

New Products & Developments

Further information about these items can be obtained from the addresses given. As in the case of technical papers, the Society is not responsible for manufacturers' statements, and publication of these items does not constitute endorsement of the products or services.



A computer-compatible video camera, Model C-1000, was announced by Hamamatsu Corp., 420 South Ave., Middlesex, NJ 08846. It may be mounted on a microscope, macroviewer, optical bench, or tripod and can fit a wide variety of lenses with readily available adapters. The camera uses a variety of 1-in vidicons to detect images at wavelengths from x-ray to infrared and can provide low light detection, low dark current, and very high sensitivity where needed. It converts the scene being observed into a composite analog video signal which may be viewed on a monitor or recorded on standard videotape equipment.

The C-1000 can produce a digital signal which can be transmitted to a variety of computers through plug-compatible interfaces. The computer then processes and analyzes the input data to produce the information needed on a CRT or a standard printout. Resolution is 1024 x 1024 lines providing more than one million data points with 256 gray levels which can be sampled to permit highly detailed examination of the field of view. The price range is \$3090 to \$11,825 depending on tubes and accessories.



A videotape monitoring unit, combining remote video level, time base corrector controls with monitoring selection in a single self-contained 3 1/2-in-high, 19-in rack mounting unit has been announced by Marconi Electronics, Inc., 100 Stonehurst Ct., Northvale, NJ 07647. Designated the B4624, the unit is compatible with all Ampex VPR-1 and VPR-2 1-in machines and Marconi MR1 and MR2 1-in machines. A choice of either of two sets of interconnection cables can be supplied for operation with either A or C formats. A waveform-on-picture facility shows video, TBC, and servo waveforms superimposed on the picture. In many situations this feature eliminates the need for a separate waveform monitor. A four-way selector switch enables

selection of the three standard audio channels in addition to the operational EBU fourth channel audio channel which feeds an internal 3-W Hi-Fi audio amp and speaker. No machine modification is necessary. The unit is suitable for NTSC, PAL, and SECAM. The B4624 is priced at about \$2800.



A professional audio flanger, Model 4000, has been announced by Spectra Sound, 3750 Airport Rd., Ogden, UT 84403. The unit was designed to create effects such as positive and negative flanging, double tracking, and speaker rotation simulation. In addition to these effects, chorus, vibrato, and tube echo effects can be achieved. Model 4000 can produce over five octaves of flanging without input aliasing, output quantization noise, or the introduction of any high frequency clock components. An internal variable sweep oscillator can be employed for modulation of the delay time. Modulation of the delay time

Case History #437

Electronic News Gathering is one of the toughest environments a microphone will ever encounter. Every mike we've seen has compromised the demand for low handling noise, fine audio quality and virtual indestructibility.

Credit the NBC Electronic Journalism Department/Operations and Engineering in New York for putting the Electro-Voice DO56 shock-mounted omni in the field. Although originally designed as an on-camera entertainment and MC's microphone, NBC found the DO56 to be the microphone that provides an audio signal commensurate with video in real-life crisis situations. In these situations audio often takes a back seat to video,

Electro-Voice DO56 Shock-Mounted Omnidirectional Microphone

resulting in a final product that doesn't accurately reflect the broadcaster's professional standards. NBC discovered that the DO56 takes the

pushes, the shoves, the rubs and finger taps in stride. And when handling *really* gets rough, the DO56's unique internal shock mount virtually eliminates the bell-like clang transmitted by other shock-mounted mikes.

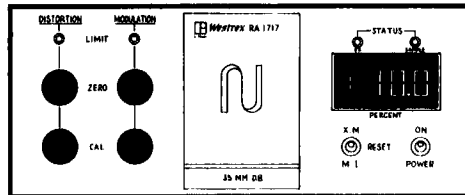
Congratulations to the NBC Electronic Journalism Department in New York. You found the solution—the DO56.

For an in-depth description of this and other case histories, get on the Electro-Voice "Mike Facts" mailing list. Write on your letterhead to Mike Facts, c/o Electro-Voice, 600 Cecil Street, Buchanan, MI 49107.

