GIMIX 2MHZ 6809 SYSTEMS CAN BE CONFIGURED TO RUN:
FLEX ★ OS-9 LEVEL ONE ★ UNIFLEX ★ OS-9 LEVEL TWO

SINGLE USER SYSTEMS with 56KB of static RAM
MULTI USER SYSTEMS with 128-512KB of static RAM and up
YOUR GIMIX SYSTEM CAN GROW WITH YOUR NEEDS

CHOOSE FROM GIMIX 5¼" OR 8" FLOPPY DISK DRIVE
SYSTEMS AND WINCHESTER DRIVE SYSTEMS
GIMIX 2MHZ 6809 SYSTEMS

GIMIX offers you a variety of system packages including systems that feature BOTH MICROWARE’s OS-9 Level 1™ operating system and TECHNICAL SYSTEMS CONSULTANTS’ FLEX™. Switch between these two predominant 6809 Disk Operating Systems, under software control, without the need to change PROMS, switches, or system configuration. System packages are also available for MICROWARE’s OS-9 Level 2 and TECHNICAL SYSTEMS CONSULTANTS’ UniFLEX™. You can select one of our featured systems or select from our wide variety of system components to build a custom system to suit your needs.

All systems include any required CPU Board options and are completely configured to your specifications. They do not include disk drives or terminals. See pages 4 and 5 for information on 5¼” drives for installation in the CLASSY CHASSIS and/or 8” floppy disk drives. Any combination of 5¼” and 8” floppy disk drives, up to four drives total, can be used with systems that include controller (except UniFLEX systems which require 8” drives).

For information and pricing on additional options see the appropriate pages of this brochure or contact the factory.

56KB 2MHZ 6809 SYSTEMS WITH GMXBUG/FLEX/OS-9 SOFTWARE SELECTABLE

Includes: CLASSY CHASSIS, 6809 PLUS CPU Board, 56K Byte STATIC RAM, #43 Two Port Serial I/O board w/cables, and...
with #58 single density disk controller (System #59) ........................................... $2988.59
with #68 DMA double density disk controller (System #49) .................................. $3248.49
To substitute Non-Volatile CMOS RAM with battery back-up add ................................ $150.00

128KB 2Mhz 6809 DMA Systems for use with TSC’S UNIFLEX or MICROWARE’S OS-9 Level 2

Includes: CLASSY CHASSIS, 6809 PLUS CPU Board, #68 DMA Disk Controller, Two 64K Byte STATIC RAM Boards, #43 two Port Serial I/O board w/cables, (software not included, UniFLEX™ requires 8” disk drives) ...
To substitute 128KB of Non-Volatile CMOS RAM w/Battery Back-Up add .................. $3798.39

56 KB SYSTEM #29 This system can be used as the basis for a custom system to suit your special needs. It includes: CLASSY CHASSIS, 6809 PLUS CPU, 56KB STATIC RAM Board, and #43 TWO PORT SERIAL I/O board w/cables. You can add to this your choice of Disk Controllers, Memory, I/O, Software, etc. ............................................. $2498.29
50 Hz version of above add ......................................................................................... $30.00

The GIMIX CLASSY CHASSIS™

6800 / 6809 SS-50 BUS MAINFRAME

The CLASSY CHASSIS includes:
A HEAVYWEIGHT, ALUMINUM CABINET (18” wide x 21” deep x 7” high) painted in a putty colored, durable baked enamel finish. The cabinet holds our 6800 / 6809 mother board. CV Ferro-resonant power supply, and has provisions for mounting one or two 5¼” Floppy or Winchester disk drives. The back panel is punched for 15 "D" type data connectors (25 pin) and has provisions for two removable connector plates that are available in a variety of connector configurations. Cabinets are normally supplied with two blank plates unless other types are required or specified. The cabinet includes a fan and ventilation slots which direct cooling air over the boards and power supply. The front panel has a 3 position, key locking, power switch that permits the reset switch to be locked out, preventing accidental system reset, and a three position RESET/ABORT switch. Optional filler plates are available for systems that do not use the 5¼” drive openings.

The 6800 / 6809 SS-50 / C MOTHERBOARD includes:
This highly versatile motherboard is easily reconfigured for a variety of 6800 and 6809, SS-50 and SS-50C bus configurations.

GOLD PLATED connectors are used throughout to insure long lasting electrical contact and protection against corrosion.
It has fifteen 50 pin slots, 8 DIP-switch addressable 30 pin I/O slots, and a special 10 pin slot for the baud rate generator board. The fully buffered I/O block can be configured for 4, 8, or 16 decoded addresses per slot, and is DIP-switch addressable to any 32, 64, or 128 byte boundary. Extended address decoding (SS-50C) allows the I/O block to be addressed anywhere in the 1MB address space.

The baud rate generator board provides 11 standard (16X) baud rates, from 75 to 38.4K in 2 groups. Programming jumpers allow easy selection of up to five baud rates. The five baud rate lines on the 50 pin bus are easily disconnected from the 30 pin bus for use with SS-50C extended addressing or as user defined lines. A slow I/O circuit, for the 6809 CPU, can be used to generate an MRDY signal whenever an I/O slot is accessed (This allows, for example, using PIO Disk Controllers with a 2MHz 6809 CPU).

