

## Wireline access networks

For more information, ask for HP's complete Test & Measurement Catalog or individual product data sheets. (See back cover.)  
Visit our website: <http://www.tmo.hp.com>



### Rugged, portable and easy to use TIMS

The HP 4934A TIMS is ideal for the installation and maintenance of special services which use a wide range of analog circuit types. It provides tests to qualify the local loop for DDS, basic rate ISDN and HDSL.

With one-button-per-function operation, the dedicated keys and indicators allow you to see the measurement setup at a glance. Measurements, using IEEE 743 methods, include:

- 20 Hz to 110 kHz operation (optionally 200 kHz)
- level and frequency
- noise and noise-to-ground
- noise-with-tone and S/N ratio
- 3-level impulse noise
- P/AR
- RS-232-C remote control
- Flash memory.

Measure to ITU-T Standards  
The HP 4934A TIMS options J01 and J02 are for voice-frequency or wideband leased lines to ITU-T specifications. Select option J01 for countries with 820 Hz holding tone and Option J02 for countries with 1020 Hz holding tone.



### Wide range of HDSL installation and maintenance tests

The HDSL Installer's Assistant offers a wide range of capabilities for HDSL circuit installation and maintenance including:

- HDSL plug-in card powering and
- Load coil detection
- Cable loss measurement
- noise and noise-to-ground
- T1 BERT.

The HDSL Installer's Assistant is a field-portable, rugged unit which accepts central office, doubler, and remote unit HDSL plug-in cards. The plug-in cards are powered from the built-in AC power supply; or they may be line powered. The unit can verify proper operation of the HDSL cards with each other. Easily accessible front-panel break jacks allow connection to the circuit. If the circuit does not come up

properly with the plug-ins, the technician can access the cable pairs at any point in the span to sectionalize the problem to an individual part of the cable span.

After the pre-turn up tests are completed and the HDSL plug-ins are installed, the technician can use the built-in T1 BERT tester for final turn up and trouble shooting. Using a pair of HDSL Installer's Assistants, it's a simple matter to generate an end-to-end HDSL signal on the cable span.