B&Z TECHNOLOGIES
INNOVATING TO EXCEL

LNA, 27 to 29GHz

Model: **BZR-27002900-300835-102323**

Features

- **Noise Figure ≤ 3.0 dB**
- Unconditionally Stable at all temperatures
- Internally Regulated DC Voltage
- 50 Ohm Matched Input/Output
- Field Replaceable 2.92mm K connectors
- Excellent Group Delay and Phase Linearity
- 0.009 inches diameter RF In/Out feed through
- Operating Temp. -55 C to +85 C
- 3 Year Warranty

Options

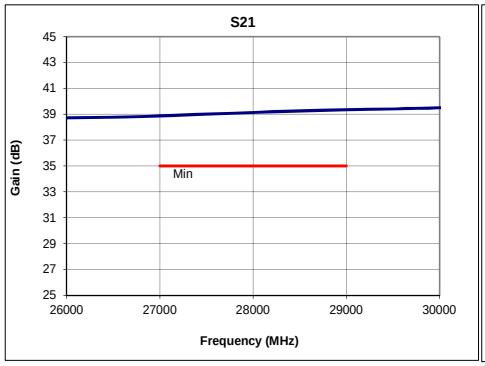
- **Optimized Performance over Selected Bandwidth**
- Internally DC Block Input (Output DC Block Standard)
- Hermetically Sealed Package
- Improved Gain Flatness
- Improved IN and OUT VSWR
- Gain and Phase matching
- Lower Noise Figure

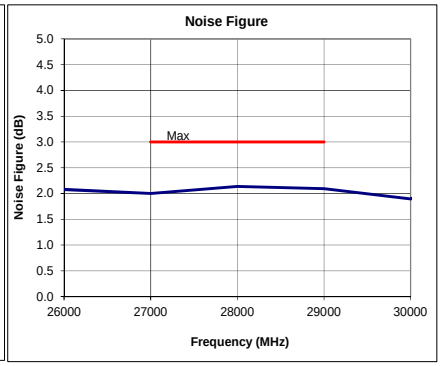
Specifications (23 °C)

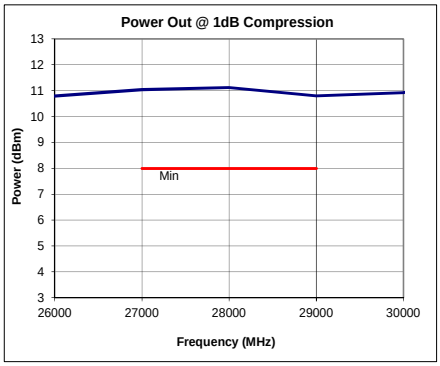
Parameter	Min	Typ	Max	Units
Frequency Range	27	-	29	GHz
Noise Figure*	-	2.2	3.0	dB
Gain	35	38	-	dB
Gain Flatness (+/-)	-	± 0.5	± 1	dB
P1 Output Power	+8	+10	-	dBm
Input VSWR	-	-	2.3:1	
Output VSWR	-	-	2.3:1	
Operating Temperature	-55	-	+85	°C
Non-Operating Temp Range	-65	-	+85	°C
RF Input Power (no-damage)	-	-	+13	dBm
Humidity (non-condensing)	-	-	95	%
Voltage	+8	+8	+15	VDC
Current	-	160		mA
Input Impedance	50			Ohms
RF Connector	2.92mm - Female			
Dimensions	29.9 x 18.7 x 7.6			mm

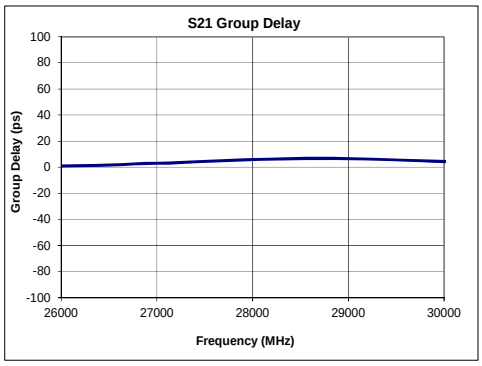
* Noise Source used for measurement from 18GHz to 42 GHz is HP346C-K01 .
NF Uncertainty (approx. 0.3 dB). 0.2 dB due to ENR of HP 346C-K01, and 0.1 dB due to the gain modulation of the unit caused by the HP 346C-K01 source impedance change in the ON and OFF state.