All data, address, and control lines are fully terminated and separated by noise reducing ground lines on the bottom of the board.
The .090” thick, double sided P.C. board has a full ground plane Faraday Shield on the top side to further reduce noise.

THE CV FERRO-RESONANT POWER SUPPLY features a custom designed for GIMIX to GIMIX specs Constant Voltage. Ferro-resonant, Faraday shielded, transformer that provides brown-out and overvoltage protection and permits the system to operate properly, even under adverse AC power input conditions. It also includes an AC line filter and AC resonant capacitor, 3 DC filter capacitors, and GIMIX unique filter assembly board that has a clamping terminal block for easy wiring connectors. The power supply provides +8 Volts at 30 Amps, +16 Volts at 5 Amps, and -16 Volts at 5 Amps; enough to power a fully loaded system plus the two 5¼” Disk drives, including Winchester types, that can be installed in the cabinet. All supply outputs are filtered and individually fused. The standard version operates over an AC input range of 90 to 140 Volts, 60 Hz. Export versions are available for inputs of 95 to 130 or 190 to 260 volts, 50 Hz.

CABINET, MOTHERBOARD, and POWER SUPPLY assembled, burned in, and tested .......................................................... $1198.19
50 Hz Export versions (specify voltage) Add .......................................................... $30.00

INDEX
Page 1 Systems, Mainframes .......................................................... Page 5 Software, 8” Drives
Page 2 CPUs, Video ........................................................................... Page 6 I/O Boards
Page 3 RAM, PROM, Graphics .......................................................... Page 7 Power Control, Prototyping,
Page 4 Disk Controllers, 5” Drives ..................................................... Page 7 Misc. Parts & Cables

Please see page 7 for information on optional front panel filler plates, disk regulator boards, back panel connector plates, and back panel cables.

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GIMIX Inc. — 1337 WEST 37th PLACE • CHICAGO, ILLINOIS 60609 • (312) 927-5510 • TWX 910-221-4055
GIMIX 6809 CPU BOARD for the SS-50 BUS

The GIMIX 6809 PLUS CPU is an extremely versatile board that offers the user a great many features and options which make it an ideal choice for a variety of systems and applications.

- Any one of 3 memory management techniques can be used: Straight Bank Select, GIMIX Enhanced DAT / software write protect (optional), SWTPC compatible DAT (required for SBUG-E) (optional).
- Software write protect in 4K blocks, of the entire address space (when GIMIX enhanced DAT is installed).
- Jumper selectable processor clock speeds (1, 1.5, 2 MHz).
- Separate buffers for the 6809 and the on card devices.

2 MHz 6809 PLUS CPU #05 .............................................. $578.05

The GIMIX 6809 PLUS CPU board has a variety of other options that may be ordered at the time of purchase or added later. It is fully socketed to allow adding the following options at any time.

GIMIX ENHANCED Dynamic Address Translation .................. $35.00
1K CMOS Scratchpad RAM (1.5 MHz) Substitution .............. $15.00

ARITHMETIC PROCESSORS

9511A (32 bit math / transcendental) 4 MHz ....................... $312.00
9512 (64 bit math only) 3 MHz .................................. $265.00

GIMIX 6800 CPU BOARD

- 6800 MPU
- 4K EPROM (2708)
- 128 byte RAM
- 6840 Programmable timer (optional)
- DIP-switch EPROM addressing, compatible with most standard 6800 monitors.

2D24 ARITHMETIC PROCESSOR

With

Baud Rate
Option Add...

$224.03
$288.06
$ 30.00

THE UNIQUE GIMIX 80 x 24 VIDEO BOARD

Upper and Lower Case with Descenders • Hardware Scrolling
Contiguous 8 x 10 Character Cells • X-Y Addressable Hardware Cursor

IT IS THE ONLY VIDEO BOARD THAT GIVES YOU: A user programmable RAM character generator. Custom character sets, up to 128 characters each, can be stored and loaded into the board under software control, from disk, tape, etc. The ability to choose, under software control, 256 displayable characters from 384 available in the 3 on board (2 EPROM and 1 RAM) character generators. The ability to divide the 256 displayable characters into 8 groups, according to both ASCII Code and bit 8, lets your program determine how each group is displayed. (Which character generator to use, and whether it will be normal or inverse video, full or reduced intensity or a combination of these.)

GHOSTability: To place multiple boards at the same address and access them individually without affecting the display of the other boards. The ability to control all these features, on the fly, through software.

* Fully decoded, occupies only 2K of address space.
* Fully socketed — Gold bus connectors.
* Assembled, Burned In, and Tested at 2 MHz.

Deluxe Version with RAM Character Generator .......... $458.76
Without RAM Character Generator ............. $398.74

50 Hz Versions Available

Versions of GMXBUG-90/FLEX and OS-9 that use the GIMIX 80 x 24 VIDEO BOARD in place of a serial terminal are available. These versions require a user supplied video monitor and parallel ASCII keyboard. Contact GIMIX for more information.

