

492 DATA COMMUNICATIONS TEST EQUIPMENT

**The Hewlett-Packard Protocol Analyzer Family**

Hewlett-Packard offers a family of five powerful, general purpose protocol analyzers, with software and accessories to meet your special needs. Software and/or hardware accessories extend the capabilities of your HP analyzer in new protocols or applications. Applications packages ensure your HP protocol analyzer will meet your changing needs.

While maintaining family compatibility, each analyzer is tailored for a different environment, with different features and characteristics. All share common operating, setup, remote transfer and display characteristics. See the chart listed below for each analyzer's characteristics.



☆ = NEW  
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 HP 4951C      HP 4952A      ☆ HP 4954A      HP 4955A      ☆ HP 4972A

Size (HWD—cm) (HWD—inches)	16.0x27.9x34.3 cm 6.3x11.0x13.5 in.	16.0x27.9x34.3 cm 6.3x11.0x13.5 in.	19.6x42.5x56.5 cm 7.7x16.8x22.3 in.	19.6x42.5x65.4 cm 7.7x16.8x25.8 in.	19.6x42.5x56.5 cm 7.7x16.8x22.3 in.
Net Weight	6.7 kg (14.8 lb)	6.8 kg (15 lb)	22.2 kg (47 lb)	22kg (49 lb)	19.6 kg (43 lb)
Physical Interfaces	RS-232C/V.24, RS-449/422A/423A, MIL-188C, V.35	RS-232C/V.24, RS-449/422A/423A, MIL-188C, X.21, V.35	RS-232C/V.24, RS-449/422A/423A, MIL-188C, X.21, V.35	RS-232C/V.24, RS-449/422A/423A, MIL-188C, X.21, V.35	IEEE-802.3 (ETHERNET)
Protocols	Async, Sync, Bisync, SDLC, HDLC, SNA, IPARS, DDCMP, X.25	Async, Sync, Bisync, SDLC, HDLC, SNA, IPARS, DDCMP, X.25, X.21	Async, Sync, Bisync, SDLC, HDLC, SNA, DDCMP, X.25, X.21, Bisync-framed X.25, CCITT#7/CCS7	Async, Sync, Bisync, SDLC, HDLC, SNA, DDCMP, X.25, X.21, Bisync-framed X.25, CCITT#7	TCP/IP, DECNET, XNS, User Defined
Data Rate	50 bps-19.2 kbps	50 bps-64 kbps	50 bps-72 kbps	50 bps-72 kbps	10 Mbps
Display	5 in. diagonal, 16 lines, 32 chars/line	5 in. diagonal, 16 lines, 32 chars/line	9 in. diagonal, 25 lines, 80 chars/line	9 in. diagonal, 25 lines, 80 chars/line	9 in. diagonal, 25 lines, 80 chars/line
Mass Store	3.5 in. Microfloppy	3.5 in. Microfloppy	3.5 in. Microfloppy 20 Mbyte Winchester expandable through HP-IB to 4 Gbytes	Dual 512 Kbyte Tapes	3.5 in. Microfloppy 20 MByte Winchester expandable through HP-IB to 100 MBytes
Video Out	RS-170	RS-170	Hi Resolution	No	Hi Resolution (opt. color)
Programming	Softkey Menus	Enhanced Softkey Menus	Softkey Menus, SNA Testing Language, X.21 State Simulator	Softkey Menus, opt BASIC	Enhanced Softkey Menus
Timers/Counters	5/5	5/5	5/5	5/5	16/16
Triggers	63 Simultaneous	63 Simultaneous	63 Simultaneous	63 Simultaneous	16 Filters with up to 62 characters each
Send String	1750 characters total 255 per message	1750 characters total 255 per message	1750 characters total 1350 per message	1750 characters total 255 per message	16 Messages of 2022 characters each
Auto Increment N(s),N(r),P(s),P(r)	No	No	Yes	Yes	Not Applicable
BERT	63, 511, 2047 PRBS	63, 511, 2047, 4095 PRBS	No	No	No
Autoconfigure	Yes	Yes	No	No	Node Table (Statistics Package)
Cursor Timing	No	Yes	Yes	No	Yes
Data Capture Buffer	32 Kbyte NV-RAM	32 Kbyte NV-RAM opt 3/4 Mbyte	256 Kbyte	256 Kbyte	1 Mbyte
Printer Output	Any RS-232C/V.24	Any RS-232C/V.24	Any RS-232C/V.24, Graphics with 2225D ThinkJet, 2227/8A QuietJet	HP-IB Graphics with HP 2932A, 2934A	HP-IB HP 2225A ThinkJet, Plotter Output
Remote Operation	Transfer Data, Menus via RS-232C/V.24	Transfer Data, Menus, SW Applications via RS-232C/V.24	Transfer Data, Menus, SW Applications via RS-232C/V.24 Unattended control via RS-232C/V.24	Transfer Data, Menus, SW Applications via RS-232C/V.24 Unattended control via HP-IB	Transfer Data, Menus, SW Applications via RS-232C/V.24 Unattended control via RS-232C/V.24
Other	—Battery Backup of Menus, Data —Terminal Emulator	—Battery Backup of Menus, Data —Autostart Disc file —Terminal Emulator Data File	—Autoload Directory —Data Filter —HP-IB Mass Store —Real-time Clock	—HP-IB —Real-time Clock —External Trigger In/Out	—Real-time Clock

### HP 4951C and HP 4952A Protocol Analyzers

The HP 4951C (19.2 kbps) and HP 4952A (64 kbps synchronous, 19.2 kbps asynchronous) are portable protocol analyzers used for troubleshooting during installation, maintenance and design of data communications networks and equipment.

