

# DATA COMMUNICATIONS TEST EQUIPMENT

## Protocol Analyzer

Model HP 4954A

Test Equipment Depot  
99 Washington Street  
Melrose, MA 02176-6024

www.testequipmentdepot.com  
800-517-8431  
781-665-0780 FAX



### HP 4954A Protocol Analyzer

The HP 4954A is a high speed, multi-protocol, expandable protocol analyzer for designing datacomm products and analyzing network performance. Softkey driven operation combined with a variety of display formats allows you to quickly and efficiently identify problems, perform tests and solve complex problems. The general purpose capability of the HP 4954A can be expanded through application software to offer enhanced capability for currently supported, or new and emerging protocols. The standard mass storage, a 20 Mbyte hard disc and 3.5 in. floppy, may be extended through HP-IB to literally hundreds of megabytes of on-line data storage.

#### Features

**High speed state-of-the art multiprocessor design** guarantees reliable sophisticated analysis and simulation of full duplex bit oriented protocols to 72 kbps and data capture of bit oriented protocols at lower line utilizations up to 256 kbps.

**Multi-protocol testing capabilities** allow you to monitor, analyze, and simulate popular protocols such as X.25, SNA/SDLC, Bisync, Async, DDCMP, X.75, HDLC, BSC-framed X.25, and character oriented synchronous protocols. X.21, and CCITT 7/CCS7 support is also available through easy to use application software.

**Mass storage** with an integral 20 Mbyte hard disc and 613 Kbyte 3.5" floppy disc provide easy access to setup menus, user written programs, buffer data, application programs, and data codes. Any HP 4954A file may be autoloaded at power-on to instantly configure the protocol analyzer for your individual needs. The 4954A's mass storage capacity can be further extended through HP-IB subset 80 disc drives. Setup menus, user written programs and buffer data stored to floppy disc may be shared with the HP 4951C and HP 4952A.

**The internal 256 Kbyte data capture buffer** can be expanded through the integral hard disc up to 20 Mbytes. Even greater data capture buffers are possible with external HP-IB driven disc drives.

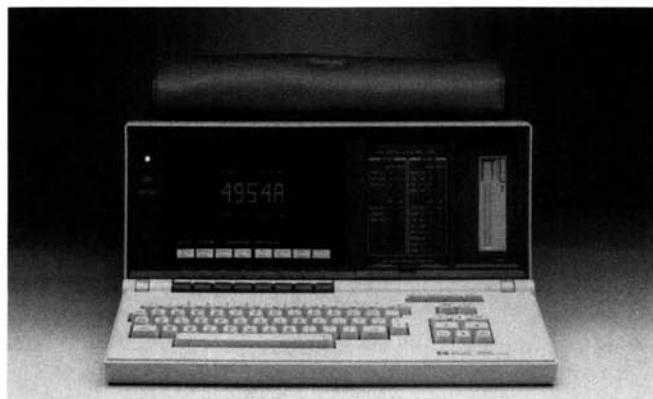
**Programming flexibility** through high level protocol analysis and simulation is a standard capability of the HP 4954A. Custom measurements and tests are easy to perform with softkey driven entry of monitor and simulation programs with triggering based upon datacomm events. The HP 4954A gives you programmatic control of send strings, timers and counters.

#### Datacomm Solutions

Expandability is provided with extensive application software memory which makes the HP 4954A one of the most expandable protocol analyzers available. Many software and hardware accessories are now available to broaden the HP 4954A analysis and simulation capabilities. For example, the SNA Emulation Language eases the development and testing of SNA compatible products. A variety of physical interface pods enables the HP 4954A to access the most common datacomm interfaces such as RS-232C/V.24, V.35, RS-449, and MIL-188C and X.21.

#### SNA Development System

**The HP 18360A SNA Emulation Language** is an HP 4954A software solution that is specifically designed to aid in the development of SNA compatible devices. It consists of an SNA specific softkey driven programming language combined with complete link and path control emulators. The HP 18361A SNA 3270 Device Exerciser and HP 18362A LU6.2 Node Exerciser are user-modifiable tests written in the SNA Emulation Language to thoroughly test 3270 and LU6.2 devices.



#### X.21 Development System

**The HP 18352A X.21 State Simulator** is an HP 4954A software solution that is specifically designed to aid in the development of X.21 DTEs and DCEs. It consists of an X.21 specific softkey driven programming language combined with a state level decode. This state level decode explicitly shows the current and past states of the interface in terms of the actual CCITT X.21 state number.

Included with the X.21 state simulator is the X.21 DTE analysis pack; a set of user modifiable tests written in the X.21 state simulator language that thoroughly tests an X.21 DTE for protocol conformance.

#### X.25 Network Performance Analyzer

**The HP 18370A X.25 Network Performance Analyzer** is an HP 4954A software solution that gathers statistical information about the performance of an X.25 data link. The following information is available in both tabular and graphical format:

**Efficiency:** Throughput, Utilization, Packets/Seconds, and Data Packet Size

**Error and Incidents:** Link Setups, Link Disconnects, Bad FCSs, Abort Sequences, REJ Frames, FRMR Frames, Resets, Restarts, and Unsuccessful Calls

**Response Times:** Link Setup, Link Disconnect, Call Setup, Call Clear, Reset, and Restart

#### Physical Specifications

##### Dimensions

44.9 cm x 43.1 cm x 55.8 cm (7.75 in. x 17 in. x 22 in.) Rack mountable

##### Weight

20 kg (44 lb)

#### Ordering Information

	Price
<b>HP 4954A: Protocol Analyzer</b> (includes one interface pod referenced by option number)	\$15,850
<b>Opt. 100:</b> Adds RS-232C/V.24 interface pod	\$1,150
<b>Opt. 101:</b> Adds RS-449 interface pod	\$1,150
<b>Opt. 102:</b> Adds V.35 interface pod	\$1,450
<b>Opt. 103:</b> Adds MIL-188C interface pod	\$1,150

#### Application Software

<b>HP 18352A:</b> X.21 State Simulator	\$3,500
<b>HP 18353A:</b> Password Security	\$450
<b>HP 18355A:</b> CCITT#7/CCS7 Analysis	\$900
<b>HP 18360A:</b> SNA Emulation Language	\$2,500
<b>HP 18361A:</b> 3270 Device Exerciser	\$1,000
<b>HP 18362A:</b> LU6.2 Node Exerciser	\$2,000
<b>HP 18370A:</b> X.25 Network Performance Analysis	\$1,200