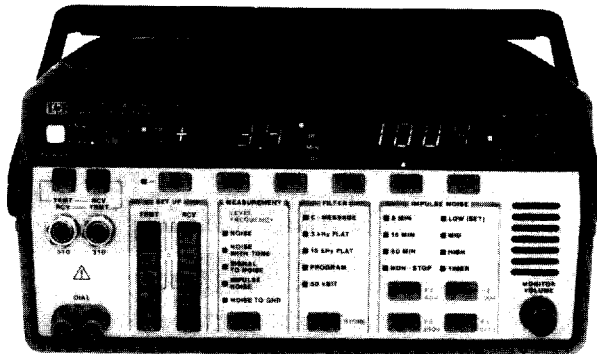


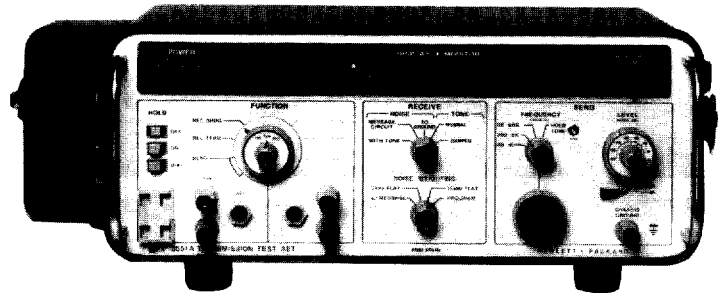
DATA COMMUNICATIONS TEST EQUIPMENT

Transmission Impairment Measuring Sets (TIMS)

Models HP 4935A/4936A HP 3551A/3552A



HP 4935A



HP 3551A

Product Description

Qualify Circuits for Voice, Data or Program

The HP 4935A/4936A Transmission Impairment Measuring Sets and the HP 3551A/3552A Transmission Test Sets are rugged, portable test sets that provide the basic analog tests to isolate faults and to qualify circuits for voice, data, and broadcast service. In addition, the HP 4935A, with its 110 kHz bandwidth, performs the required tests to qualify the local loop for Digital Data System (DDS) up to 56 kbps. The Peak-to-Average Ratio (P/AR) measurement option on the HP 4935A gives users a powerful, yet simple measure of the combined factors that affect the overall data transmission quality of the line.

Different Instruments for Different Standards

The HP 4935A and HP 3551A perform measurements compatible with the Bell standards (BSTR 41009) and IEEE standards (IEEE 743-1984). These standards are primarily used in North America. The HP 4936A and HP 3552A are compatible with the recommendations of the CCITT.

HP 4935S Data Transmission Test System

The HP 4935S combines the analog test power of the HP 4935A with the compact, yet powerful digital test abilities of the HP 4925B to form a complete data installation and maintenance tool. This is especially useful for those technicians who have both analog and BERT test needs. See page 00.00 for more information.

Capability Summary

HP 4935A/4936A Measurements

Level
Frequency
Circuit Noise
Noise-with-Tone
Signal-to-Noise Ratio
3 Level Impulse Noise (quiet) ('36A)
3 Level Impulse Noise (with tone)
Noise-to-Ground ('35A)
P/AR (option '35A)

Ranges

Trans. Level: -40 to +13 dBm
Trans. Freq.: 20 Hz to 110 kHz

Rec. Level: -60 to +13 dBm ('35A)
-70 to +13 dBm ('36A)

Rec. Freq.: 20 Hz to 110 kHz

Message Circuit Noise
(600 and 900 ohm): 0 to 100 dBm ('35A)
-90 to +10 dBm ('36A)

Noise-with-Tone:
(600 and 900 ohm): 10 to 100 dBm ('35A)
-80 to +10 dBm ('36A)

Noise-to-Ground: 50 to 130 dBm ('35A)

Signal-to-Noise Ratio: 10 to 45 dB

Impulse Noise Threshold:
30 to 109 dBm ('35A)
-60 to +16 dBm ('36A)

Impulse Noise Separation: 4 dB ('35A)
3 dB ('36A)

P/AR Range: 0 to 120 P/AR units ('35A)

General

Impedances: 135, 600, 900 ohms ('35A)
150, 600, 900 ohms ('36A)

Filters

4935A:

C-Message
3 kHz flat
Program
15 kHz flat
50 kbit
1010 Hz notch

4936A:

Psophometric (P.53)
275-3250 Hz flat (0.71 impulse noise)
Sound unweighted (J.16)
Sound weighted (J.16)
820 Hz notch (1020 Hz optional)
Size: 127 x 279 x 381 mm (5.0 x 11.0 x 15.0 in.)

Weight: 5.0 kg (11 lb), 6.5 kg (14 lb) with battery

3551A/3552A:

Measurements
Level
Frequency
Circuit Noise
Noise-with-Tone
Noise-to-Ground

Range

Trans. Level: -60 to +10 dBm

Trans. Freq.: 40 Hz to 60 kHz

Rec. Level: -70 to +15 dBm

Rec. Freq.: 40 Hz to 60 kHz

Message Circuit Noise:
0 to 85 dBm ('51A)
-90 to -5 dBm ('52A)

Noise-with-Tone:

(600 and 900 ohm) 10 to 85 dBm ('51A)
-80 to -5 dBm ('52A)

Noise-to-Ground: 40 to 125 dBm ('51A)
-50 to +35 dBm ('52A)

General

Impedances: 135, 600, 900 ohms ('51A)
150, 600, 900 ohms ('52A)

Filters

3551A:

C-Message
3 kHz flat
Program
15 kHz flat

3552A:

Psophometric
3 kHz flat
Program
15 kHz flat
1010 Hz notch

Size: 159 H x 368 W x 273mm D (6.3" x 14.5" x 10.8")

Weight: 6.6 kg (14 lb)

Ordering Information

Ordering Information	Price
HP 3551A Transmission Test Set	\$4,000
HP 3552A Transmission Test Set (CCITT)	\$4,700
HP 4935A Transmission Impairment Measuring Set*	\$3,500
Option 001: Adds Rechargeable Battery Pack	\$370
Option 002: Adds P/AR Measurement in place of Noise-to-Ground	\$150
Option 003: Adds both Battery Pack and P/AR, deletes Noise-to-Ground	\$450
Option 910: Adds extra HP 4935A Operating and Service Manual	\$30
HP 4936A Transmission Impairment Measuring Set	\$4,500
Option 001: Includes 820 Hz tone with rechargeable Battery Pack	\$520
Option 002: 1020 Hz tone	NC
Option 003: Includes 1020 Hz tone with rechargeable Battery Pack	\$520
Option 910: Adds extra HP 4936A Operating and Service Manual	\$40

* There are quantity discounts on 5 or more of the HP 4935A