

BROADBAND

GENERAL

PURPOSE

NOISE

GENERATORS



General Specifications:

| | |
|--|---|
| Output | White Gaussian noise |
| Attenuator | 0 to 10 dB in 1 dB steps; other options available |
| Impedance | 50 ohms (75 ohms optional) |
| Typical VSWR | 1.5:1 |
| Standard output connector | SMA female (K female for NC6240) |
| Standard: | (NC6000) 8.5 in. wide x 5 in. high x 12.25 in. deep (NC8000) 17 in. wide x 5.25 in. high x 13 in. deep |
| Power | 120 VAC, 60 Hz |
| Operating temperature | -10° to +60°C |
| Specifications subject to change without notice. | |

The *NC6000* and *NC8000 Series* noise generating instruments are designed for applications on the test bench, or in test stations in which an *NC6000* or *NC8000 Series* unit is incorporated with other equipment that provides a wide variety of functions.

Each instrument contains a Noise Com precision noise source that delivers repeatable, symmetrical white Gaussian noise. The noise source is integrated with an amplifier, 10 dB attenuator with 1 dB steps, and power supply. The instruments have a 50 ohm output impedance.

The *NC6000 Series* units measure 8.5 in. wide by 5 in. high by 12.25 in. deep.

The *NC8000 Series* units measure 17 in. wide by 5.25 in. high by 13 in. deep, and they come with brackets for 19 in. rack mounting. Power requirements are 120 VAC, 60 Hz, at 500 mA for the *NC6000*, and 1500 mA for the *NC8000*. Operating temperature range is from -10°C to +60°C. Standard output connector is SMA; others are available.

Applications:

- CATV testing
- Development testing
- HDTV field testing
- General purpose

| NC6000 SERIES | | | | | |
|---------------|------------------|------------------------|--------|---------------|-------------------|
| MODEL | FREQUENCY RANGE | OUTPUT CHARACTERISTICS | | | |
| | | POWER (dBm) | dBm/Hz | FLATNESS (dB) | $\mu V/\sqrt{Hz}$ |
| NC6101 | 10 Hz - 20 kHz | +13 | -30 | ±0.5 | 7071 |
| NC6103 | 10 Hz - 500 kHz | +13 | -44 | ±0.5 | 1414 |
| NC6105 | 10 Hz - 10 MHz | +13 | -57 | ±0.75 | 316 |
| NC6107 | 100 Hz - 100 MHz | +13 | -67 | ±1.0 | 100 |
| NC6108 | 100 Hz - 500 MHz | +10 | -77 | ±1.5 | 31.6 |
| NC6109 | 100 Hz - 1 GHz | +10 | -80 | ±2.0 | 22.4 |
| NC6110 | 100 Hz - 1.5 GHz | +10 | -82 | ±2.0 | 18.2 |
| NC6111 | 1 GHz - 2 GHz | +10 | -80 | ±2.0 | 22.4 |
| NC6112 | 1 MHz - 2 GHz | 0 | -93 | ±2.0 | 5.01 |
| NC6124 | 2 GHz - 4 GHz | -10 | -106 | ±2.0 | 1.58 |
| NC6126 | 2 GHz - 6 GHz | -15 | -113 | ±2.0 | 0.50 |
| NC6218 | 2 GHz - 18 GHz | -20 | -122 | ±3.0 | 0.18 |

| NC8000 SERIES, +30 dBm (1 WATT) OUTPUT | | | |
|--|-------------------|----------------|--------------|
| MODEL | FREQUENCY RANGE | OUTPUT(dBm/Hz) | FLATNESS(dB) |
| | | | |
| NC8105 | 500 Hz - 10 MHz | -40 | ±2.0 |
| NC8107 | 250 kHz - 100 MHz | -50 | ±2.0 |
| NC8108 | 1 MHz - 200 MHz | -53 | ±2.0 |
| NC8109 | 1 MHz - 300 MHz | -55 | ±2.0 |
| NC8110 | 2 MHz - 500 MHz | -57 | ±2.0 |
| NC8111 | 5 MHz - 1 GHz | -60 | ±2.5 |

| OPTIONS | | |
|---------------|----------|--|
| Option Number | | Description |
| NC6opt01 | NC8opt01 | 100 dB attenuator in 10 dB steps instead of standard 10 dB attenuator in 1 dB steps* |
| NC6opt02 | NC8opt02 | 110 dB attenuator in 1 dB steps (two attenuators)** |
| NC6opt03 | NC8opt03 | Line power 230 VAC, 50 Hz |
| NC6opt04 | NC8opt04 | Combiner for input signal (Loss of 6 dB in noise and signal paths) |
| NC6opt05 | NC8opt05 | N/A |
| NC6opt06 | N/A | 19 in. rack mountable unit, 17 in. wide by 3.5 in. high by 13 in. deep† |
| NC6opt07 | NC8opt07 | N female output connector |
| NC6opt08 | NC8opt08 | BNC female output connector |
| NC6opt09 | NC8opt09 | 75 ohm output impedance (6 dB loss) |
| NC6opt10 | NC8opt10 | Additional 1 dB attenuator in 0.1 dB steps (was option #4 for the NC8000 Series) (N/A for NC6124, NC6218 and NC6240) |

*60 dB for NC6214 and NC6218

**69 dB for NC6214 and NC6218

†NC8000 Series is rack mountable only with 5.25 inch height

To order call 201-261-8797