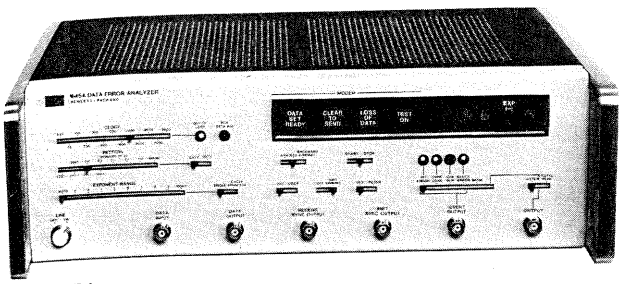


HP 1645A

HP 1645A Description

Hewlett-Packard's Model 1645A Data Error Analyzer quickly isolates data communications link problems through six simultaneous measurements. During test, the HP 1645A can be left totally unattended because it automatically maintains synchronization even in the presence of dropouts. For added convenience, the HP 1645A can be equipped with a printer for hard-copy recordings of long tests.

Bit-error and block-error rate tests are autoranged and displayed directly on an LED readout; there is no need to perform any calculation. Additionally, the HP 1645A measures jitter or total peak distortion (the sum effect of jitter and bias), counts the number of times carrier loss or dropouts occur, measures data error skew, and counts the number of clock slips resulting from phase hits or modem synchronization problems.

With all these measurements made during the same test interval, you'll be able to determine more precisely where your problem is.

HP 1645A Specifications

Transmitter and Receiver Bit Rate

Asynchronous Modem Operation: selectable 75, 150, 200, 300, 600, 1200, 1800, 2400, 3600, 4800, 7200, 9600 bps.

Synchronous Modem Operation: to 5 Mbps. (Modem supplies transmit and receive clocks).

Indicators

Out of lock; received data inverted; bit error; carrier loss; clock slip; block error; Data Set Ready (DSR); Clear To Send (CTS); loss of data; test on.

General

Power: 115 or 230 Vac, 48 to 440 Hz, 150 VA max.
Dimensions: 133 H x 425 W x 286 mm D (5.25 x 16.75 x 11.25 in.).
Weight: net, 8.2 kg (18 lb); shipping, 10.9 kg (24 lb).
Accessories Supplied: one 3 m (10 ft) RS-232C/V.24 interconnecting cable to connect the HP 1645A to the modem (HP P/N 01645-61605), one 2.3 m (7.5 ft) 3-wire power cord (HP P/N 8120-1378); one Operating and Service manual.

Ordering Information

HP 1645A Data Error Analyzer
Interfaces
HP 10387A: for Type 303 modems (with cable)
HP 10388A: for CCITT V.35 (with cable)
HP 10389A: Breakout Box (RS-232C/V.24) (with cable)
HP 18062B: MIL-STD-188C interface
HP 18063A: RS-449 interface (with cable)
Accessories
HP 10233A: Printer interconnecting cable connects HP 1645A to HP 5150A printer.

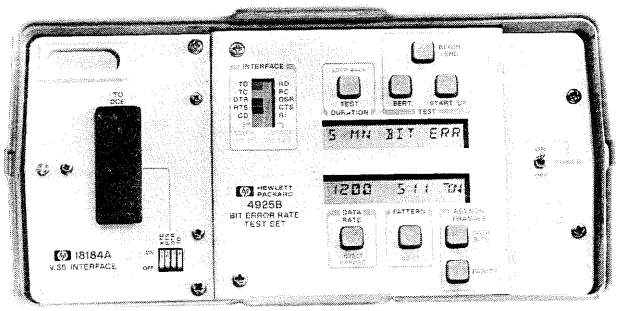
HP 4925B Description

More than a BERT

The HP 4925B is more than just a bit error rate test set. In addition to the standard bit and block error tests, the HP 4925B measures errored seconds, percent error-free seconds, timing delay, and parity errors over both RS-232C/V.24 and V.35. Now complete data testing to 72 kbps is available making the HP 4925B ideally suited for complete DDS testing.

Increased flexibility is afforded by a complete breakout box. You can manipulate and monitor individual signal lines on the RS-232C/V.24 interface or crosspatch any line from the DCE side of the interface to the DTE side of the interface.

In addition, the HP 4925B adds to its arsenal the ability to frame data for testing character-oriented systems. The HP 4925B also transmits the FOX message to terminals and printers. Three separate



HP 4925B

startup tests enable dynamic testing of modems. This makes the unit extremely useful in isolating faults related to automatic equalization, receive carrier recovery, receive clock synchronization and initial recovery of received data. The startup tests include an end-to-end, half-duplex ping-pong test, a local modem loopback test and a test specifically designed to use the remote testing capabilities of the Bell 208B modem.

Intended primarily for field service installation and maintenance, the HP 4925B weighs only three pounds with batteries.

For operation with the V.35 interface, the HP 4925B is powered by a supplied AC power module accessory. This power module can also be used with the RS-232C/V.24 interface in fixed location or long term testing situations.

HP 4925B Specifications

Data Rates: 75, 110, 134.5, 150, 200, 300, 600, 1200, 1800, 2400, 3600, 4800, 7200, 9600, 14400, 19200 bps for asynchronous systems (framed and unframed) or synchronous systems where the HP 4925B provides the clock. Up to 72 kbps for synchronous systems.
Patterns: 63, 511, or 2047 bit pseudo-random binary sequence, FOX message.
Bit Error Testing: simultaneous detection of bit errors, block errors and errored seconds.
Parity Error Analysis: characters analyzed for odd or even parity errors.
FOX Message Transmission: use a 5-bit baudot code, 6-bit EBCD code, 7-bit ASCII code, or 8-bit EBCDIC code.
Character Oriented Network Testing
Data Levels: 5, 6, 7 or 8 bits per character.
Parity: Odd, Even, or None.
Detection and Annunciation of Dropouts and Clock Slips
RTS-CTS Delay Time
Resolution: 1 ms.
Accuracy: ±4% of reading.
Maximum Reading: 999 ms.
Startup Testing: end-to-end test, loopback test, Bell 208B modem test.
Power: six 9-volt alkaline transistor batteries; battery life exceeds 50 hours using RS-232C/V.24 only. AC module (HP 18185A) or (HP 18194A) recommended for use with V.35 interface.
Weight: 1.5 kg (3 lb) with batteries.
HP 18183A Interface/Breakout Box (RS-232C/V.24): hard-wired activity indicators for TD, RD, TC, RC, DTR, DSR, RTS, CTS, CD, RI; one non-dedicated mark/space tri-state activity monitor.
HP 18184A V.35: interface provides the physical level interface for data circuits operating to 72 kbps.

Ordering Information

HP 4925B Bit Error Rate Test Set (does not include interface)
Option 001: Adds HP 18192A carrying case
Option 101: Adds HP 18183A RS-232C/V.24 interface
Option 102: Adds HP 18184A V.35 interface and HP 18185A 115V power module
Option 104: Adds HP 18184A V.35 interface and HP 18194A 220V power module
Accessories
HP 18183A: RS-232C/V.24 interface
HP 18184A: V.35 interface
HP 18185A: 115V power module
HP 18191A: Rack mount
HP 18192A: Carrying case
HP 18194A: 220V power module