

Features

- **Noise Figure: 2.5 dB (typ)**
- Unconditionally Stable at all temperatures
- Internally Regulated DC Voltage
- 50 Ohm Matched Input/Output
- Field Replaceable 3.5mm SMA connectors
- Excellent Group Delay and Phase Linearity
- 0.009 inches diameter RF In/Out feed through
- Operating Temp. -40 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	3	-	17	GHz
Noise Figure*	-	2.5	3.0	dB
Gain	35	40	-	dB
Gain Flatness (+/-)	-	±2.5	±3.0	dB
P1 Output Power	+22	+23	-	dBm
Input VSWR	-	2.0:1	2.2:1	
Output VSWR	-	2.0:1	2.2:1	
Operating Temperature	-40	-	+85	°C
Non-Operating Temp Range	-65	-	+85	°C
RF Input Power (no-damage)	-	-	+13	dBm
Humidity (non-condensing)	-	-	95	%
Voltage	+15	+15	+15	VDC
Current	-	305		mA
Input Impedance	50			Ohms
RF Connector	3.5mm SMA - Female			
Dimensions	29.9 x 18.7 x 7.6			mm

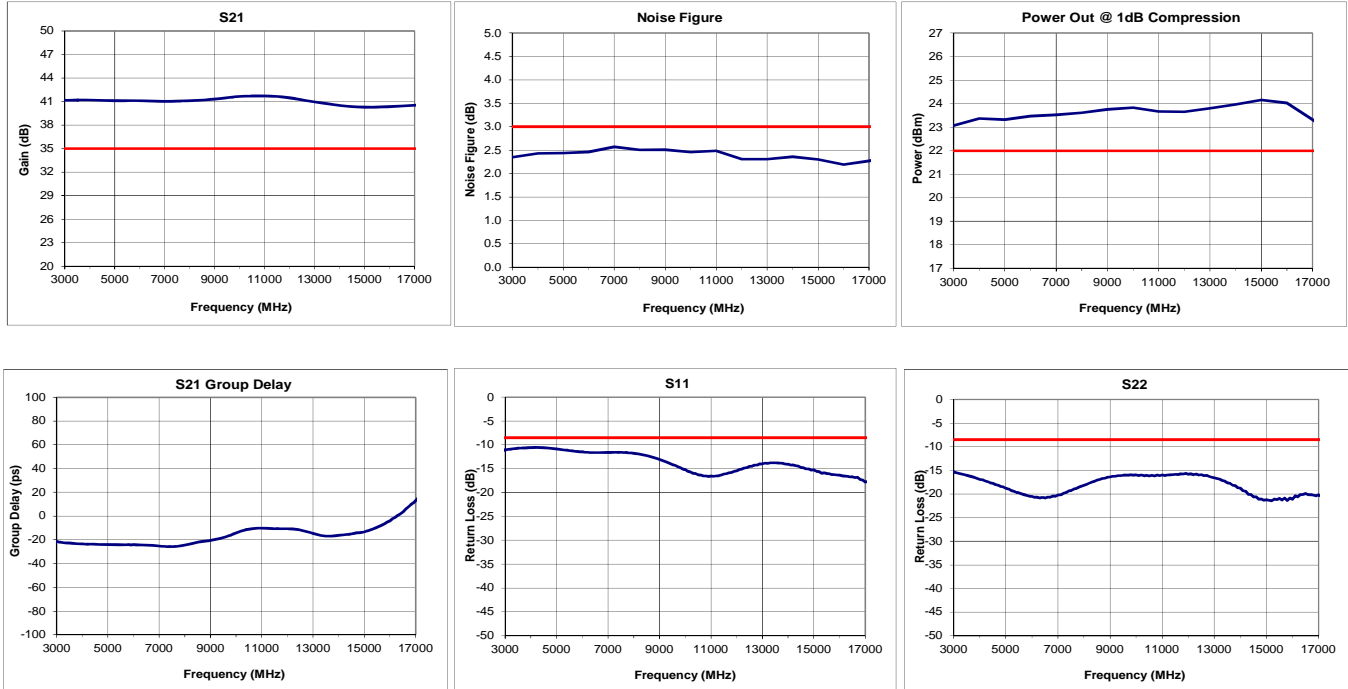
****CAUTION:** The amplifier input is DC-coupled but does not have low impedance to GROUND because of the requirement to extend BW down to 100MHz. **Extreme caution must be exercised to avoid Electro-static Discharge (ESD) at the input center conductor.** B&Z offers option -01 which protects the amplifier against low level ESD but connecting it directly to the output of an antenna (typical EMC application) exposes the amplifier center conductor via antenna, thereby increasing risk of 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 response 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 robust ESD handling capacity. Please call for further information.