Ey Electro-Voice®
a guitar company



New analyzer dramatically increases sound track quality and consistency.



The Nuoptix/Westrex QUALITY CONTROL ANALYZER can check a photographic sound track *in a matter of seconds*.

Every reel of every print can now be quickly verified for quality. Add a test signal as short as two frames to the negative, right after the sync pop, and every print will automatically get a test signal. You then check each reel by simply inserting the test portion into the analyzer gate. Through a photocell array/optical mask arrangement, the analyzer reads the signal instantly and *without moving the film*.

If the print is up to standard, the OK light comes on. If not, the appropriate status light tells you what is wrong. And the digital

readout tells you precisely *how* wrong. The RA-1717 checks recording exposure, processing, and printing. It measures cross modulation distortion, track placement, and high-frequency reproduction. It detects printer contact and slip-page problems, application errors, pinholes in emulsion, and more.

SAVE REPRINT COSTS.

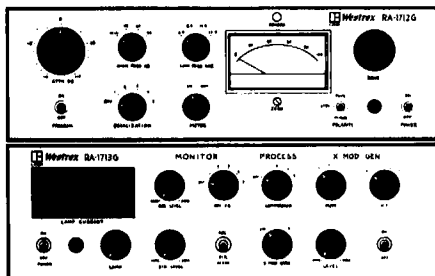
With this analyzer *never again* will your prints be rejected due to sound track problems. With just a few second's testing, every print that leaves your lab will be of *proven* quality.

For traditional dynamic cross modulation testing:

Consider the convenient new Westrex generator/reader. It generates cross modulation and other signals needed for photographic sound testing, and can be keyed for automated use. The

reader automatically indicates calibration level and percentage cross modulation *without* manual switching.

Generator/Reader: RA-1718.
Reader alone: RA-1719



You can now greatly improve your recorder's performance. Replace its conventional electronics with new transformerless, solid state electronics from Westrex. The unique anticipatory noise reduction system at the heart of these new electronics eliminates conventional noise reduction peak-clipping. Transient response, frequency response, and signal-to-noise ratio are improved beyond anything possible with conventional systems.

Made expressly for galvanometer recorders, these units are self-contained and easily connected.

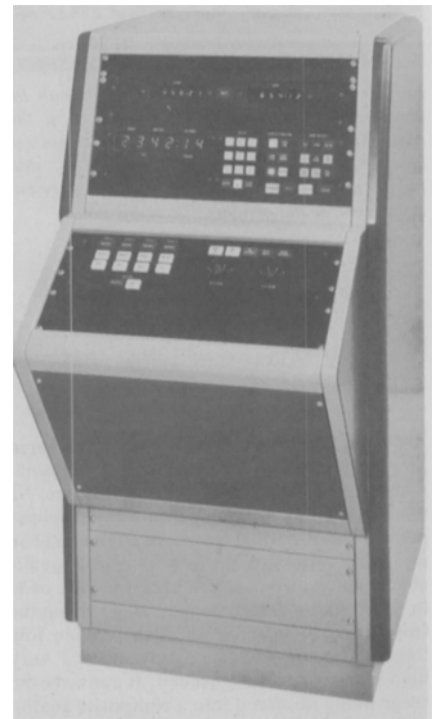
For specifications or more information on any of these products, call or write



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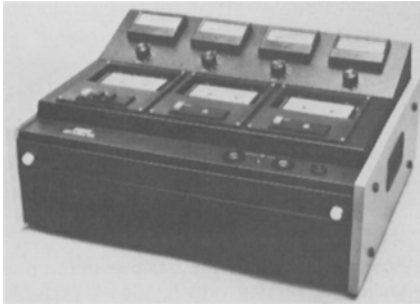
can also be accomplished via an external control voltage from a foot pedal, joystick, synthesizer, or computer device. Standard features include both balanced and unbalanced inputs and outputs, LED overload indicators, and inputs and outputs for slaving several units. Model 4000 is priced at \$695.