Also Available: For Use with Master Antenna Systems,
Our 64 or 32 x 16 Fully Interlaced, Uppercase Only, Video Board ....................... $198.71
2MHz 64K BYTE STATIC RAM BOARD $638.67
for 6800 and 6809 systems using the SS-50/SS-50C bus

Also available...

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>56K</td>
<td>$578.57</td>
</tr>
<tr>
<td>48K</td>
<td>$518.47</td>
</tr>
<tr>
<td>32K</td>
<td>$398.37</td>
</tr>
<tr>
<td>24K</td>
<td>$348.27</td>
</tr>
</tbody>
</table>

All versions have gold bus connectors and are fully socketed, assembled, burned in, and tested. Versions with less than 64K can be expanded at any time by adding additional RAM chips.

FEATURES:
- **ADDRESSABLE** in two 32K sections with separate regular and extended address decoding for each section. Each section can be addressed to any 32K boundary in the address range (1M Byte with extended addressing). Each 32K section is divided into four 8K blocks that can be individually enabled or disabled. Disabled sections do not occupy address space.
- **FULLY STATIC MEMORY** does not require complicated refresh timing or clocks for data retention. Compatible with any of the 6800/6809 DMA techniques.
- **GUARANTEED 2MHz OPERATION** uses high speed (200 ns) memory with no wait states or clock stretching required.
- **LOW POWER NMOS RAM** requires less than 3/4 AMP (750 ma) typical at 8V, for a fully populated 64K board.

Also available...

NON-VOLATILE 64K BYTE CMOS STATIC RAM BOARDS with BATTERY BACK-UP
With all the versatility of the above boards... PLUS!

- **NON-VOLATILE MEMORY** with built in battery back-up. Retains data even with system power removed. With the battery fully charged, data remains intact for a minimum of 21 days.
- **ULTRA-LOW POWER CMOS RAM** requires less than 1/4 AMP (250 ma.) typical at 8V for a fully populated 64K board.
- **LOW BUS VOLTAGE DETECTION** inhibits memory access during power up and power down to prevent false writes to the memory.
- **WRITE PROTECT SWITCH** permits the entire board to be write protected for PROM/ROM emulation and software debugging.

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>64K</td>
<td>$798.64</td>
</tr>
<tr>
<td>56K</td>
<td>$728.56</td>
</tr>
<tr>
<td>32K</td>
<td>$518.36</td>
</tr>
</tbody>
</table>

All above RAM Boards are guaranteed for 2MHz operation.

16 SOCKET EPROM/ROM/RAM BOARD
WITH EXTENDED ADDRESS DECODING
For Use With: Existing SS50 Systems and SS50C Extended Address Systems
FEATURES: Up to 128K on a single board (using 8K devices)
Can be used with 2, 4, and 8K 24 pin, 2716/2516 pinout, single supply voltage EPROMs and most pin-compatible ROMs and static RAMs.

- Device sizes and types can be mixed on the same board
- 2 separate 8 socket sections
  - DIP-switch selection of base address for each section
  - Individual address decoders for each section, including extended address decoding
  - Bi-polar PROMs for address decoding allow mixing of device sizes within a section
  - Separate slow memory generation for each section. (6809 only)
- Each socket is jumper programmable for device size and type (2, 4 or 8K PROM/ROM/RAM)
- Fully Buffered
- Fully Socketed
- Gold Bus Connectors

ASSEMBLED, BURNED-IN, AND TESTED

8K PROM BOARD
- Holds eight 2708 or 2708-compatible ROMs.
- Gold Bus Connectors

$238.32

HIGH RESOLUTION BIT MAP GRAPHICS BOARD SET

FEATURES:
- 512 x 512 Dot resolution
- A board set consisting of the Graphics Controller Board and the Screen Memory Board (32K of memory)
- Does not tie-up the processor or system bus for screen refresh
- Occupies 8K of address space plus 8 bytes for control ports
- Separate DIP-switch selection for screen memory and control port addressing
- GHOSTability allows multiple boards to be placed at the same address and be enabled/disabled under software control
- Extended address decoding for SS50C extended address lines

ASSEMBLED BURNED IN AND TESTED

$996.77

NOTE: This Graphic Board Set requires a high resolution video monitor such as the MOTOROLA M4408 with a 30KHz horizontal scan rate.
GIMIX DMA DOUBLE DENSITY DISK CONTROLLER #68

The GIMIX DMA (Direct Memory Access) DISK CONTROLLER has the capabilities needed to realize the full potential of today's sophisticated multi-user/multi-tasking operating systems such as OS/9™ and UniFLEX™.

HIGH SPEED using bi-polar logic DMA circuity for guaranteed operation at 2Mhz. DMA transfers take place at full bus speed using 6809 cycle steal DMA. Once the required parameters are passed to the controller and DMA transfer is initiated the processor is free for other tasks. Interrupts can be generated to indicate the completion of the transfer.

