PRINTOUT

JOSEPH B. SIDOWSKI
University of South Florida

PRODUCTS

dc Micromotors

The 28 PL series measures only 28 mm in diam. Typical no-load speed is 5,000 rpm with a range of stall torques up to 8 oz.-in. Unloaded mechanical time constants range from 13 to 17 msec.

Portescap U. S.
730 Fifth Avenue
New York, NY 10019

Solid-State Relays

Model ERD uses a fast-acting, dc voltage sensing circuit and has independently adjustable differential levels. Model ERT provides time-delayed operation on either make or break. Both make voltage and differential are independently adjustable. Nominal voltage of the relays is 6-250 V dc. Maximum reset time is 50 msec; ac models are available.

LaMarche Mfg. Co.
106 Bradrock Dr.
Des Plaines, IL 60018

Interfaces

Interface system Model 103D connects NOVA computers to Pertec reel-to-reel mag tape recorders. The interface uses programmed I/O transfers rather than the data channel (DMA) and occupies one card slot in the NOVA. Software performs the formatting. Special connectors plug directly into NOVA. Cost: \$900.

Rela Designs, Inc.
1322 Arapahoe
Boulder, CO 80302

Core Memory for PDP-11

The D series is a 16-K word (16 bit) core memory fully compatible with DEC's PDP-11 series of minis. This series occupies two connector slots and can plug into an existing compatible mini. Cost: \$3,150.

Keronix, Inc.
1752 Cloverfield Blvd.
Santa Monica, CA 90404

Portable Terminal

A switchable APL/ASCII option for the Model 265

portable KSR terminal gives the user the choice of either full APL graphics or complete upper/lower case standard ASCII characters. Prices start at \$2,895.

Data Dimensions, Inc.
51 Weaver St.
Greenwich, CT 06830

Cardiominiscope

The Cardiominiscope is said to be the smallest cordless portable battery-operated electrocardioscope with integrated electrodes for instant diagnosis. ECG is displayed in 5 sec by merely placing the unit on the subject's chest. After a starter button is pressed, the Cardiominiscope operates for 1 min and then automatically turns off. Weight: 1¾ lbs. Measurements: 7 x 4½ x 2 in.

S.B.E., Attn. D. Renz
One World Trade Center
Suite 5347
New York, NY 10048

Cardiac Telemetry

Cardiac telemetry systems provide battery life of more than 10 days continuous operation from a single 1.3-V mercury battery, high transmitter input impedance, and normal frequency response of .3 Hz to 27 Hz. Stable ECG signal transmission is reportedly assured even in an electrically noisy environment due to crystal-controlled FM/Pulsed AM transmission mode. Transmission up to 30 m indoors is possible. Any of up to 12 subjects can be monitored by rotary switch operation.

Nihon Kohden Kogyo Co., Ltd.
1-31-4 Nishiociai, Shin jukuku
Tokyo, 161, Japan

Alphanumeric Printers

Each model of the 7,000 series has multi-copy capability, 40 column capacity, and ability to print large characters of variable density and shape, under software control. Cost: from \$50 to \$97 (OEM quantities).

LRC, Inc.
Riverton, WY 82501

Mini Controller System

The MC-44 Minicomputer Controller System

incorporates 4040 processor, keyboard display, cassette tape interface, 12 TTL I/O ports, 6 input flags, 512 x 8 RAM. Resident "Editor" routine simplifies program entry/debugging: includes keyboard/display/tape subroutines, etc. RAM/PROM expansion to 2.5 k without additional cards. Assembled cost: \$395.

Programmed Control System
Box 54
Evanston, IL 60204

Biofeedback
EMG, EEG, kits or assembled.

EDC
P. O. Box 9161 E
Berkeley, CA 94704

Micro Mini Mike

Solid state mike picks up and transmits without wires through FM radio up to about 300 ft. Size: $2\frac{1}{4} \times \frac{3}{4} \times \frac{1}{2}$ in. Price: \$14.95 plus \$.50 postage.