An automatic dialogue replacement unit (ADR) utilizing a built-in microprocessor control system has been announced for motion picture use by Wide Range Electronics Corp. (WRE), 2119 Schuetz Rd., St. Louis, MO 63141. The microprocessor control electronics in the ADR system permit WRE Corp. to tailor each unit to meet current usage requirements of individual purchasers. If original requirements change, the ADR can be reprogrammed. This flexibility is possible because the microprocessor can function as a control source and can also be controlled from a preprogrammed external source. Reprogramming can be accomplished without circuit or structural changes in the basic ADR and no down time is involved.

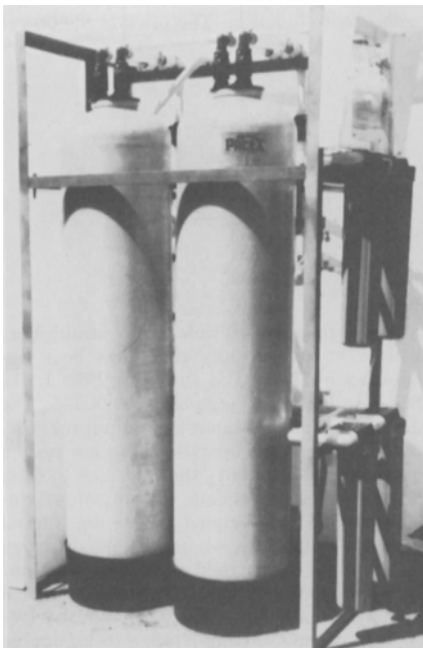
The unit has a simplified electronic entry system coordinated with displays to provide control and verification of all recording, channel selection, and playback functions. Displays monitor the film position in feet and frames; start and stop points that the unit can shuttle between; cue and record advance measured in frames; and time of day in hours, minutes, and seconds. Memory control provided by the microprocessor permits storage of up to 80 record start and stop positions between which the projection of the either 16-mm or 35-mm motion picture film and the travel of the ADR's magnetic sound film can be shuttled on any of four recording tracks in synchronization. Prices begin at \$12,000.

An audio duplicator, Model DP-4050-C2 (shown above), a compact version of the professional quality DP-4050 in-cassette audio duplicator system, was announced by Otari Corp., 1559 Industrial Rd., San Carlos, CA 94970. The system contains a cassette master and two slaves and has the capability of addi-



tional slaves in groups of three, for a total of 11 slaves all driven from one master. Features include an 8:1 duplicating speed ratio, long-life ferrite heads, flip-down panel for easy access to alignment controls, modular transport units, large easy-to-read VU meters, and duplication of all four tracks simultaneously in one pass. From two to eleven C-30 cassettes can be produced in less than two minutes, depending on the number of slaves.

The DP-4050-Z3 add-on slave unit contains three cassette slave decks. It is easily attached to the master by means of a multi-pin connector cable. The price of the DP-4050-C2 with cassette master and two slaves is \$2950, the DP-4050-Z3 is \$2750.



A water recycling system, Pacex Model 15, was announced by Pace International Corp., 3727 S. Robertson Blvd., Culver City, CA 90230. The system is used with EP2 process chemistry. It is claimed that water initially containing 5.8 ppm (parts per million) of silver and 57 ppm of thiosulfate will contain only 0.28 ppm of silver and 14 ppm of thiosulfate after the ion-exchange process has taken place. The water is then chlorinated to reduce the thiosulfate level, diluted 10% to prevent a buildup of salt, and recycled to the final wash on the processors.

The Pacex system is completely automatic, with all operation activated by water flow and water demand from the processors. The Model 15 will process up to 15 gal/min of water. About 90% of the wash water is recycled while still hot, saving water and energy and solving a sewage problem. The price of the system is \$9,950.

The difference between a film with torn perforations



and a projectable print can be a LaVeZZi VKF sprocket

LaVeZZi's new "VKF" sprockets are adding life to all 35mm film, CS CinemaScope and standard KS film, by reducing film damage caused by abnormal contact with the sprocket.

