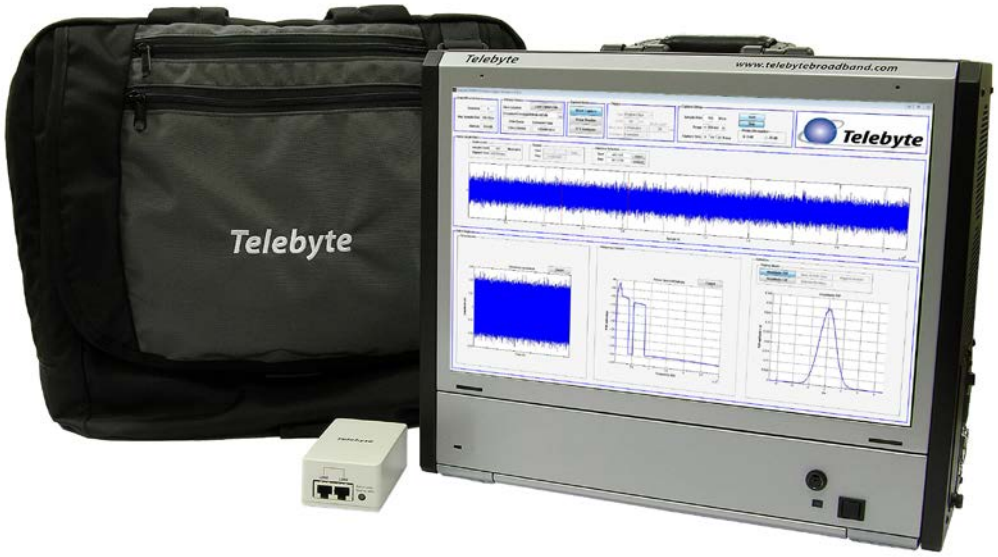
“Results You Can Count On”

DSL Field Noise Capture Solution



Complete High-Performance, Portable Solution

- **Capture, analyze and monitor live noise/interference on a DSL line.**
- **Solution includes:**
  - Portable high-performance system with 1 capture port
  - 2 TB of storage (~1.7 TB useable)
  - Easy-to-use interface
  - Nonintrusive differential probe
  - Automatic or manual control of recording
  - Concurrent visual feedback of recording time/free space remaining
- **30-MHz solution suitable for ADSL2, ADSL2+ and VDSL2 lines**
- **Troubleshoot real field conditions**
- **Export to wide range of file types**
  - Computation of live Crosstalk PSD
  - Computation of live Impulse noise, amplitude and burst statistics
  - Prepare for export to Model 4901
- **Real-time, general-purpose Spectrum Analyzer**
- **View noise in time/frequency domain**

DSL Field Noise Capture Solution
(Monitor, Capture, Analyze and Export)

