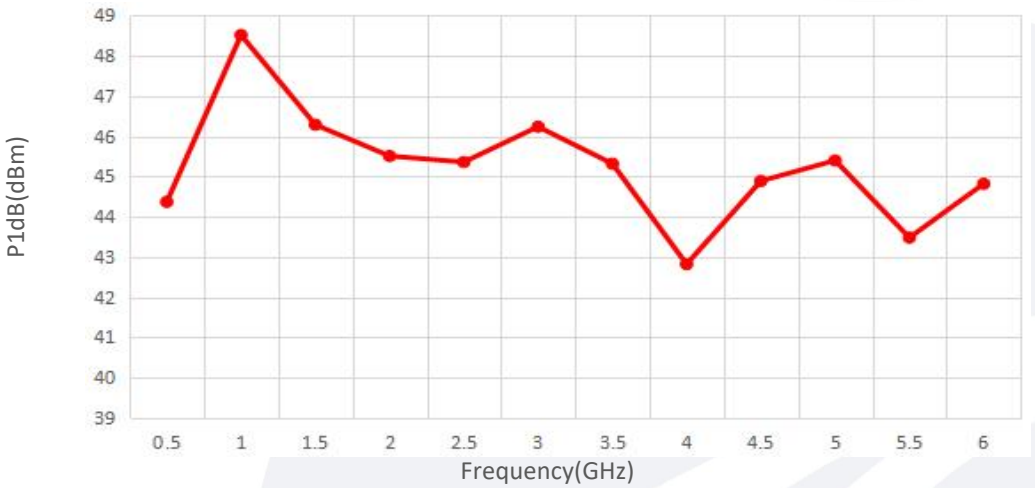
Typical Performance Data:

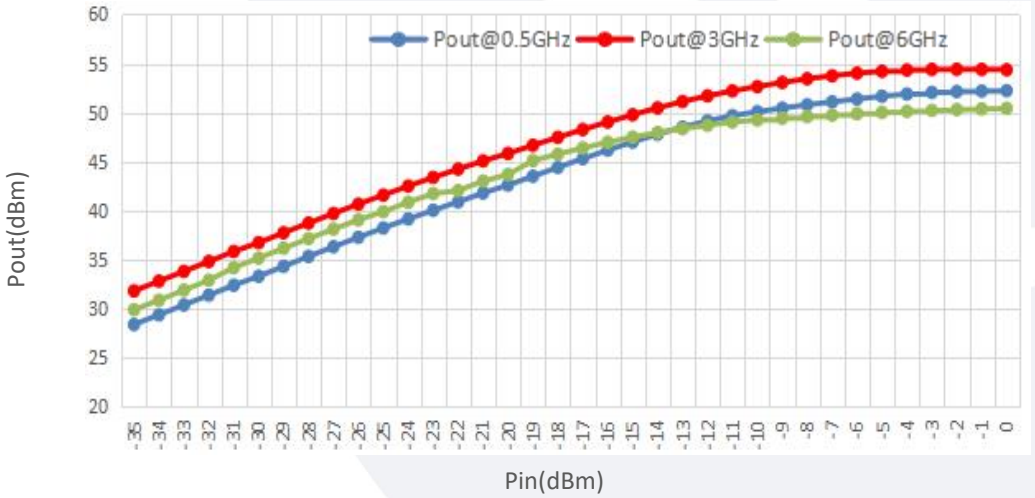
Small Signal Gain vs Frequency



P1dB vs Frequency



Pout@Pin



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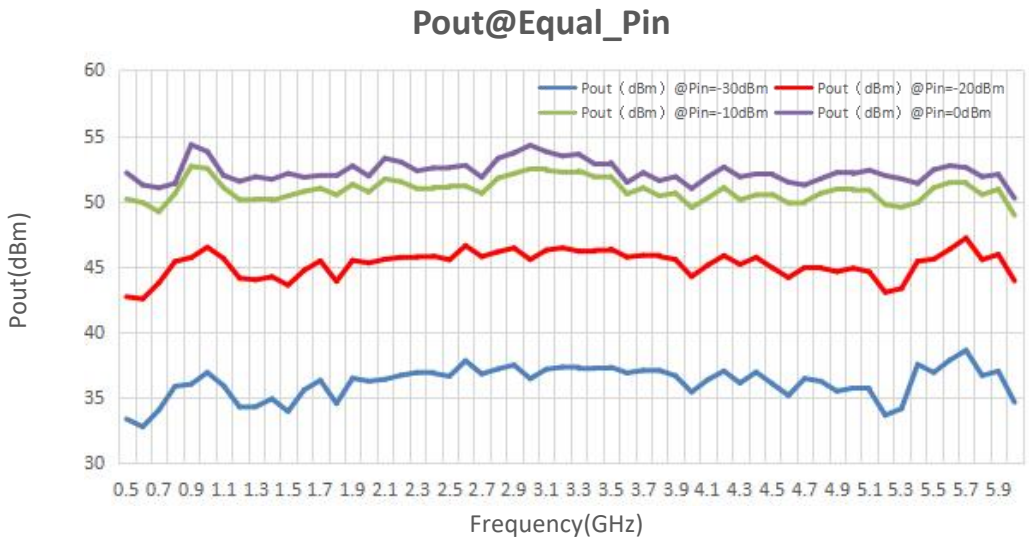