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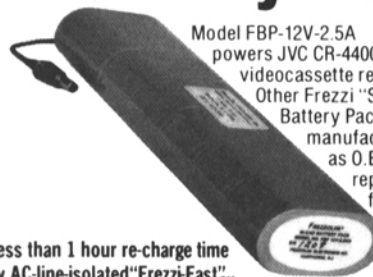
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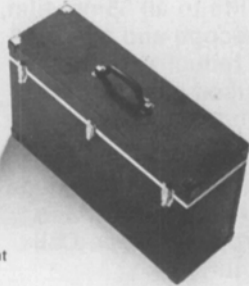
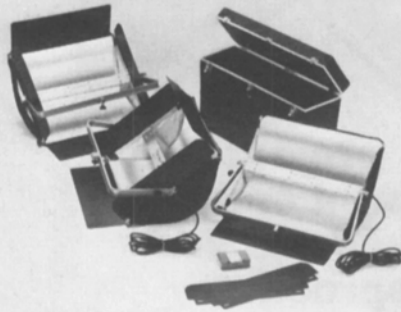
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An open and shut case



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3 Kit,
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Performance is crucial. But well designed location equipment must also take portability into account. Example: a softlight, by its very nature, must be large. The bigger the source, the softer the light...and generally, the bigger the problem transporting it.

Our softlight is large. Yet our softlight is easily transported. It's designed to fold in half; almost flat. It weighs far less than ordinary units, yet has a higher foot-candle-to-watt ratio. And three units fit in one case.

Another example of truly functional design is the big Lowel sun reflector—Variflector II. It has flood control, a washable surface, and rolls up to a fraction of its in use size.

With these and other Lowel systems you never have to choose between portability and performance.

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For equipment see an authorized Lowel dealer. For brochures contact us. Lowel-Light Manufacturing Inc. 421 West 54th St., New York, N.Y. 10019 (212) 245-6744. West Coast: 3407 W. Olive Ave., Burbank, Calif. 91505 (213) 846-7740.

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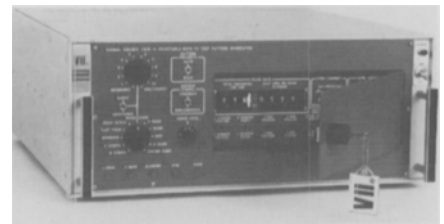


The Brumicro series of microprocessor-enhanced densitometers has been announced by Brumac Industries, 5261 Business Dr., Huntington Beach, CA 92649. The Brumicro models feature a triple digital readout and 16 pushbutton functions including density; expanded density to 1.999; scan for maximum, minimum, and density difference; null; calibrate; color balance; gamma; automatic or individual selection and rotation of filters; entry of master aim point densities into multiple memories allowing sequenced displays of color error and color balance; and combination models featuring T and R keys for immediate selection of the transmission or reflection mode. Functions requiring more than one step are aided by prompting messages appearing in the display. Lighted keys and other indicators lights define the exact instrument activity at every moment. Model PR-reflection is priced at \$2995. Models PT-transmission and PTR-combination are priced slightly higher.



A function generator, Model LFG-1300S, providing a wide range of signal generator capabilities, has been announced by Leader Instruments Corp., 380 Oser Ave., Hauppauge, L.I., NY 11787. The unit covers frequencies of 0.002 to 2 MHz in eight ranges and includes linear and logarithmic sweep modes with sweep widths up to 1000:1 and sweep rates of 0.5 to 50 Hz. The generator output frequency may also be varied by an external 0 to 10 V signal. Waveform outputs include sine, triangle, sawtooth, and pulses. The symmetry of the pulse output is variable from 9:1 to 1:9. In the pulse mode, adjustments of pulse width do not change the pulse repetition rate. Output level is continuously variable from 0 to 20-V p-p (50 load) and a pushbutton attenuator provides up to 70-dB attenuation in 10-dB steps. The LFG-1300S is priced at \$495.

