ParaScope WAN

ParaScope MP WAN Analyzer

The ideal datacom analyzer for RS-232, V.35, X.21, RS-449 (RS-422/423), and RS-530 interfaces.

Product Features

- Operates up to 2.048 Mbps
- Protocol analyzer decodes Async, Sync, BiSync, Frame Relay, X.25, SNA, GR-303 TMC/CSC/EOC, ISDN PRI/BRI, encapsulated LAN and more
- Statistical analysis includes % utilization, frames/sec, throughput, frame size, errors, protocol specific, and more.
- Bit Error Rate test set
- Easily create quick-launch icons for your custom created test/analyzer configurations. Quick launch icons are stored in a file for easy distribution
- "How do I..." instructional on line help
- Multi-interface test sets for RS-232, RS-422/423, RS-449, RS-530, V.35/36, and X.21
- Bank of LED's, testpoints, and breakout DIP switches for all interface signals
- LED's illuminate RED for "mark," GREEN for "space."
- Two unbalanced SPARE LED's and testpoints for access to other signals
- Four testpoints each Ground, +12 Volts and –12 Volts
- Four programmable unbalanced and two programmable balanced Output points
- Two balanced and four unbalanced Input monitor points

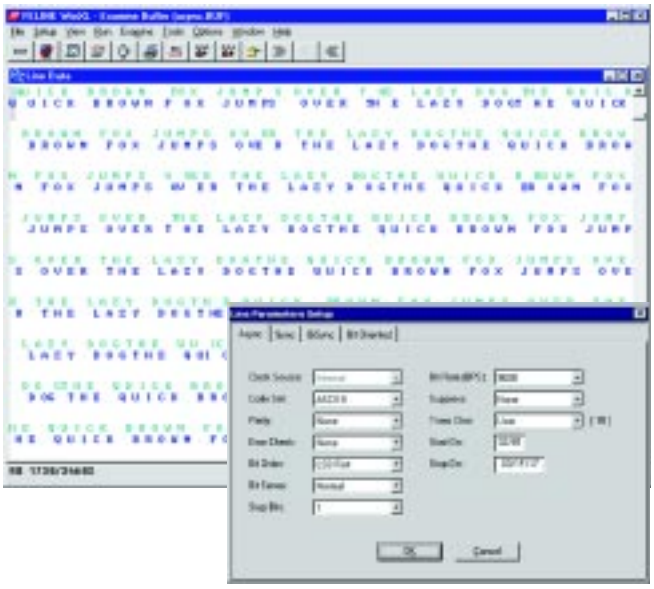
The ParaScope MP is a portable datacom analyzer that connects to your PC via a PCMCIA port. Combine the ParaScope MP with our world proven WinXL software and monitor, simulate, and run BERT with sheer ease and simplicity.

- Four rechargeable AA NiCad batteries provide three hours of operation
- Accepts four AA Alkaline batteries
- AC adapter provides AC powered operation and simultaneous battery recharging
- Dimensions are 9.22" long, 4.76" wide and 1.97" tall

ParaScope MP - continued

Comprehensive Bit Error Rate Testing

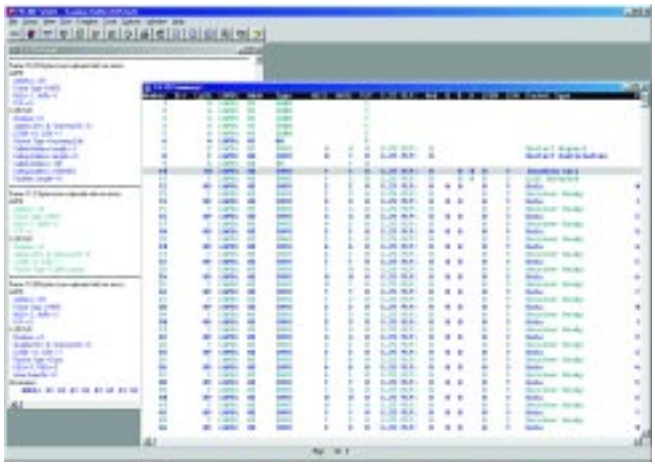
Simultaneously measure bit errors, block errors, errored seconds, percent errored seconds, and more on asynchronous and synchronous lines.