AMC Sales Dept.
Box 928
Downey, CA 90241

Frequency Counter Kit

The Hufco frequency counter kit costs \$69.95. Characteristics: 6 digits, 100-Hz readout, 1-Hz option 9.95, to 20 MHz, crystal timebase.

Hufco
P. O. Box 357
Provo, UT 84601

Plasma Display

Model 12,000 is a new addition to the Magnavox Plasma Display Graphics Terminal line. It incorporates microprocessor technology in combination with the natural graphics medium of the plasma panel. Complete selective write and erase of each dot. Communications interface is standard RS-232C with ASCII format. Options include APL character set, extended ASCII characters, space overwrite latch, variable writing modes, variable character size, and addressable cursor. Supporting software is in FORTRAN. Price: \$8,500.

The Magnavox Co.
2131 South Coliseum Blvd.
Fort Wayne, IN 46803

Graphics

The 4411 Graphic Video Generator is for the DEC PDP-11 series at a cost of \$2,750. The 4416 is for the

HP-2100 series at \$2,500. Characteristics: Single PC card plugs into CPU, TV refresh from 4k RAMs, color/gray scale using multiple cards.

Intermedia Systems
10601 S. Saratoga-Sunnyvale Rd.
Cupertino, CA 95014

Pellet Press

The PARR 2811 is a pellet press that enables the user to make pellets, tablets, or wafers. Produces pellets quickly in any of six different diameters up to $\frac{1}{2}$ in. maximum using interchangeable punch and die sets.

Parr Instruments Co.
Moline, IL 61265

Microprocessor Familiarizer

The 6502 Familiarizer is a microcomputer with a keyboard and display, all on a single printed circuit board, designed to give the beginner "hands on" experience with a microprocessor. A monitor program included in PROM memory enables you to load, run, debug, and modify programs using the on-board keyboard and hexadecimal display. Breakpoints can be entered anywhere in your program and can be used to display internal registers or branch to a separate routine. The system is designed around the MOS Technology 6502 microprocessor and includes 1k bytes of RAM, 256 bytes of PROM, one 8-bit input port and one 8-bit output port. Provision is made for three additional 1702A PROMs (768 bytes). Add on memory and interface cards will be available soon.

The kit comes complete. You need to add a power supply (+5 V at 1.2 A and -9 V at 50 mA). Cost: \$229. Power supply costs \$58.

EBKA Industries, Inc.
6920 Melrose Lane
Oklahoma City, OK 73127

Voice Entry of Data

The Threshold 500 replaces or complements intelligent CRT stations by enabling the user to enter data by voice. Output of each Threshold terminal is in the same format and code as that of a standard keyboard terminal. Data are displayed for verification by the operator before entry. Price: \$10,500.

Threshold Technology, Inc.
1829 Underwood Blvd.
Delran, NJ 08075

Remote Controlled Cassette Tape Transport

The Phi-Deck remote controlled cassette tape transport is advertised for under \$100. Features: 4 motor reliability, quick head exchange, program-

mable logic, no tape coasting, and lower power (ac or battery).

Phi-Deck
The Economy Co.
111 Division
Oklahoma City, OK 73125

Cordless Tape Winder

A cordless tape winder is available at \$39.00; an accessory snap-on half reel, which prevents spillage with extra long tape, costs an additional \$4.50. The unit is lightweight (1 lb) and battery powered. It winds up a yard of tape per second.

Putnam Valley Scientific
538-C Canopus Hollow Rd.
Putnam Valley, NY 10579

Miniature Printer

Model DPP-7 digital panel meter is a miniature unit that prints up to seven columns of BCD input data. The unit measures 5.25 in. wide by 2.82 in. high and weighs 2.3 lb. An electronic thermal printhead operates at three lines per second. Two parts are used to advance the paper, a linear solenoid and a rotary clutch. Price: \$475.

Datel Systems, Inc.
1020 Turnpike St.
Canton, ME 02121

Mini-Cartridge

3M engineers worked with Hewlett Packard to produce a shirt-pocket cartridge that performs like the larger 3M DC-300-A, though only one-third the size. The cartridge contains 140 ft of tape .15 in. wide and can record more than 100,000 bytes on one track. The cartridge measures 3 x 2½ x ½ in. and records at a density of 800 bpi and has a transfer rate of 8,000 bits/second at a tape speed of 10 in./second.

