

# NOIZEG BASEBAND NOISE SOURCES



## NOIZEG OUTPUT CHARACTERISTICS

| FREQUENCY RANGE | MODEL        | NOISE OUTPUT LEVEL |                                |          |        |         |
|-----------------|--------------|--------------------|--------------------------------|----------|--------|---------|
|                 |              | mV/BAND            | $\mu\text{V}/\sqrt{\text{Hz}}$ | dBm/BAND | dBm/Hz | ENR(dB) |
| 100Hz TO 20kHz  | NZG-5-20K    | 5                  | 35.5                           | -43.8    | -86.8  | 87.2    |
|                 | NZG-10-20K   | 10                 | 70.8                           | -37.8    | -80.8  | 93.2    |
|                 | NZG-25-20K   | 25                 | 177.9                          | -29.8    | -72.8  | 101.2   |
|                 | NZG-50-20K   | 50                 | 355.0                          | -23.8    | -66.8  | 107.2   |
|                 | NZG-100-20K  | 100                | 708.3                          | -17.8    | -60.8  | 113.2   |
|                 | NZG-150-20K  | 150                | 1059.8                         | -14.3    | -57.3  | 116.7   |
| 100Hz TO 100kHz | NZG-5-100K   | 5                  | 15.8                           | -43.8    | -93.8  | 80.2    |
|                 | NZG-10-100K  | 10                 | 31.6                           | -37.8    | -87.8  | 86.2    |
|                 | NZG-25-100K  | 25                 | 79.5                           | -29.8    | -79.8  | 94.2    |
|                 | NZG-50-100K  | 50                 | 158.5                          | -23.8    | -73.8  | 100.2   |
|                 | NZG-100-100K | 100                | 316.4                          | -17.8    | -67.8  | 106.2   |
|                 | NZG-150-100K | 150                | 473.4                          | -14.3    | -64.3  | 109.7   |
| 100Hz TO 500kHz | NZG-5-500K   | 5                  | 7.1                            | -43.8    | -100.8 | 73.2    |
|                 | NZG-10-500K  | 10                 | 14.1                           | -37.8    | -94.8  | 79.2    |
|                 | NZG-25-500K  | 25                 | 35.5                           | -29.8    | -86.8  | 87.2    |
|                 | NZG-50-500K  | 50                 | 70.8                           | -23.8    | -80.8  | 93.2    |
|                 | NZG-100-500K | 100                | 141.3                          | -17.8    | -74.8  | 99.2    |
|                 | NZG-150-500K | 150                | 211.4                          | -14.3    | -71.3  | 102.7   |
| 100Hz TO 1.0MHz | NZG-5-1M     | 5                  | 5                              | -43.8    | -103.8 | 70.2    |
|                 | NZG-10-1M    | 10                 | 10                             | -37.8    | -97.8  | 76.2    |
|                 | NZG-25-1M    | 25                 | 25.1                           | -29.8    | -89.8  | 84.2    |
|                 | NZG-50-1M    | 50                 | 50.1                           | -23.8    | -83.8  | 90.2    |
|                 | NZG-100-1M   | 100                | 100                            | -17.8    | -77.8  | 96.2    |
|                 | NZG-150-1M   | 150                | 149.7                          | -14.3    | -74.3  | 99.7    |
| 100Hz TO 2.0MHz | NZG-5-2M     | 5                  | 3.5                            | -43.8    | -106.8 | 67.2    |
|                 | NZG-10-2M    | 10                 | 7.1                            | -37.8    | -100.8 | 73.2    |
|                 | NZG-25-2M    | 25                 | 17.8                           | -29.8    | -92.8  | 81.2    |
|                 | NZG-50-2M    | 50                 | 35.5                           | -23.8    | -86.8  | 87.2    |
|                 | NZG-100-2M   | 100                | 70.8                           | -17.8    | -80.8  | 93.2    |
|                 | NZG-150-2M   | 150                | 106                            | -14.3    | -77.3  | 96.7    |
| 100Hz TO 5.0MHz | NZG-5-5M     | 5                  | 2.2                            | -43.8    | -110.8 | 63.2    |
|                 | NZG-10-5M    | 10                 | 4.5                            | -37.8    | -104.8 | 69.2    |
|                 | NZG-25-5M    | 25                 | 11.2                           | -29.8    | -96.8  | 77.2    |
|                 | NZG-50-5M    | 50                 | 22.4                           | -23.8    | -90.8  | 83.2    |
|                 | NZG-100-5M   | 100                | 44.7                           | -17.8    | -84.8  | 89.2    |
|                 | NZG-150-5M   | 150                | 66.7                           | -14.3    | -81.3  | 92.7    |

## DESCRIPTION

The NOIZEG Noise Source Series is a family of baseband noise sources designed primarily for applications involving simulation and security in commercial communication systems. NOIZEG Noise Sources can simulate spread spectrum signals to see how the device under test performs in real world conditions. The sources can also simulate a wide variety of environmental conditions to predict how they will affect radar system operation. NOIZEG Noise Sources are also being used as random word generators to offer a greater level of security in wireless systems.

## SPECIFICATIONS

- Operating Temperature: 0 to +70°C
- Storage Temperature: -60 to +150°C
- Supply Voltage: +15 VDC
- Temperature Stability: 0.05 dB/°C
- Output Impedance: 600 ohms
- Peak Factor: 5:1

## APPLICATIONS

- Signal simulation in spread spectrum systems (CDMA)
- Environmental simulation (hail, rain or wind shear) in radar system
- Security/digital encryption
- Digital video testing