

## 4-8 GHz Low Noise Amplifier, 3.3v

### *General Description*

The NBL00432 is a single biased (+3.3 V) low noise amplifier with less than 2 dB of noise figure operating between 4.0 GHz and 8.0 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 and can be biased in a wide range of DC voltage. Both input and output RF connectors are field replaceable SMA-F connector.



### *Performance 25 °C, Vcc = +3.3 V*

Parameter	Min.	Typ.	Max.	Units
Frequency	4.0		8.0	GHz
Gain at room temperature	28	29		dB
Gain Flatness over all frequency range at room temperature		± 0.8	± 1.0	dB
Noise Figure at room temperature		1.7	2.2	dB
1 dB Compression Point at room temperature	10	13		dBm
Input VSWR			2.0 : 1	
Output VSWR			2.0 : 1	
DC supply voltage (Vcc)	+3.3		+16	V
Supplied Current		82	100	mA
Operating Temperature	-30		70	°C

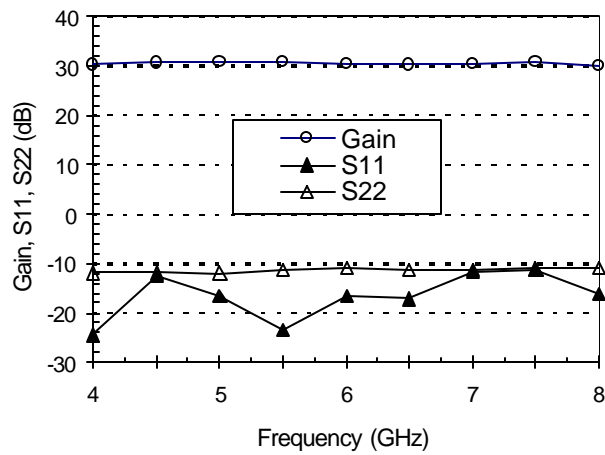
**Please Note:** Reverse Polarity Protection Not Included.  
No damage voltage range -0.3V to +16V

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

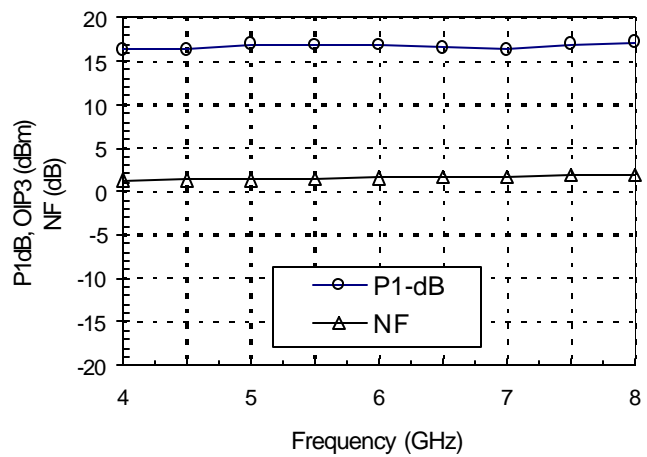
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*Typical Test Data*

**Gain and Return Losses at 25 °C**



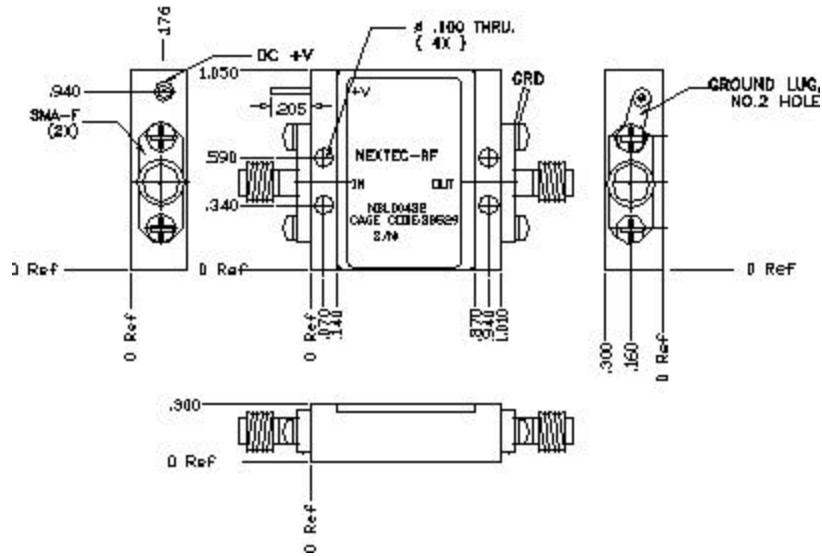
**P1-dB, Output IP3 and Noise Figure at 25 °C**



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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 (3.3V to 15V)

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