Hewlett-Packard
1501 Page Mill Rd.
Palo Alto, CA 94304

Solid State Counter

The PC-4 solid state panel meter sized event counter totalizes input pulses to 20,000 events from any pulse source that has a +2- to +15-V signal amplitude at rates to 200,000/second. Also, a contact closure to a positive voltage may be used to count at rates to 3 kHz. The package measures 1 in. high x 2½ in. wide x 3½ in. deep. Price: \$49.50.

Non-Linear Systems, Inc.
P. O. Box N
Del Mar, CA 92014

Miniaturized EEG

The REEGA SIMPLI VIII TR has eight channels for EEG (excursion 25 mm) and one marking channel. Overall size is 39 x 20 x 18 cm, and the weight is 12 kg; eight amplifiers, sensitivity 10 mm/10 microV.

Nona Electroencephalographic Sales
1201 Flushing Road
Flint, MI 48504

Lease ASR-33

The ASR-33 can be leased for \$35 per month. The two-year lease is on the 10-cps Teletype with paper tape I/O and keyboard.

American Used Computer Corp.
P. O. Box 88, Kenmore Station
Boston, MA 02215

Solid State Programming Systems

Lafayette is marketing Solid State Programming Systems that are computer compatible 5V TTL. Brochures and information are available from Lafayette Instrument Co., P. O. Box 1279, Lafayette, IN 47902.

Physiological Signals

Med Associates advertises a number of modules useful in handling data obtained in neurophysiological recordings. Specific information may be obtained from Med Associates, Inc., Box 47, East Fairfield, Vermont 05448.

Presetable 8-Bit Up-Down Counter

The S41-28 is an 8-bit counter with up and down counting capabilities and features eight preset inputs that may be used to load an 8-bit number into the unit.

Coulbourn Instruments, Inc.
Box 2551
Lehigh Valley, PA 18001

Psychophysics

McGraw-Hill advertises a psychophysics kit that contains one reel of audio tape lasting 80 min, with two color leaders for program breaks on a 7-in. reel, and six overhead transparencies with 12 overlap.

College Division
McGraw-Hill Book Co.
1221 Avenue of the Americas
New York, NY 10020

JOLT

JOLT is a microcomputer with an on-board DEMON monitor. The brochures state that "you can

build it, plug it in, and talk to it in 3 h or less," all for \$249. The basic JOLT card includes an 8-bit MOS Technology Model 6502 CPU, that requires no clock, can directly address 65k of memory, has two index registers, 58 instructions with 11 addressing modes, two interrupts and includes both single step and address halt capability.

Microcomputer Associates, Inc.
Dept. D
111 Main St.
Los Altos, CA 94022

Micro-68 Computer at \$430

The Micro-68 computer uses a hexadecimal keyboard for data entry and six seven-segment LEDs as numeric output display. The unit is composed of a 6.800 μ P, four PROMs, two PIAs, and 1k of RAM on a single board along with power supply, keyboard, and LEDs.

Electronic Product Associates, Inc.
1157 Vega St.
San Diego, CA 92110

Miniature Noise Level Indicator

The SIPIN/DIODE miniature noise level indicator weighs 160 g and has approximately the same dimensions as a cigarette pack. Measuring range is 40-120 dB, reaction time is .2 sec, and the microphone is electret. The unit is powered by a 9-V battery.

Anatole J. Sipin Co.
425 Park Ave. South
New York, NY 10016

Used Computers

Recent NCE prices of computers are as follows: NOVA 1200, 16k, power monitor and auto restart, and API at \$5,250; PDP-8/E with 4k \$3,800 new or \$3,400 used; PDP-8/E with 16k \$5,200 new or \$4,700 used; Micro 810 4k at \$1,500; Varian 620i with 4k, \$1,500; PDP 11/05 with 4k CPU at \$2,300; PDP 11/20 with 4k CPU at \$3,400; and PDP-8I with 4k CPU at \$1,500.