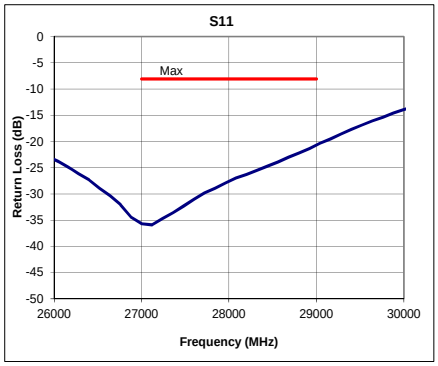
Typical Data

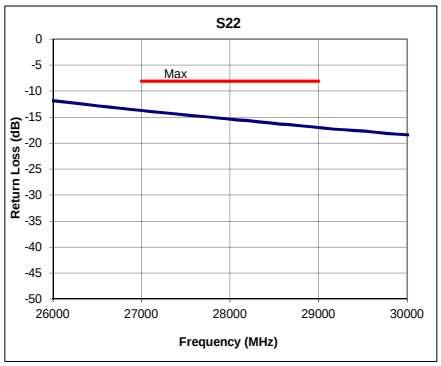












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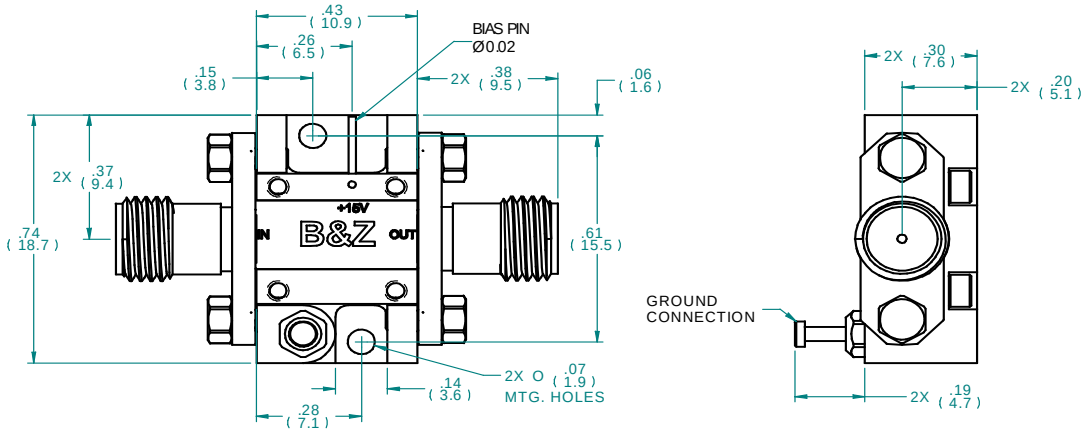
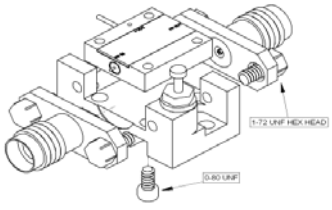
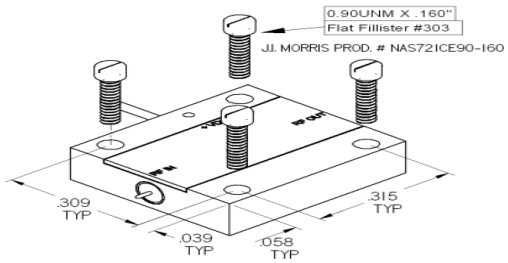


Approx. Actual Size

Mounting Drawing



Drop In



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****CAUTION:** The amplifier input has DC-block but does not have low impedance to GROUND because of the requirement to extend BW down to 100MHz. **Extreme caution must be excersized to avoid Electro-static Discharge (ESD) at the input center conductor**. B&Z offers option -01 which protects the amplifier against low level ESD but connecting it directly to the output of an antenna in typical EMC applications exposes the amplifier center conductor via antenna, thereby increasing risk for ESD damage. It is the customer's responsibility to minimize Electro-static discharge (ESD) to both- the antenna and the amplifier connected to it.

If the application does not require reponse below 8GHz, B&Z offers other models with inductive return to GND that can offer lower NF, improved Gain, better IN/OUT VSWR and more resilient ESD protection. Please call for further information.

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* Noise Source used for measurement from 0.01 to 26.5 GHz is HP346C .
NF Uncertainty (approx. 0. 1dB). 0.05 dB due to ENR of HP 346C; and 0.05 dB, due to the gain modulation of the unit, caused by the HP 346C source impedance change in the ON and OFF state. Noise Figures and other parameters degrade below 500 MHZ. Noise Figures at Cryogenic Temperatures not given due to uncertainty of measurement for very low values. Call to discuss.

* Noise Source used for measurement from 18GHz to 42 GHz is HP346C-K01 .
NF Uncertainty (approx. 0.3 dB). 0.2 dB due to ENR of HP 346C-K01; and 0.1 dB, due to the gain modulation of the unit, caused by the HP 346C-K01 source impedance change in the ON and OFF state. Noise Figures and other parameters degrade below 500 MHZ. Noise Figures at Cryogenic Temperatures not given due to uncertainty of measurement for very low values. Call to discuss.

* Noise Source used for measurement from 18GHz to 42 GHz is HP346C-K01 .
NF Uncertainty (approx. 0.3 dB). 0.2 dB due to ENR of HP 346C-K01, and 0.1 dB due to the gain modulation of the unit caused by the HP 346C-K01 source impedance change in the ON and OFF state.

*** IMPORTANT: UNIT REQUIRES HEATSINK ***

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42 GHz is HP346C-K01 .
HP 346C-K01; and 0.1 dB, due to the gain
ırce impedance change in the ON and OFF state.
) MHZ.