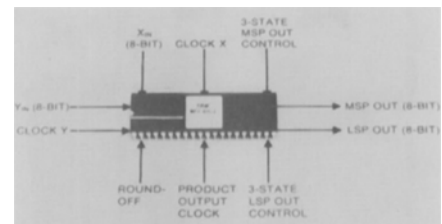
Signal sources 1205, 1206, and 1208 are selectable scan rate test pattern generators announced by Visual Information Institute, Inc., P.O. Box 33, Xenia, OH 45385. The generators allow rapid switching from one scan rate to another without instrument recalibration and can operate at virtually any scan rate interlaced or noninterlaced. Signal source 1205 provides television format display testing of high performance monochrome



systems. It contains the basic patterns plus signal conditioning which allows performance evaluation under subtle variations. It is priced at \$9200.

Signal source 1206 provides television format display testing, RGB or monochrome, at any scan rate. It includes an internal sync generator with thumbwheel selection of scan rate plus other functions in addition to the basic patterns. The price is \$9950.

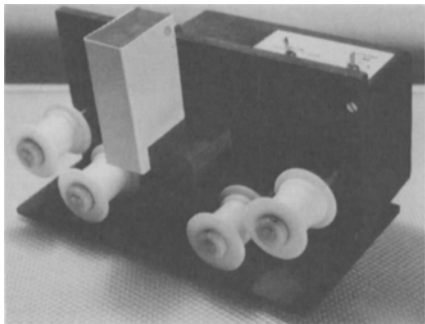
Signal source 1208 (shown above) contains a complete set of basic patterns electronically generated for all types of television testing. High levels of performance to 1000 television lines at various scan rates is provided for monochrome and with a color bar option, RGB systems as well. A built-in selectable scan rate sync generator permits instant selection of scan rate. The selector and calibration controls may be secured behind a lockable front panel door to prevent unauthorized alteration. The price is \$5600.



An unsigned magnitude TTL multiplier, with a 45 ns multiply time, has been announced by TRW LSI Products 2525 E. El Segundo Blvd., El Segundo, CA 90245. The device has on-chip input and output registers designed to speed operation, reduce system overhead, and simplify the interface to 8-bit microprocessor systems. Applications include digital video signal processing, digital filtering, and others, where it is an advantage to operate with unsigned magnitude notation. Designated the MPY-8HJ, the device is a high speed TTL parallel multiplier that accepts 8-bit inputs and provides a 16-bit double precision product. A single +5-V power supply is required. The MPY-8HJ is priced at \$48 each in quantities of 100.



A Barco 20-channel television demodulator has been announced by E & O Systems Ltd., 2998 Scott Blvd., Santa Clara, CA 95050. The demodulator, designated the AVD-33, can be used as a separate unit or in combination with the CM-33 ENG/EFP mobile monitor. The digital tuning system uses the latest voltage synthesis techniques, offers a 20-channel memory, and is designed for broadcast and closed circuit television applications. The price is \$950.



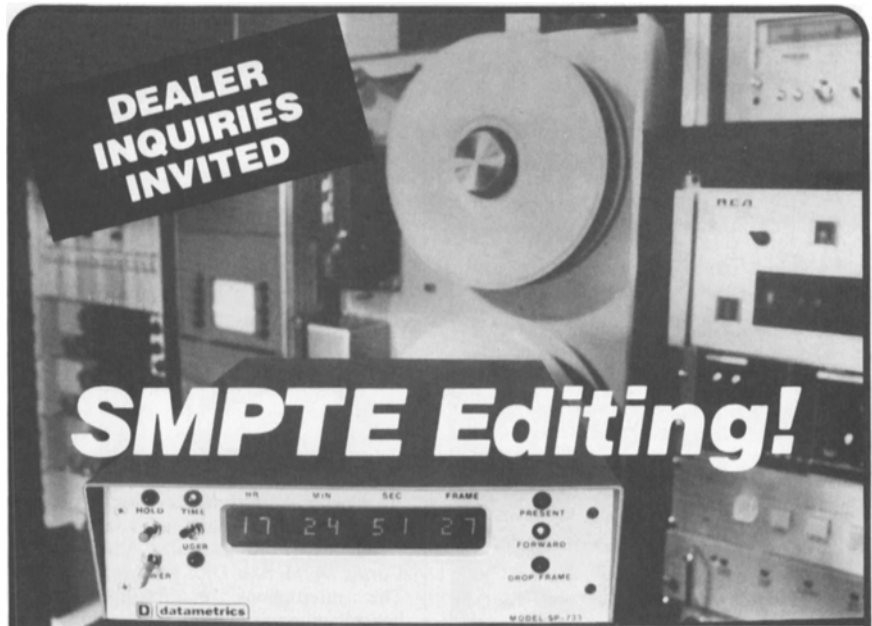
An edge printer, combining a microprocessor and an optical printer for the production of up to 200 characters repeated at whatever interval desired, was announced by Evergreen Film Service, 1416 W. Seventh Ave., P.O. Box 2714, Eugene, OR 97402. The machine can expose a company's name and message desired on the edge of 16-mm or 35-mm film. With the addition of some thumbwheel switches and circuitry, a date may be printed on the message. Another option displays the total 35-mm footage, total 16-mm footage, and a roll count of 16-mm and 35-mm rolls passing through the unit. The footage counters may be reset at any time up to 999,999 ft. Footage counting is particularly useful in the laboratory estimating recoverable silver in a process.

