

Power Amplifier

18-36GHz/50dB Gain/37dBm Psat**Model: TLPA18G36G-40-37**

TLPA18G36G-40-37 is a power amplifier with a typical small signal gain of 50 dB and Psat of 37 dBm across the frequency range of 18 to 36 GHz. The DC power requirement for the amplifier is +18 VDC/3 A. The input and output port configuration offers coax adapter structure with 2.92mm female.

Features:

- Frequency range: 18-36GHz
- Gain: 50dB Typ
- Output Power Psat: 37dBm 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	18-36			GHz
Small Signal Gain		50		dB
Gain Flatness		±4		dB
Output Psat	37			dBm
Spurious			-60	dBc
Harmonic			-20	dBc
Input VSWR			2	:1
DC Voltage		18	19	V DC
DC Supply Current		3		A
Impedance	50			Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	2.92mm Female/2.92mm Female	
DC Bias	Feedthru capacitors	
Size	60*60*11(Without heatsink) 188*125*135(With heatsink)	mm

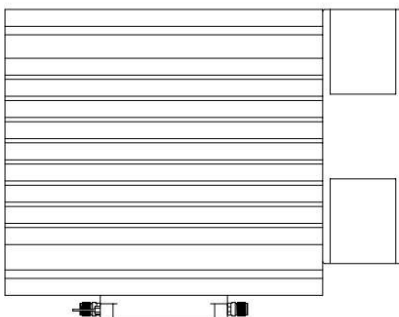
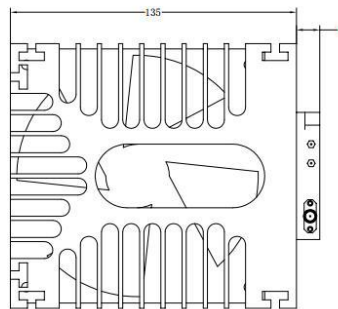
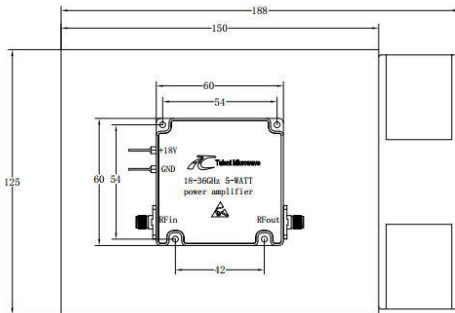
Absolute Maximum Ratings:

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

Outline Drawing:

Unit:mm

Regulatory Compliance:



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



OBSERVE PRECAUTIONS
ELECTROSTATIC SENSITIVE
DEVICES

Environmental Conditions:

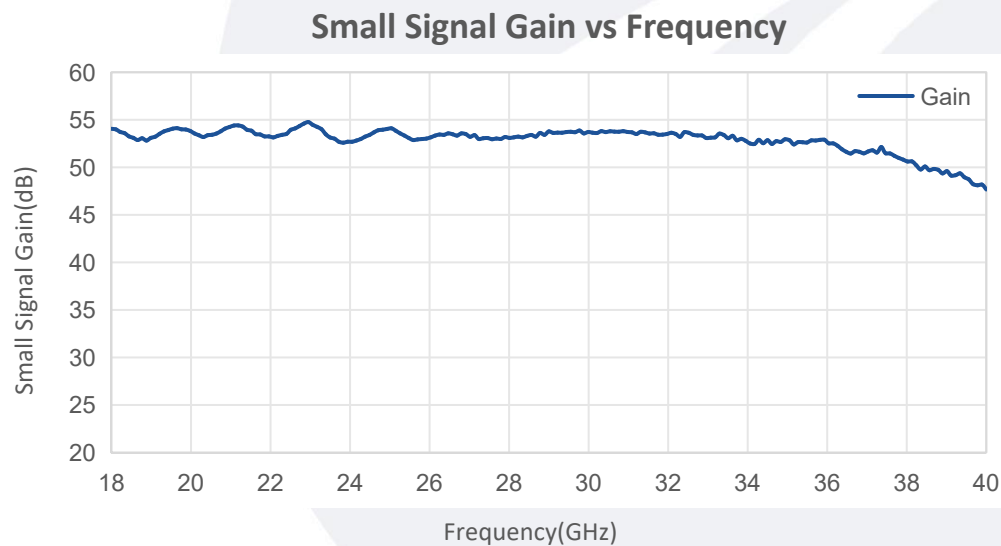
Parameter	Min	Typ	Max	Units
Operating Temperature*	-40		+60	°C
Non-operating Temperature*	-50		+70	°C
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

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

Ordering Information:

Base Number	Description	Revision
TLPA18G36G-40-37	Power amplifier 18-36GHz,Gain:50dB,Psat:37dBm, +18V DC,Without Heatsink	Rev.1.1
TLPA18G36G-40-37-HS	Power amplifier 18-36GHz,Gain:50dB,Psat:37dBm, +18V DC,With Heatsink	Rev.1.1