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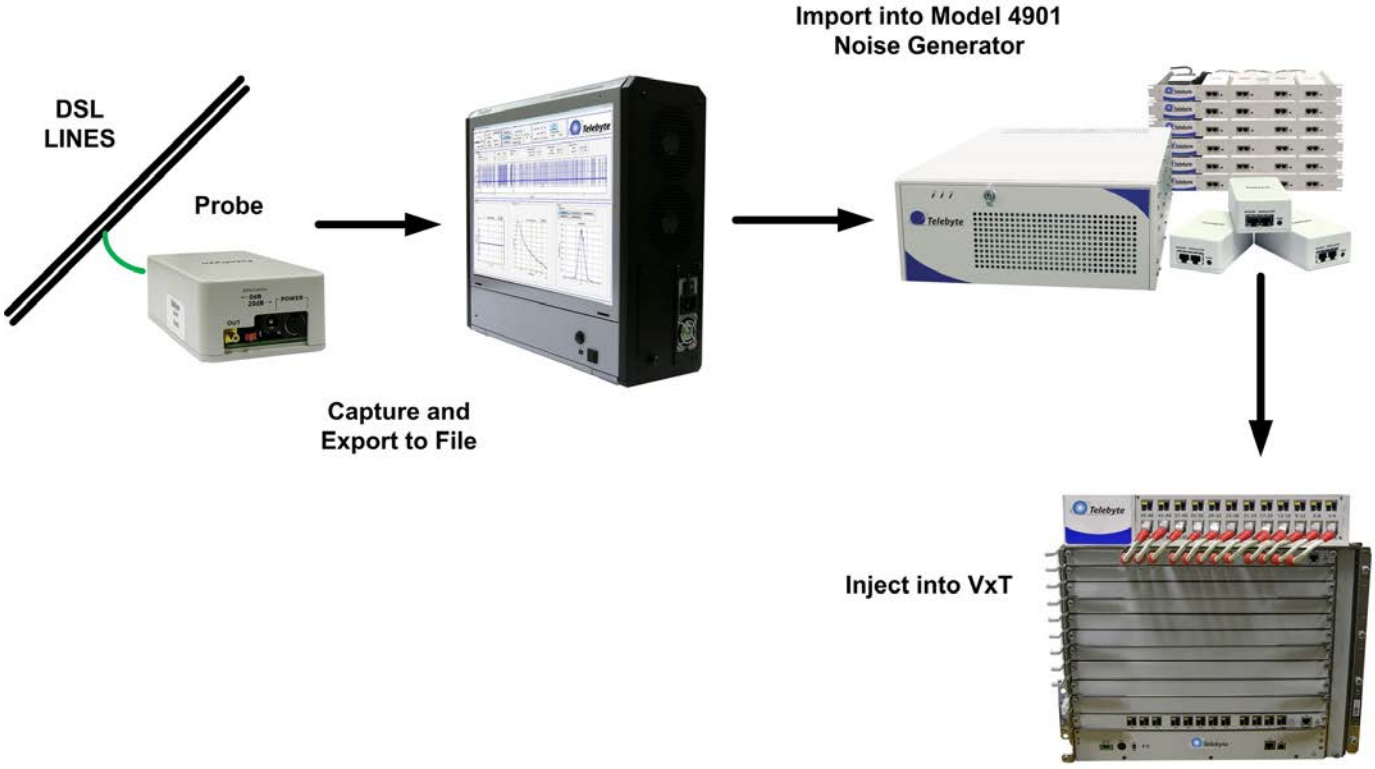
Now you can capture live field noise and export it to a wide variety of formats. The DSL Field Noise Capture Solution is a portable high-performance system that records, displays, saves and analyzes samples of live noise for realistic Interoperability testing, circuit qualification, debugging of error conditions, lab design and more.

Bring live noise from the field back to the lab for injection into test loops. Prepare crosstalk and impulse files for export to the Model 4901 Multi-Output Noise Generator with this 30-MHz system, capable of transparently capturing ADSL2, ADSL2+ and VDSL2 noise. The MATLAB-based interface provides convenient options for range selection, sampling rate, capture length and more. The solution operates in three capture modes for control of recording of time.

The Solution also acts as a real-time, general purpose, portable data acquisition system. This convenient feature can be used during installation and maintenance or for spectrum monitoring and analysis to support documentation and reports on the field environment.



Capture noise in the field and import file into the Model 4901. Noises can then be injected into Telebyte's local loop simulation modules or crosstalk emulation equipment.

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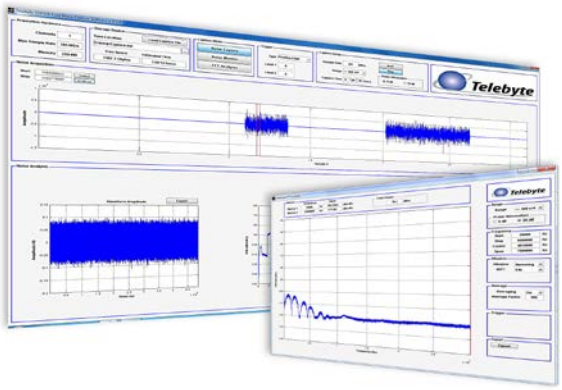
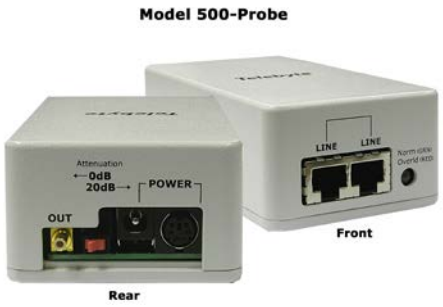
DSL Field Noise Capture Solution
(Monitor, Capture, Analyze and Export)

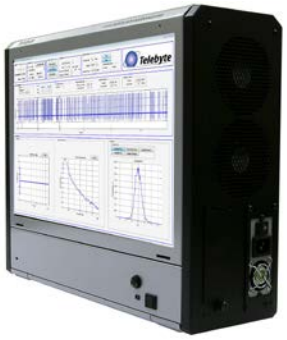
Included with Purchase



DSL Field Noise Capture Software.



Nonintrusive differential probe for connection to the DSL line.



