

Power Amplifier

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

Model: TLPA18G40G-40-40

TLPA18G40G-40-40 is a power amplifier with minimum power gain of 40 dB and a minimum Psat of 40 dBm across the frequency range of 18 to 40 GHz. The DC power requirement for the amplifier is +18 VDC/6 A. The input and output port configuration offers coax adapter structure with 2.92mm female.

Features:

- Frequency range: 18-40GHz
- Gain: 40dB Min
- Output Power Psat: 40dBm Min
- 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
Power Gain	40			dB
Output P1dB		32		dBm
Output Psat	40	41		dBm
Spurious			-50	dBc
Harmonics			-15	dBc
input VSWR		2	2.5	:1
DC Voltage		+18		V DC
DC Supply Current		6	8	A
Impedance		50		Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	2.92 Female/2.92 Female	
DC Supply Connector	Feedthru capacitors	
Size	72*60*12(Without heatsink) 150*90*58.5(With heatsink)	mm
Weight	200	g

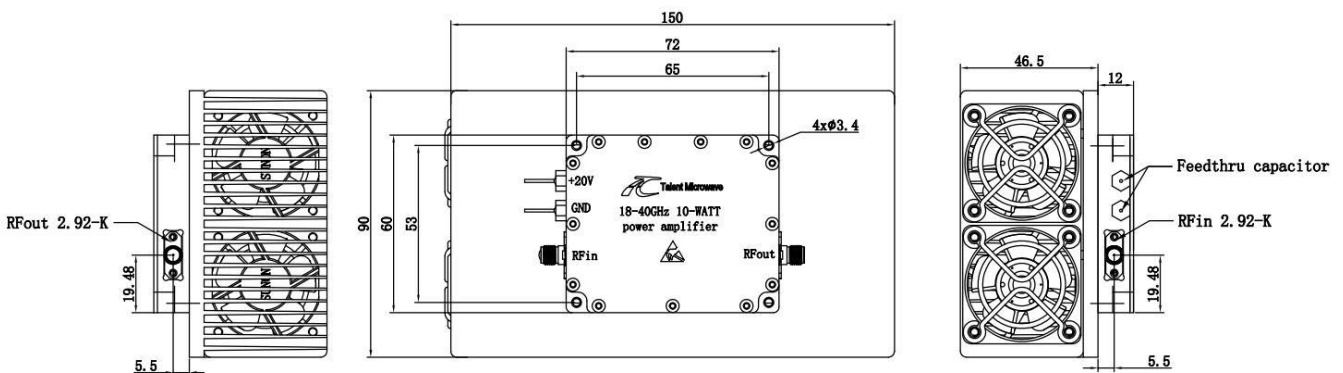
Absolute Maximum Ratings:

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



Outline Drawing:

Unit:mm



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

Environmental Conditions:

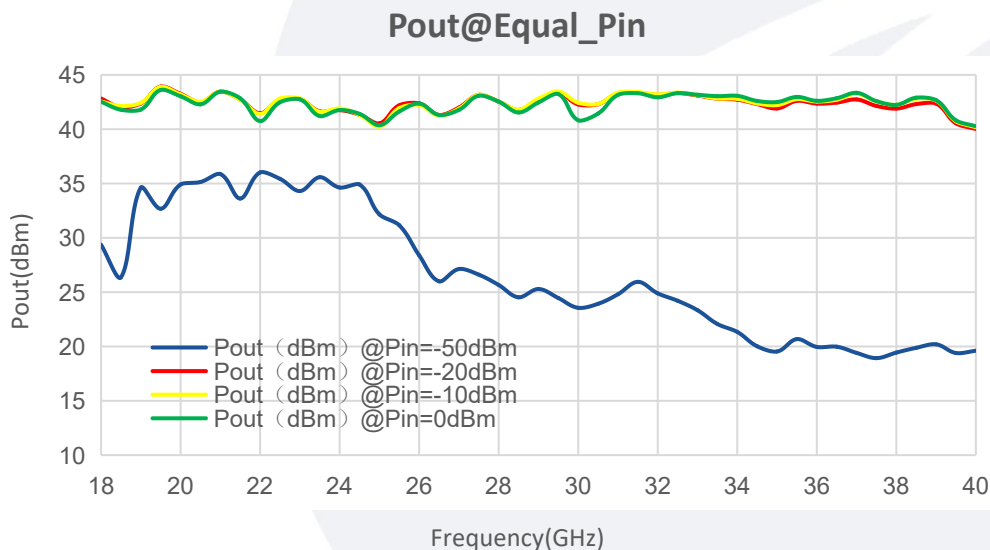
Parameter	Min	Typ	Max	Units
Operating Temperature*	-40		+50	°C
Non-operating Temperature*	-50		+60	°C
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

