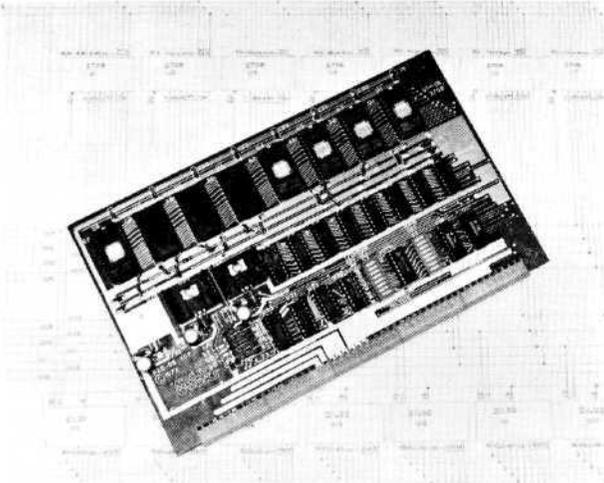# THE MICRO WORKS

HIGH QUALITY 6800 COMPUTER ACCESSORIES

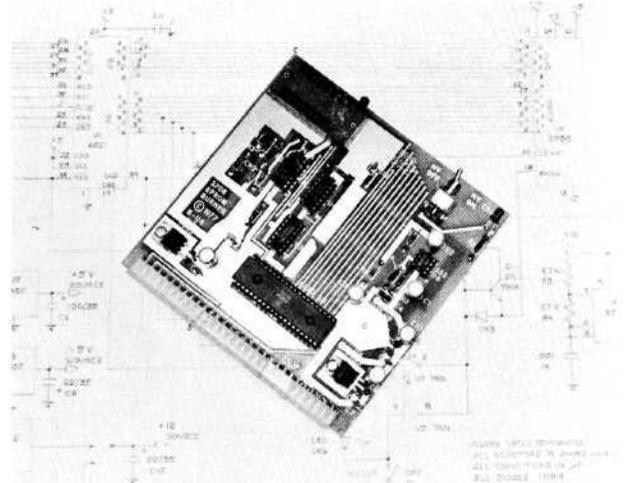### PSB-08 PROM SYSTEM BOARD

The Micro Works PROM System Board features 1K of high speed (350ns), low power RAM and space for up to 8 2708 EPROMs, both DIP-switch addressable to start on any 8K boundary in memory. The exclusive I/O select feature allows the user to move the I/O locations up to any unused 1K block in the EPROM memory space. This permits memory expansion to a full 56K of contiguous user RAM. An optional + 12 volt regulator can be installed for systems incorporating the Smoke Signal Broadcasting PS-1 power supply or its equivalent.

Prices PSB-08 (EPROMs not included) $119.95
          PSB-08R (regulated +12) $124.95

B-08 2708 EPROM PROGRAMMER

The Micro Works B-08 is a compact 2708 EPROM programmer that fits in a standard SWTPC 6800 I/O slot. A safety switch and LED indicator provide control over the high programming voltage generated on the board. An industrial quality Textool zero-insertion-force socket and extended board height allow effortless PROM insertion and retrieval. Fully commented source listings of the versatile Micro Works U2708 PROM Utility software are included, allowing quick and reliable programming and copying of 2708s. An optional + 12 volt regulator is available.

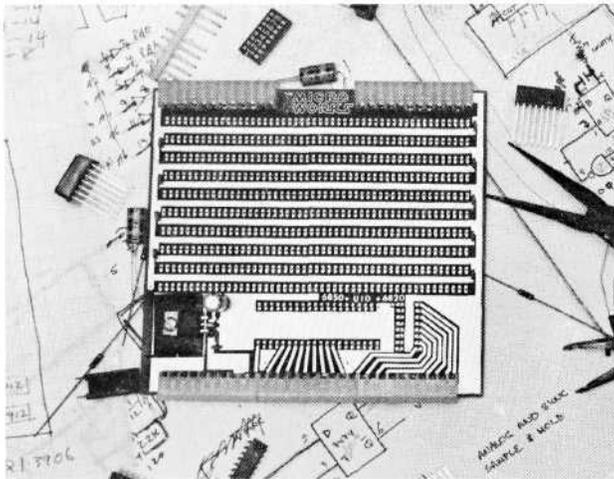Prices B-08 $99.95
       B08R (regulated +12) $104.95