Newman Computer Exchange
2960 Varsity Drive
Ann Arbor, MI 48104

Microprocessors

Microprocessor companies are listed below:

Advanced Micro Devices, 901 Thompson Pl.,
Sunnyvale, CA 94086
American Microsystems, Inc., 3800 Homestead Rd.,
Santa Clara, CA 95051

Electronic Arrays, Inc., 550 Middlefield Rd.,
Mt. View, CA 94043
EM&M SEMI, 3883 N. 28th Ave., Phoenix,
AZ 85017
Fairchild Semiconductor, 464 Ellis St., Mt. View,
CA 94040
General Instrument Corp., 600 W. John St.,
Hicksville, NY 11802
Harris Semiconductor, Box 883, Melbourne, FL 32901
Intel Corp., 3065 Bowers Ave., Santa Clara,
CA 95051
Intersil, Inc., 10900 N. Tantau Ave., Cupertino,
CA 95014
Monolithic Memories, Inc., 1165 E. Arques Ave.,
Sunnyvale, CA 94086
MOS Technology, Inc., 950 Rittenhouse Rd.,
Norristown, PA 19401
Mostek, 1215 W. Crosby Rd., Carrollton, TX 75006
Motorola Semiconductor Products Div., 5005 E.
McDowell Rd., Phoenix, AZ 85008
National Semiconductor Corp., 2900 Semiconductor
Dr., Santa Clara, CA 95051
NEC Microcomputers, Inc., 5 Militia Dr.,
Lexington, MA 02173
Raytheon Semiconductor Div., 350 Ellis St.,
Mt. View, CA 94042
RCA Solid State Div., Route 202, Somerville,
NJ 08876
Rockwell International, 3310 Miraloma Ave.,
Anaheim, CA 92803
Scientific Micro Systems, 520 Clyde Ave., Mt. View,
CA 94043
Signetics, 811 E. Arques Ave., Sunnyvale, CA 94086
Solid State Scientific, Inc., Montgomeryville,
PA 18936
Synertek Corp., 11810 Parklawn Dr., Rockville,
MD 20852
Texas Instruments, Inc., Houston, TX 77001
Transitron Electronic Corp., 168 Albion St.,
Wakefield, MA 01880
Western Digital Corp., 19242 Red Hill Ave.,
Newport Beach, CA 92663

BRIEFS

Behavioral Handbook

Grason-Stadler recently revised and reprinted the Behavioral Handbook. Theories of operation for various electromechanical modules are discussed and basic circuits used in programming described.

Grason-Stadler, Inc.
Main Street
P. O. Box 27
Bolton, MA 01740

Interface

On-Line Instrument Systems of Athens, GA, is

marketing the OLIS 3600 General Purpose Interface for Data General Nova Computers. This research-oriented interface features a 16-channel A/D converter with sample-hold, and six D/A converters for instrument control and data display. The unit also includes a full-function programmable clock and interval timer, parallel/serial digital input registers and external event sensor circuitry. Software is available for signal averaging and pulse height analysis.

New CPU

Harris Computation systems' SLASH 7 real-time computer will vie for upper end of the midi market with systems such as the Interdata 8/32, Modcomp IV, SEL 55, Eclipse S-300, and the PDP-11/70. The asynchronous CPU with instruction prefetch and interleaved core memory is advertised as providing an effective cycle time of 425 nsec. Operating systems include resident (ROS), tape (TOS), disk (DOS), and disk monitor (DMS). Slash 7 CPU with 32k core memory is priced at approximately \$45,000.

Electronically Programmable Shutters

Electronically programmable optical and laser shutters are available from A. Vincent Associates, 1255 University Ave., Rochester, NY 14607.

Color Graphics Display Driver

Ann Arbor Terminals, Inc. (Ann Arbor, Michigan) is marketing the S105 for use in systems requiring the display of graphics data in B/W or color, where high-speed response, silent operation, visual cuing and remoteability are considerations. Up to 1920 alphanumeric characters may be displayed in 80 char x 24 line format. Visual accents include blink, dual intensity, and reverse video. Price: \$1,490.