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

Ordering Information:

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

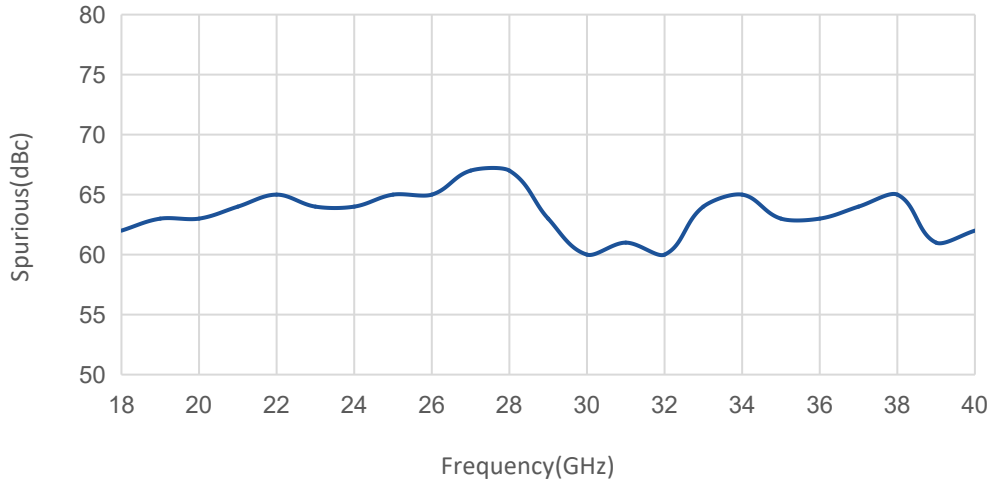
Typical Performance Data:



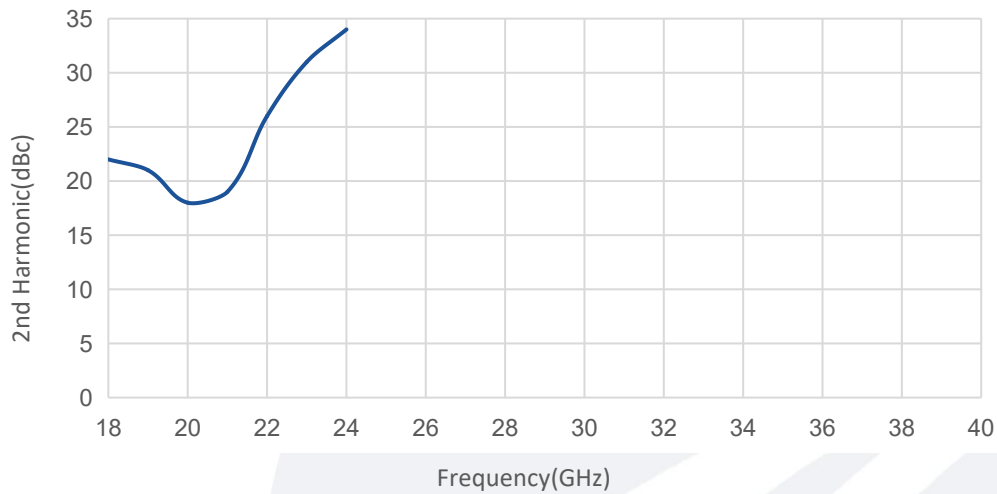
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

Spurious vs Frequency



2nd Harmonic vs Frequency



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