

## AMPLIFIED NOISE

## MODULES



The *NC1000 Series* amplified noise modules produce white Gaussian noise as high as +13 dBm. They are designed for applications that require injection of noise at high levels, such as CATV, secure communications, and jamming systems.

Each *NC1000* module contains a hermetically packaged noise diode that has been burned-in for 168 hours. The output of the noise source is connected to an RF amplifier that boosts power to the desired output.

**General Specifications:**

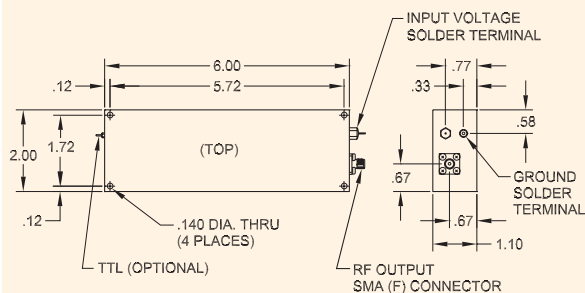
High power	Up to +13 dBm
Standard input voltage	+28 VDC (below 1.5 GHz) +15 VDC (above 1.5 GHz)
Operating temperature	-35° to +100°C
Storage temperature	-65° to +150°C
Typical temperature coefficient	0.025 dB/°C
Supply voltage sensitivity	0.25 dB/1% V
Output connector	SMA female connector (BNC available as option)

Specifications subject to change without notice.

**Applications:**

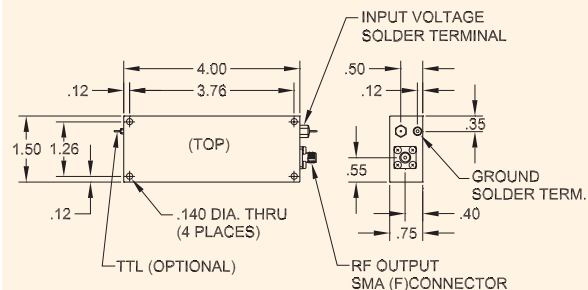
- CATV
- Secure communications
- Jamming systems
- OC-192 Testing
- EW & EC

NC1000 Series Dimensions - Package 1 (inches)


**50-OHM LOAD IMPEDANCE (PACKAGE 1)**  
**+28 VDC OPERATION IS STANDARD**

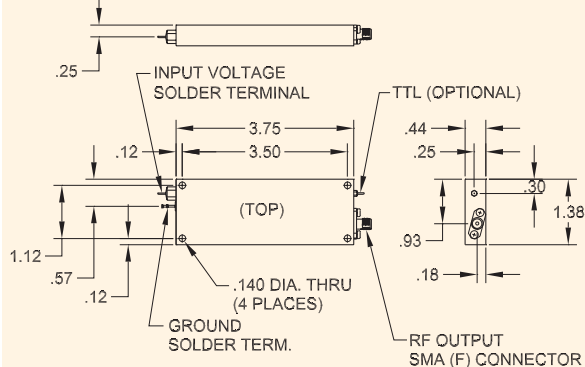
MODEL	FREQUENCY RANGE	OUTPUT CHARACTERISTICS					I (max) (mA)
		POWER (dBm)	dBm/Hz	FLATNESS(dB)	$\mu\text{V}/\sqrt{\text{Hz}}$	$\text{?Hz}$	
NC1101A	10 Hz - 20 kHz	+13	-30	$\pm 0.5$	7071		70
NC1103A	10 Hz - 500 kHz	+13	-44	$\pm 0.5$	1414		150
NC1105A	10 Hz - 10 MHz	+13	-57	$\pm 0.75$	316		160
NC1107A	100 Hz - 100 MHz	+13	-67	$\pm 1.0$	100		160
NC1108A	100 Hz - 500 MHz	+10	-77	$\pm 1.5$	31.6		160
NC1109A	100 Hz - 1 GHz	+10	-80	$\pm 2.0$	22.4		160
NC1110A	100 Hz - 1.5 GHz	+10	-82	$\pm 2.0$	18.2		160

NC1000 Series Dimensions - Package 2 (inches)


**50-OHM LOAD IMPEDANCE (PACKAGE 3)**  
**+15 VDC OPERATION IS STANDARD**

MODEL	FREQUENCY RANGE	OUTPUT CHARACTERISTICS					I (max) (mA)
		POWER(dBm)	dBm/Hz	FLATNESS(dB)	$\mu\text{V}/\sqrt{\text{Hz}}$	$\text{?Hz}$	
NC1111A	1 GHz - 2 GHz	-10	-100	$\pm 2.0$	2.24		250
NC1111B	1 GHz - 2 GHz	0	-90	$\pm 2.0$	7.07		250
NC1112B	20 MHz - 2 GHz	0	-93	$\pm 2.5$	5.02		250
NC1124A	2 GHz - 4 GHz	-7	-103	$\pm 2.0$	1.58		320
NC1126A	2 GHz - 6 GHz	-12	-110	$\pm 2.0$	0.71		320
NC1128A	10 MHz - 10 GHz	-17	-117	$\pm 3.0$	0.32		320

NC1000 Series Dimensions - Package 3 (inches)


**OPTIONS**

Option Number	Description
NC1opt01	+15 VDC
NC1opt02	+24 VDC
NC1opt03	BNC female connector (NC1101A through NC1110A only)
NC1opt04	0 dBm output (Package 2, NC1101A through NC1110A) (Package 3, NC1111A through NC1128A)
NC1opt05	TTL control "High" is on (add "T")
NC1opt06	TTL control "Low" is on (add "IT")
NC1opt07	Special frequency range (consult factory)

**To order call 201-261-8797**