SINGLE AND DOUBLE DENSITY data storage on any combination of 5 1/4" and 8" floppy disk drives; single and double headed, single and double track density, up to 4 drives total.

LOW ERROR RATES are insured by a data recovery circuit (data separator) and adjustable write precompensation circuity for drives that require precomp. Separate precomp adjustments are provided for 5 1/4" and 8" drives.

ADDRESSABLE to any 8 byte boundary in the address space (1M byte when extended address decoding is used). The board occupies only 8 bytes of address space.

EXTENDED ADDRESSING control using the SS-50C extended address lines. Control of the extended address lines allows the board to perform DMA transfers to and from any address in the 1M byte address space.

FULLY BUFFERED with separate 5 1/4" and 8" output buffers and schmidt trigger input buffers for the disk drive signals.

The DMA controller leaves the processor free to perform other tasks once the transfer is initiated, unlike programmed I/O disk controllers which require full time use of the processor during data transfers to and from disk.

This is extremely important in a multi-user/multi-tasking environment as the processor can perform other tasks such as console I/O while a disk transfer is in progress.

#68 fully assembled, burned in, and tested ........................................................................... $588.68

GIMIX DOUBLE DENSITY PIO DISK CONTROLLER #28

The GIMIX DOUBLE DENSITY PIO (PROGRAMMED I/O) DISK CONTROLLER is a versatile floppy disk interface for use in 6809 systems on the SS-50 or SS-50C bus. The board physically occupies one slot of the 30 pin I/O bus.

- Double the unformatted storage capacity of single density controllers
- Single and double density operation
- Phase lock data recovery circuit (data separator)
- Adjustable write precompensation (precomp)
- Controls up to four 5 1/4" drives
- Controls single and double headed drives
- Designed to meet the data hold-time requirements of the Western Digital 1797 floppy disk controller I.C.

The GIMIX DOUBLE DENSITY PIO DISK CONTROLLER is ideal for systems that require greater data storage than that provided by single density controllers, without increasing the number or type of drives. In most cases existing 6809 systems can be upgraded by adding only the controller and the appropriate operating system software.

#28 fully assembled, burned in and tested ........................................................................... $298.28

GIMIX 5/8 DISK CONTROLLER BOARD #58

The GIMIX 5/8 DISK CONTROLLER is a versatile floppy disk interface for use with both 6800 and 6809 systems on the SS-50 or SS-50C bus. The board physically occupies one slot of the 30 pin I/O bus.

- Hardware and software compatible with existing disk controllers (SWTPc DC-1, DC-2 and DC-3)
- Controls up to four 5 1/4" drives in 6800 systems
- Controls any mix of 5 1/4" and 8" drives, up to four drives total, in 6809 systems
- Provides for double headed drives
- Synchronous data separator for data reliability
- Designed to meet the data hold-time requirements of the 1771 floppy disk controller I.C.

The GIMIX 5/8 DISK CONTROLLER is ideal for a variety of applications including the replacement of controllers in existing systems. As a replacement it can provide the added advantages of a data separator, double headed drive capability, and in 6809 systems the ability to use 8" drives. Double headed drive and 8" operation may require appropriate operating system software.

#58 fully assembled, burned in, and tested ........................................................................... $226.58

ALSO As above, but for 5 1/4" drives only ................................................................. $198.48

AVAILABLE: As above, but without 1771, tested, not burned in ......................... $158.38

NOTE: When ordering disk controllers please specify the make and model of the drives being used.

5 1/4" DRIVES INSTALLED IN GIMIX SYSTEMS with all necessary cables

<table>
<thead>
<tr>
<th></th>
<th>Single Density</th>
<th>Double Density</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 track (48TPI) single sided</td>
<td>199,680 250,000</td>
<td>341,424 500,000</td>
</tr>
<tr>
<td>40 track (48TPI) double sided</td>
<td>399,360 500,000</td>
<td>718,848 1,000,000</td>
</tr>
<tr>
<td>80 track (96TPI) single sided</td>
<td>404,480 500,000</td>
<td>728,064 1,000,000</td>
</tr>
<tr>
<td>80 track (96TPI) double sided</td>
<td>808,960 1,000,000</td>
<td>1,456,128 2,000,000</td>
</tr>
</tbody>
</table>

CHART SHOWS TOTAL CAPACITY IN BYTES FOR 2 DRIVES.
SOFTWARE AVAILABLE FOR GIMIX DISK SYSTEMS

GIMIX VERSIONS OF TSC's 6809 FLEX operating systems are available for all three GIMIX disk controllers. They fully support all the features of each controller and are software compatible with other versions of FLEX. GIMIX FLEX includes a disk FORMAT program that allows the user to pick the number of tracks to format, single or double sided disks, and where appropriate single or double density. It also supports both single (48 TPI) and double (96 TPI) track 5 1/4" drives and allows 80 track (96 TPI) drives to read, write, and format 40 track (48 TPI) disks. FLEX is single user and limited to 56KB systems.

