

4 - 6 GHz, 27dBm Power Amplifier

General Description

The NB00438 is a single biased (+12 V) amplifier that operates between 4.0 GHz and 6.0 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 connectors.



Performance 25 °C, Vcc = +12 V

Parameter	Min.	Typ.	Max.	Units
Frequency	4.0		6.0	GHz
Gain at room temperature	22	24		dB
Gain Flatness over all frequency range at room temperature			±0.5	DB
Noise Figure at room temperature		4.5	5.5	dB
1 dB Compression Point at room temperature	27	28		dBm
Output IP3	38	40		dBm
Input VSWR		1.8:1	2.0 : 1	
Output VSWR		1.8:1	2.0 : 1	
DC supply voltage (Vcc)	+10	+15	+17	V
Supplied Current		310	350	mA
Operating Temperature	-30		70	degC

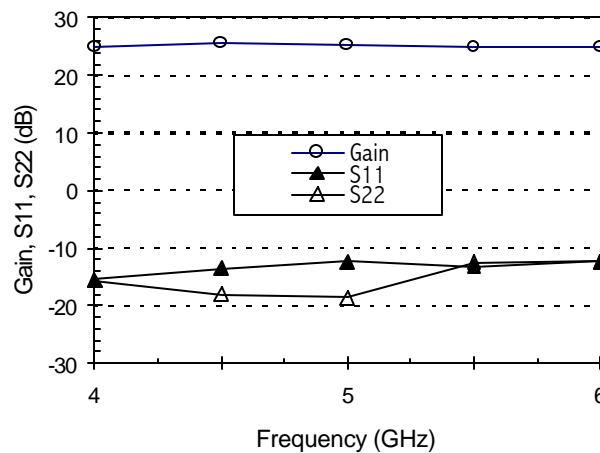
Customized Designs: For custom designs, including both electrical and mechanical, please contact us at sales@nextec-rf.com.

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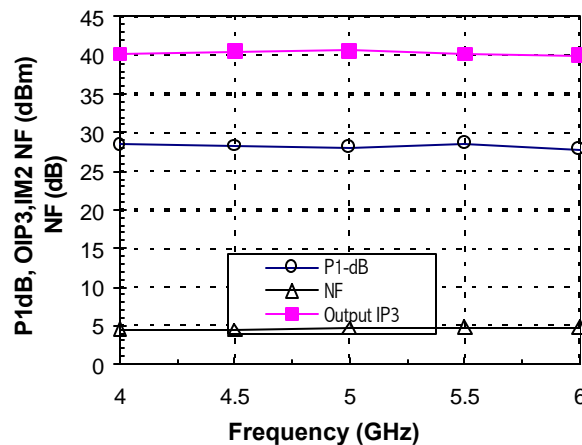
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Typical Test Data

Gain and Return Losses at 25 degC



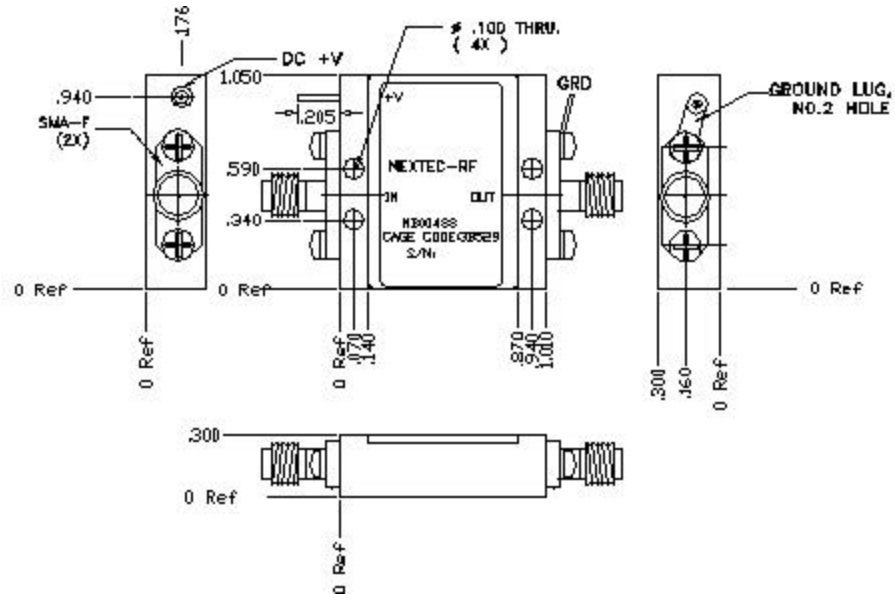
P1-dB, Output IP3, and Noise Figure at 25 degC



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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 15 V)

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