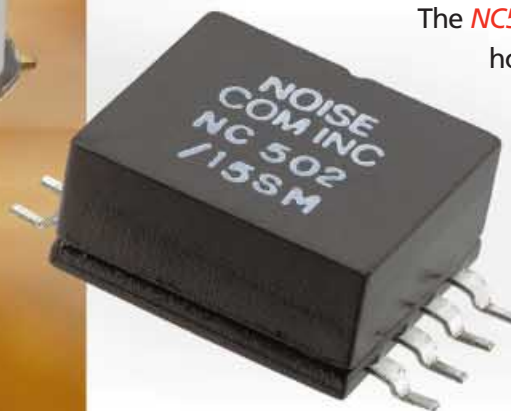


## NOISE MODULES

## FOR BITE



## General Specifications:

Output	White Gaussian noise
Minimum power	31 dB ENR
output	(-143 dBm/Hz)
	51 dB ENR
	(-123 dBm/Hz)
Crest factor	5:1
Supply current	0.2 to 5 mA
	(NC500 Series)
	10 to 20 mA
	(NC510 Series)
Temperature coefficient	0.01 dB/°C
Supply sensitivity	0.1 dB/%ΔV
Operating	0°C to +70°C
temperature	(surface mount)
	-55°C to 85°C (drop-in)
Storage temperature	-65° to +150°C
Packaging	Drop-in or
	surface mount
Power	+12, +15V or +28V
Absolute maximums	+30V for +15V models
input voltage	+40V for +28V models
Specifications subject to change without notice.	

The **NC500** (drop-in) and **500SM** (surface mount) Series noise modules are an economical solution for built-in test requirements. They contain complete bias circuits and require no external components.

The surface mount package is suitable for mounting on microstrip. The modules produce extremely flat output power versus frequency characteristic that is insensitive to temperature and voltage variations.

The **NC500 Series** modules are housed in a TO-8 metal can, and require 0.2 to 5 mA, while the **500SM Series** modules are housed in a surface mount plastic package.

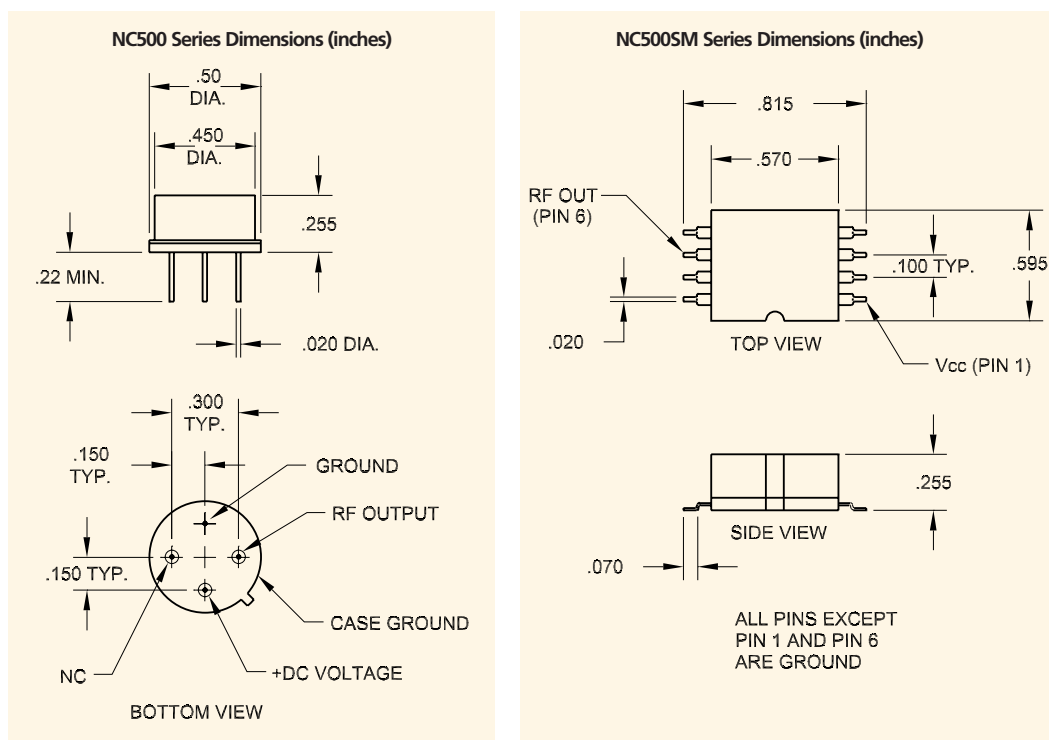
Both typically require 5 mA and produce a minimum of 31 dB ENR of white Gaussian noise. The **NC510** and **510SM Series** typically require 15 mA and have higher output with a minimum of 51 dB ENR. Like all Noise Com products, they contain a fully characterized noise diode that has been burned-in for 168 hours.

Typical applications for these noise modules include built-in test equipment (BITE), signal strength meters for cellular, PCS, CATV, calibrators, spectrum analyzers, radar warning receivers (RWR), and dither A/D quantization error. Noise Com can optimize frequency range, voltage and output levels for specific applications. Most models are available from stock.

When ordering, add the suffix "SM" to the model number to denote the surface mount version. If the suffix is not included, the drop-in version will be supplied.

**Applications:**

- Built-in test equipment (BITE)
- Signal strength meters for cellular, PCS and CATV
- Calibrators
- Spectrum analyzers
- Radar warning receivers (RWR)
- Dither A/D quantization error
- Gain-bandwidth product testing



NC500/500SM SERIES							
MODEL FOR +12 V SUPPLY	MODEL FOR +15 V SUPPLY	MODEL FOR +28 V SUPPLY	FREQUENCY RANGE	MINIMUM OUTPUT ENR (dB)	OUTPUT @ $R_L(\Omega)$	OUTPUT FLATNESS (dB)	I (max) (mA)
NC501/12	NC501/15	NC501	200 kHz - 500 MHz	31	50	±0.5	10
NC502/12	NC502/15	NC502	200 kHz - 1 GHz	31	50	±1.0	10
NC503/12	NC503/15	NC503	200 kHz - 2 GHz	31	50	±1.5	10
NC504/12	NC504/15	NC504	200 kHz - 3 GHz	31	50	±1.5	10
NC505/12	NC505/15	NC505	200 kHz - 4 GHz	31	50	±2.0*	10
NC506/12	NC506/15	NC506	200 kHz - 5 GHz	31	50	±2.5*	10
NC511/12	NC511/15	N/A	200 kHz - 500 MHz	51	50	±2.0	30
NC512/12	NC512/15	N/A	200 kHz - 1 GHz	51	50	±2.0	30
NC513/12	NC513/15	N/A	200 kHz - 2 GHz	51	50	±2.0	30

1. Military version in compliance with MIL-E-5400T Class 2 (add suffix M).

Not available in surface mount, NC501 to NC506 Series only.

2. Add SM for surface mount. Otherwise TO-8 is standard.

\* Flatness ±4.0 for SM Series of these models.