

TQ9121

1.2 – 1.6 GHz Low-Noise Amplifier

The TQ9121 Low-Noise Amplifier is part of TriQuint's RFIC Downconverter Building Block family. Intended for use in the first stages of a Low-Noise Receiver front end, the TQ9121 provides high-performance operation from a standard +5V power supply.

The TQ9121's low current consumption and small, plastic surface-mount package are well

suitable for low-cost hand-held and battery-powered applications.

The amplifier has internal self-bias circuitry for easy system integration. An external matching network at the input of the amplifier yields optimum noise performance. Output match to 50 ohms is provided internally. The input pin is DC-blocked.

Features

- Single +5V supply
- Low noise figure (1.25 dB typical)
- 1200 – 1600 MHz operation
- Output matched to 50 ohms
- SO-8 plastic package

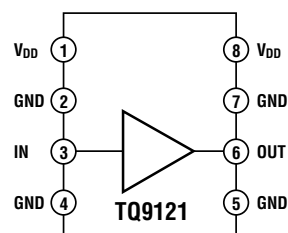
Applications

- Global Positioning Systems (GPS)
- Satellite terminals

Electrical Specifications¹

Parameter ²	Min	Typ	Max	Units
Frequency of Operation	1200		1600	MHz
Gain	14	16		dB
Noise Figure		1.25	1.5	dB
DC Supply Current		17	24	mA

Notes: 1. Test Conditions: $V_{DD} = +5V$, $T_A = 25^\circ C$, frequency 1575 = MHz with external matching for G_{OPT} , unless otherwise specified.
2. Min/Max values listed are 100% production tested.



TQ9122

500 – 2500 MHz Low-Noise Amplifier

The TQ9122 Low-Noise Amplifier is part of TriQuint's RFIC Downconverter Building Block family. Intended for use in the first stages of a Low-Noise Receiver front end, the TQ9122 provides high-performance operation from a standard +5V power supply.

The TQ9122's low current consumption and small, plastic surface-mount package are well

suitable for low-cost hand-held and battery-powered applications.

The amplifier has internal self-bias circuitry for easy system integration. An external matching network at the input of the amplifier yields optimum noise performance. Output match to 50 ohms is provided internally for wideband operation. The input pin is DC-blocked.

Features

- 500 – 2500 MHz operation
- Single +5V supply
- Low noise figure (1.3 dB typical @ 1575 MHz)
- 25 dB gain at 1575 MHz
- Output matched to 50 ohms
- 18 mA operating current
- SO-8 plastic package

Applications

- 900 MHz and 2.4 GHz WLAN receivers
- PCS/PCN systems
- Global Positioning Systems (GPS)
- Cellular communications
- Spread-spectrum receivers
- Satellite mobile terminals

Electrical Specifications¹

Parameter ²	Min	Typ	Max	Units
Frequency of Operation	500		2500	MHz
Gain	21	25		dB
Noise Figure		1.3	1.5	dB
DC Supply Current	14	18	22	mA

Notes: 1. Test Conditions: $V_{DD} = +5V$, $T_A = 25^\circ C$, frequency = 1575 MHz with external matching for G_{OPT} , unless otherwise specified.
2. Min/Max values listed are 100% production-tested.

