

Low Noise Amplifier

33-37GHz/3.5dB NF/18dB Gain/18dBm P1dB

Model: TLLA33G37G-18-35

TLLA33G37G-18-35 is a low noise amplifier with a typical small signal gain of 18 dB and a nominal noise figure of 3.5 dB across the frequency range of 33 to 37 GHz. The DC power requirement for the amplifier is +5 V DC/200 mA. The input and output port configuration offers coax adapter structure with 2.92mm female.

Features:

- Frequency range: 33-37GHz
- Gain: 18dB Typ
- Noise Figure: 3.5dB Typ
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- Communication systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	33		37	GHz
Small Signal Gain	16	18	20	dB
Gain Flatness		±0.5	±1	dB
Noise Figure		3.5	4.5	dB
Output P1dB	16	18		dBm
Output Psat		18		dBm
Input VSWR		1.6	1.8	:1
Output VSWR		1.6	1.8	:1
DC Voltage		+5		V DC
DC Supply Current		200		mA
Impedance		50		Ohms

Mechanical Specifications:

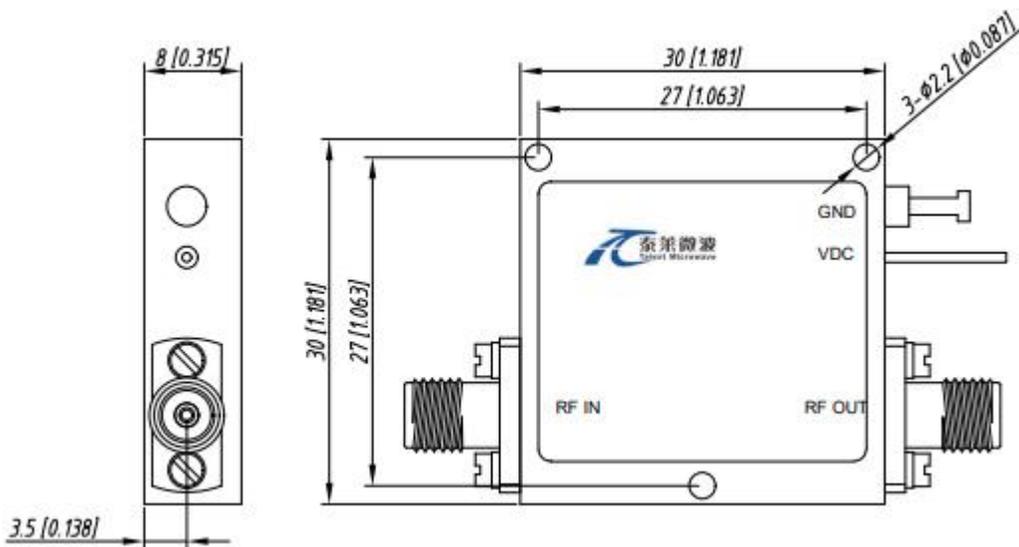
Parameter	Value	Units
Input /Output Connector	2.92mm Female/2.92mm Female	
DC Bias	Solder Pin	
Size	30*30*8	mm

Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	TBD
RF Input Power	10 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	-45		+85	°C
Non-operating Temperature	-55		+125	°C
Relative humidity		95		%
Altitude	50,000			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			

Ordering Information:

Base Number	Description	Revision
TLLA33G37G-18-35	Low Noise Amplifier, 33-37GHz, Noise Figure:3.5dB, Gain:18dB,P1dB:18dBm,+5V DC,Without Heatsink	Rev.1.1
TLLA33G37G-18-35-HS	Low Noise Amplifier, 33-37GHz, Noise Figure:3.5dB, Gain:18dB,P1dB:18dBm,+5V DC,With Heatsink	Rev.1.1