

14-15GHz Low Noise Amplifier

General Description

The NLC00413 is a single biased (+15 V) low noise amplifier that operates between 14.0 GHz and 15.0 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 over a wide DC voltage range.

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



Performance 25 °C, Vcc = +15

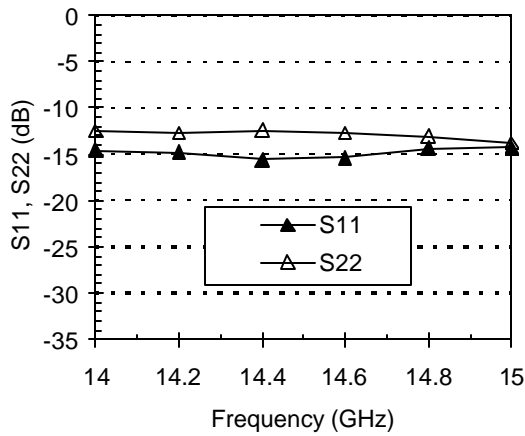
Parameter	Min.	Typ.	Max.	Units
Frequency	14.0		15.0	GHz
Gain at room temperature	13	14		dB
Gain Flatness over all frequency range			±1.0	dB
Noise Figure		2.3	2.8	dB
1 dB Compression Point	12	13		dBm
Input VSWR			1.7 : 1	
Output VSWR			1.7 : 1	
DC supply voltage (Vcc)	+10	+15	+17	V
Supplied Current		50	80	mA

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

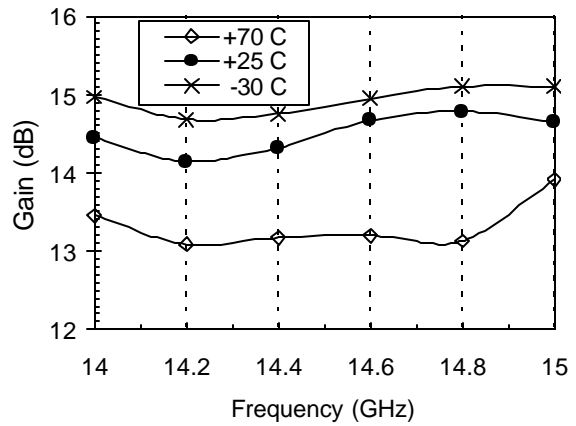
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Typical Test Data

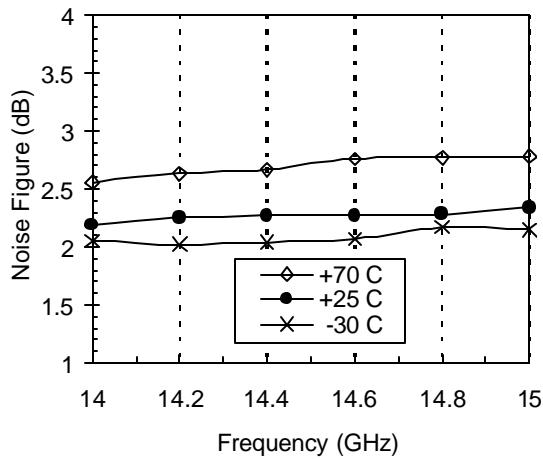
S11 and S22 Over Temperature



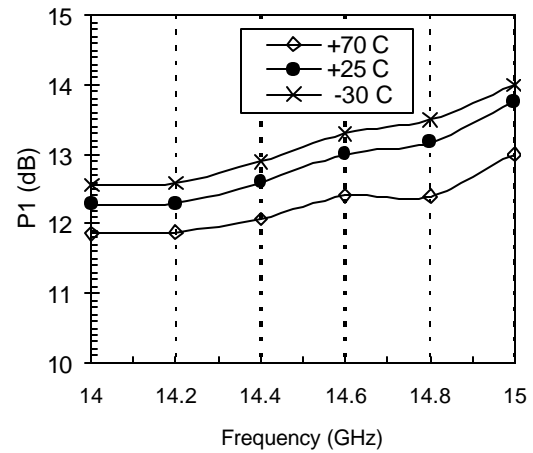
Gain Over Temperature



Noise Figure Over Temperature



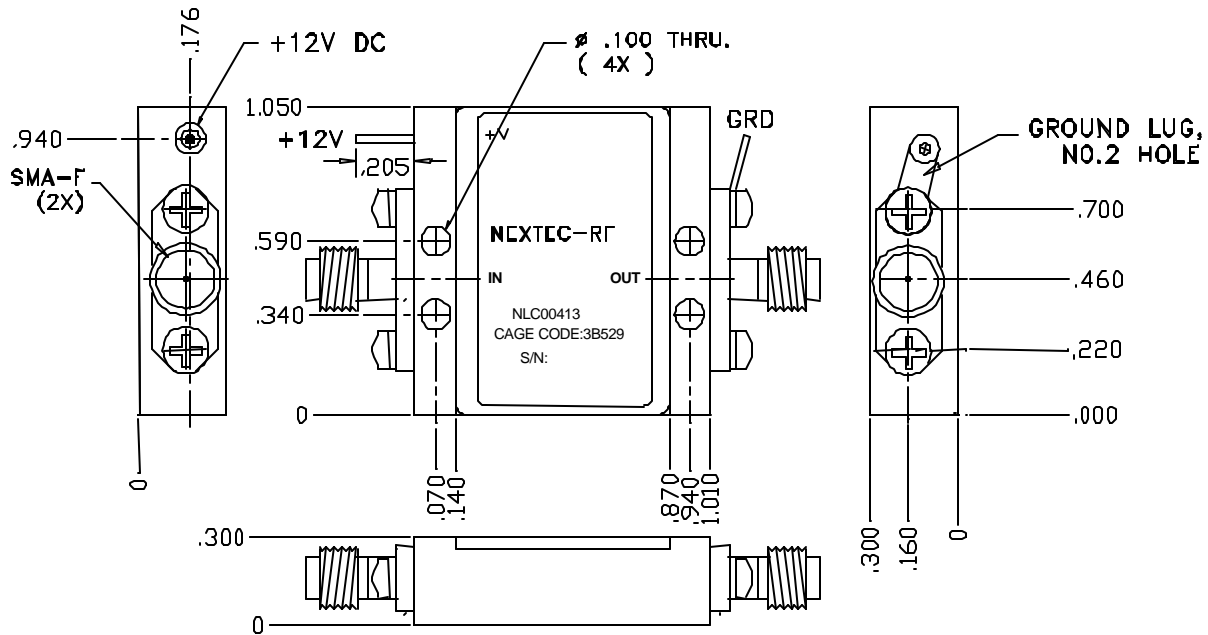
P1dB Over Temperature



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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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