U2708

All software routines necessary to test, burn, verify and copy 2708 EPROMs are available on either 2708 EPROM or cassette tape from The Micro Works. EPROMs may be ordered in two versions. The $FC00_{16}$ version is designed for use in the Micro Works PROM System Board (PSB-08) with a monitor PROM at $E000_{16}$, such as SMARTBUG®, RT-68 or a custom monitor. The $C000_{16}$ version will operate in a PSB-08 located at $C000_{16}$ utilizing the stock MIKBUG® monitor and scratch pad on the CPU board. All versions contain the MIKBUG®/SMARTBUG® restart vectors in the top 8 locations and drive a B-08 located in I/O slot 4. The cassette version starts at location 1000_{16} and runs in RAM calling several routines in MIKBUG®.

Prices U2708/C000 or U2708/FC00 $29.95
       U2708/1000 (KC standard 300 baud cassette tape) $9.95

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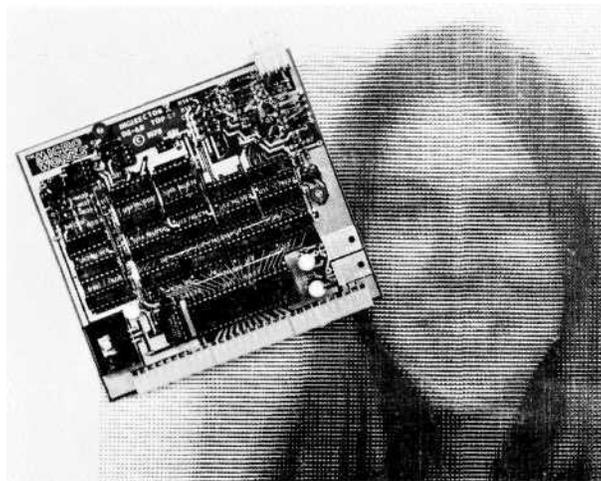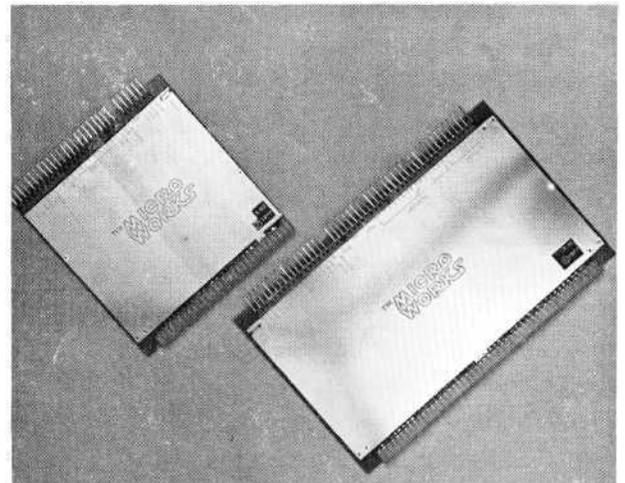
UIO UNIVERSAL I/O BOARD

The Micro Works Universal I/O Board is just the thing for custom interfaces. The board has space for a 40-pin wire wrap socket into which you may plug any of Motorola's 40 or 24-pin interface chips; the data and control lines are connected to the appropriate edge connector pins. All other bus connections are brought out to a 16-pin socket pad. A +5 volt regulator and all Molex connectors are provided; regulated +5 and ground are bused among the locations for up to 35 14-pin ICs.

