

## Power Amplifier

50KHz-20GHz/32dB Gain/23dBm Psat

Model: TLPA50K22G-30-22

TLPA50K22G-30-22 is a power amplifier with a typical small signal gain of 32 dB and a nominal Psat of 23 dBm across the frequency range of 50KHz to 20GHz. The DC power requirement for the amplifier is +12 VDC/260 mA. The input and output port configuration offers coax adapter structure with SMA female.

### Features:

- Frequency range: 50KHz-20GHz
- Gain: 32dB Typ
- Output Power Psat: 23dBm 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	50KHz		20GHz	
Small Signal Gain	30	32		dB
Output P1dB		22		dBm
Output Psat		23		dBm
Noise Figure		3		dB
Input VSWR		1.8		:1
Output VSWR		1.8		:1
DC Voltage	8	12	13	V DC
DC Supply Current		260		mA
Impedance		50		Ohms

### Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	Solder Pin	
Size	35*40*12	mm

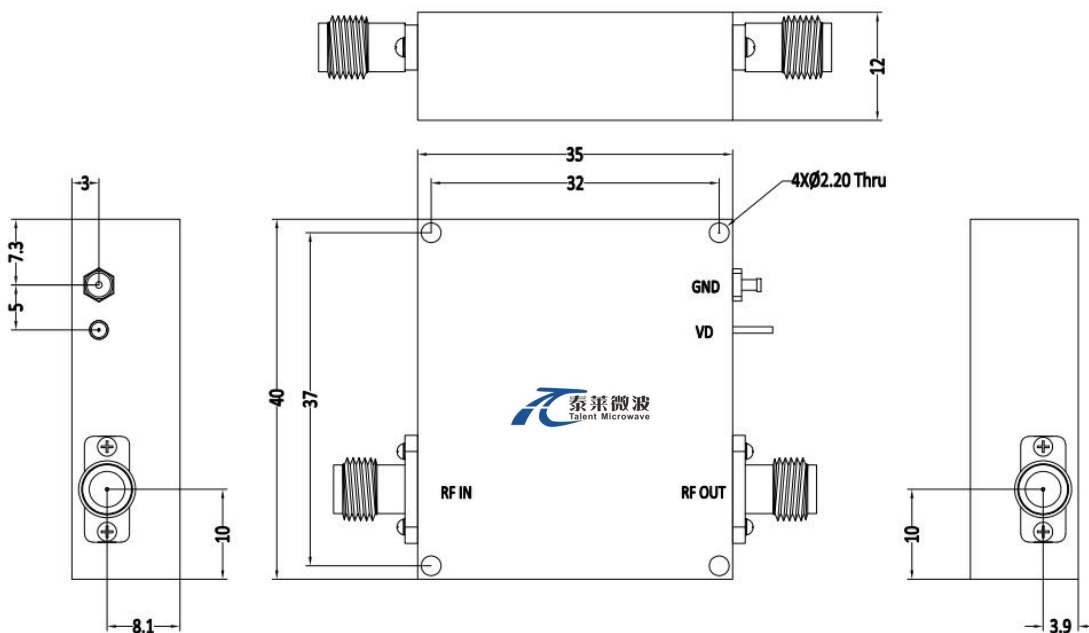
### Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+13 V
RF Input Power	+5 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



### Outline Drawing:

Unit:mm; Tolerance:±0.1mm



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



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

### 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
TLPA50K22G-30-22	Power amplifier 50KHz-22GHz, Gain:32dB,Psat:23dBm,+12V DC,Without Heatsink	Rev.1.0
TLPA50K22G-30-22-HS	Power amplifier 50KHz-22GHz, Gain:32dB,Psat:23dBm,+12V DC,With Heatsink	Rev.1.0