#### Applications

The HP 4951C and HP 4952A allow you to **monitor and decode data transmission, test remote facilities from your location, simulate network components, and perform bit error rate tests.** They can also be used as **asynchronous terminals.**

Protocols that can be tested include Async, BSC, SDLC (NRZI), HDLC, X.25, SNA, DDCMP and user-defined protocols. The HP 4952A also tests X.21.

#### HP 4951C and HP 4952A Features

**Autoconfigure** enables you to automatically determine line parameters and start monitoring data with the push of a key.

**3 1/2" micro floppy disc** stores 618 Kbytes of data, timing, lead status, programs and configurations.

**RS-170 video port** lets you view data externally. Printouts to all RS-232C/V.24/ASCII printers via a separate port.

**Nonvolatile memory** stores data, programs and configurations.

#### Additional HP 4952A Features

- 64 kbps
- 3/4 Mbyte extended capture buffer (Option 002)
- Nonvolatile application storage (Option 002)
- Unattended remote testing
- Cursor timing
- Enhanced programming features: run time user comments, softkey triggering, subroutines.
- Buffer data filtering to maximize capture buffer
- Selective store to disc
- Complete disc copying capability

#### Datacomm Solutions

##### X.25 and SNA Link Level Performance Analysis

With specialized software, the HP 4952A can be transformed into a statistical performance analyzer for the link level (level 2) of SNA and X.25 networks (SDLC and HDLC respectively). The HP 18264A provides link level statistics for the HP 4952A.

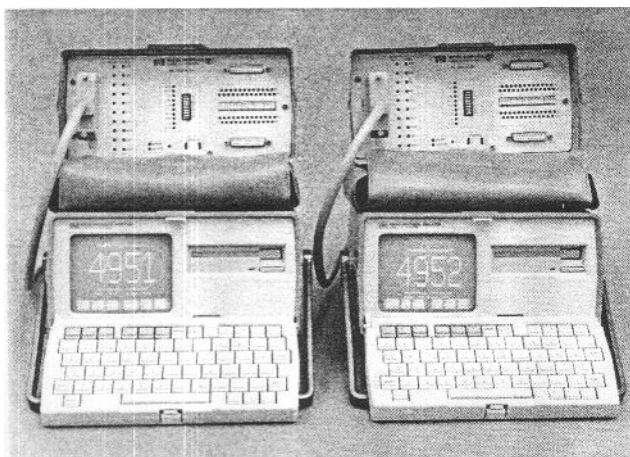
This solution provides a new way for network troubleshooters to look at data communications links. Key link events indicate the health of the network and are displayed in both columns and bar charts. These statistics can be stored to disc and reviewed at a later time. Printer capability is provided when hardcopy results are necessary.

##### 3270 Installation and Maintenance

If you have IBM 3270 or compatible terminal systems, you know that problems with newly installed or suspect systems can devastate hosts and users. The HP 18332D (for the HP 4951C) and HP 18263A (for the HP 4952A) 3270 installation and maintenance software packages provide easy, automatic, offline testing of multiple 3270 clusters by emulating many of the functions of a host computer.

##### HP 4951C/4952A Data Communications Test Library

This convenient data communications test library is included with every HP 4951C and HP 4952A at no additional cost. The library contains over 100 general purpose monitor and simulate programs on a single 3 1/2-inch floppy diskette to help you evaluate your network quickly and easily. Programs are written for common configurations of the protocol analyzer and diagnose common datacomm problems. Documentation is provided to tailor the programs for special configurations and applications. The library also contains several installation and acceptance tests for printers and terminals.



#### Ordering Information

**HP 4951C: Protocol Analyzer** (interface pod not included)

**Opt. 101:** Adds HP 18174A RS-449/422A/423A interface pod

**Opt. 102:** Adds HP 18180A RS-232C/V.24 and RS-449/422A/423A interface pod

**Opt. 103:** Adds HP 18179A RS-232C/V.24 interface pod with full breakout box

**Opt. 105:** Adds HP 18177A V.35 interface pod

**Opt. 908:** Rack mount kit

**Opt. W30:** 2 additional years of return-to-HP service

**HP 18331D:** SNA, DDCMP, X.25 analysis

**HP 18332D:** 3270 installation and maintenance software

**HP 18347A/X:** Customer training course

**HP 4952A: Protocol Analyzer** (interface pod not included)

**Opt. 002:** Extended memory plus

**Opt. 101:** Adds HP 18174A RS-449/422A/423A interface pod

**Opt. 102:** Adds HP 18180A comb. RS-232C/V.24 and RS-449/422A/423A interface pod

**Opt. 103:** Adds HP 18179A RS-232C/V.24 interface pod with full breakout box

**Opt. 104:** Adds HP 18260A X.21 and RS-232C/V.24 interface pod

**Opt. 105:** Adds HP 18177A V.35 interface pod

**Opt. 908:** Rack mount kit

**Opt. W30:** 2 additional years of return-to-HP service

**HP 18263A:** 3270 installation and maintenance software

**HP 18264A:** X.25 and SNA link level performance analysis

**HP 18265A:** DDCMP analysis

#### HP 4951C and HP 4952A Common Accessories

**HP 18190A:** Soft vinyl carrying case

**HP 92192A:** Set of 10 double-sided discs

**HP 2225D:** RS-232C/V.24 ThinkJet printer

**9211-1290:** Hard transit case

**5062-2119:** Data communications test library (shipped standard with each HP 4951C and HP 4952A)