Raw Data Examination

Display characters, timestamps and lead status to quickly and easily resolve any Asynchronous, Bi-synchronous or character Synchronous problem. DTE and DCE data is neatly displayed along with user-selectable lead states in the chronological order received. Line problems such as Parity, CRC and framing errors are highlighted in red for quick identification.

Easily confirm correct poll select addresses and drop-sync characters on IBM 327x and Burroughs terminals and verify modem handshake timing and signals.



Detailed Protocol Decode and Analysis

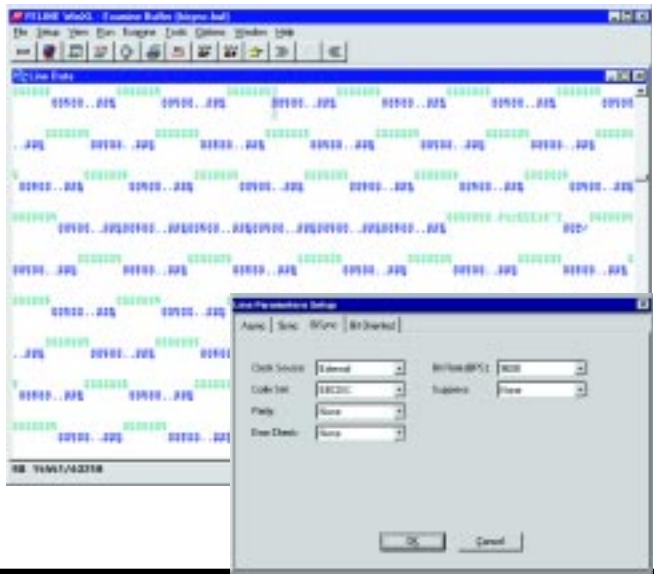
Pinpoint problem sources quickly and accurately as you view the data in 4 unique display formats.

Summary View: Provides a summary decode of each frame on single display line. Scroll horizontally to view higher layers.

Detail View: Provides a complete 7 layer decode of each frame.

Protocol Summary View: Provides the protocol composition of each frame.

Line Data: View the actual line data in the chronological order that it is received. Displays start and end flags, lead states, triggers and CRC characters.



ParaScope MP Technical Specifications

Hardware Specifications

PC Requirements - Pentium with minimum 16 MB Ram and VGA or SVGA monitor. Connects via PCMCIA. Operates with WinXL Software using Windows 2000/95/98 and NT.

Line Interfaces -Supports RS-232, RS-449, RS-530, RS-422/ RS-423, X.21, and V.35/V.36.

Full Breakout - Bank of LED's, testpoints, and breakout DIP switches for all interface signals. LED's illuminate: RED to indicate a "mark" or active state. Green to indicate a "space" or inactive state.

Frame Simulator - Traffic generator with user-defined % utilization, transmit period and idle period. Supports user-defined frames, canned messages, and frame relay headers.

Capture Buffer - Data is stored in integrated 8 MB Ram capture buffer.

Data Rate (max.) - Up to 2048 Kbps.

Data Clock - Selectable for internal and external.

Receiver - High input impedance receivers on all monitored lines.

Testpoints - Four testpoints each for Ground, +12 Volts, and –12 Volts.

Output Points - Four programmable unbalanced and 2 programmable balanced output points

Input Points - Four unbalanced and 2 balanced monitor points

Power - AC adapter provides AC powered operation and simultaneous battery recharging. Accepts four AA Alkaline batteries. (Four rechargeable AA NiCad batteries provide three hours of operation.) Batteries not included.

Dimensions - 9.22" long, 4.76" wide, and 1.97" tall

Packaging - The ParaScope MP is conveniently packaged in a custom carrying case. It includes the ParaScope hardware unit, WinXL Software, PCMCIA card and cable, 110 VAC wall charger, and a one-year hardware maintenance agreement.