Specify controller and type of drive: 8"; or 5 1/4" or 40 track $90.00

NOTE: FLEX requires a system monitor (e.g. GMXBUG or S-BUG E). When used with a SWTP CPU and S-BUG E and the GIMIX #68 DMA CONTROLLER, the GIMIX BOOTSTRAP PROM is also required.

GMXBUG 09 includes advanced debugging capabilities as well as utility and memory manipulation routines. As the standard terminal based version can be upgraded to video based for use with the GIMIX 80 x 24 Video board by changing the bootstrap PROM to the Video/bootstrap PROM. It can be used with either GIMIX DAT or SWTP DAT, but they are not required.

Price includes PROMs, Manual, and Source listing (Specify DAT). $98.65

Video/bootstrap or Bootstrap PROM only (included w/GMXBUG) $30.00

GIMIX' versions of MICROWARE's OS-9 Level 1 are available for all GIMIX disk controllers. OS-9 includes PROMS and Disk. Microware's OS-9 Debugger is also included. Level 1 is multi-user, but limits user to 56KB Specify controller and type of drive: 8"; or 5 1/4" or 40 track $195.00

★ SYSTEM SPECIAL ★ GIMIX offers you GMXBUG/FLEX/OS-9 selectable under software control. See System prices elsewhere in this brochure.

UNIFLEX is available for GIMIX Systems using the GIMIX 6809 CPU board and the #68 DMA Controller with 8" drives. It requires a minimum of 128KB of RAM. A signed license agreement with TSC is required before shipping. The SWTP DAT parts must be installed on the GIMIX CPU.

UNIFLEX $550.00 GIMIX boot PROM for UNIFLEX $50.00

MICROWARE's OS-9 Level 2 requires a minimum of 128KB of RAM. The GIMIX DAT parts must be installed on the GIMIX CPU. GIMIX versions of Level 2 also include the Debugger! (To be available soon) $495.00

A WIDE VARIETY OF LANGUAGES AND OTHER SOFTWARE IS AVAILABLE FOR THESE 6809 DISK OPERATING SYSTEMS

FOR MICROWARE's OS-9 LEVEL 1 & 2:

<table>
<thead>
<tr>
<th>Language</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Macro Text Editor</td>
<td>$125.00</td>
</tr>
<tr>
<td>OS-9 Assembler</td>
<td>125.00</td>
</tr>
<tr>
<td>BASIC/99</td>
<td>195.00</td>
</tr>
</tbody>
</table>

FOR TSC's FLEX:

<table>
<thead>
<tr>
<th>Language</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>6809 Native-Code Pascal Compiler</td>
<td>$200.00</td>
</tr>
<tr>
<td>Basic</td>
<td>75.00</td>
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<tr>
<td>Extended Basic</td>
<td>100.00</td>
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<tr>
<td>Text Processing System</td>
<td>75.00</td>
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<tr>
<td>Text Editing System</td>
<td>50.00</td>
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FOR UNIFLEX:

<table>
<thead>
<tr>
<th>Language</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>UnifLEX Operating System (6809)</td>
<td>$550.00</td>
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<tr>
<td>UnifLEX Basic</td>
<td>200.00</td>
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<tr>
<td>UnifLEX Basic Precompiler</td>
<td>150.00</td>
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<tr>
<td>UnifLEX Text Processor</td>
<td>150.00</td>
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<tr>
<td>UniFLEX Sort/Merge</td>
<td>$75.00</td>
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<tr>
<td>UniFLEX Pascal</td>
<td>75.00</td>
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<tr>
<td>UniFLEX 68000 Cross Assembler</td>
<td>50.00</td>
</tr>
<tr>
<td>Enhanced Printer Spooler</td>
<td>150.00</td>
</tr>
<tr>
<td>UniFLEX 68000 Cross Assembler</td>
<td>300.00</td>
</tr>
<tr>
<td>Fortran &amp; Relocating Assembler (pkg. deal)</td>
<td>450.00</td>
</tr>
<tr>
<td>C Compiler</td>
<td>400.00</td>
</tr>
</tbody>
</table>

1 Year Maintenance Included on all UniFLEX Prices.

UnifLEX Operating System (6809) $550.00 Fortran 77 (requires relocating assembler) $350.00

C Compiler $500.00

The above software is from MICROWARE and TSC. Numerous offerings of languages (e.g. C, PASCAL, FORTH), utilities (e.g. spelling dictionaries, cross assemblers, disassemblers) and application packages (e.g. word processing, data base management, accounting), are available from many other software houses.

8" DISK CABINET and POWER SUPPLY. The cabinet features the same quality, styling, and finish as the GIMIX MAINFRAME and mounts two standard size 8" floppy and/or winchester disk drives. It will also hold 4 thinline 8" floppy's or a combination of 2 thinline floppys and an 8" winchester.