Distortion-Free 3-D Viewing

RCA of Moorestown, New Jersey, has developed a 3-D TV system that permits distortion-free wide-angle viewing. The system employs a standard cockpit CRT and special goggles, built using electrically controllable optical filters (PLZT) and appropriate analyzers. The PLZT filters are actuated alternately by a power control unit that is in synchronization with the displayed video, providing each eye with a separate image. The system leaves the viewer with the impression of continuous three-dimensional screen image exposure for each eye by alternately blocking the view of each eye in rapid succession and electronically switching between the two TV cameras. Also, the viewer can look away from the TV display to perform other functions without suffering distortion of vision. The optically neutral PLZT filter can be used to reproduce both color and monochrome stereoscopic images.

Digital Stop Clock

The January 1976 issue of *Popular Electronics* describes a digital stop clock for short and long event timing (.1-sec intervals to 10 h). Schematic and parts list are provided. The complete kit of parts, including cabinet, hardware, etc., No. DCS-1K is available for \$74.95 plus \$2 shipping from Caringella Electronics, Inc., P. O. Box 727, Upland, CA 91786.

Gov't Surplus

Counter-6 digit, 115-V ac capable of counting 600 pulses per minute at a cost of \$4.97; 24-V dc, 6-digit counter, \$3.97. Catalog available for \$.25.

Surplus Center

PE-16

Lincoln, NE 68501

Suppliers of Solid State Items

International Electronics Unlimited, P. O. Box 1708, Monterey, CA 93940; S. D. Sales Co., P. O. Box 28810, Dallas, TX 75228; James, P. O. Box 822, Belmont, CA 94002; Digi-Key Corp., P. O. Box 677, Thief River Falls, MN 56701; IMS Associates, Inc., 1922 Republic Ave., San Leandro, CA 94577; ADVA Electronics, Box 4181 BE, Woodside, CA 94062.

SRI Microcomputer

The SRI microcomputer is available at \$575, advertised as an introductory offer. The system includes TTY and RS-232 interfaces. Connects to any 20MA loop Teletype. Contains 1k (word) RAM, expandable PROM, power supply and extra main board connectors to accept options. The SRI-500 series is designed around the MOSTEK F-8 8-bit processor. Options: 510 keyboard at \$125, 520 video interface at \$175, and 530 cassette interface at \$75.

Systems Research, Inc.

P. O. Box 151280

Salt Lake City, UT 84115

New Microprocessor

RCA (Solid State Division, Box 3200, Somerville, New Jersey 08876) has a new microprocessor family featuring CMOS technology. Included are the CDP 1801 CMOS 8-bit microprocessor, a Microkit hardware support kit, microprocessor manuals, and software development packages. Characteristics include low power requirements and broad supply-voltage tolerance (3-5-V dc unregulated). The full voltage version is priced at \$56 each; a 5-V version is \$40.

Coulbourn Instruments Module

The Presettable 8-bit Up-Down Counter-S41-28 is an 8-bit binary with up and down counting

capabilities that feature eight preset inputs that may be used to load an 8-bit number into the unit. Any eight-bit code may be input without affecting the number currently in the register, or the up or down counting operations until a load command is applied.

Coulbourn Instruments, Inc.
Box 2551
Lehigh Valley, PA 18001

Solid State Voice System

Master Specialties Company has achieved a technique for digitizing and storing whole words in Metal Oxide Semiconductor (MOS) Read-Only Memories (ROM). By analyzing plotted audio waveforms, MSC has developed a method for converting the analog audio signal of a word into a digital signal requiring minimal storage space. The EVA (expandable voice annunciator) is capable of being expanded modularly from 10 to 30 words.

Master Specialty Company
1640 Monrovia
Costa Mesa, CA 92627

Miniaturized EEG

The REEGA SIMPLI VIII TR is an eight-channel EEG with an overall size of 39 x 20 x 18 cm and a weight of 12 kg. The unit is marketed by Alvar Electronics of Paris, France.

Nona Electroencephalographic Sales
1201 Flushing Road
Flint, MI 48504

Night Vision Pocket Scope

The scope presents a bright image of any dimly lit scene. This hand-held unity-power telescope incorporates an intensifier tube, allowing useful vision in light levels too dim for ordinary sight. The unit is small and light and is priced at \$2,500. The scope was developed at International Telephone and Telegraph Corp. of Roanoke, Virginia.