Price $24.95

X-50/X-30 EXTENDER BOARDS

These high quality Micro Works Extender Boards are double sided, with the bus extensions on the bottom and a ground plane on top. Both sides are solder masked. Silkscreened bus pin designations and ground clip attachment points make de-bugging easy.

Prices X-50 (8-50 **bus) $29.95**
X-30 (S-30 I/O bus) $22.95

DS-68 DIGISECTOR

The Micro Works Digisector® allows a 6800 computer system to see! Functioning in conjunction with an inexpensive TV camera, it presents the computer with a high resolution digitized picture of the camera's view. The Digisector requires 1 I/O slot in the SWTPC 6800 (or equivalent) and accepts either interlaced (NTSC) or non-interlaced (Industrial) sync pulses from the video source. It features 256 X 256 picture element resolution, with up to 64 levels of grey scale. Data conversion times vary with grey scale requirements, but may be as low as 3 microseconds per picture element.

Operation is simple; the computer sends the Digisector two 8 bit addresses (X and Y coordinates), and the Digisector returns the digitized brightness of the image at the specified location. The video output is composed of the camera's video signal plus a superimposed, intensified cursor showing exactly where the Digisector is looking.

Applications include precision security systems, moving target indicators, computer portraiture, and fast to slow scan conversion for ham operators. With clever software, the Digisector can read paper tape, punched cards, strip charts, bar codes, musical scores. . .just about anything. Give your computer the gift of sight!

Price DS-68 $169.95
DS-68 (regulated + 12) $179.95

All Micro Works 6800 computer accessories come fully assembled, tested and burned in as necessary. They feature prime components, double sided PC boards with plated through holes, solder mask and silkscreen component markings where appropriate. All software is fully source listed and commented; complete schematic diagrams are included.
Delivery is from stock.

THE MICRO WORKS

March 9, 1979

Coloma Computer Company
5647 Jill Ann Drive
Coloma, MI 49038

Dear Sirs,

I appreciate your interest in carrying The Micro Works
line of high quality microcomputer accessories. The
Micro Works is a small, energetic company with an es-
tablished record for timely deliveries of trouble free
products. Currently, The Micro Works designs and
implements custom microprocessor systems for industry
as well as supplying the computer hobbyist with econ-
omical, reliable 6800 peripheral boards.

Enclosed you will find an information sheet which
describes our current product offering. Our 6800 series
of computer accessories is fully compatible with the
SWTPC 6800 and 6800/2 microcomputers and the S-50 bus.
All Micro Works accessories are delivered to you from
inventory, fully assembled, bench tested, and burned
in where appropriate, with these features:

> —only prime components utilized; (All ICs,
> with the exception of voltage regulators,
> are provided with Texas Instruments' high
> quality sockets for ease of replacement.)
>
> --double sided PC boards with plated through
> holes;
>
> --solder mask on both sides with silkscreened
> component markings
>
> —detailed manuals explaining the unique
> features of each product;
>
> —fully source listed software where appro-
> priate;
>
> —complete schematics.

Also enlcosed is The Micro Works standard warranty. In
the past year, not one Micro Works' board has been re-
turned for repair. I believe that this remarkably low
failure rate of Micro Works equipment contributes to the

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pride our people have in the company and in our dedication to serving our customers well. Further, I feel that you as a dealer in this market will appreciate our committment to maintain high standards in our product line.

The Micro Works offers the following in terms of dealer discounts for our standard products. Software is not included in the discount schedule.

6800 PRODUCTS

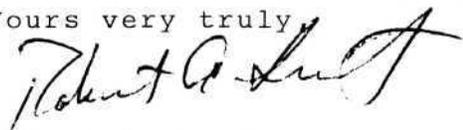| Quantity Ordered	Your Discount
1-4	List Price
5-14	25% Off List Price
15 and up	30% Off List Price

DS-80 ONLY

1-4	List Price
5 and up	30% Off List Price

All Micro Works orders are prepaid; we accept Master Charge/Visa, money orders or cashiers' checks. We will ship C.O.D. throught the continental US for your convenience.

