

## 10-12GHz Low Noise Amplifier

### *General Description*

The NLC00409 is a single biased (+15 V) low noise amplifier that operates between 10.0 GHz and 12.0 GHz. A thin film hybrid MIC process is used to achieve robust characteristics over temperature range -30°C to +70°C. The amplifier incorporates internally protected voltage regulator, reverse polarity protection and can be biased in a wide range of DC voltage.



Both input and output RF connectors are field replaceable SMA-F connector.

### *Performance with 25 °C, Vcc = +15V*

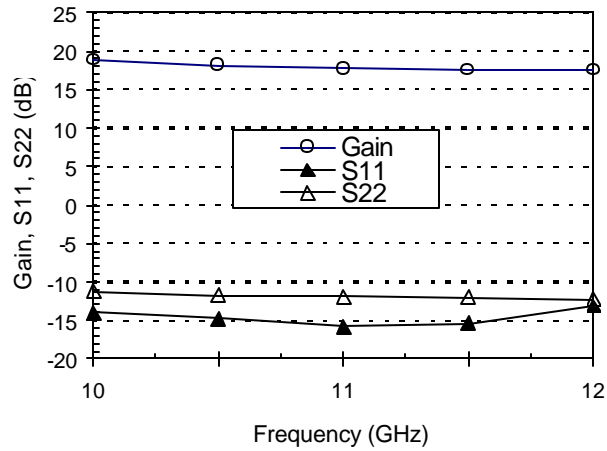
Parameter	Min.	Typ.	Max.	Units
Frequency	10.0		12.0	GHz
Gain at room temperature	17	18		dB
Gain Flatness over all frequency range at room temperature			± 1.0	dB
Noise Figure at room temperature		2.5	3.0	dB
1 dB Compression Point at room temperature	12	13		dBm
Input VSWR			2.0 : 1	
Output VSWR			2.0 : 1	
DC supply voltage (Vcc)	+10	+15	+17	V
Supplied Current		50	80	mA
Operating Temperature	-30		70	°C

Customized Designs: For custom designs, including both electrical and mechanical, please contact us at [sales@nextec-rf.com](mailto:sales@nextec-rf.com).

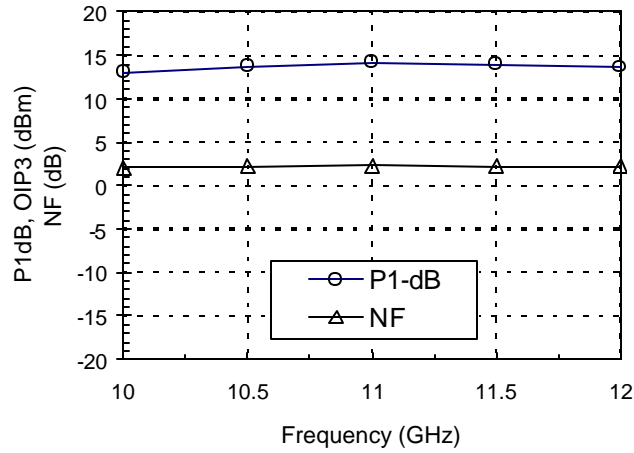
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*Typical Test Data*

**Gain and Return Losses at 25 °C**



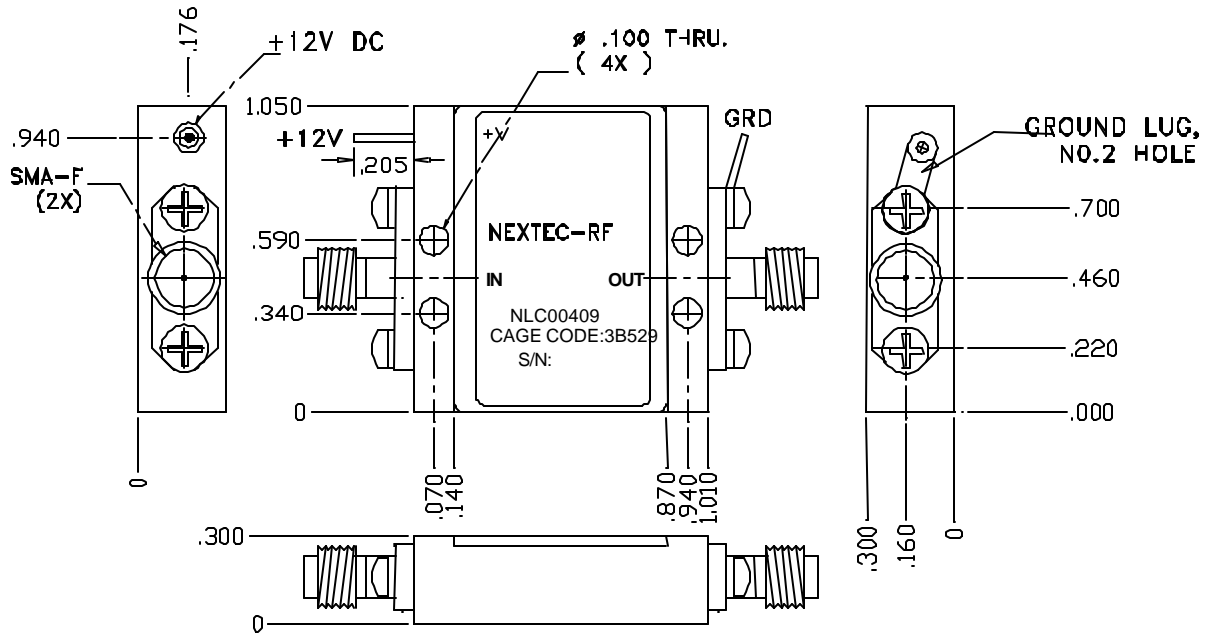
**P1-dB, Output IP3 and Noise Figure at 25 °C**



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*Outline Drawing*



(unit: inch)

*Connector Description*

RFin	RF input signal (replaceable SMA-F)
RFout	RF output signal (replaceable SMA-F)
Vcc	DC Supply Voltage (10V to 17 V)

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