* 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.

***** IMPORTANT: UNIT REQUIRES HEATSINK *****

Typical Data





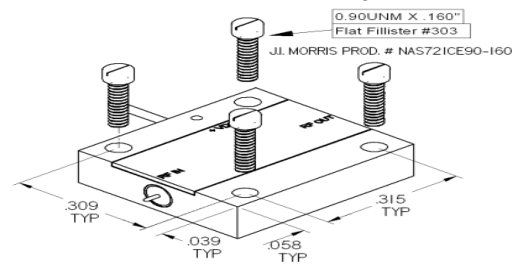
Approx. Actual Size

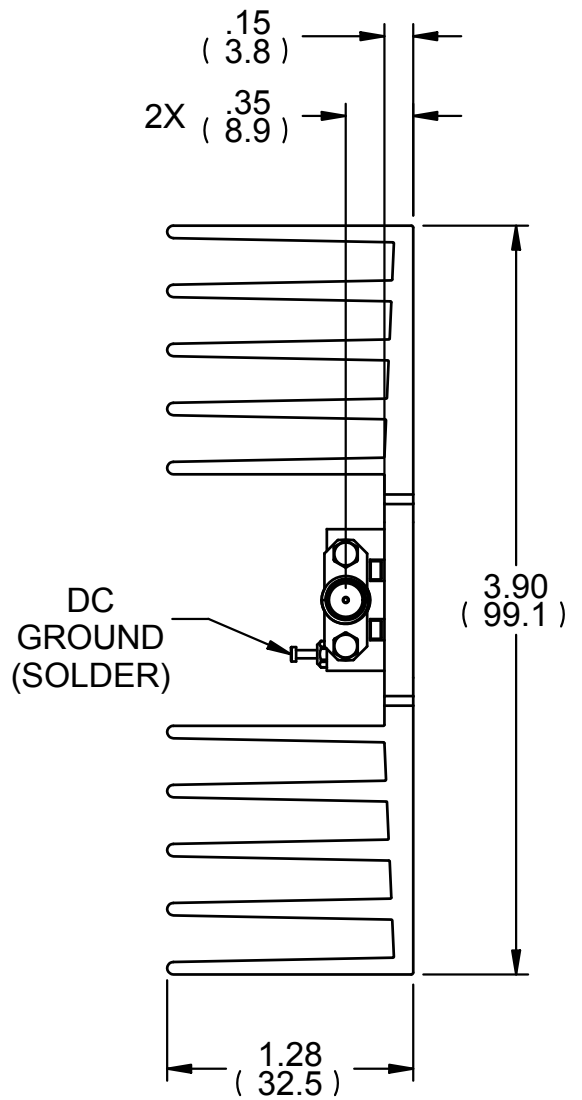
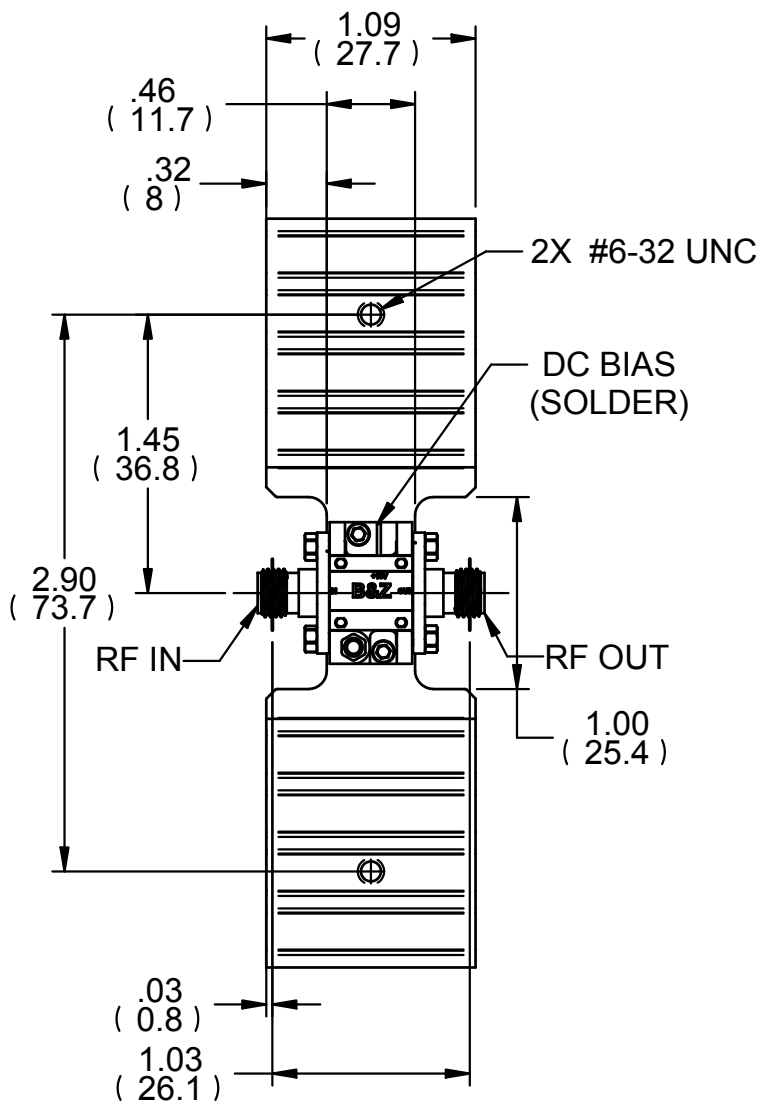


