Suzhou Talent Microwave,Inc
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Power Amplifier

18-40GHz/45dB Gain/40dBm Psat

Model: TLPA18G40G-45-40

TLPA18G40G-45-40 is a power amplifier with a typical small signal gain of 45 dB and a nominal Psat of 40 dBm across the frequency range of 18 to 40 GHz. The DC power requirement for the amplifier is +18 VDC/5 A. The input and output port configuration offers coax adapter structure with 2.92mm female.

Features:

- Frequency range: 18-40GHz
- Gain: 45dB Typ
- 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	18		40	GHz
Small Signal Gain	40	45		dB
Gain Flatness		±4.5		dB
Output P1dB		32		dB
Output Psat	37	40		dBm
Spurious		-60		dBc
Harmonics		-20		dBc
Input VSWR		2		:1
DC Voltage		+18		V DC
DC Supply Current		5		A
Impedance		50		Ohms

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Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	2.92mm Female/2.92mm Female	
DC Supply Connector	Feedthru capacitors	
Size	60*60*11(Without heatsink) 188*125*146(With heatsink)	mm

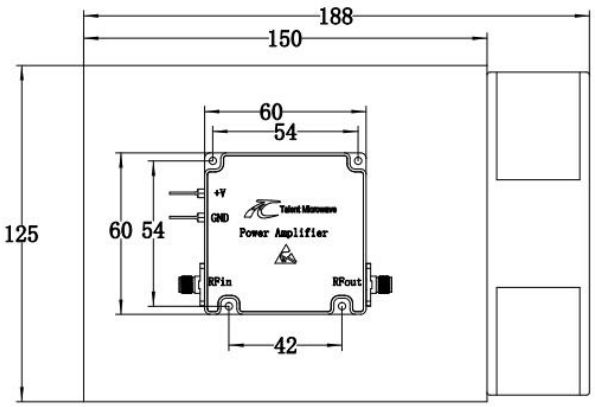
Absolute Maximum Ratings:

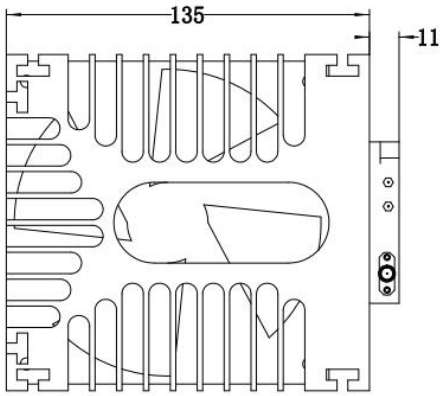
Parameter	Value
Supply Bias Voltage	+20V
RF Input Power	+5 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

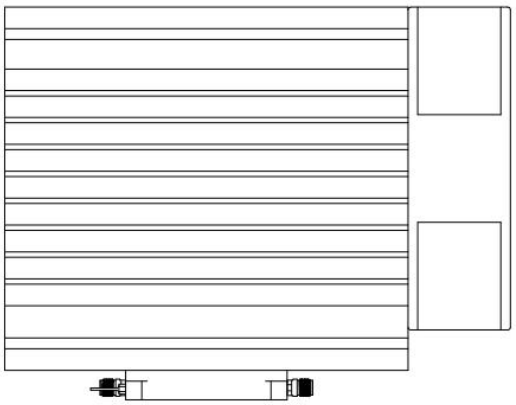
Simple 220V System
Available SAC option

Outline Drawing:

Unit:mm







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

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Environmental Conditions:

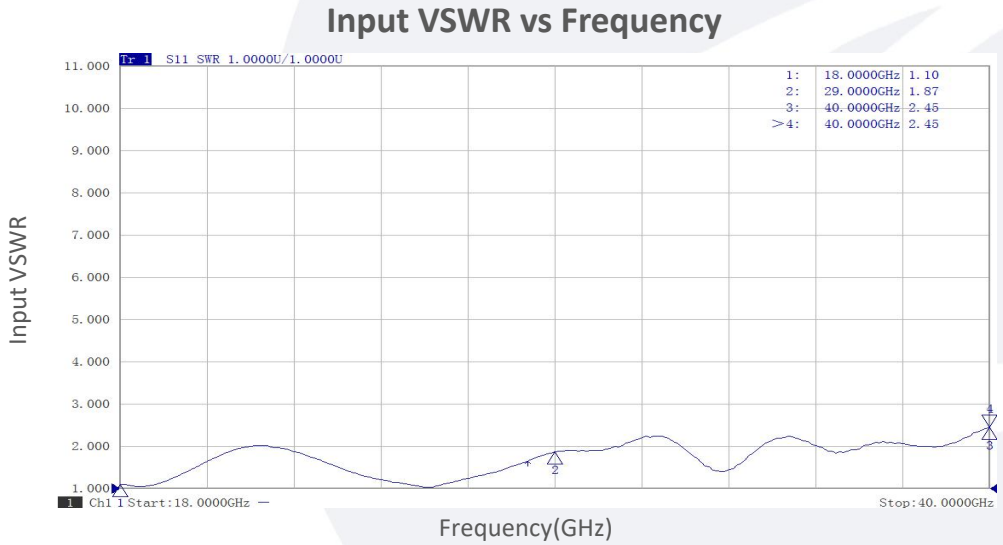
Parameter	Min	Typ	Max	Units
Operating Temperature*	-40		+50	℃
Non-operating Temperature*	-50		+60	℃
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

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

Ordering Information:

Base Number	Description	Revision
TLPA18G40G-45-40	Power amplifier 18-40GHz, Gain:45dB,Psat:40dBm,+18V 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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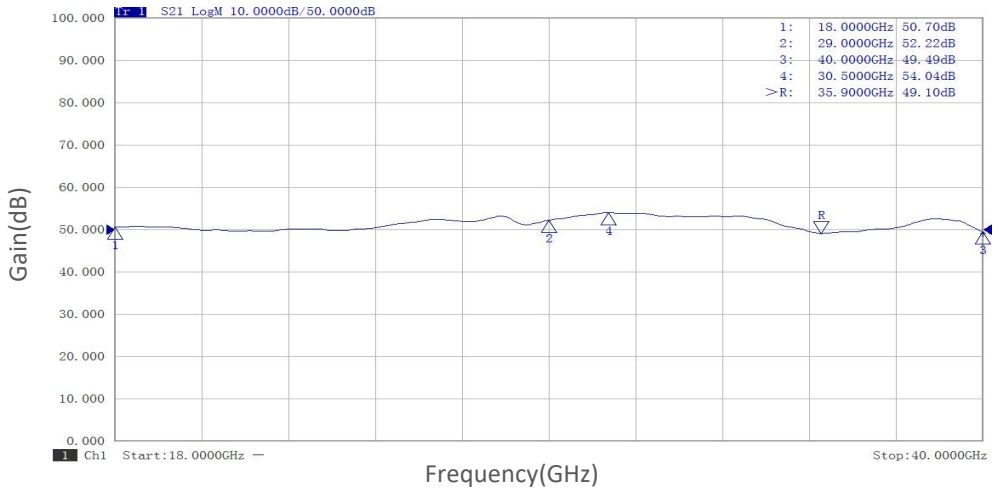
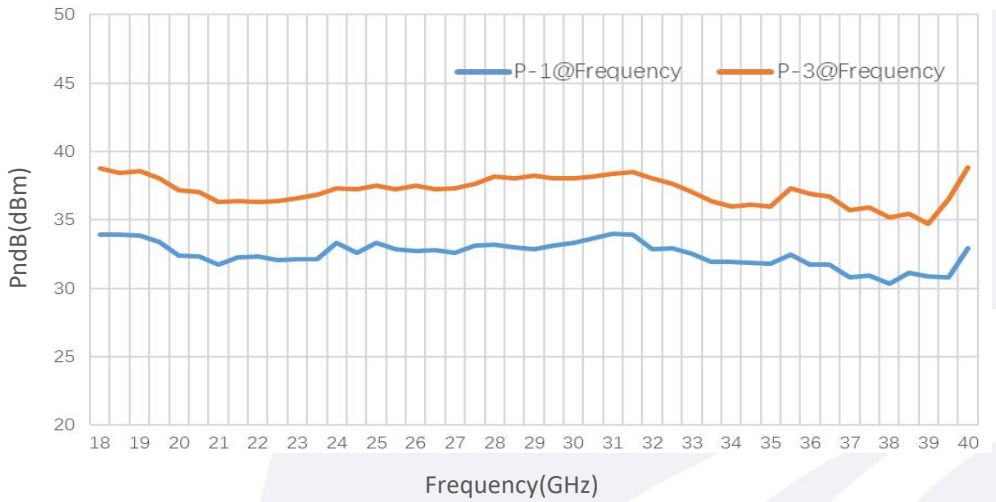
Typical Performance Data:

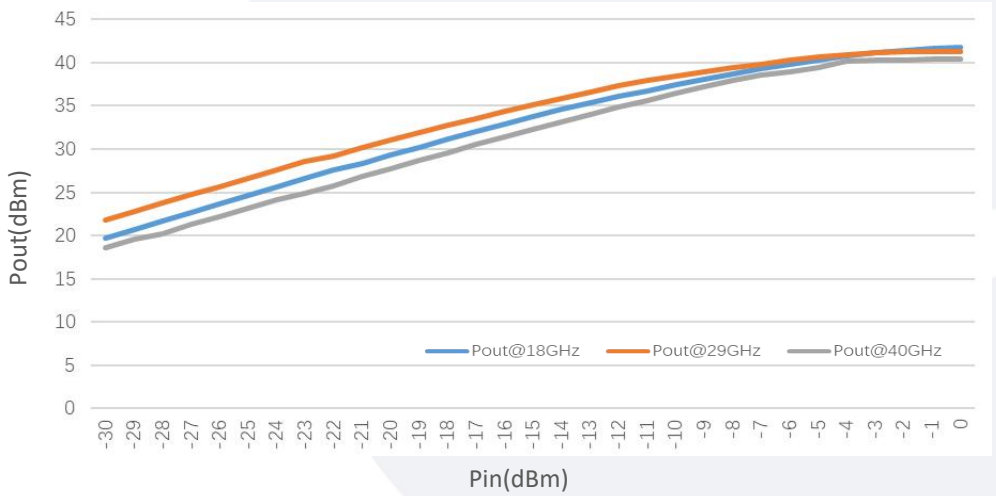
Small Signal Gain vs Frequency



PndB vs Frequency



Pout@Pin



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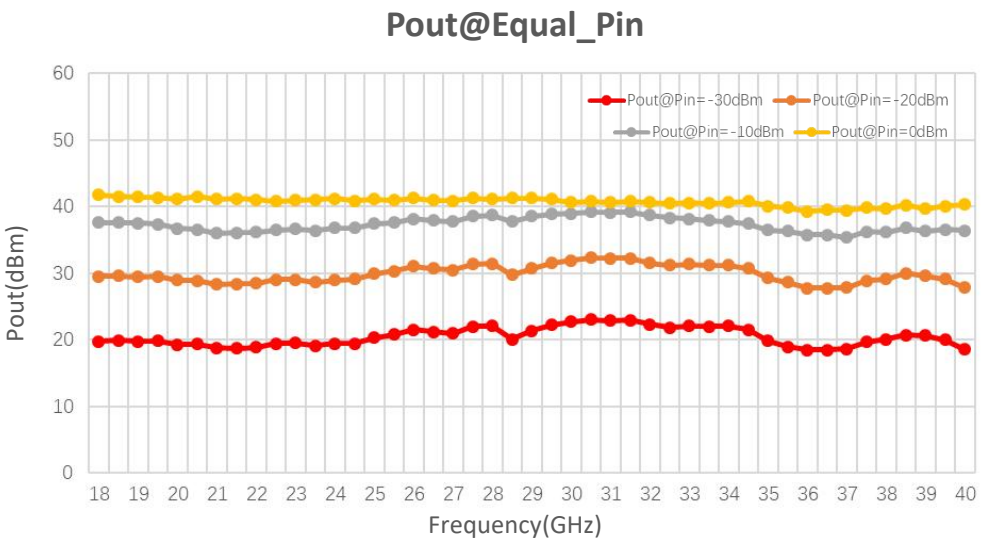