Portable, high-performance PC ideal for use in the field. Not shown - protective LCD screen cover.

Ordering Options

SELECT OPTIONS FROM ONE COLUMN ONLY	
Model 500-AC* **DSL Field Noise Capture Solution AC Version**	**Model 500-DC*** **DSL Field Noise Capture Solution DC Version**
Model 500-PC-CH Optional Hard Carrying Case	**Model 500-PC-CH** Optional Hard Carrying Case
	Model 500-PWRCNV Optional AC/DC Converter
	Model 500-BAT Optional Battery Pack including: • 560 watt hour with 2 regulated 28v outputs (3pin XLR) and 14v output (4pin XLR) • High rate NiMH cells provide up to 10 amps from the 28 volts channel and 20 amps from the 14-volt channel. • Charge time: Approx. 7-1/2 hours • Operating time: Approximately 2 hours, depending on demand • Dimensions: 10.25" x 2.25" x 8.50" • Weight: battery, 25.95 lbs; charger, 4.2 lbs • Charger, charger cable **Model 500-BAT-CH** Optional hard shipping case for batter pack

* Includes **Model 500-Probe** DSL Field Noise Capture Probe and soft carrying case.

DSL Field Noise Capture Solution
(Monitor, Capture, Analyze and Export)

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Solution Specifications - Software

Software (Field Noise Capture GUI)		
File Size	Continuous file capture until hard drive full or capture length reached, whichever occurs first.	
Selections	• Capture Mode or FFT Spectrum Analyzer • Voltage Range • Sample Rate • Capture Time • Portion for Analysis	• Storage location • Manual Capture Start/Stop • Trigger Voltage Level • Trigger Sample Quantity and Length • Pre-trigger Sample Quantity
Displays	• Remaining capture time and free space available • Captured sequence • Noise Statistics • Noise in Time Domain • Noise in Frequency Domain • FFT-based Spectrum Analyzer	
Analysis	• Computations accelerated using NVIDIA CUDA parallel computing architecture • Plot of waveform in time domain • Plot of power spectral density (PSD) • Probability density of: o Noise Amplitude o Impulse Burst Duration o Inter-Burst Intervals	
File Export	Wide variety including formats suitable for import into the Model 4901 Multi-Output Noise Generator	

Solution Specifications – Hardware

Portable High-Performance PC	
Processor	3.20 gigahertz Intel Core i7 960
Display	17" WUXGA+ (1920 x 1200)
GPU	NVIDIA GeForce GTX 650 Ti
Expansion Slots	• Slot 1: PCI Express 16x (occupied) • Slot 2: PCI-X 64 Bit/133 MHz (occupied)
Capture Modes	• Noise Capture Mode • Noise Monitor Mode • Spectrum Analyzer Mode
Memory	8GB 667 MHz FBD RAM
Storage	• O/S: 120.03 GB Solid State SATA SSD • Noise Capture: 4 x 500 GB/ SATA 6.0Gbps/ HDD / 7200.4 RPM / 64 MB cache configured in RAID 0 / Avg Write Speed: ~400 MB/sec

Example of Storage Available for Three Sampling Rates
(using Noise Capture Mode):

Storage	Sample Rate (MS/s)	Bandwidth	Recording Time
2TB	105	30 MHz	~2.4Hr
2TB	60	30 MHz	~4.2Hr
2TB	34	17 MHz	~7.4Hr

Ports	(2) Gig-Ethernet RJ-45, PS/2, (8) USB2.0 (Type A), DVI Digital, HDMI, Audio/Mic line in/out
Operating System	Windows 7 Professional 64-bit
Power	Available in AC or DC version
Noise Floor	-140 dBm/Hz
Bandwidth	Up to 30 MHz
Capture Channel	16-bit, 105MS/s, 256 MB memory

Solution Specifications – Hardware (continued)

Line Probe	
Max. Signal Level (In Band)	5 V p-p 0 dB attenuation, 50 V p-p 20 dB attenuation
Max. Input Voltage	200 V p-p AC Ringing, 400 V DC
Input Impedance	> 4K-ohms Balanced
Attenuation	0 dB or 20 dB switchable with overload indicator
Output Noise Floor	Below -145 dBm/Hz over Band
Bandwidth	20 kHz to 30 MHz
Connectors	Input: 2, RJ-45's for inserting into line Output: 50 ohms SMB connector
Power	+12V provided from external modular supply or powered by DSL Field Noise Capture portable PC

Specifications are subject to change without notice. Made in USA.