The unit is designed to mount on the head of a film processing machine or on a workbench between two rewinds. Counting and printing occur automatically as film advances. Nothing contacts the film except the film rollers. Color negative may be exposed at speeds in excess of 100 ft/min. The prices are \$4700 for edge printer for both 16-mm and 35-mm film, \$2800 for edge printer for one size film, \$1200 for optional footage and roll counting, and \$950 for adding current date to message.



A spectroradiometer, the PR 1980B Pritchard[®], was announced by Photo Research, Division of Kollmorgen Corp., 3000 N. Hollywood Way, Burbank, CA 91505. It uses the Hewlett Packard 9825 desktop computer with its interactive capability tailored for applications demanding fast, simple, and accurate spectroradiometric analysis. Special function keys on the HP 9825 are used to activate a number of subroutines, including Plot, Store, Difference, Ratio (of acquired spectral data), and CIE LUV values. The PR 1980B evolved from the PR 1980A Pritchard photometers and can be operated as a photometer if the need arises.

The PR 1980B operates over the range of 370 to 730 nm with a selectable spectral bandwidth of 1, 5, or 10 nm. Wavelength accuracy is ± 1 nm and repeatability is ± 0.5 nm. Measuring capability includes spectral radiance



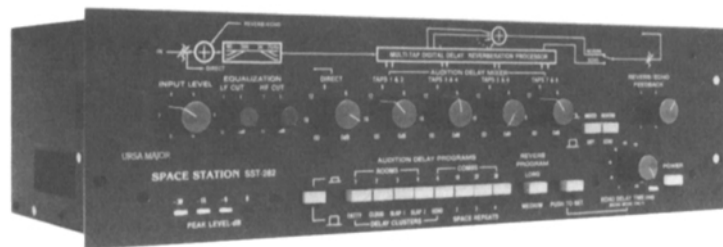
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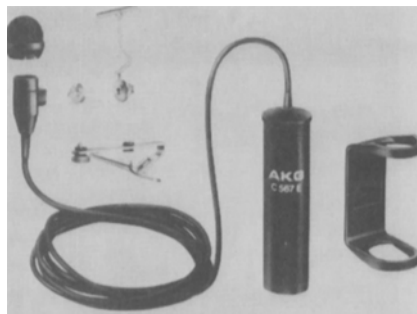


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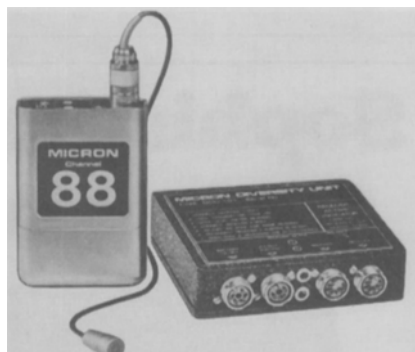
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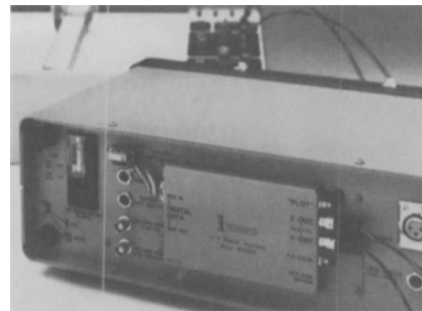
and irradiance, integrated radiance, photon radiance, spectrally computed photopic and scotopic luminance, illuminance CIE colorimetric values, and others. The price of the spectroradiometer is approximately \$28,000.