Voice Data Entry

SEI is introducing the Voice Data Entry Terminal System (VDETS), a modular terminal device that operates in real-time with up to four simultaneous speakers and can support all common mass-storage devices and other peripherals. Input may be in the form of words or short phrases and the output is Teletype-compatible standard ASCII code. VDETS has a minimum vocabulary of 75 words that can be expanded as required.

Scope electronics, Inc.
1860 Michael Faraday Drive
Reston, VA 22090

A Simple Method for Producing Figures for Publication (Submitted by David C. Rubin, Lawrence University, Appleton, Wisconsin)¹

Producing figures for publication is a time-consuming and difficult task for the researcher who does not have the assistance of a professional draftsman. The most difficult technical skill to master is lettering. Even with press-on type, lettering can be quite difficult. An IBM Selectric typewriter with a letter Gothic 12 typeball and a carbon ribbon, however, can produce lettering which is indistinguishable from pen and ink. Typing can be done directly on the figure or on separate pieces of paper which are rubber cemented in place. If an IBM Magnetic Tape Selectric Composer with a Universe typeball is available, slightly better lettering can be produced.

Given the fixed type size of an IBM typeball, the lines and symbols of the graph must be chosen to provide a pleasing scale. A line width of .4 mm (1/32 in., two points) works well with the Gothic 12 typeball. This line width can be produced by using a technical fountain pen or commercially available tape. Such tape is available in dotted as well as solid lines. The plot point symbols should be about 2 mm high. These can be of the commercially available press-on variety or the more recently developed self-inking stamp variety available from E-Z Graphics, P. O. Box 113, Newton Centre, MA 02159.

A properly scaled rough draft of the figure is drawn first. For a one-column figure, the width should be approximately 10 cm wide. The lettering, lines, and symbols are applied to a piece of smooth tracing paper placed over the rough draft. If a light box is available, opaque paper could be used.

Figure 1. A sample figure.

The final version is photographed, and a glossy print submitted for publication. If many figures are to be made using the same coordinates, high-quality offset copies of just the coordinates can be made and used in producing all the figures.

Figure 1 is a sample graph which was made using the described method. The entire figure was made without the use of pen and ink. The outside box originally had dimensions of 9.5 cm (3 3/4 in.). All lines, except for the labeled samples were made with 1/32-in. tape. The plot point symbols were made with 2-mm-high press-on figures. The lettering was made with an IBM Selectric typewriter using a Gothic 12 typeball.

NOTE

1. Preparation of this paper was supported by NIMH Research Grant 1 RO3 MH27204-01.

3D Television

The Stereophonics System Model 7500 Series is an integrated system of three-dimensional TV. The 3D picture can be recorded and played back and can be converted in seconds from 3D to 2D and back again. A stereo hood provides for individual viewing; optional stereo glasses provide group viewing. The system is principally optical and provides for high resolution, black-white, and color. The 3D stereoscopic TV camera consists of the color camera, zoom lens, stereo-captor, and light source on a pan and tilt head with remote controls for all functions from the console. A 2D white and black TV camera views the overall field of operations.

Dimensional Television Corp.
13720 Riverside Drive
Sherman Oaks, CA 91423

Microcomputers

Microcomputer systems are supplied by the following companies:

Advanced Memory Systems, 1275 Hammerwood Ave., Sunnyvale, CA 94086
Allen-Bradley Co., 747 Alpha Dr., Highland Hts., OH 44143
American Microsystems, Inc., 3800 Homestead Rd., Santa Clara, CA 95051
Applied Computing Devices, Box 3194, Terre Haute, IN 47803
Applied Computing Technology, Inc., 17815 Sky Park Circle, Irvine, CA 92664
Computer Automation, Inc., 18651 Von Karman Ave., Irvine, CA 92664
Control Logic, Inc., 9 Tech Circle, Natick, MA 01760
Cramer Electronics, 85 Wells Ave., Newton, MA 02159

