

LSX 2020

Portable Line Simulator for xDSL

**Testing Performance, Noise immunity,
Crosstalk stability and Remote Powering
functionality.**



Program any line type at a touch of a button.
LSX 2020 ... the classic among the analog experts and still very popular.

BENEFITS

Thanks to the innovative Active Analogue Concept (AAC®), it is possible to precisely reproduce any line distance and any line characteristic in the lab just the way it behaves in the field and this without changing the hardware.

The LSX 2020 offers the ability to create lines of which all parameters can be configured in almost unlimited ways.

This way developers and manufacturers of xDSL chipsets, modules or modems can easily create any possible line in order to fine tune their products while operators can select the best performing transmission system for their different lines.

Lines can be simulated starting from Standard libraries - ETSI, ATIS, ITU, Broadband Forum - or by entering line parameters collected in the field.

An additional key benefit is the ability to vary one parameter while holding all the other parameters constant.

It is bi-directional and very accurately simulates the delays, which occur in reality. Furthermore, NOISE and NEXT can be programmed via the built-in generators or via the inputs for external sources.

Because of the fully configurable approach for any line setting, the LSX 2020 is the first line simulator which allows creating any test line in order to determine the maximum performance of a DSL transmission system.

KEY FEATURES

- AAC® simulator with fully programmable parameters.
- Line characteristics (line-slope, copper resistance, cable length)
- Attenuation at any sampling frequency
- Noise
- Crosstalk (NEXT)
- Easy entry and storage of parameters.
- Comprehensive User Interface with function, cursor, numerical keys
- 8 lines by 40 characters LCD display
- RS-232 interface for programming and backup via software.
- Internal memory for storage of up to 100 typical lines

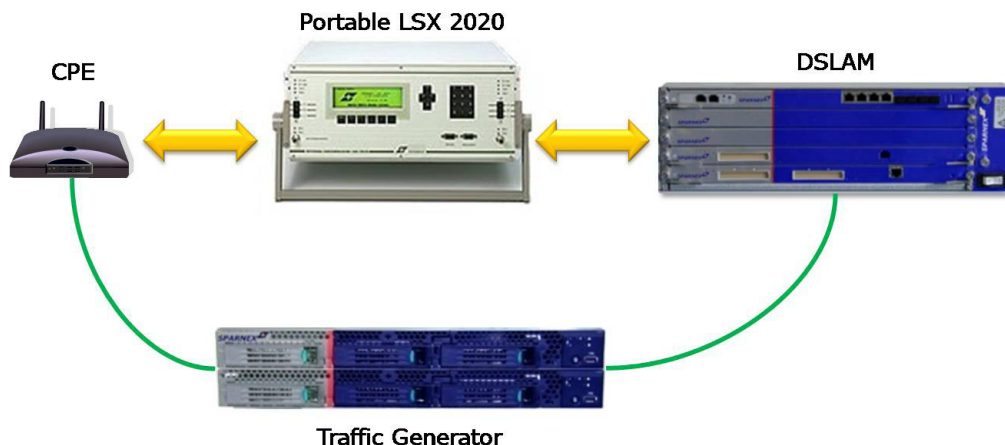
APPLICATIONS

- ADSL - RE-ADSL - ADSL2
- ADSL2plus
- ISDN
- HDSL - HDSL2 - HDSL4
- SDSL - SHDSL
- REPEATERS

FEATURES

A versatile, DSL test platform that provides:

- Line Simulation up to 4.5Mhz
- 100% freely configurable lines
- AAC® = no digitizing - no coils
- Internal Line Libraries
- Internal Noise Libraries
- Internal Crosstalk generators



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Line Simulator for XDSL



SPECIFICATIONS

Built-in configurable Noise Generators

- Broadband stabilised white noise generator (10 Hz to 10 MHz) with tuneable amplitude.
- Random Sampled Noise Signal Generator.
- Inputs for External Noise Sources at rear-end.
- Possible Selections: No Noise, Internal Only, External only, or Internal & External.
- Both Noise Generators have outputs at rear-end for use in other applications.

Built-in configurable NEXT Generator

- Internal NEXT is selectable as pair-to-pair, quad-to-quad or unit-to-unit.
- Inputs for External NEXT sources at "NEXT In" and "Next Clock" terminals at the rear-end.
- Possible Selections: No Next, Internal only, External only, or Internal & External.

Numerous applications possible because of wide parameter range

- Frequency range from 5kHz to 4.5MHz => Applications up to ADSL possible.
- Line Attenuation from 0 to 99 dB (at 1 MHz).
- Bi-directional with DUPLEX and SIMPLEX systems possible.
- Remote powered system under test up to 400 V DC.
- Line representation with an accuracy of 0.5 dB (at 2 MHz).

Automation

- Full Remote Control possible via RS-232 interface.
- Software controlled self-calibration of the equipment.
- Automatic mode with line configuration by initiating only one known parameter.
- Perfectly suitable for use in an automatic test equipment environment.

Format:	portable or 19" rack-mountable chassis
Size:	185mm (7.3") x 490mm (19.3") x 495mm (19.5") H x W x D
Weight:	16,6kg (36 lbs)
Environment:	-20°C to +70°C 90% max. non-condensing
Power:	230V AC +10%/-10% 115V AC +15%/-6% Freq.: 47-63Hz

ORDERING INFORMATION

LSX 2020	91.57.2020
LSX 2020 Line Libraries	On Demand
LSX Noise Libraries	On Demand