

Power Amplifier

18-40GHz/16dB Gain/24dBm Psat

Model: TLPA18G40G-16-24-LC

TLPA18G40G-16-24-LC is a power amplifier with a typical small signal gain of 16 dB and Psat of 24 dBm across the frequency range of 18 to 40 GHz. The DC power requirement for the amplifier is +5 VDC/490 mA. The input and output port configuration offers coax adapter structure with 2.92mm female.

Features:

- Frequency range: 18-40GHz
- Small Signal Gain:16 dB Typ
- Output Power Psat: 24 dBm 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		16		dB
Gain Flatness		±2		dB
Output P1dB		22		dBm
Output Psat		24		dBm
Input VSWR		2		:1
Output VSWR		2		:1
DC Voltage		+5		V DC
DC Supply Current		490		mA
Impedance	50			Ohms

Mechanical Specifications:

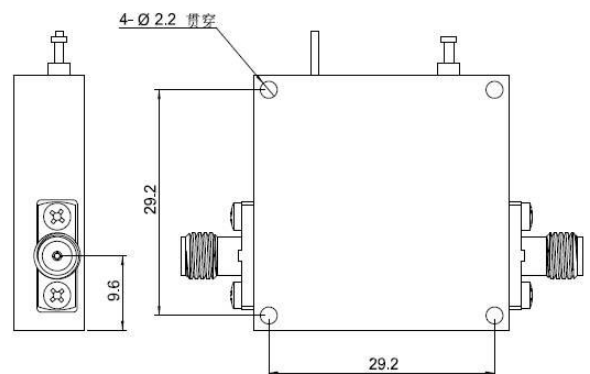
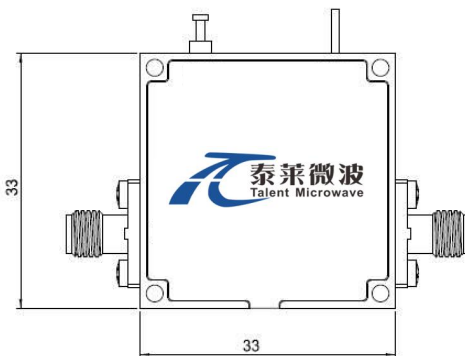
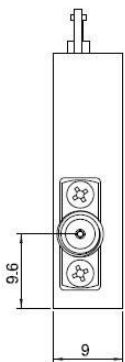
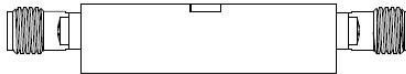
Parameter	Value	Units
Input /Output Connector	2.92mm Female/2.92mm Female	
DC Bias	Solder Pin	
Size	33*33*9	mm

Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+5.5 V
RF Input Power	+20 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Outline Drawing:

Unit:mm



Regulatory Compliance:



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

*****Heat Sink Required During Operation**

Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature*	-40		+60	°C
Non-operating Temperature*	-50		+70	°C
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			

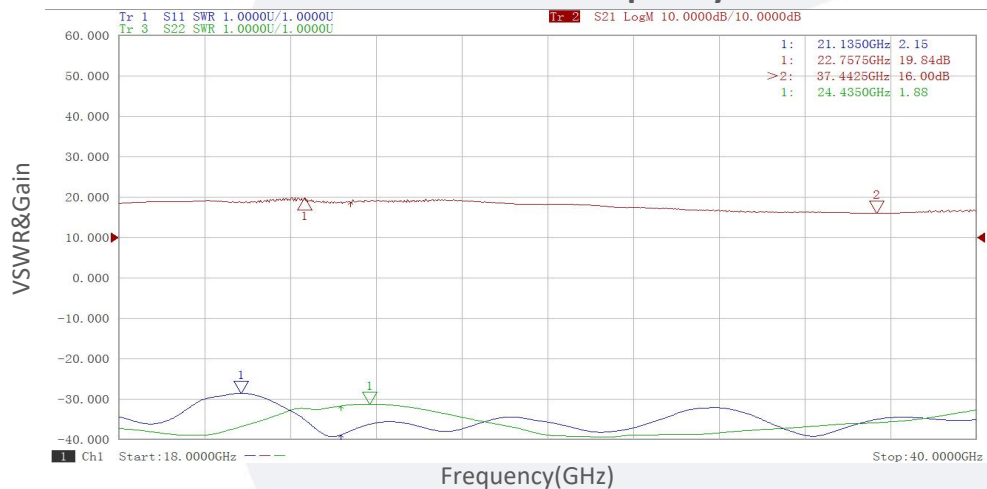
*Note: For a wider temperature range, please consult the manufacturer.