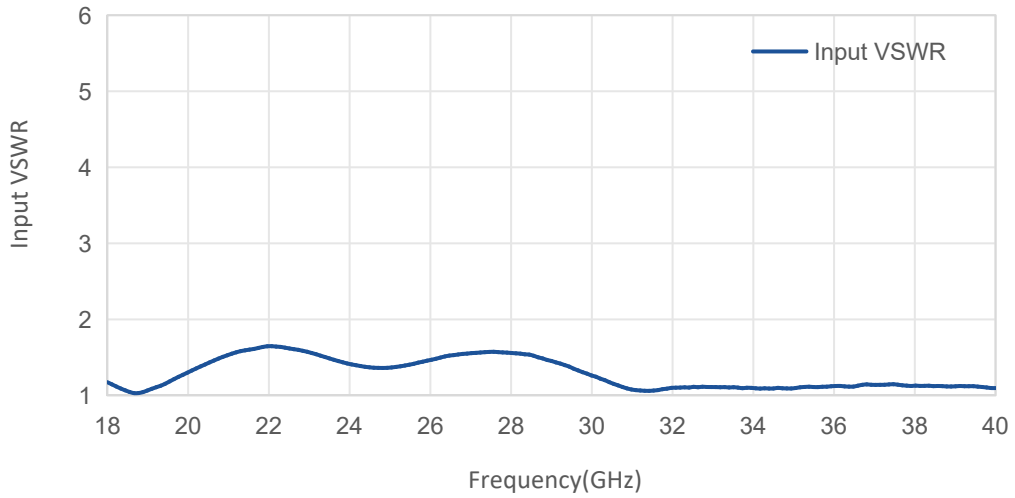
Typical Performance Data:



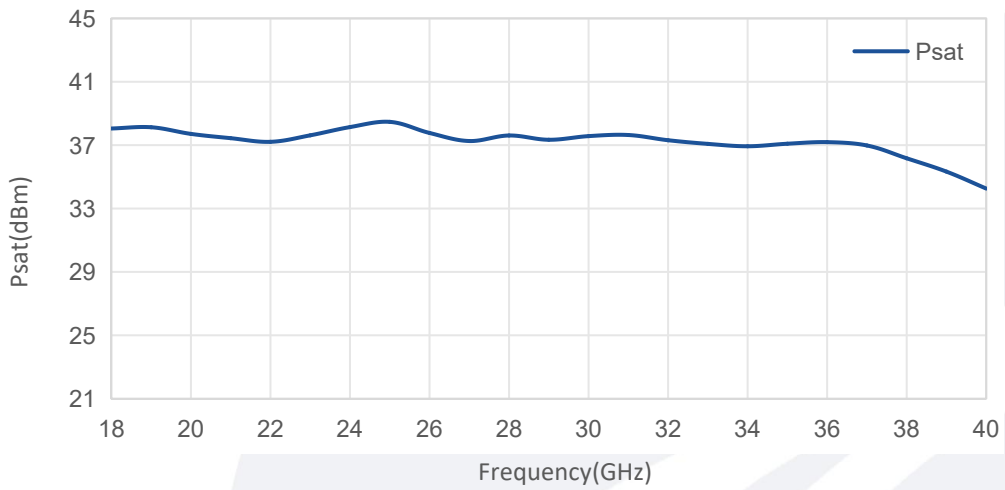
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

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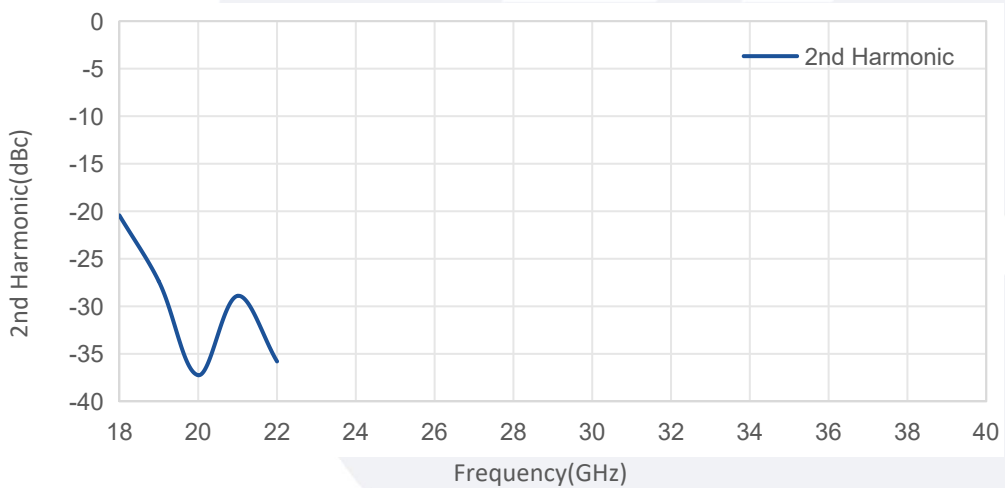
Input VSWR vs Frequency



Psat vs Frequency



2nd Harmonic vs Frequency



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