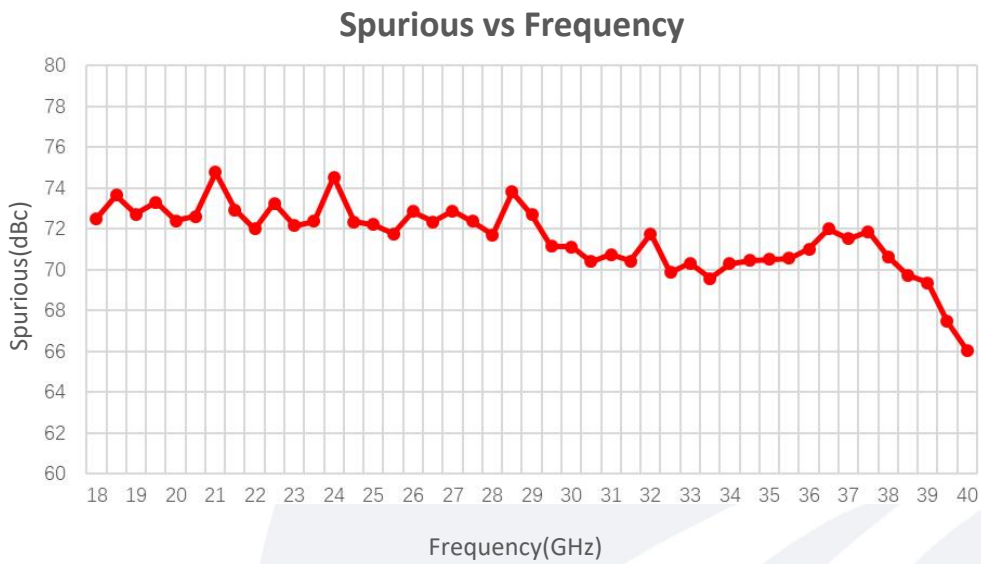

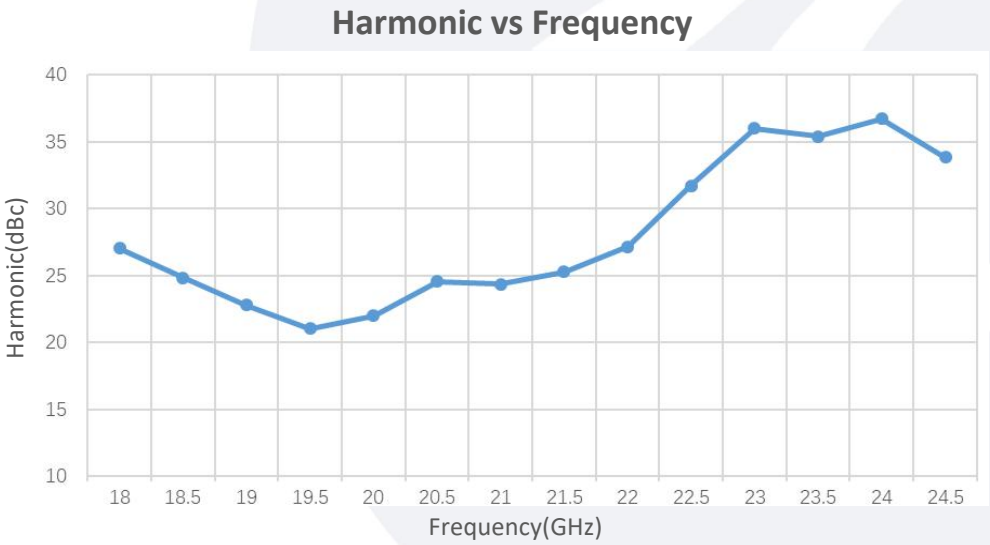

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