To provide an easy means of controlling the power to an entire system from one switch, three accessory outlets, one for the computer and two for peripherals (terminals, printer, etc.), are provided. The back panel mounted power switch selects either OFF, ON, or the AUTO mode. In the AUTO mode, the power supply and two of the accessory outlets are controlled by the computer (or other device), connected to the third accessory outlet. When the computer is turned on or off, the cabinet senses the presence or absence of current flow to the computer and turns itself and the other accessory outlets on or off. Circuitry is also provided to turn drive motors ON and OFF under computer control. A built in fan with a washable air filter provides cooling for the power supply and drives. The back panel is punched for 4 connectors (two 50 and two 20 pin) for connections between the cabinet and the computer.

The power supply uses a constant voltage Ferro-resonant transformer for reliability and protection against brownouts and power line noise. It provides +5 Volts at 6 Amps, +24 Volts at 6 Amps, and −5 Volts at 750 Ma. continuously, with ample surge capacity for drives that require higher starting currents. The supply has two separate 24 V. outputs that can be sequenced to delay starting of the second drive until the first is up to speed.

All units are fully assembled, burned in, and tested. 8" DUAL DRIVE DISK SYSTEM: includes two double sided 8" disk drives, cabinet, power supply, and all necessary cables to connect to a GIMIX MAINFRAME or controller (see shipping notes on page 8). $2698.88

8" DISK CABINET ONLY: includes power supply and AC & DC power cables Note: Because different drive models require different AC & DC connectors, be sure to specify the quantity and model number of the drives being used when ordering. $848.18

For 50 Hz Export power supply, add $30.00

DRIVE CABLE: for 8" floppy drives includes connectors for the disk drives and a back panel connector for the 8" disk cabinet. $44.82

with 2 drive connectors $67.84

MAINFRAME CABLE: for use with the above cable; to connect the disk cabinet to GIMIX MAINFRAMES and disk controllers. $45.81

8" FILLER PLATE: used when only one drive is installed $14.83

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FLEX and UNIFLEX are trademarks of Technical Systems Consultants

OS-9 is a trademark of Microware Systems Corp. Inc.
GIMIX 2MHz INPUT / OUTPUT BOARDS

SERIAL INTERFACE BOARDS All GIMIX serial interface cards use the versatile 68B50 programmable ACIA that provides software control over: number of data bits, parity, stop bits, and interrupts; plus a full set of error and status flags. They all feature RS-232 compatible input/output with RTS, CTS, and DCD handshake signals. The GIMIX SINGLE PORT serial interface also has 20 Ma. current loop output for use with GIMIX RELAY DRIVER BOARDS, teletypes, etc.

All serial boards have gold plated, header type connectors for corrosion resistance and reliable operation.

PARALLEL INTERFACE BOARDS All GIMIX parallel boards use the 6821 PIA for compatibility and versatility. Each 6821 provides two 8 bit ports with a variety of handshake and interrupt generation modes.

Optional cable sets are available to provide 25 pin “D” type data connectors for back-panel mounting.

SINGLE PORT SERIAL INTERFACE (For the 30 pin I/O bus) ................. $88.41
DIP-switches provide full control over I/O and handshaking configuration — easily accessible, no soldering necessary for:

- RS-232 or Current Loop select
- One of five baud rates or an external clock
- Optional connection to the Interrupt Request line
- Override of the DCD and CTS modem control signals

On-card regulators for +5, +12, and — 12 volts provide power at the connector for modems, cassette interfaces, etc.

RS-232 and current loop drivers and receivers keep output from the GIMIX Serial Interface powerful and clean.

OTHER FEATURES INCLUDE:
- Modern Control Signals — has data carrier detect and clear to send inputs.
- Cassette Interface Control — has a diode-protected external clock input and a separate clock output.
- Current loop input and output
- Reader Control output
- Request to send output

TWO PORT PARALLEL INTERFACE CARD (For the 30 pin bus) .......... $88.42
EACH PORT HAS:
- Eight data I/O lines — fully buffered, with Schmitt-trigger inputs for high noise immunity
- DIP-switch selection of either input or output
- Its own buffered input handshaking line
- Its own buffered output handshaking line that is strappable for input.
- DIP-switches for connecting to the interrupt Request or the Non- Maskable Interrupt lines.
- Its own professional-quality gold-plated header connector
- Gold Bus Connectors
- Its own DIP-socket for connecting to boards that need an external 8-bit or output port such as the GIMIX Opto board.
- On-card regulators for +5 and — 12 volts provide power at the connectors for keyboards, tape readers, etc.

2 PORT SERIAL INTERFACE (For the 30 pin I/O bus) ...................... $128.43
Solderless jumpers provide easy selection and changing of options.

FEATURES:
- 2 separate RS-232 ports (with handshake) on a single board
- Jumper programmable connector pinouts for easier connection to external devices. (Connector can be programmed as DCE or DTE)
- Provides direct plug-in of standard RS-232 connectors when used with optional GIMIX cable sets.
- Individual baud rate and interrupt select jumpers for each port.
- Selectable for use with 4, 8, or 16 addresses per slot.

8 PORT SERIAL BOARD
(For the 50 pin bus) .................................................. $318.46
The GIMIX 8 PORT SERIAL INTERFACE has 3 header type connectors for external connections. The center connector provides Transmit Data, Receive Data, and signal ground for all 8 ports. The outer 2 connectors each provide TX, RX, and signal ground as well as the 3 handshake lines RTS, DCD, and CTS for 4 ports.

