Suzhou Talent Microwave,Inc
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Power Amplifier

1-8GHz/40dB Gain/40dBm Psat

Model: TLPA1G8G-40-40

TLPA1G8G-40-40 is a power amplifier with a minimum small signal gain of 40 dB and a typical Psat of 40 dBm across the frequency range of 1 to 8 GHz. The DC power requirement for the amplifier is +28 VDC/1.8 A. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 1-8GHz
- Gain: 40dB Min
- Output Power Psat: 40dBm Typ
- 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		1-8		GHz
Small Signal Gain	40			dB
Gain Flatness		±3		dB
Output Psat	39.5	40		dBm
Spurious@Psat			-50	dBc
Harmonic@Psat			-10	dBc
Input VSWR			2	:1
DC Voltage		28		V DC
DC Supply Current		1.8		A
Impedance		50		Ohms

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Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	Feedthru capacitors	
Size	60*60*11(Without heatsink) 188*125*146(With heatsink)	mm
Weight	≤200	g

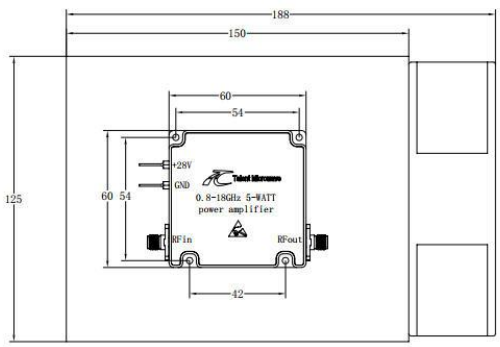
Absolute Maximum Ratings:

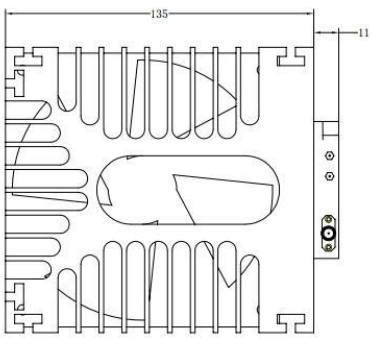
Parameter	Value
Supply Bias Voltage	+29 V
RF Input Power	+5 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

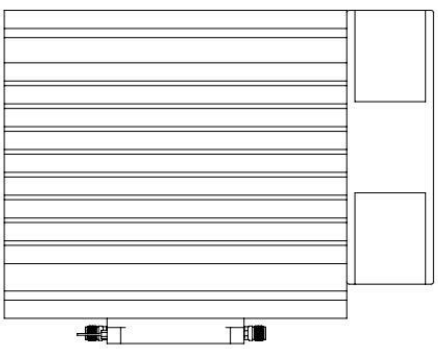
Simple 220V System
Available SAC option

Outline Drawing:

Unit:mm







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

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Environmental Conditions:

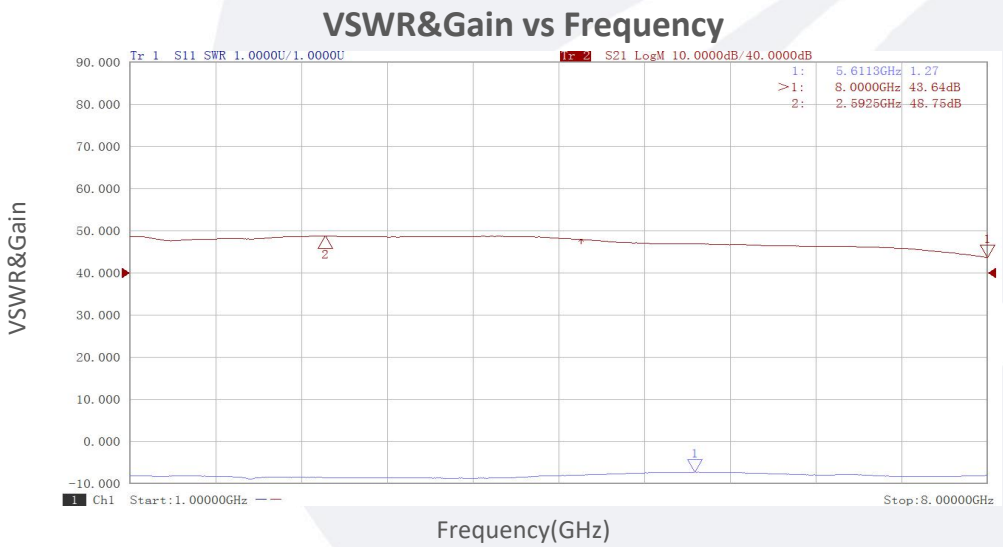
Parameter	Min	Typ	Max	Units
Operating Temperature*	-40		+50	℃
Non-operating Temperature*	-50		+60	℃
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