Ordering Information:

Base Number	Description	Revision
TLPA18G40G-16-24-LC	Power amplifier 18-40GHz,Power Gain:16dB,Psat:24dBm, +5V DC,With Heatsink	Rev.1.1

Typical Performance Data:

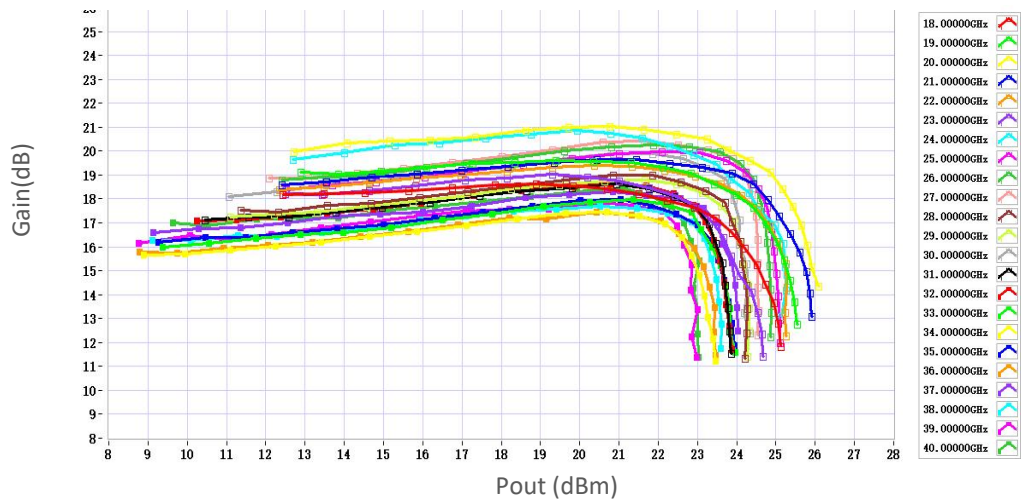
VSWR&Gain vs Frequency



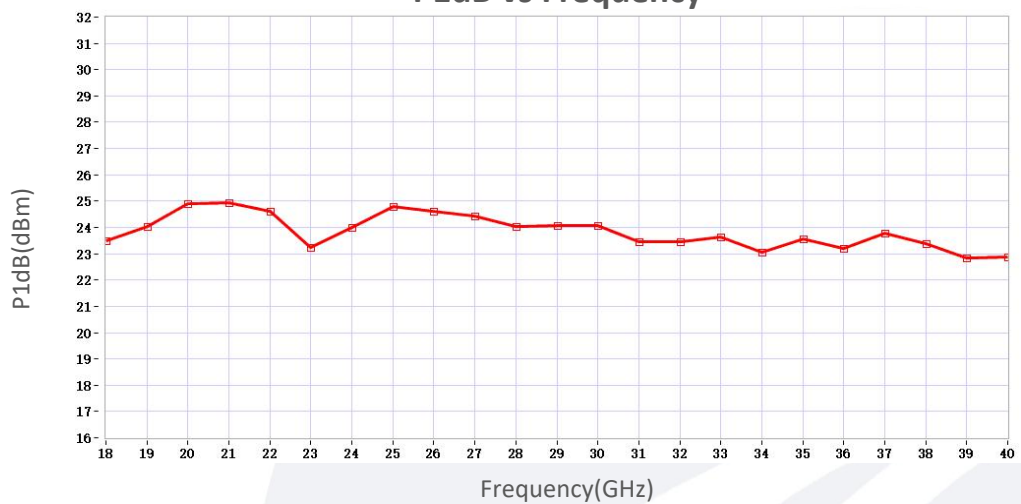
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

Gain vs Output Power



P1dB vs Frequency



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