FEATURES:
- 8 separate RS-232 ports (with handshake) on a single 50 pin board
- Extended address decoding for the SS50C bus
- Occupies only 16 bytes of address space
- DIP-switch addressable to any 16 byte boundary
- Individual DIP-switch selectable baud rates and interrupts for each port
- On board baud rate generator for baud rates from 75 to 38,4K baud

8 PORT PARALLEL INTERFACE BOARD (For the 50 pin bus) .......... $198.45
- Eight 8 bit parallel ports on a single board
- Four 6821 PIAs
- Three ports buffered for output
- Five ports bi-directional (not buffered)
- Built in interrupt generator outputs 1 second or 1 minute interrupts
- Occupies 16 bytes of address space
- DIP-switch addressable to any 16 byte boundary

CABLE SETS FOR ALL ABOVE BOARDS ... ea. $24.95
Cable sets include: Ribbon cable with a matching connector for the I/O board, a 25 pin “D” type data connector for back panel mounting, and mounting hardware.
(Please specify which board when ordering cable sets)

GIMIX UNIVERSAL SYNCHRONOUS & ASYNCHRONOUS SERIAL I/O BOARDS This 30 pin board is available in three versions: with a 68B50 ACIA, a 68B52 SSDA (Synchronous Serial Data Adapter) or a 68B54 ADLC (Advanced Data-Link Controller). Control logic is provided for loop mode operation of the 68B54 ADLC. All three feature jumper selectable RS-232C or RS-422 (single-ended), or RS-422 (Differential) line drivers and receivers for the Receive data, transmit data, external clock, and handshaker signals. External connections can be made through the 26 pin header at the top of the board; or, when used with an optional GIMIX cable set, a 25 pin “D” type data connector. The jumper programmable I/O connector pinouts can be arranged to suit a variety of interface configurations.

with 68B50 ACIA ($244.50) with 68B52 SSDA ($254.52) with 68B54 ADLC ($268.54)
Control 31 Separate
AC Circuits (20 amps max. ea.)

RELAY DRIVER BOARDS FOR A.C.
POWER CONTROL

4 Boards (124 relays) can be connected to one 20 ma. current loop. Each board controls 31 G.E. RR8 relays.
Use multiple serial ports for additional groups of 124 relays.

SIMPLE TO CONNECT Only two pairs of wires coming from the computer are needed for each set of four Realy Driver Boards, these wires may be the standard telephone type.

RETAPE LOCATABLE. Relay Driver Boards can be conveniently located for A.C. power distribution — away from the computer and other Relay Driver Boards. The board operates in either the active or the report mode, as specified by the computer. In the active mode, the board interprets the 8-bit data received as a command to turn on or off a particular relay. Following a brief interval to allow the selected relay to operate, the board senses that relay’s status (on or off). If the status is other than expected, the computer takes appropriate action, as determined by the program. A command received in the report mode has the same results, except for relay activation. This allows the mode to check relay status at any time.

RELAY DRIVER BOARD ACCESSORIES

MOUNTING BRACKET 1 custom designed to hold a Relay Driver Board and 31 relays. The bracket (28” x 8 1/4” x 4”) and transformer will fit in a standard electrical cabinet (extra room needed for wiring) creating a neat and easily installed system.

TRANSFORMER 1 2 Amp., 24 volts. Custom manufactured to our specs for powering a Relay Driver Board and 31 G.E. RR8 relays.

PRICES

RELAY DRIVER BOARD ONLY $488.86
BRACKET $38.21

G.E. RR8 RELAYS 1 24 volt, split coil, mechanical latching type. Once ON they stay ON (drawing no current) until they are powered OFF, and vice-versa. Each relay can handle 20 AMPS for switching lights, motors, machinery, etc. up to 277 V.A.C. — UL listed.

OPTO-BOARD FOR REMOTE SENSING

Links any computer to 34 Outside-World Signals safely
Inputs isolated 1500 volts
Perfect for detecting closure of switches and relays
Built-in Debouncing.
Signals may range from 5 to 24 volts D.C.
Can detect signals sent by devices such as wall switches, hidden floor switches, electric eyes, alarms, smoke detector, thermostats, and a multiplicity of other applications.

OPTO-BOARD FOR REMOTE SENSING $348.85

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Quality Electronics since 1975

June 1982

THE SUN NEVER SETS ON GIMIX USERS


QUALITY All boards are assembled, burned-in, and tested and feature GOLD PLATED BUS CONNECTORS. Only top quality components are used and all boards are fully buffered for maximum system expansion. All boards come complete with gold bus connectors and all necessary instructions and documentation.

GIMIX designs, manufactures and tests, in-house, their complete line of products. Complete systems are available to fit your needs. Please contact the factory if you have any special requirements.

