

# Abstracts

## A Fast Data-Acquisition System for a Time-Shared Computer

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*M.J. Schindler. "A Fast Data-Acquisition System for a Time-Shared Computer." 1972 Transactions on Microwave Theory and Techniques 20.1 (Jan. 1972 [T-MTT] (Special Issue on Automated Microwave Measurements)): 54-60.*

Computer-aided testing is usually performed with a dedicated computer, typically adding a five-digit number to the cost of the test equipment. In such systems the computer sets the test conditions and then records the test results from digital meters. This approach can lead to intolerably slow measurements when the dedicated computer is replaced by a remote time-shared computer. This paper discusses a solution to the problem in which an inexpensive interface (under 1000 dollars) sets the test conditions locally, so that a long string of data can be transmitted to the computer when the telephone line is open. A typical application is the evaluation of high-power microwave transistors, using a standard network analyzer. Connected to a Teletype, the system covers up to 40 frequency points in about 20 s, and displays the calculated and corrected S-parameters within another 20 s. If connected to the computer line through a 1200 Bd line, the system is speeded up by a factor of approximately 10.

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