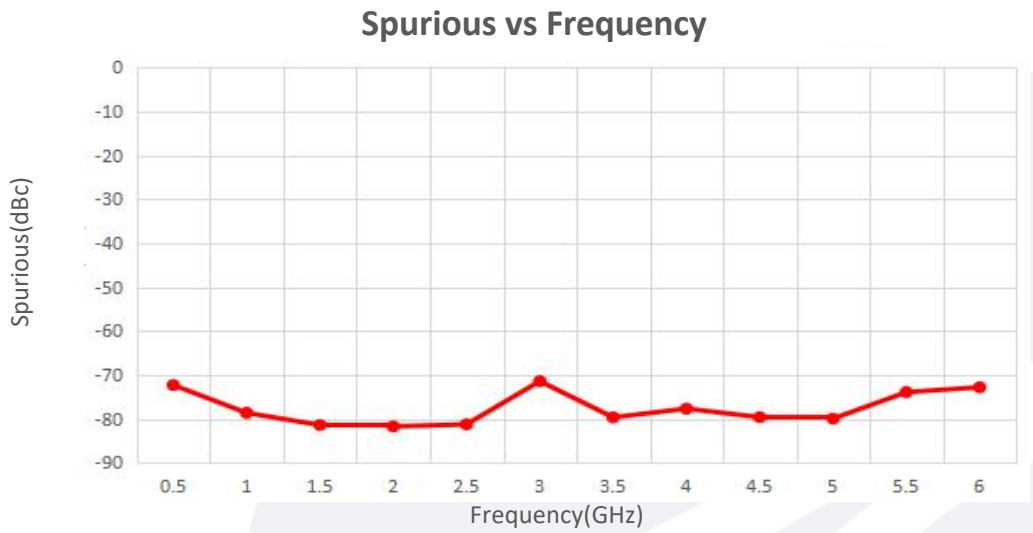

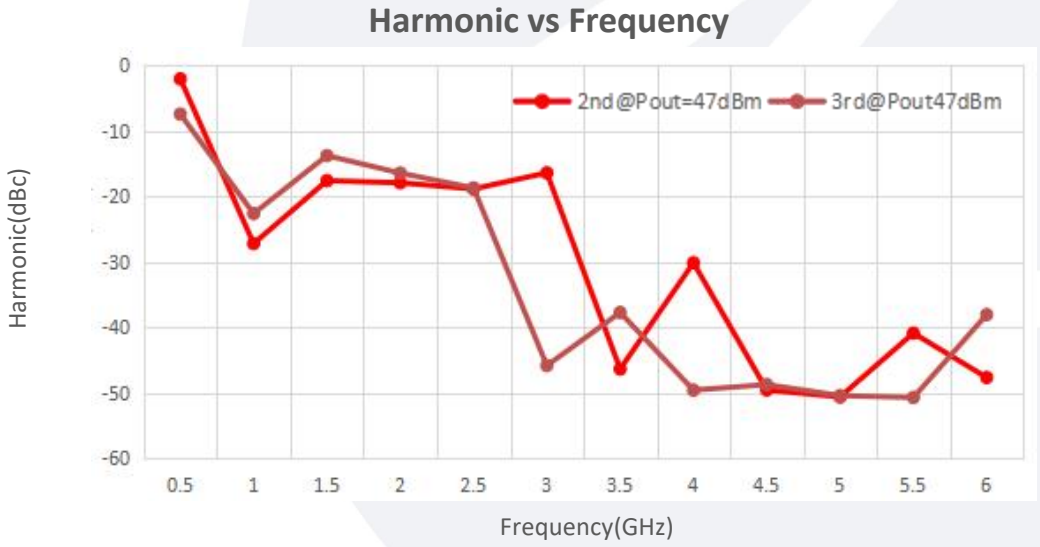

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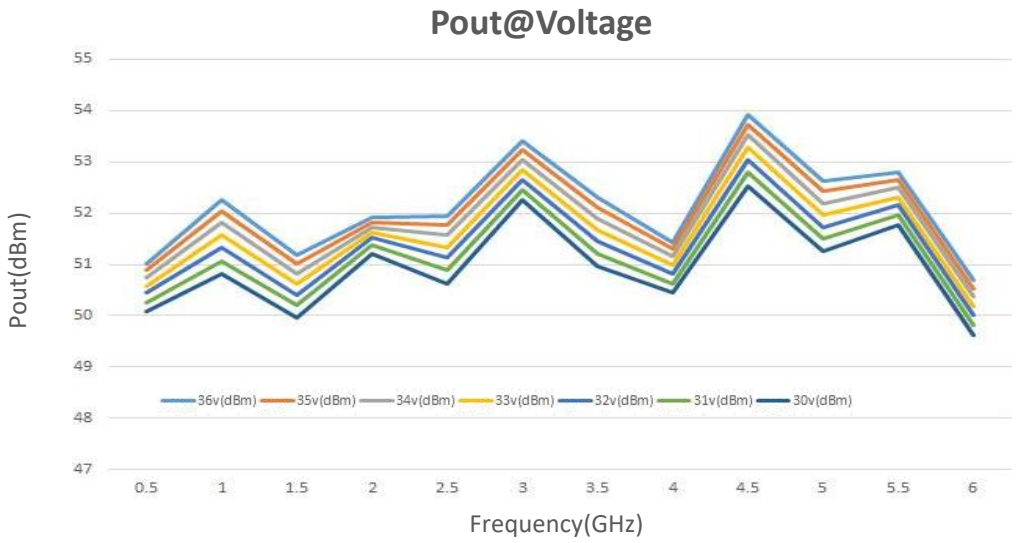

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