

Spirent DLS-5900

G.FAST Noise Impairment Generator xDSL Wireline and Noise Testing Solutions

The requirement for high-speed transmission over existing wiring has driven continuous advances in DSL technology.

Impulse shaping functionality

- DLS-5900 allows users the ability to shape both time and frequency domain parameters
- Users selectable filter for start and stop frequencies

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 noise

Overview

G.FAST is the latest ITU-standardized xDSL technology and is capable of delivering up to a Gigabit per second over existing twisted pair or coaxial wiring by using hundreds of MHz of physical bandwidth. Testing G.FAST systems therefore requires a solution for this new frequency range, capable of generating various types of noise impairments that are to be expected in the operational environment. Spirent's DLS-5900 is just that: a powerful, versatile, flexible tool for the generation of impulse, RFI, PLT, and other continuous noise, capable of producing all the noise that you will need to test G.FAST.

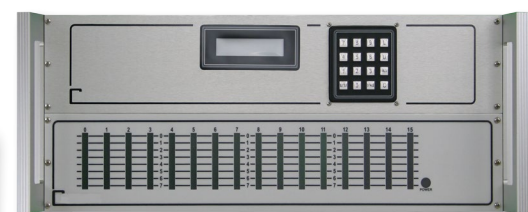
The DLS-5900 has an easy-to-use graphical user interface which allows easy creation and customization of a variety of noise conditions. It can generate continuous and background noise, power line transmission (PLT), impulse, and RFI noise. These noise conditions/types are problematic for G.FAST transmissions. Spirent DLS-5900 series noise generators ensure complete testing of noise events for both 106 and 212MHz band plans currently outlined in ITU-G9700. Users can create unlimited testing scenarios to identify the impact noise conditions have on G.FAST transmission. The Spirent DLS-5900 also comes pre-packaged with a set of noise profiles for testing against Broadband Forum standard ID-337 as well as a set of real world measured noise events specifically designed to test G.FAST. The included noise injectors allow easy application of noise onto twisted pair or coaxial cables.

A cable length switching solution is also available to allow easy and flexible switching of real cable lengths for test automation. There are available configurations for switching between 8 and 36 discrete lengths, as well as a 5-length segment / 24 pair configuration for vectoring testing. Additional units can easily be added for switching more lengths / segments / pairs.

Switching units are available with CAT 6A RJ45 jacks or coaxial connectors for easy hookup, and are available with various options including front panel control, GPIB / RS-232 / LAN remote capability, etc. They can be controlled using simple commands that can be scripted in any programming language supporting the selected interface. Sample scripts for controlling the switch units are available from Spirent, and Spirent Professional Services can offer setup of a complete automated environment to meet your specific testing requirements.



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RJG Switching Matrix

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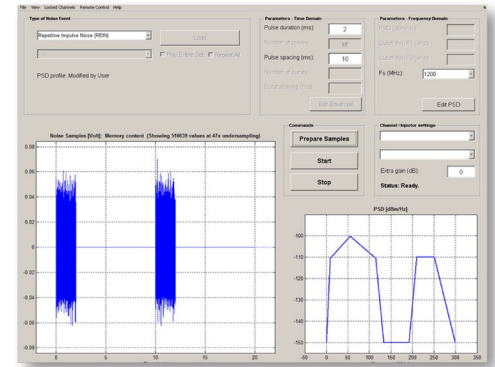


Spirent services

Spirent Global Services provides a variety of professional services, support services and education services—all focused on helping customers meet their complex testing and service assurance requirements. For more information, visit the Global Services website at www.spirent.com or contact your Spirent sales representative.

Key features

- Generates REIN, PEIN, SHINE, and other impulse noise
- Generates RFI, PLT, crosstalk, and other continuous noise
- Supports both 106 MHz and 212 MHz band plans currently outlined in ITU-G9700
- Includes pre-installed noise profiles for G.Fast testing according to Broadband Forum ID-337
- Includes pre-installed real-world-measured impulse noises for G.FAST testing
- 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 noise injector for twisted pair
- Coaxial injector and impedance matching transformer
- DLS-5900-8 8-channel configuration supports ID-337 testing. Also available in 1-, 2-, and 4-channel configurations.



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
8-PORT G.Fast Noise Impairment Generator	DLS-5900-8

Other configurations

Description	Part number
1-PORT G.Fast Noise Impairment Generator	DLS-5900
2-PORT G.Fast Noise Impairment Generator	DLS-5900-2
4-PORT G.Fast Noise Impairment Generator	DLS-5900-4

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