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

Power Amplifier

18-40GHz/33dB Gain/33dBm Psat

Model: TLPA18G40G-33-33

TLPA18G40G-33-33 is a power amplifier with a minimum small signal gain of 33 dB and a nominal Psat of 33 dBm across the frequency range of 18 to 40 GHz. The DC power requirement for the amplifier is +18 VDC/1.1 A. The input and output port configuration offers coax adapter structure with 2.92mm female.

Features:

- Frequency range: 18-40GHz
- Gain: 33dB Min
- Output Power Psat: 33dBm 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	33			dB
Gain Flatness		±5		dB
Output P1dB		30		dBm
Output Psat		33		dBm
Spurious@Pout=33dBm			-50	dBc
Harmonic@Pout=33dBm		-15		dBc
Input VSWR		2.0		:1
DC Voltage		18		V DC
DC Supply Current		1.1		A
Impedance		50		Ohms

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Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	2.92mm Female/2.92mm Female	
DC Bias	Solder Pin	
Size	130.4*74.5*16	mm
Weight	≤500	g

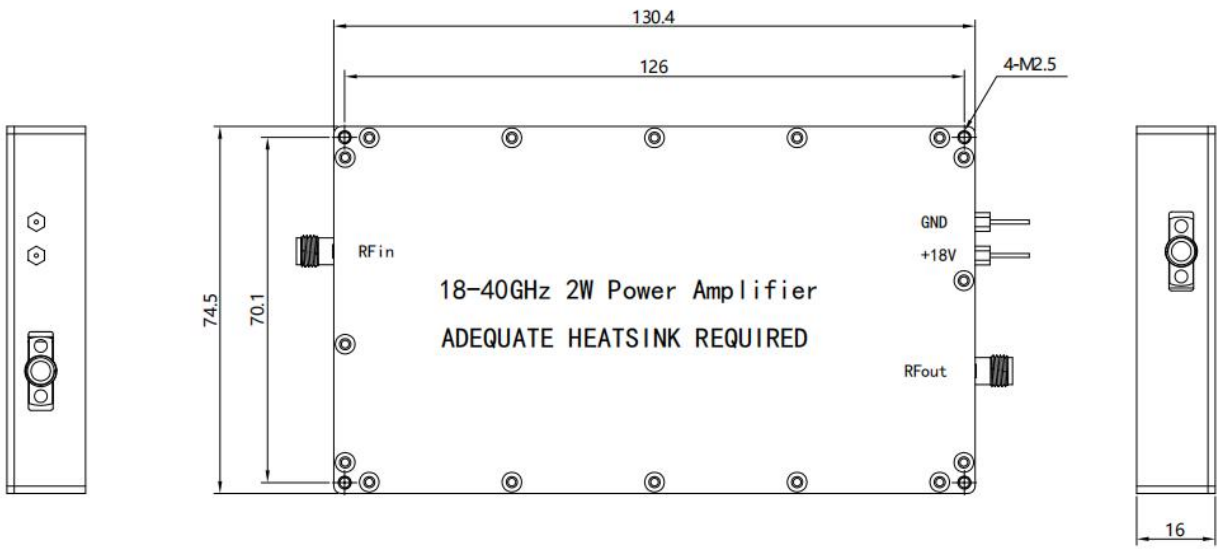
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+18 V
RF Input Power	+10 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Outline Drawing:

Unit:mm

Regulatory Compliance:



***Heat Sink Required During Operation

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

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Environmental Conditions:

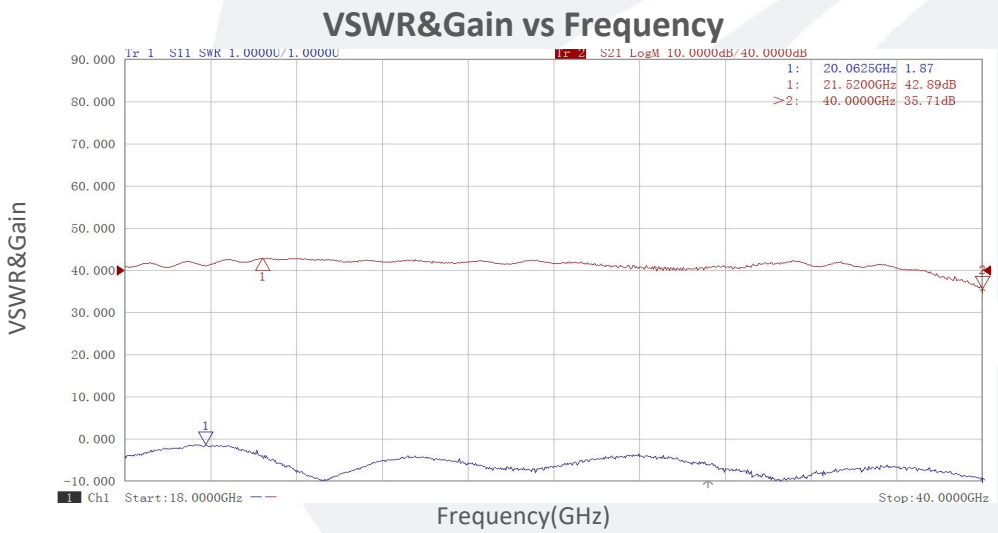
Parameter	Min	Typ	Max	Units
Operating Temperature*	-40		+60	℃
Non-operating Temperature*	-50		+70	℃
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

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

Ordering Information:

Base Number	Description	Revision
TLPA18G40G-33-33	Power amplifier 18-40GHz, Gain:33dB,Psat:33dBm,+18V DC,Without Heatsink	Rev.1.1
TLPA18G40G-33-33-HS	Power amplifier 18-40GHz, Gain:33dB,Psat:33dBm,+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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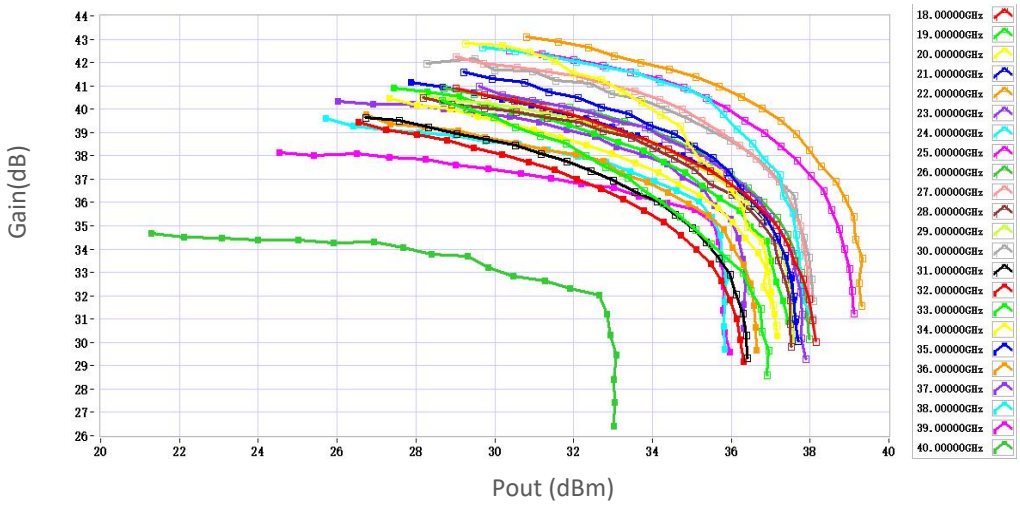
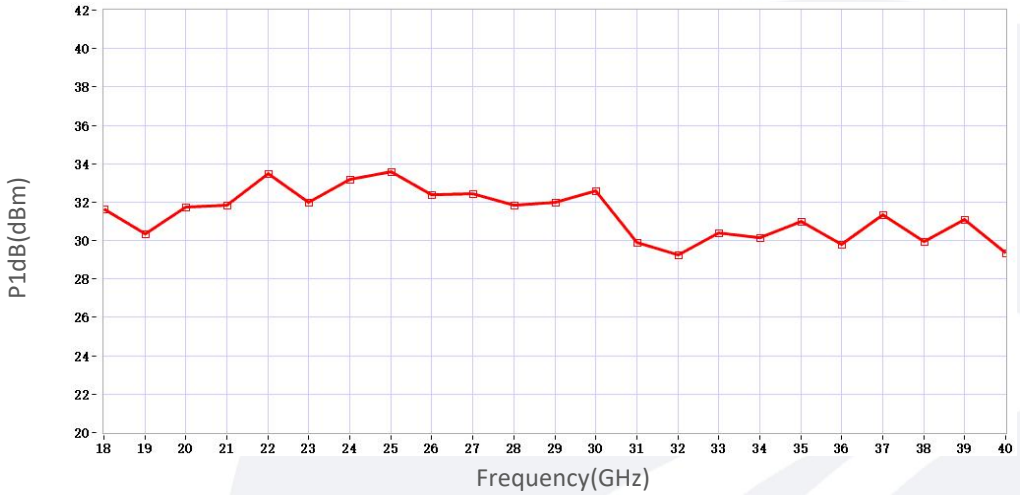
Typical Performance Data:

Gain vs Output Power



P1dB vs Frequency



P3dB vs Frequency

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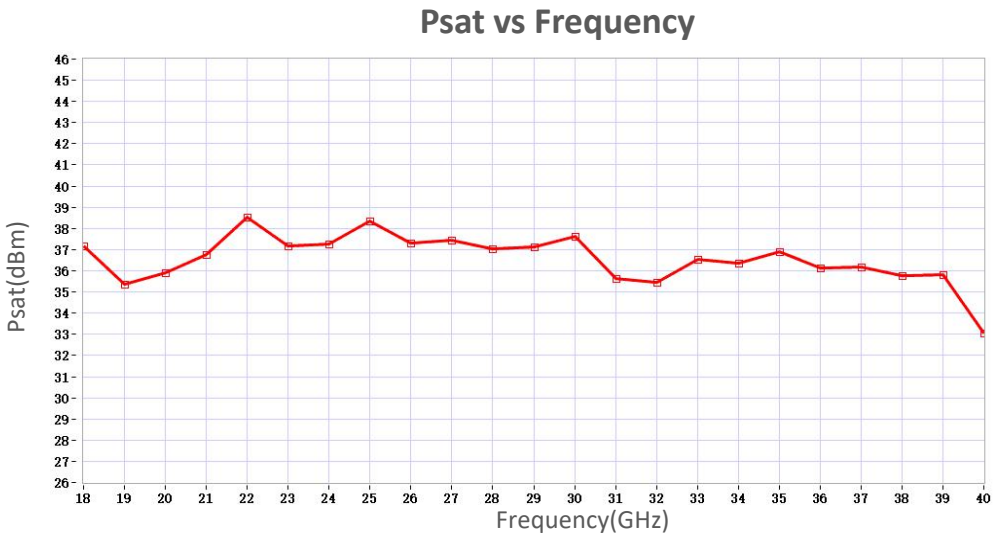
Typical Performance Data:



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