

NC3400 Series 2 GHz to 18 GHz



High ENR Coaxial AWGN Noise Sources With Built-in Isolators

The NC3400 Series coaxial AWGN noise sources are an excellent choice for applications requiring high ENR and immunity to large incident RF power, such as ATE, radiometer, and radar systems. The calibration accuracy and flatness of the NC3400 Series noise sources are enhanced by their low VSWR. The built-in isolator provides almost constant output impedance as the noise source bias is switched on and off. The isolator also protects the noise diode from incident RF power (consult the factory for higher-power units).

An SMA female connector is standard for the RF output and a BNC female connector is standard for the bias input. Other connectors are available as options.

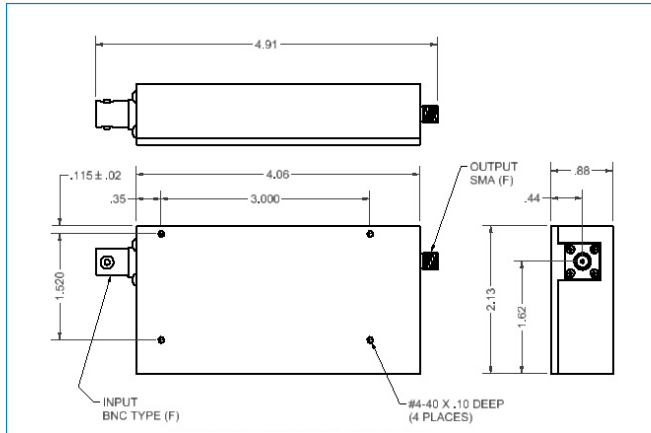
Applications

- Radar systems
- High NF device measurements
- Automated test equipment (ATE)

General Specifications

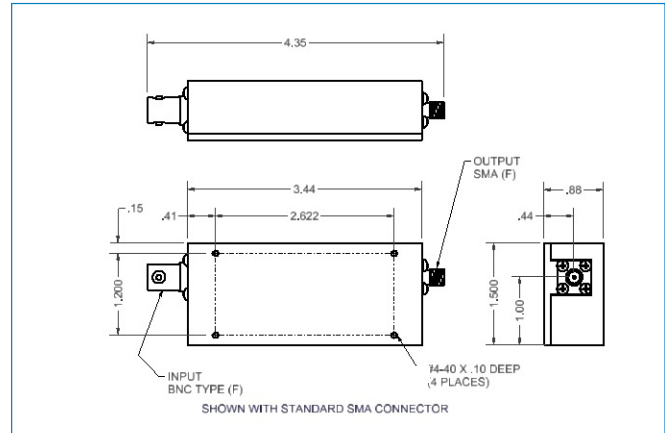
ENR	Up to 35 dB
VSWR	Less than 1.3:1
Standard input voltage	+28 VDC
Noise output rise and fall times	Less than 1 μ s
Maximum incident RF power	1 W average, 100 W peak
Typical current	12 to 15 mA

NC3404 Dimensions (inches)



Shown with NC34opt01

NC3405, 06 Dimensions (inches)



Shown with NC34opt01

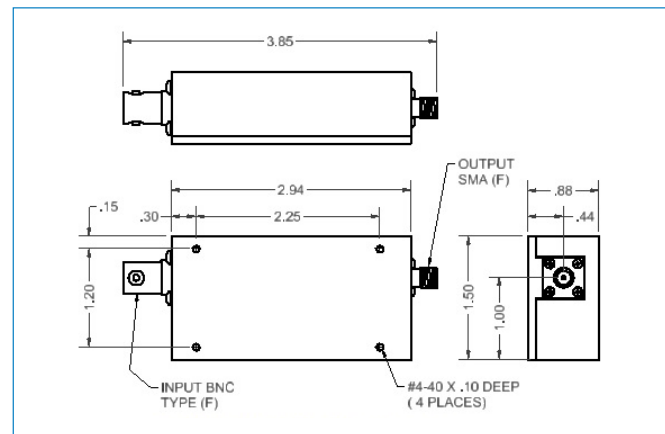
Model	Frequency (GHz)	ENR (dB)	Flatness Full Band (dB)*	Max. VSWR (on/off)**	I (max) (mA)
NC3404	2 - 4	30 - 36	± 0.75	1.3:1	30
NC3405	4 - 8	30 - 35	± 0.75	1.3:1	30
NC3406	8 - 12	28 - 33	± 0.75	1.3:1	30
NC3407	12 - 18	26 - 32	± 0.75	1.3:1	30

* Flatness for units optimized for bandwidths less than 10 percent of the center frequency is less than ± 0.25 dB. Improved VSWR may also be obtained for units with reduced bandwidth.

** VSWR for models with N connector is 1.35:1 up to 12 GHz. N connectors are not recommended for frequencies above 12 GHz.

NOTE: Standard calibration points are located at every 1 GHz.

NC3407 Dimensions (inches)



Shown with NC34opt01

Options

Option Number	Description
NC34opt01	N male output connector
NC34opt02	SMA male output connector
NC34opt03	+15 VDC input voltage
NC34opt04	+28 VDC with regulation. Stabilized output for ±2 V variation
NC34opt05	TTL control "high" is on (add suffix T)
NC34opt06	SMC male bias connector
NC34opt07	Solder lug for bias connection

25 Eastmans Rd
Parsippany, NJ
United States
Tel: +1 973 386 9696
Fax: +1 973 386 9191
noisecom.com

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