We look forward to doing business with you and hope that you will write or call with any additional questions.

Yours very truly,

Robert A. Lentz
President

RAL/kp

LIMITED WARRANTY

The Micro Works warrants its products to be free from defects in workmanship and materials for a period of ninety (90) days from the date of purchase. IT IS EXPRESSLY AGREED THAT THIS NINETY (90) DAY WARRANTY SHALL BE IN LIEU OF OTHER EXPRESS WARRANTIES, WARRANTIES OF FITNESS AND IN LIEU OF THE WARRANTY OF MERCHANTABILITY. No agent, representative or employee of the Company has authority to increase or alter the obligation of this warranty.

This warranty shall not apply to any Micro Works product which has been modified, repaired or altered in any way.

This warranty shall not apply to any Micro Works product damaged as a result of abuse, misuse, accident or neglect.

IN NO EVENT SHALL THE MICRO WORKS BE LIABLE FOR CONSEQUENTIAL DAMAGES.

IN ORDER TO MAKE A CLAIM AGAINST THIS WARRANTY THE DEFECTIVE BOARD MUST BE RETURNED BY PRIVATE CARRIER OR THE U.S. POSTAL SERVICE TO THE MICRO WORKS, P.O. BOX 1110, DEL MAR, CALIFORNIA, 92014. BOARDS MUST BE ACCOMPANIED BY RETURN SHIPPING CHARGES AND THE SALES RECEIPT SHOWING DATE OF PURCHASE. It is suggested that boards shipped through the United States mails be insured.

REPAIRS

At any time after the 90-day warranty period, The Micro Works will repair your PC board for a fee of $25.00, provided that it is not physically damaged, and not more than two chips need replacing. If this fee is not applicable, you will be notified before further repairs are made. If repairs are necessary, re-pack the board carefully and enclose a check to The Micro Works, P.O. Box 1110, Del Mar, CA, 92014.

THE MICRO WORKS DS-80 DIGISECTOR

The Micro Works Digisector^R is a random access video digitizer; its
resolution and speed are unmatched in industry and the price is unbeatable
anywhere. Previously available only for the S-50 bus, the Digisector is
now in production for S-100 computers. Since operation is straightfor-
ward, you don't have to be a software wizard to utilize the DS-80's
extensive capabilities. The Micro Works Digisector board provides the
following exclusive features:

> * High Resolution - a 256 X 256 picture element scan
>
> * Precision - 64 levels of grey scale
>
> * Speed - conversion times as low as 3 microseconds
>   per pixel
>
> * Versatility - accepts either interlaced (NTSC) or non-
>
>   interlaced (industrial) video input
>
> * Compactness - utilizes 1 S-100 bus slot
>
> * Economy - a professional tool priced for the hobbyist

Operation is simple; the computer sends the Digisector two 8 bit addresses
 (X and Y coordinates), and the Digisector returns the digitized brightness
of the image at the specified location. For set-up and monitoring pur-
poses the Digisector produces an output comprised of the camera's video
signal plus a superimposed cursor, showing exactly where the DS-80 is looking.

The software supplied will digitize one pixel every other horizontal scan
line, filling 8K of memory with two 4 bit grey scale values per byte in
a little less than two seconds. This provides spatial resolution of 128
by 128 elements, optimum for computer portraiture and slow scan TV. The
software drives a Malibu Design Group graphics line printer, and is fully
commented to ease interfacing to other printers.

Applications include precision security systems, moving target indicators,
computer portraiture, fast to slow scan conversion for ham radio operators,
and salvation for a Droid in dire need of a wall socket.

The Digisector, like all Micro Works products, comes fully assembled,
burned in and tested. Give your computer the gift of sight!

Price: DS-80 $349.95

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