

D/A UNIT CONTAINS TRUE MAGNITUDE/SIGN CIRCUITRY

Controlled monotonic transition between levels ($<\pm 5$ mV) combined with freedom from glitches and overshoots ($<\pm 5$ mV) makes the Model 4001 high-speed, high-resolution 14-bit D/A converter a good choice for applications in test and display systems. True magnitude and sign circuitry provides accuracy, linearity, and stability for small signals around zero, plus improved settling (less than 20 μ sec to ± 1 LSB) and freedom from glitches for transitions around zero. A $<\pm 0.005\%/V$ typ. PSRR eliminates the need to readjust a system for changes in the ± 15 V power supplies. Unit measures 4.85" x 1" high and prices at \$895 in 1-9 quantities or \$805 in 10-24 quantities. Teledyne Philbrick Nexus, Allied Dr., Dedham, MA 02026. **Circle 213**

INTERCOUPLER PROVIDES DIRECT-ENTRY OUTPUT FORMAT

This coupler converts digital BCD input of up to 16 bits into an ASCII format directly suitable for an ASR 33 teletypewriter. The Auto-Pro 3109 intercoupler provides output in a direct-entry format for most data processors, including timesharing. Two types of operational controls come with the unit: direct from front-panel pushbuttons; and remote through external contact closures to ground. Functions controlled by front panel pushbuttons can also be operated from a remote location. The 3109's operational and set-up controls provide flexible operation through initiation of data transfer and recording; selection of number of reading (1, 3, 10, or continuous); recording of 2-digit sample number for series identification of data lines; and selection of interval between successive readings. Automation Products Activity, Beckman Instruments, Inc., 2500 Harbor Blvd., Fullerton, CA 92634, 714-871-4848. **Circle 127**

MEMORY SYSTEM SPINDLES

Noise-tested spindles for random access memory storage systems include spindles for fixed disk, removable disk, fixed-removable combinations and multiple disk packs. All spindles meet reliability and performance requirements of the industry and the company claims they are the only noise-tested spindles available on the market. MPB Corp., Precision Park, Keene, NH 03431, 603-352-0310. **Circle 128**

HYBRID ALPHA CODER

These two alpha coders are hybrid decoder/drivers for segmented displays. The FTD-1007 decodes 64 ASCII-based characters, while the FTD-1007A produces 32 characters, including A-Z. Both TTL circuits come in standard 24-pin dual in-line packages, utilizing 0.100" pin spacing. Circuits, designed for use with 16-segment displays, feature 5 V and 25 mA segment drive capability suitable for incandescent and LED-type displays. Prices (single quantity): \$69 for the FTD-1007 and \$34.50 for the FTD-1007A. Fabri-Tek Micro-Systems, Inc., 1150 N. W. 70th St., Fort Lauderdale, FL 33309, 305-933-9351. **Circle 141**

PRINTER PRICES AT \$790

A low-priced printer, the PR-2000, ideally serves as a hard copy for CRT display system. Its characteristics include: upper and lower case letter capability; 10 char/sec; an Olivetti Praxis 48 typewriter; 120 columns; takes any type of paper, z-fold, roll etc; quiet operation, and prices at \$790 (1-9 quantity). Unicom Inc., 1275 Bloomfield Ave., Fairfield, NJ 07006, 201-123-1123. **Circle 121**

DIGITAL MULTIMETER ACCURATE TO $\pm 1\%FS \pm 1$ DIGIT

Designated Model 304A, this digital multimeter retains all the widely-accepted features of the Model 340, such as automatic zero adjustment and constant high input impedance. New characteristics include fast response, high ac stability, easy accessibility, flexibility in power choices and better reliability. Full scale response is less than 1 sec. The meter also gives 60 dB normal mode rejection at 60 Hz, and 100 dB common mode rejection. All circuitry mounts on easily accessible plug-in circuit boards. The power supply operates on any frequency from 50 to 400 Hz, and the meter comes for either 115 V ac or 230 V ac operation. The compact multimeter (6"W x 9"L x 5-1/2"H) weighs just 3 lbs. One probe takes care of all measurement functions. High-visibility display consists of 3 plug-in Nixie tubes plus a neon "1" and minus sign. Range key automatically programs decimal points. Full-scale ranges include: 1-1000 V ac and dc; 1000 ohms to 10 megohms; and 100 μ A to 1A, ac and dc. Digilin Inc., 1007 Air Way, Glendale, CA 91201, 213-240-1200. **Circle 124**

SENSE AMPLIFIER IC READS 3 mV SIGNALS

Four-channel sense amplifiers for plated-wire memory systems, the "NE528B" monolithic integrated circuit reads small signals and translates them to TTL logic levels. Propagation delay is 20 nsec. Three TTL inputs, one of which is capable of totally disabling the input circuits, select input channels. Maximum differential input threshold voltage is ± 3 mV. Bias current is 15 μ A, and input resistance is 2000 ohms. Output, compatible with TTL has a passive "pull-up" which permits the amplifier to be used in the "wired-OR" configuration. Output is capable of sinking 16 mA. For operation, amplifier requires a power supply capable of furnishing +5 V, -6 V at a maximum power level of 270 mW. Signetics Corp., 811 E. Arques Ave., Sunnyvale, CA 94086, 408-739-7700. **Circle 134**

TERMINAL STORES VIDEO DIGITAL OR ANALOG DATA

Low-cost interactive computer graphics terminal, PEP-801, utilizes the Lithocon® silicon storage tube as a refresh memory. It sells for approximately \$7000 for single units with OEM quality discounts. Additional features include: high-density alphanumeric (as many as 6000 characters on a 14" screen), an electronic zoom available at the terminal with no need for computer tie-up or reprogramming, simultaneous display of stored and non-stored full gray scale video image obtained from a video cable or other source, selective editing of characters or vectors (1 part in 1029), high resolution vectors (710,000 vector inches), long image retention (greater than 15 minutes), high brightness displays and ability to refresh additional slave terminals. You can obtain hard copy by outputting the data stored in the PEP-801 to many of today's high-speed digital data printers. The PEP-801 operates with standard USACII code. Princeton Electronic Products, Inc., New Brunswick, NJ 08901. **Circle 120**

REED KEYBOARD SWITCH

Square design of front-mount S820 Key-logic switch permits perfect keytop alignment by mounting in a square cutout made by a standard 1/2" punch. Compact design allows high-density arrangement on 5/8" centers. Switch has been test-cycled in excess of 50 million trouble-free operations at logic levels. Standard options include: 1 or 2 Form A circuit; snap-in or cam lock mounting; 11° angled plunger for stepped keyboard applications and longer terminals for wire wrap production methods. Large keytop selection provides choice of 9 styles (including a changeable legend keytop), double shot or engraved legends, 7 colors and lighted version. Lamps for lighted models come in 5, 12 or 28 V dc. Clare-Pendar Co., P.O. Box 785, Post Falls, ID 83854, 208-773-4541. **Circle 214**