*Ospirent*
Promise. Assured.

# Spirent **BASE-T Noise Testing Solutions**

## C1-KIT-11-NG BASE-T Noise Testing System

### Shaped Spectrum Features

- User selectable breakpoints to shape power levels (selectable for both time and frequency domain)

- Unlimited breakpoint settings to allow maximum flexibility of impulse and crosstalk (NEXT/FEXT) profiles

### Impulse Shaping Functionality

- Allows users the ability to shape both time and frequency domain parameters for custom impulse shaping and ability to apply Impulse noise at specific frequencies

- Users selectable filter to define start and stop frequencies

- Ability to modify repetition rate and pulse spacing to improve impulse noise immunity.

The requirement for high-speed transmission over existing wiring has driven continuous advances In BASE-T technology. Traditional Ethernet copper cabling specified for these BASE-T speeds is based on CAT5E and CAT6, which are usually unshielded twisted-pair, and thereby susceptible to harmful alien crosstalk. Simulating these alien disturbers is necessary to optimize the performance of next-generation access points and Ethernet switches.

### Overview

The C1-NG-1000 BASE-T Noise Generator is the latest in Spirent's series of impairment generators and can deliver physical layer impairments to traffic at speeds of up to 10 Gigabit/s. Testing BASE-T requires a solution capable of generating the various types of noise impairments that are to be expected in this type of operational environment. Spirent's C1-NG-1000 is just that: a powerful, versatile, flexible tool for the generation of alien noise types like impulse, RFI / EMI, and other continuous noise like NEXT/FEXT disturber noise. C1-NG-1000 supports IEEE-802bz Alien Crosstalk Noise Rejection and NBASE-T Downshift testing, as well as '6-around-1' noise modelling. It can produce all the impairments that you will need to fully test BASE-T line rate transmission.
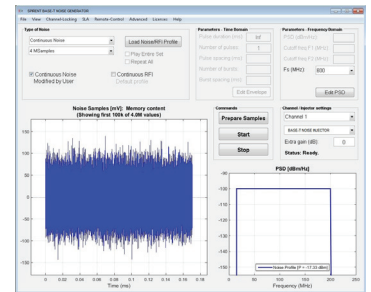
The C1-NG-1000 BASE-T Noise Generator has an easy-to-use graphical user interface which allows easy creation and customization of a variety of noise conditions. Also included is an injector to allow easy application of noise onto Ethernet cabling.

The product comes pre-packaged with BASE-T noise files, including real-world measured events, and noise creation tools for both impulse/RFI related noise and binder NEXT/FEXT crosstalk models.



*C1-NG-1000 BASE-T Noise Generator & Injector*

# Spirent BASE-T Noise Testing Solutions

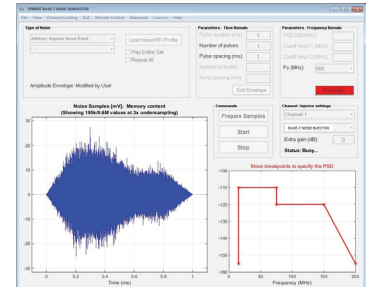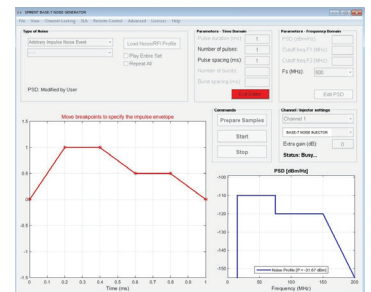## C1-KIT-11-NG BASE-T Noise Testing System

## Key Features

- Supports physical layer noise impairments to impair traffic to 10Gbit/sec

- Generates radio frequency interference and continuous noise NEXT/FEXT conditions

- Supports IEEE 802.3bz Alien Crosstalk Noise Rejection, NBASE-T Downshift, and "6 around 1" NEXT/ FEXT modeling test cases

- Generates repetitive and periodic impulse noise types

- Includes pre-installed real-world-measured impulse noise conditions

- Perform advanced modeling of Impulse scenarios

- Customizable noise duration, number of bursts, burst spacing

- Fully adjustable start and stop frequency band parameters

- Generate continuous RFI according to user defined PSD profile

- Customizable shaping of both frequency and time domain parameters

- Unlimited break points to allow highly complex PSD profiles or impulse envelopes

- Easily modify/customize measured noises

- Apply narrow band noise power levels to pinpoint design issues

- High-impedance, low-noise injector for Ethernet testing

- EP-5C70 software tool for creating crosstalk noise profiles for BASE-T interfaces



*Spirent BASE-T Noise Generator Interface*



*Editing Power Spectral Density (PSD)*



*Editing Amplitude Envelope*

## EP-5C70 BASE-T Custom Noise File Tool

The EP-5C70 provides users with the ability to develop their own customized BASE-T crosstalk noise files based on cable types and disturbers. These noise files can be run on the BASE-T Noise Generator and applied to real hardware via the included BASE-T noise injector.

## Integrated Systems

The product can easily be integrated into an automated test environment allowing for control of the system in a customer's own scripting environment

| Ordering information | |
|---|---|
| Description | Part Number |
| BASE-T Noise Impairment Generator with Noise Injector | C1-KIT-11-NG |

## Contact Us

For more information, call your Spirent sales representative or visit us on the web at www.spirent.com/ContactSpirent.

**www.spirent.com**

**Americas 1-800-SPIRENT**
+1-800-774-7368 | sales@spirent.com

**US Government & Defense**
info@spirentfederal.com | spirentfederal.com

**Europe and the Middle East**
+44 (0) 1293 767979 | emeainfo@spirent.com

**Asia and the Pacific**
+86-10-8518-2539 | salesasia@spirent.com