Mounting Drawing



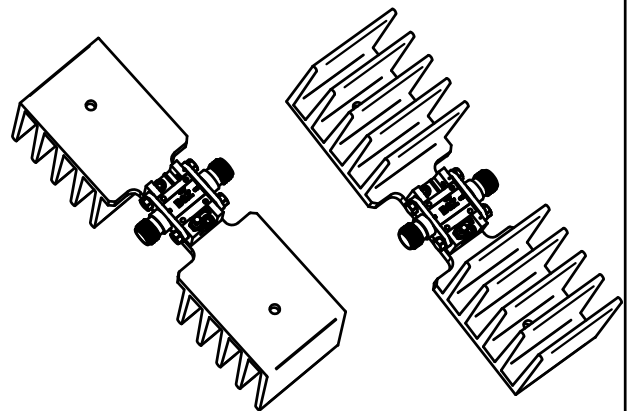
Drop In





NOTES:

1. HEATSINK SURFACE AREA 35.14 SQ. INCHES
2. HEATSINK MATERIAL: ALUMINUM ALLOY
3. APPROXIMATE TEMPERATURE RISE IS 6.5°C/W IN STILL AIR.



B&Z
TECHNOLOGIES

SIZE
A

**OUTLINE,
STD. AMPLIFIER ON HEATSINK**

100169

SCALE

REF. FILE NAME: 100169_A Outline, Std Amplifier on Heatsink

SHEET 1 OF 1

REV. **A**