



Master/Slave measurement results are displayed just like manual end-to-end results. The status lines indicate the direction of test (Master to Slave) and the current status of the Slave's receiver and Master's transmitter.

Systems Capability

The HP 4945A can be controlled by a computer or controller over three different interfaces. For the larger systems, HP-IB provides the speed and versatility needed to tie together many test instruments in a customized system. For those faced with the problem of the HP 4945A being distant from the controller, RS-232C provides a low-cost solution for control. With the addition of inexpensive modems, an HP 4945A can be controlled over dial or leased lines. If portable data collection is a must, HP-IL provides a low-cost portable solution with a handheld calculator, such as the HP-41C or HP-71B acting as the controller.

In addition, the HP 4945A can output measurement results directly to a printer without the need for a controller. This gives you hardcopy results from any HP-IB, RS-232C, or HP-IL printer.

Complete Self-Check and Calibration

Every time the HP 4945A is powered on, it executes a self-check which assures you that all the major blocks are functioning properly. There is also a built-in self-calibration mode. With the simple press of a softkey, the HP 4945A will calibrate itself, thus avoiding costly downtime and assuring you that the HP 4945A is operating at its peak performance. In addition, built-in self diagnostics quickly isolate and identify any problems thus reducing repair time and consequently downtime.

Specifications

For detailed specifications ask your local HP Sales Office for an HP 4945A TIMS Data Brochure.

General

Impedances: 135Ω, 600Ω, 900Ω, 1200Ω.

Power: 115/230 V ac + 11%–22%, 48 to 63 Hz, 150 W max.

Dimensions: 18.4 cm H x 45.1 cm W x 48.9 cm D (7.25" x 17.75" x 19.25").

Weight: 15 kg (33 lb).

Interfaces Available: HP-IB, RS-232C, HP-IL.

Level and Frequency

Transmitter

Frequency range: 20 Hz to 110 kHz.

Output level: –60 dBm to +13 dBm; 600Ω, 900Ω, 1200Ω.
–60 dBm to +5 dBm 135Ω.

Receiver

Range: –60 dBm to +13 dBm.

Noise Measurements

Transmitter: 1004 Hz fixed or quiet termination.

Receiver Range

Message circuit noise: 10 to 90 dBm

Noise-with-tone: 10 to 90 dBm

Noise-to-ground: 40 to 130 dBm

Signal-to-noise ratio: 10 to 45 dB

Weighting filters: C-message, 3 kHz Flat, Program, 15 kHz Flat, 50 kbit

Notch filter: 50 dB rejection from 995 to 1025 Hz.

Peak to Average Ratio

Transmitter

Signal spectrum: Per BSTR 41009

Range: –40 to 0 dBm.

Receiver

Level range: –40 to 0 dBm.

P/AR range: 0 to 120 P/AR units.

Jitter

Transmitter

See Noise Measurements.

Receiver

Amplitude jitter: 0 to 30% peak to peak

Phase jitter: 0 to 30 degrees peak to peak

Bandwidths: 20 to 300 Hz

4 to 300 Hz

4 to 20 Hz

Transients

Transmitter

See Noise Measurements or Quiet Termination.

Receiver

General: Count rate: 7, 8, 100 counts per second.

Count range: 0 to 9,999.

Timer: 1 to 9,999 minutes or continuous.

Phase hits: thresholds: 5° to 45° in 5° steps.

Gain hits threshold: 2 to 10 dB in 1 dB steps.

Drop outs: threshold –12 dB.

Impulse Noise Range

Low: 30 to 110 dBm.

Mid: 2, 3, 4, or 6 dB above Low.

High: 2, 3, 4, or 6 dB above Mid.

Envelope Delay

Transmitter

Level range: –40 to 0 dBm

Modulation: 83⅓ Hz

Receiver

Level range: –40 to +10 dBm

Measurement range: –3000 to 9000 microseconds.

Return Loss

Modes: ERL, SRL-High, SRL-Low, Sine Wave

2-Wire:

Range: 0 to 40 dB

Internal Hybrid 600Ω, 900Ω, in series with 2.16 μF capacitor, or external.

4-Wire:

Range: 0 to 50 dB.

Trans Hybrid Loss Compensation: –10 to 30 dB.

Ordering Information

HP 4945A TIMS

Options

101: adds HP 18162A HP-IB Module

102: adds HP 18163A RS-232C Module

103: adds HP 18165A HP-IL Module

104: adds HP 18169A 19" Rack Mount

105: adds HP 18170A Soft Vinyl Carrying Case

Accessories

HP 18162A HP-IB Module

HP 18163A RS-232C Module

HP 18165A HP-IL Module

HP 18169A 19" Rack Mount

HP 18170A Soft Vinyl Carrying Case

HP 9211-2650 Hard Transit Case

*The Non-Linear Distortion Technique is licensed under Hekimian Laboratories, Inc., USA Patent No. 3862380.

Price
\$14,950

\$500

\$500

\$350

\$75

\$210

\$505

\$505

\$355

\$80

\$210