

Data Sheet

# NC6000A/NC8000A Series AWGN Noise Generator





Count on the noise leader

## NC6000A/NC8000A Series AWGN Noise Generator

The **NC6000A** and **NC8000A** Series instruments are designed for general-purpose noise applications on the bench, or in a rack test station. The manual controls make it simple to operate and reduce test set up time. The standard output power NC6000A is typically used for BER, and SNR applications, while the high power NC8000A is a good candidate for signal jamming. Each instrument contains a precision noise source that delivers repeatable, symmetrical white Gaussian noise and is integrated with an amplifier, attenuator, and power supply. Noisecom will modify base units for specific customer needs. For pricing and availability, consult the factory.

### **General Specifications**

- Output White Gaussian noise
- Attenuator range 0 to 10 dB in 1 dB steps
- Impedance 50 Ohms
- Typical VSWR 1.5:1
- Standard connector SMA female (K female for NC6226)
- Dimensions: (NC6000A) 8.5 in. wide x 5 in. high x 12.25 in. deep (NC8000A) 17 in. wide x 5.25 in. high x 13 in. deep
- Power requirements are 120 VAC, 60 Hz, at 500 mA for the NC6000A, 1500 mA for the NC8000A
- Operating temperature -10° to + 60°C



### **Applications**

- BER Testing
- Military Jamming
- "K" Band Capability
- CATV Testing
- Video Testing
- General Purpose



## Specifications

#### NC6000A/NC8000A Series

Frequency Band	Power (dBm)	262 ID ///		
	( - )	PSD dBm/Hz	Flatness (dB)	uV/root (Hz)
10 Hz-20 kHz	+13	-30	±0.5	7071
10 Hz-500 kHz	+13	-44	±0.5	1414
10 Hz-10 MHz	+13	-57	±0.75	316
100 Hz-100 MHz	+13	-67	±1.0	100
100 Hz-500 MHz	+10	-77	±1.5	31.6
100 Hz-1 GHz	+10	-80	±2.0	22.4
100 Hz-1.5 GHz	+10	-82	±2.0	18.2
1 GHz-2 GHz	+10	-80	±2.0	22.4
1 MHz-2 GHz	0	-93	±2.5	5.01
1 MHz-3 GHz	0	-95	±2.5	5.01
1 MHz-4 GHz	-3	-100	±2.5	2.24
2 GHz-4 GHz	-10	-103	±2.5	1.58
2 GHz-6 GHz	-15	-111	±2.5	0.63
10 MHz-10 GHz	-17	-117	±3.5	0.32
2 GHz-18 GHz	-20	-122	±3.0	0.18
2 GHz-26.5 GHz	-20	-124	±3.0	0.14
	10 Hz-10 MHz   100 Hz-100 MHz   100 Hz-500 MHz   100 Hz-1 GHz   100 Hz-2 GHz   1 GHz-2 GHz   1 MHz-3 GHz   1 MHz-4 GHz   2 GHz-4 GHz   10 MHz-10 GHz   2 GHz-4 GHz   2 GHz-18 GHz	10 Hz-500 kHz +13   10 Hz-10 MHz +13   100 Hz-100 MHz +13   100 Hz-500 MHz +10   100 Hz-500 MHz +10   100 Hz-1 GHz +10   100 Hz-2 GHz +10   1 MHz-2 GHz 0   1 MHz-3 GHz 0   1 MHz-4 GHz -3   2 GHz-4 GHz -10   2 GHz-6 GHz -15   10 MHz-10 GHz -20	10 Hz-500 kHz +13 -44   10 Hz-10 MHz +13 -57   100 Hz-100 MHz +13 -67   100 Hz-500 MHz +10 -77   100 Hz-1 GHz +10 -80   100 Hz-1.5 GHz +10 -82   1 GHz-2 GHz +10 -80   1 MHz-3 GHz 0 -93   1 MHz-3 GHz 0 -95   1 MHz-4 GHz -3 -100   2 GHz-4 GHz -15 -111   10 MHz-10 GHz -17 -117   2 GHz-18 GHz -20 -122	10 Hz-500 kHz +13 -44 ±0.5   10 Hz-10 MHz +13 -57 ±0.75   100 Hz-100 MHz +13 -67 ±1.0   100 Hz-500 MHz +10 -77 ±1.5   100 Hz-500 MHz +10 -80 ±2.0   100 Hz-1 GHz +10 -82 ±2.0   100 Hz-1.5 GHz +10 -80 ±2.0   1 GHz-2 GHz +10 -80 ±2.0   1 MHz-2 GHz 0 -93 ±2.5   1 MHz-3 GHz 0 -95 ±2.5   1 MHz-4 GHz -3 -100 ±2.5   2 GHz-4 GHz -10 -103 ±2.5   10 MHz-10 GHz -17 -111 ±2.5   10 MHz-10 GHz -20 -122 ±3.0

#### NC8000A

Model	Frequency Band	Power (dBm)	PSD dBm/Hz	Flatness (dB)
NC8103A*	500 Hz-500 kHz	+30	-27	±2.0
NC8105A*	500 Hz-10 MHz	+30	-40	±2.0
NC8107A*	250 kHz-100 MHz	+30	-50	±2.0
NC8108A*	1 MHz-200 MHz	+30	-53	±2.0
NC8109A*	1 MHz-300 MHz	+30	-55	±2.0
NC8110A*	2 MHz-500 MHz	+30	-57	±2.0
NC8111A*	5 MHz-1 GHz	+30	-60	±2.5
NC8112A	1GHz -2 GHz	+30	-60	±2.5

\*High power units have a reduced crest factor.



## **Options**

Description
100 dB attenuator in 10 dB steps*
110 dB attenuator in 1 dB steps (two attenuators)**
Line power 230 VAC, 50 Hz
Combiner for input signal (6 dB loss in noise and signal paths)
19 in. Rack mount (NC6000 only) 17 in. wide by 3.5 in. high by 13 in. deep
N female output connector
BNC female output connector
75-ohm output impedance (6 dB loss)
Additional 1 dB attenuator in 0.1 dB steps***
Custom frequency, power, or flatness requirement****

\*60 dB for NC6124A, NC6218A, and NC6226A

\*\*69 dB for NC6124A, NC6218A, NC6126A, and NC6226A

\*\*\*N/A for NC6226A

\*\*\*\*Consult factory for pricing and availability



NC6000 with a rack mount.



NC8000 Noise Generator.



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N/N/C6000/416/EN Note: Specifications, terms and conditions are subject to change without prior notice.