General Specifications

Monitoring - Monitor DTE and DCE devices.

Simulation - Simulate DTE and DCE.

Data Line Analysis - Real time or post processing

Protocols - HDLC, SDLC, QLLC, LAPB, LAPD, Frame Relay, X.25, SNA, ISDN, SS7, Async PPP, Sync PPP, GR-303 TMC/ CSC/EOC, V.5x, TCP/IP suite, AppleTalk, Novell Netware suite, Custom protocol stack, Customized protocols, Async, Sync, BSC, IPARS and inverted IPARS. More protocols under development.

Frame/String Simulator - Traffic generator with user-defined % utilization, transmit period and idle period. Supports user-defined frames, canned messages, and frame relay headers.

Send String - Up to 1,024 characters per string.

General Specifications - continued

Time Stamping - User may select to time stamp characters received, frames received, or lead transitions. Select absolute time of day or time relative for timestamp display format.

Search/Display Filter - User selectable search for timestamp, frame length, error, display text, capture data and protocol-specific information.

Character Suppression - Allows elimination of characters, such as idle, sync or user-definable characters from the display.

Display Screen - Windowing technology, includes: move, size, minimize, maximize, tile cascade, and arrange.

Line Data Display - Chronological order of DTE/DCE data, lead states, and triggers. Display can be synchronized to Decode Display windows. Supports both CHAR and HEX

Data Codes - ASCII, EBCDIC, Baudot, Six Bit Transcode, IPARS (Line and Sabre), Inverted IPARS, HEX and EBCD.

Bit Sense - Normal or inverted.

Bit Order - MSB or LSB first.

Lead Status - 8 fully user programmable leads: 4 as output and 4 as input. Any input lead may be connected to any interface signal. Names are user-definable.

Triggers - Programmable triggers consisting of character strings, errors, interface lead transitions, timers, time of day, and keyboard. Bit and character masking, and" not" and don't care characters are supported. Trigger events can be selectively displayed and stored with "pre" and "post" trigger data.

Timers - Ten timers with a maximum count of 65,535 and a resolution of 1 msec.

Counters - Ten counters may be incremented up to 65,535.

Error Checking - CRC-CCITT, CRC-16, CRC-12, CRC-6, LRC, and Parity.

Parity - Odd, Even, None, Ignore.

Decode Data Display - DTE/DCE single and encapsulated protocols. Summary I, II, and Detail windows offer increasing decode information. Protocol Summary decomposes each frame by protocol type. Windows can be duplicated and synchronized to each other and to the Line Data Display window. Protocol filtering.

Character Framing - 5, 6, 7 or 8 information bits, plus parity. For asynchronous systems: 1, 1.5, or 2 stop bits per character.

Alarm Logging - Timestamp and log alarms, errors and BERT results to disk.

Printer Support - Standard printer support for generating hardcopy of data status and timing information (all data, DTE only, DCE only, DCE and DTE), analysis, programs, setups, and protocol decodes.

ParaScope MP Technical Specifications - continued

BERT Specifications

Measurements - Simultaneously measures bit errors, block error, errored seconds and percent error free seconds for synchronous and asynchronous data lines.

Patterns - 63, 511, 2047, 4095, Alt 1/0, Mark, Space, ASCII FOX, Alt ASCII FOX, EBCDIC FOX, Alt EBCDIC FOX, 1 in 7, 3 in 24, (2**15) -1, (2**15) -1 inverted, (2**20) -1, (2**23) -1, O.151 QRSS, Loop Codes.

Presentation - Displays G.821 and bit/block errors.

Character Framing - Select Sync or Async 5, 6, 7 or 8 bits per character sequence.

Error Injection - Inject single or burst.

Flow Control - Select None, Leads or XON/XOFF.

Warranty

Hardware - All FE ParaScope products are backed by our 1-year hardware parts and labor warranty. Ask about our optional 5-year Extended Warranty Plan.

Software - FE's WinXL Software. Includes the FE CustomerFirst Upgrade Program. Download Free new applications and features for the life of the product.

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