

## Power Amplifier

0.3-18GHz/37dB Gain/30.5dBm P1dB

Model: TLPA0.3G18G-37-30.5

TLPA0.3G18G-37-30.5 is a power amplifier with a typical power gain of 37dB and a nominal P1dB of 30.5 dBm across the frequency range of 0.3 to 18 GHz. The DC power requirement for the amplifier is +15 VDC/700 mA. The input and output port configuration offers coax adapter structure with SMA female.

### Features:

- Frequency range: 0.3-18GHz
- Gain: 37dB Typ
- Output Power Psat: 30.5dBm 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	0.3		18	GHz
Small Signal Gain	34	37		dB
Gain Flatness		±2		dB
Output P1dB	29.5	30.5		dBm
OIP3		42		dBm
Noise Figure		3.5	5	dB
Spurious			-60	dBc
Reverse Isolation		60		dB
Input VSWR		1.8	2.2	:1
Input VSWR		1.8	2.2	:1
DC Voltage		15		V DC
DC Supply Current		700		mA
Impedance		50		Ohms

### Mechanical Specifications:

Parameter	Value	Units
Input & Output Connector	SMA Female	
DC Bias	Solder Pin	
Size	48.3*38.1*12.7	mm

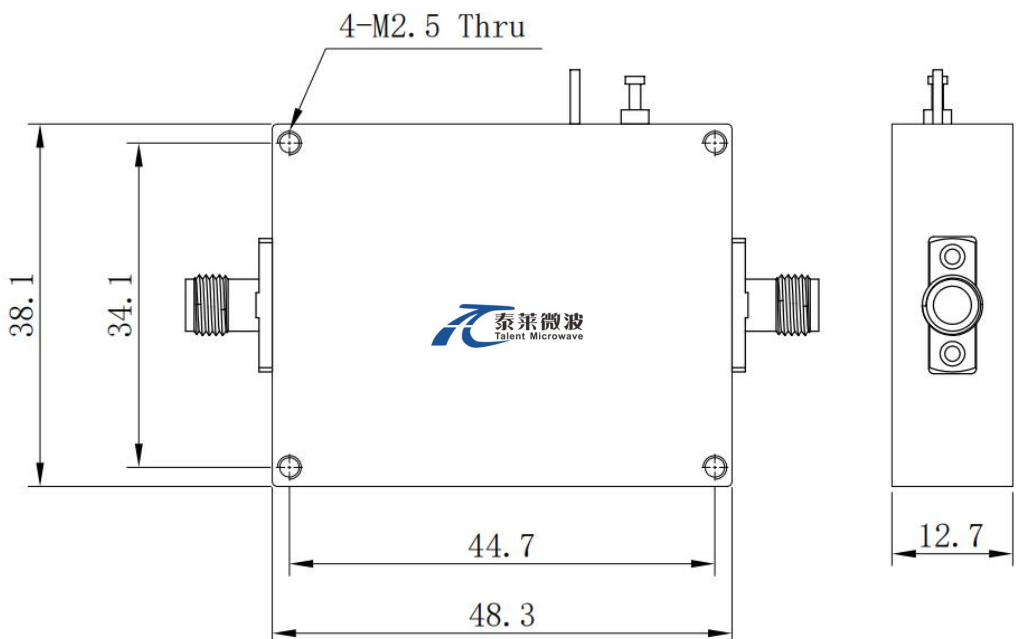
### Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+18 V
RF Input Power	+15 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



### Outline Drawing:

Unit:mm



**\*\*\*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
TLPA0.3G18G-37-30.5	Power amplifier 0.3-18GHz, Gain:37dB,P1dB:30.5dBm,+15V DC,Without Heatsink	Rev.1.0
TLPA0.3G18G-37-30.5-HS	Power amplifier 0.3-18GHz, Gain:37dB,P1dB:30.5dBm,+15V DC,Without Heatsink	Rev.1.0