# COMMUNICATIONS/MICROWAVE TEST

+20 dBm, outputs can be switched for left only, right only, left and right in phase (L + R), and left and right in phase opposition (L - R). Automatic leveling circuitry with a self-test generator to provide the inputs to the DUT. The outputs go to the analyzer, and the results of the measurement appear on the CRT display.

The analyzer automatically ini-



Potomac AT-51

feature provides a constant output level to reduce the need for output metering.

#### **RE Instruments**

When combined with the company's RE 501 stereo generator and RE 104 RF signal generator, RE Instruments' RE 256 dual-channel analyzer replaces six traditional test instruments: voltmeter, spectrum analyzer, distortion meters, frequency counter, and various filters. The controller keyboard programs the stereo generator and RF signal



**RE Instruments 256** 

tiates a self-test routine upon powerup. If desired during a test procedure, the self-test routine can be ordered via the system controller.

The heart of the instrument is the computer, based on a 16-bit CPU with 16K of program memory. The CPU card also generates the alphanumerics, meter pointers and video signals for the CRT. The interface contains the peripherals necessary to support the IEC 625/IEEE 488 and RS-232C ports.

Amber Electro Design, Ltd., 4810 Jean Talon West, Montreal H4P 2N5, Canada. (514)735-4105. Circle 361

Potomac Instruments, Inc., 932 Philadelphia Ave., Silver Spring, MD 20910. (301)589-2662. **Circle 362** 

Radiometer Electronics A/5, Frederikssundsuej 254, DK-2700 Bronshoj, Denmark. 01-80 12 11. Radiometer Electronics U.S., Inc., 31029 Center Ridge Rd., Westlake, OH 44145. (216) 871-7617. **Circle 364** 

### Automatic Loopback Tester Eliminates On-Site Evaluation

Com/Tech Systems' Model 202SC allows you to test continuous carrier data links from a central office site. Extending the capability of the firm's Link/Chek bit-error rate and interface test system to full-duplex as well as half-duplex and multidrop links, the 202SC, a slave unit, automatically distinguishes between loopback commands from the master Link/ Chek and normal traffic.

Other applications include on- or offline evaluation of TDM channels, crypto systems, buffers, error control systems, and interface converters. Com/Tech Systems, Inc., 505 Eighth Ave., New York, NY 10018. (212)594-5377. Circle 307

#### Variable Test Load Aids RF Power-Amplifier Evaluation

Design Automation has introduced an adjustable passive load for testing radio transmitters and RF power amplifiers. Using a 10.5 MHz operating frequency, the Model L10-5 helps to determine if these instruments can withstand arbitrary mismatched output loads without damage or spurious oscillation.

With a 50  $\Omega$  nominal transmissionline impedance, the Model L10-5 provides 10 values of SWR. Depending on the SWR value, the test load can dissipate 5 to 20 W. Other standard test loads from 1 to 100 MHz are also available. Design Automation, Inc., 809 Massachusetts Ave., Lexington, MA 02173. (617)862-8998. **Circle 310** 

#### High-Speed Recorder Captures Data Communications Problems

A portable magnetic tape recording instrument, the Spectron Model T-511 assists in troubleshooting and monitoring data communications channels. The high-speed tape unit records all traffic on both sides of a data link at rates from 50 to 56,000 bps.

The T-511 is compatible with most forms of data transmission, whether synchronous or asynchronous. Recording on a magnetic tape cartridge at 25 or 100 ips, the unit provides a perpetual history of all events on the line until all four tracks are full. New data replaces the old as the recording continues; the cartridge can also be changed at any time to create a permanent record. The T-511 can be operated alone for replay or with the Model D-601 DATA-SCOPE, which provides a real-time or slow-speed display of all traffic. Northern Telecom, Spectron Division, 344 New Albany Rd., P.O. Box 620, Moorestown, NJ 08057. (609)234-5700. Circle 316

## Versatile Error Measurement System Weighs In at Only 32 lbs

The Tau-Tron BERTS-25 provides bit-error measurements of communications digital data links, such as cable systems, radio and fiber optics. It works from 100 Hz to 25 MHz, providing programmable 16-bit words in addition to seven pseudorandom sequences from  $2^7$  to  $2^{23}$  bits. For long-term unattended testing, the system includes a real-



time clock and built-in printer.

The BERTS-25 has both a synthesizer-controlled transmitter and an automatic receiver. Total bit errors and the bit error rate are computed simultaneously. Other features include automatic or manual pattern selection, synchronization, measurement start time, duration, input-clock frequency measurements and time-of-day indication. Tau-Tron, 27 Industrial Ave., Chelmsford, MA 01824. (617)256-9013. Circle 312

# Converter Transforms Standard Test Equipment for Fiber Optic Evaluation

The Fotec C converts standard multimeters and voltmeters into fiber optic power meters. It figures the total power transmitted through the fiber and converts optical power into a corresponding linear DC voltage. This voltage is then measured by the multimeter and displayed directly in microwatts or milliwatts of optical power with an accuracy of  $\pm 5\%$  over a range from less than 20 nW to over 2 mW.

The Fotec S, used with the Fotec C, gauges cable attenuation, splice or connector loss, and receiver sensitivity. Since it produces a pulse train output rather than DC, the Fotec S can test data links when repeaters are used. Both units operate on batteries or AC power. Fotec Incorporated, Box 246, Boston, MA 02129. (617)242-0863. Circle 317

#### Microwave Counters Feature Synthesizer Capability

Two microwave frequency counters from EIP Microwave — Models 575 and 578 — offer a broadband sourcelocking capability. Operating in the "lock-box" mode, each  $\mu$ P-based counter coarse/fine tunes and phaselocks swept signal sources to the input fequency. The Model 575 spans the frequency range from 10 Hz to 18 GHz, while the 578 covers the 10 Hz to 26.5 GHz range and, via available modular options, can go up to 110 GHz.

For repetitive testing, the counters can store up to nine preprogrammed frequencies in memory, which you call up from either the front panel keyboard or over the GPIB. EIP Microwave, Inc., 2731 N. First St., San Jose, CA 95134. (408)946-5700. Circle 308

# E-Fields Regulated Intelligently without Minicomputers

Providing intelligent gain control of •RF power amplifiers, the LPA-2 by Instruments for Industry helps to create closed-loop control systems for precise regulation of electric field strength in screen rooms and test chambers. With four inputs as the basic configuration and options available, the design eliminates variations in field levels that occur as the source frequency changes, according to the manufacturer. Instruments for Industry, Inc., 151 Toledo St., Farmingdale, NY 11735. (516)694-1414. Circle 311

Microwave Spectrum Analyzers Measure 1 kHz to 1.8 GHz

Aimed at the baseband, HF, VHF and UHF high peformance industries, the Tektronix 496 and 496P spctrum analyzers provide stability and a resolution bandwidth that adjusts from 1 MHz to 30 Hz



over the entire frequency range. The instruments' accuracy and 80 dB dynamic range match the demands of proof-of-performance measurements, and they are portable enough to fit under airplane seats. Digital storage simplifies the comparison, subtraction and retention of maximum values or noise averages for spectral displays. The constant tuning rate aids the quick and accurate positioning of the signal at any frequency span.

The fully progammable 496P listens to and executes commands from a GPIB controller in normal mode. All important front panel settings can be operated remotely, and displayed waveforms can be sent from digital storage to a calculator computer or data storage unit such as a tape or disc file: Tektronix, Inc., P.O. Box 500, Beaverton, or 97075. (800)547-6711. (In Oregon call 1-644-9051.) Circle 318