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

Ordering Information:

Base Number	Description	Revision
TLPA1G8G-40-40	Power amplifier 1-8GHz, Gain:40dB,Psat:40dBm,+28V DC,Without Heatsink	Rev.1.1
TLPA1G8G-40-40-HS	Power amplifier 1-8GHz, Gain:40dB,Psat:40dBm,+28V 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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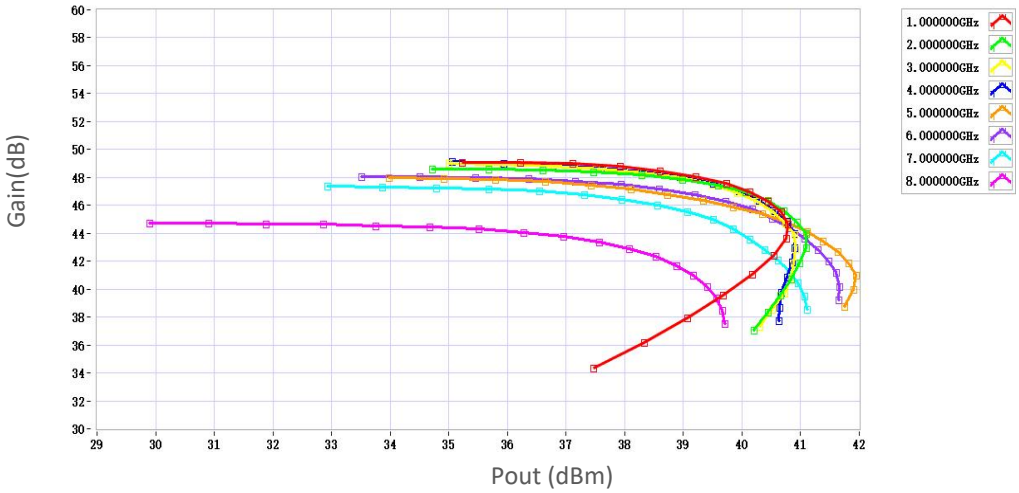
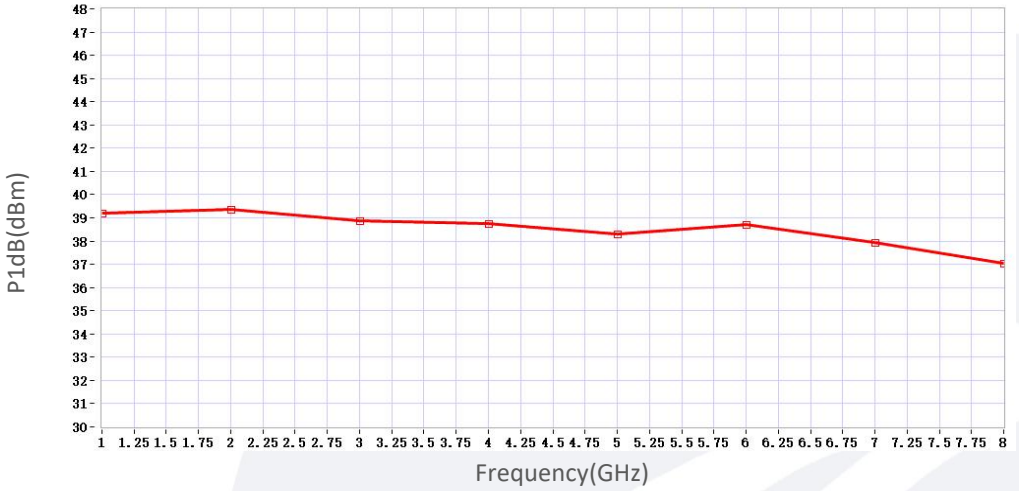
Typical Performance Data:

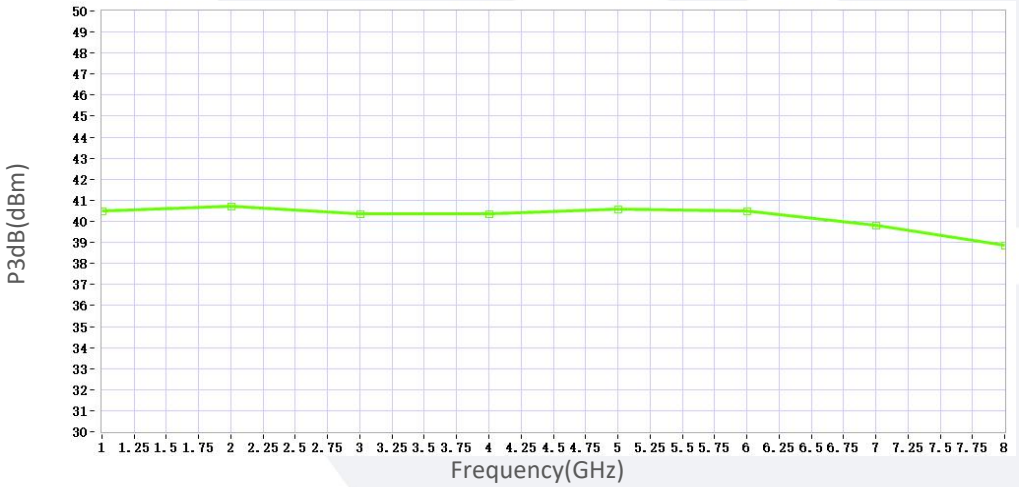
Gain vs Output Power



P1dB vs Frequency



P3dB vs Frequency



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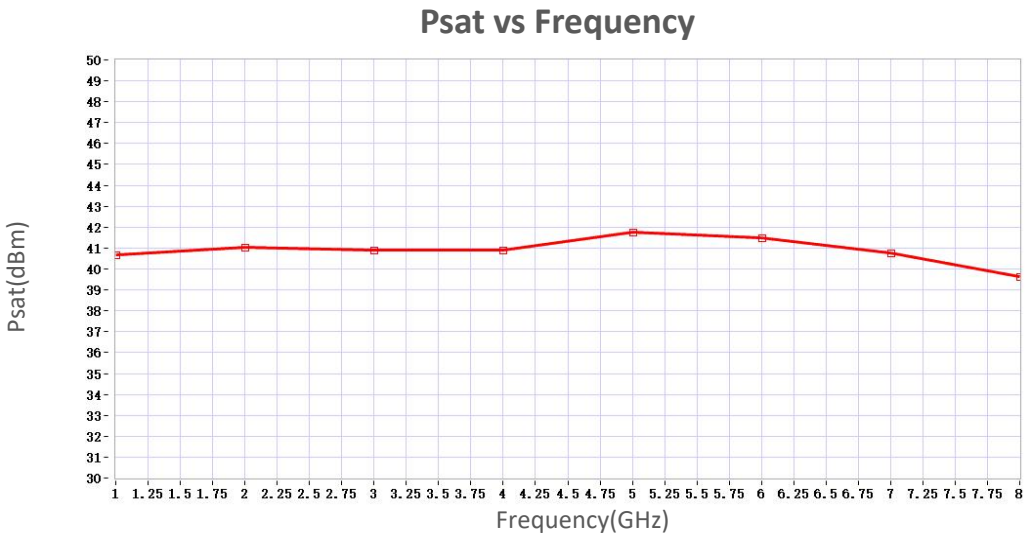

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