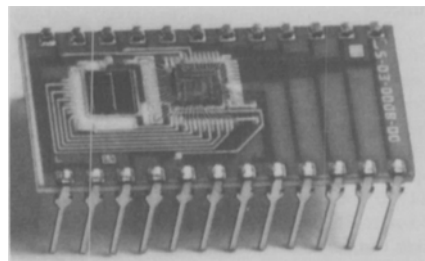
An electret-condenser lavalier microphone, the C-567, has been announced by AKG Acoustics, Philips Audio Visual Systems Corp., 91 McKee Dr., Mahwah, NJ 07430. The microphone is designed for inconspicuous use in applications such as television news and interviews, motion picture work where it can be concealed, and other applications where inconspicuousness without loss of level is desirable. No battery compartment is provided in the C-567. Instead the microphone may be phantom powered from the mixer or recorder to which it is connected. It may also be powered by any of the AKG external ac or battery-operated phantom power supplies. Price of the C-567 is about \$195.



The Mobile Diversity System, designed to update the Micron 100 series wireless microphone system, has been announced by Micron Audio Products, 210 Westlake Dr., Valhalla, NY 10595. The system has been built up from separate units to give the greatest possible flexibility in use. The receivers are powered from a battery unit, a dc power supply, or from most recorders via a combining unit. The combining unit is the heart of the diversity system. It can be used with any pair of Micron MR1 receivers tuned to the same frequency. It compares the signal strength voltages from each receiver. If the voltages are nearly equal, it combines the audio outputs of both receivers in a buffer amplifier giving an SNR advantage for weak RF signals. If one of the signals is significantly weaker than the other, the combining unit rejects the audio output of that receiver. A buffered output of the best signal strength voltage is provided for connection to another combining unit for multi-way diversity. Price of the Micron Diversity System complete with a transmitter, mobile receivers, antennas, connectors, cables, combining unit, battery pack, and carrying case is \$4150.



An X-Y plotter interface, for the Model 500 acoustic analyzer, has been announced by In-voics, Inc., 503-B Vandell Way, Campbell, CA 95008. Designed to make it possible to connect Model 500 to any x-y plotter with 2-V dc full-scale input sensitivity, it can be used for equipment calibration, music analysis, noise surveys, and architectural acoustic studies. With the x-y plotter interface, data from real and reverberation time analyses can be printed immediately when ac power is available for the plotter. For battery powered field operations, the data can be stored temporarily in either of the two Model 500 memories for printout at a later time. The interface weighs only 6 oz. The price is \$290.



A microcircuit D/A converter, providing 16-bit resolution accuracy, has been announced by Hybrid Systems Corp., Corsby Dr., Bedford, MA 01730. A two-chip device, the device consists of a proprietary monolithic chip which contains switches, input storage registers, and additional electronics. The second chip is a thin-film resistor network which uses dynamic laser trimming to achieve resistor accuracy and stability. Microprocessor data bus interface is simplified by the two 8-bit segment construction of the input storage registers. The price is \$169 or \$99 in quantities of 100.



A 650-MHz benchtop frequency counter, Model 6001 has been announced by Continental Specialties Corp., 70 Fulton Terrace, New Haven, CT 06509. The device measures frequency from 5 Hz through 650 MHz. It features flexibility as a general purpose laboratory and test bench frequency counter. Two inputs are provided through front panel BNC connectors, the A input, used for signals from 5 Hz through 100 MHz offering 1 M Ω + 10 pF input impedance, and the B input, used for signals from 50 MHz to over 650 MHz offering 50 Ω input impedance and fuse protection. Both inputs offer TTL compatibility. Model 6001 is priced at about \$385.