Data Numerics, Inc., 141A Central Ave., Farmingdale, NY 11735
Digital Electronics Corp., 2126 6th St., Berkeley, CA 94710
Digital Equipment Corporation, One Iron Way, Marlborough, MA 01752
E & L Instruments, Inc., Tychon Div., Box 242, Blacksburg, VA 24060
Electronic Memories & Magnetics Corp., 12621 Chadron Ave., Hawthorne, CA 90250
Electronic Product Associates, Inc., 1157 Vega St., San Diego, CA 92110
Fabri-Tek, Inc., 5901 S. County Rd. 18, Minneapolis, MN 55436
Fairchild Camera & Instruments Corp., MOS Div., 464 Ellis Ct., Mt. View, CA 94042
General Automation, Inc., 1055 S. E. St., Anaheim, CA 92805
General Instrument Corp., Microelectronics, 600 W. John St., Hicksville, NY 11802
Hewlett-Packard Co., 1501 Page Mill Rd., Palo Alto, CA 94304
Hughes Aircraft Co., 500 Superior Ave., Newport Beach, CA 92663
IBM Corp., General System Div., Box 2150, Atlanta, GA 30301
Intel Corp., 3065 Bowers Ave., Santa Clara, CA 95051
Intersil, Inc., 10900 N. Tantau Ave., Cupertino, CA 95014
Martin Research, Ltd., Microcomputer Design, 3336 Commercial, Northbrook, IL 60062
Microcomputer Associates, Inc., 111 Main St., Los Altos, CA 94022
Microdata Corp., 17841 Red Hill Ave., Irvine, CA 92705
MITS, Inc., 6328 Linn N. E., Albuquerque, NM 87108
Monolithic Memories, Inc., 1165 E. Arques Ave., Sunnyvale, CA 94086
Monolithic Systems Corp., 14 Inverness Dr., E., Englewood, CO 80110
MOS Technology, Inc., Valley Forge Corporate Ctr., Norristown, PA 19401
Mostek Corp., 1215 W. Crosby Rd., Carrollton, TX 75006
Motorola Semiconductor Products, Inc., Box 20912, Phoenix, AZ 85036
National Semiconductor Corp., 2900 Semiconductor Dr., Santa Clara, CA 95051
NEC Microcomputers, Inc., 5 Militia Dr., Lexington, MA 02173
Panafacom, Ltd., Box 4637, Mt. View, CA 94040
Plessey Microsystems, Inc., 1674 McGaw Ave., Santa Ana, CA 92705
Process Computer Systems, Inc., 5467 Hill 23 Dr., Flint, MI 48507
Pro-Log Corp., 825 Airport Rd., Monterey, CA 93940

Ratheon Co., Semiconductor Div., 350 Ellis St.,
Mt. View, CA 94040
RCA Solid State Div., Box 3200, Somerville, NJ 08876
Rockwell International Corp., 3310 Miraloma Ave.,
Anaheim, CA 92803
Scientific Micro Systems, Inc., 520 Clyde Ave.,
Mt. View, CA 94043
Semiconductor Specialists, Inc., Box 66125, O'Hare
International Airport, Chicago, IL 60666
Signetics Corp., 811 E. Arques Ave., Sunnyvale,
CA 94086
Solid State Scientific, Inc., Montgomeryville, PA
18936
Sphere Corp., 791 S. 500 W., Bountiful, UT
84010
Struthers-Dunn, Inc., 411 14th St., Bettendorf,
IA 52722
System Integration Associates, RD-1, Box 126,
Glenmore, PA 19343
Technitrol, Inc., 1952 E. Allegheny Ave.,
Philadelphia, PA 19134
Teledyne Systems Co., 19601 Nordhoff St.,
Northridge, CA 91324
Texas Instruments, Inc., Digital Systems Div.,
Box 2909, Austin, TX 78767
Transitron Electronic Corp., Microcomputer Div.,
168 Albion St., Wakefield, MA 01880
Wintex Computer Corp., 554 Lunt Ave., Schaumb-
erg, IL 60172
Xecon Associates, Box 267, Hawthorne, CA 90250