



Fig. 1. Model 1600A Logic State Analyzer monitors digital data appearing on as many as 16 lines and displays the data as words of 1's and 0's in tabular form running from top to bottom on the left half of the display. The right half of the display is used for data stored in an auxiliary memory or for data acquired by a companion instrument, the Model 1607A.

is pressed, initiating a new data acquisition cycle.

The trigger may be any of the words in the data stream. A front-panel switch register enables the user to select the word that serves as the trigger. It is thus possible to view any part of an executing digital program by using the first word of the sequence as a trigger. The delay capability may be used to page through long sequences. Or, the digital sequence leading up to an unallowed state caused by a fault may be examined, using the unallowed word as the trigger.

The trigger word also causes the instrument to generate an output pulse that can serve as a trigger for an oscilloscope or other instruments in a test set-up. This makes it possible to view the waveforms that occur at a defined point in time with respect to the trigger word.

To provide flexibility in applications of the instrument, data may be clocked in on either the positive-going or negative-going edge of the clock pulses, the data may be interpreted as either positive-true or negative-true logic, and the logic threshold is adjustable. The miniature probe system developed for the Model 1601L, which facilitates making the many closely-spaced connections to the circuit under test, is also used with the new logic state analyzer (Fig. 2).

Branching Out

The new Model 1600A Logic State Analyzer broadens this basic capability by being able to look at 16 lines simultaneously, four more than the 12-bit capa-

bility of the earlier Model 1601L. When working with Model 1607A, Model 1600A can look at and display data appearing at 32 points (Fig. 3).

Two qualifier inputs have been added. When used in the QUALIFIER DISPLAY mode, these make it possible to be selective in clocking data into memory. For example, when monitoring a multi-use bus that has time-multiplexed addresses, instructions, and data, only the information pertinent to a particular operation need be stored for display.

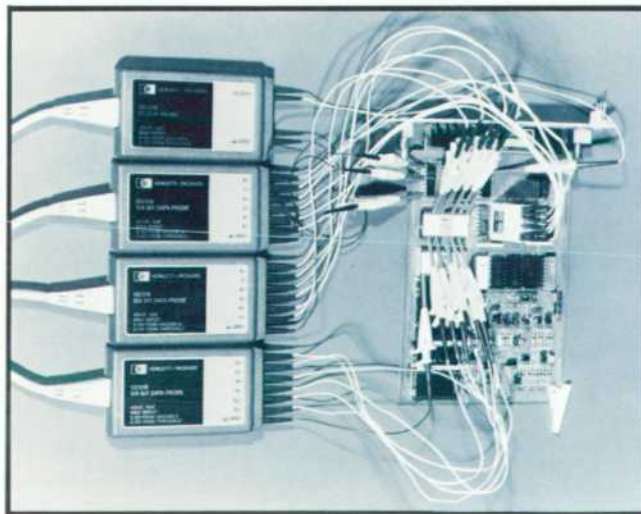


Fig. 2. Miniature probes facilitate connections to closely-spaced test points. The probes are connected through short leads to input circuits within the pods to minimize circuit loading.