

SPIRENT PHYSICAL LAYER SOLUTIONS

DSL SERVICE MODELING AND NOISE TOOL

DLS-5D10

Surging demand for high-bandwidth multimedia applications with integrated voice, data and video streams has been driving the worldwide development and deployment of xDSL.

KEY FEATURES

- Perform advanced modeling of a service provider's deployment scenario
- Predict xDSL "rate vs. reach," analysis for a range of operational conditions and xDSL systems, from 0KHz to any required upper frequency
- Build extensive libraries of customized noise files for use with DLS-5500
- Calculate crosstalk between 1 and 25 nodes
- Extendable libraries:
 - Cable Models
 - Modem Models
 - Disturbers
- Easy-to-Use GUI
- The DLS-5D10 DSL Service Modeling and Noise Tool is an industry first. It is the only tool designed specifically to assist service providers, equipment manufacturers and chipset developers reduce time-to-market and maximize revenues through advanced predictive and performance analysis.

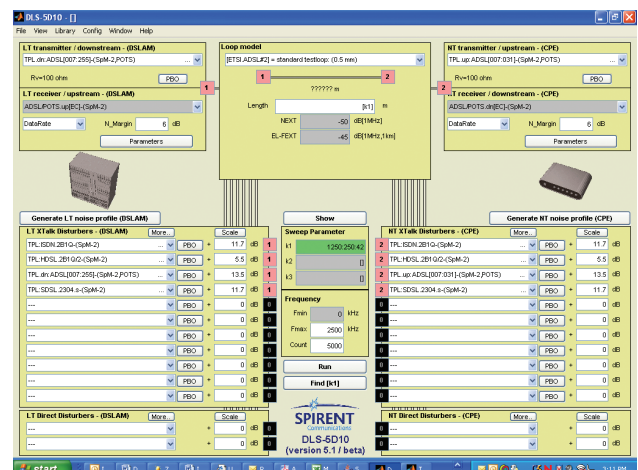
To keep up with rapidly advancing DSL technology, the testing requirements of network equipment manufacturers, chipset designers and service providers also demand evolution. New tools are required to stress and test communications technologies. Their use will clarify how new or existing technologies impact others.

Until the introduction of Spirent's DLS-5D10 DSL Service Modeling and Noise Tool, no easy way existed to determine how a device on a specific loop would perform while influenced by the myriad cables and binder specific hindrances.

In addition, each new technology, when introduced, creates a need for new and more varied disturbers to properly stress-test the devices.

Spirent Communications' DLS-5D10 DSL Service Modeling and Noise Tool was designed specifically to address such challenges. As its name implies, the DLS-5D10 provides two primary functions:

- DSL Performance Predictor
- DSL Noise File Development for Performance Testing



APPLICATION—DSL PERFORMANCE PREDICTOR

When deploying any DSL service or technology, service providers are often faced with many important questions including: How will it perform? What impact will other technologies deployed in the same binder have? What kind of performance should be expected for a given deployment scenario?

The DLS-5D10 predicts xDSL “rate vs. reach” under a range of operational conditions and allows for the user to take into account:

- Cable Properties (standard and definable)
- Crosstalk
- Modem Models and Properties (including transmitter and receiver)
- Technology Mix (number and type of disturbers)

The performance of the DUT can then be measured in several ways including max.bitrate, noise (or signal) margin, as well as reach and Shannon’s Gap. Results are represented in a graphical or tabular format.

APPLICATION—NOISE FILE DEVELOPMENT

The DLS-5D10 calculates the Power SpectralDensity (PSD) of crosstalk noise and creates a noise profile that can be quickly saved and downloaded to the DLS-5500 Noise Generator.

The DLS-5D-10 allows users to quickly and easily build libraries of standards-based or customized noise files for testing device performance. These libraries can include any combination of Alien, Self or Mixed noises.

BENEFITS

- **Reduced Time to Market:** With a thorough understanding of the expected performance before actual deployment, new and existing technologies can be integrated faster than ever before.
- **Enhanced Testing and Validation:** Customized and standards-based noise file creation allows for vendor specific testing and validation against real-world scenarios and enables product optimization. Test and configuration wizards make this a simple step.
- **Network and Service Optimization:** The predictive capabilities of the DLS-5D10 maximize the design and deployment of networks and devices.

- **Customized Products and Services:** The predictive and customized noise file tools allow users to customize their products for any given customer, region, or technology.
- **Increased Revenues:** Through network and service optimization, reduced time to market, and the ability to customize products and services, users can generate a significant competitive advantage and thereby maximize revenues.
- **Lower Development and Deployment Costs:** Insight into the actual performance of the service/device and testing against real-world noise profiles ensures results are fully understood before deployment. The result is a reduction in costs.

REQUIREMENTS

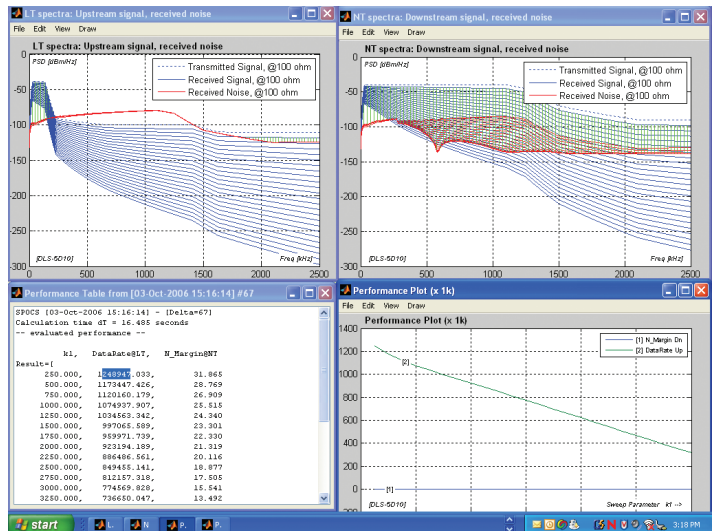
- Requires the use of the DLS-5500 running Pentium®III or greater

ORDERING INFORMATION

DSL Service Modeling and Noise Tool (P/N P/N DLS-5D10)
Custom Noise Generator (P/N DLS-5500)

SPIRENT GLOBAL 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 Web site at www.spirentcom.com/gs or contact your Spirent sales representative.



Rate vs Reach Performance and Noise Margin Prediction

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