NOTE: Due to weight restrictions, GIMIX MAINFRAMES with 5" drives installed and GIMIX 8" DISK CABINETS with drives installed cannot be shipped via UPS. At the customer's option we will ship these systems via UPS with the drives packed separately or via air freight (EMERY) collect, with the drives installed. Please specify the desired shipping method when ordering. Regardless of the shipping method chosen, all systems are assembled and tested as complete units before shipping.

TO ORDER BY MAIL: SEND CHECK OR MONEY ORDER OR USE YOUR VISA OR MASTER CHARGE. Please allow 3 weeks for personal checks to clear. U.S. orders add $5 handling if order is under $200.00. Foreign orders add $10 handling if order is under $200.00. Foreign orders over $200.00 will be shipped via Emery Air Freight COLLECT, and we will charge no handling. All orders must be prepaid in U.S. funds. Please note that foreign checks have been taking about 8 weeks for collection so we would advise wiring money, or checks drawn on a bank account in the U.S. Our bank is the Continental Illinois National Bank of Chicago, 231 S. LaSalle Street, Chicago, IL 60604, account #75-32033. Visa or Master Charge also accepted.

Be sure to add $30.00 for each 50Hz power supply where needed.

LIMITED WARRANTY

GIMIX Inc. ("GIMIX") warrants its products against defects in material and workmanship for a period of Ninety Days from the date of shipment. The obligation of GIMIX is limited to the repair or replacement of any product, free of all charges, which proves defective during this period. This warranty does not cover damage due to accidents, negligence, abuse, or tampering.

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Contact GIMIX by mail at 1337 W 37th Place, Chicago, IL 60609, or phone at (312) 927-5510; if your product is defective to arrange for its repair or replacement under this warranty.
2MHZ 6809 SYSTEMS

GIMIX offers you a variety to choose from!

38 MB WINCHESTER SYSTEM ........................................... $17,498.99

HARDWARE FEATURES:
★ 2MHz 6809 CPU
★ 512KB Static RAM
★ 8 RS232C Serial Ports
★ 2 Parallel Ports

SOFTWARE FEATURES:
★ OS-9 LEVEL TWO Multi-User
   Operating System
★ OS-9 Debugger
★ DMA Double Density Floppy Disk Controller
★ Dual 8" DSDD Floppy Disk System
★ Dual Winchester Subsystem with
   Two 19 MB 5 1/4" Winchester Drives
★ OS-9 Text Editor
★ OS-9 Assembler

19 MB WINCHESTER SYSTEM ........................................... $8998.09

HARDWARE FEATURES:
★ 128K Static Ram
★ 2MHz 6809 CPU
★ 19 MB 5 1/4" Winchester DMA Subsystem

SOFTWARE FEATURES:
★ OS-9 LEVEL TWO Multi-User
   Operating System
★ OS-9 Text Editor
★ 4 RS232C Serial Ports
★ 1 MB 5 1/4" Floppy Disk Drive
★ DMA Double Density Floppy Disk Controller
★ OS-9 Debugger
★ OS-9 Assembler

128KB MULTI-USER SYSTEM ........................................... $6997.39

HARDWARE FEATURES:
★ 2MHz 6809 CPU
★ DMA Double Density Floppy Disk Controller
★ 128K Static Ram
★ 2 RS232C Serial Ports

SOFTWARE FEATURES: Your choice of either UniFLEX or OS-9 LEVEL TWO. Both are Unix-like Multi-User/Multi-Tasking Operating Systems.
★ OS-9 Debugger
★ Dual 8" DSDD Floppy Disk System
★ OS-9 Assembler

56KB FLEX / OS-9 'SWITCHING' SYSTEM ............................. $4148.49

HARDWARE FEATURES:
★ 2MHz 6809 CPU
★ 56K Static Ram
★ 2 RS232C Serial Ports

SOFTWARE FEATURES:
★ GMXBUG monitor — FLEX Disk Operating System
★ OS-9 LEVEL ONE Multi-tasking operating system for up to 56K of memory
★ DMA Double Density Floppy Disk Controller
★ 2 Built-in 5 1/4" 40tr DSDD Disk Drives
   (80 Track DSDD Drive Option . . add $400.00)

WINCHESTER SUBSYSTEMS

Winchester packages are available for upgrading current GIMIX 6809 systems equipped with DMA controllers, at least one floppy disk drive, and running FLEX, OS-9 LEVEL ONE or OS-9 LEVEL TWO. The packages include one or two 19MB (unformatted) Winchester drives, DMA Hard Disk interface, and the appropriate software drivers. The Interface can handle two 5 1/4" Winchester Drives, providing Automatic Data Error Detection and Correction: up to 22 bit burst error detection and 11 bit burst error correction.

Dual drives can be used together to provide over 30 MBytes of on line storage -- or use one for back-up of the other. (More convenient and reliable than tape backup systems.
★ #90 includes one 19MB Drive, Interface, and Software ........................................... $4288.90
★ #91 includes two 19MB Drives, Interface, and Software ........................................... $6688.91

Contact GIMIX for systems customized to your needs or for more information.

50 HZ Export Versions Available

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Intelligent Serial I/O Processor Board Now Available

The GIMIX Intelligent Three-port RS-232C Serial I/O Interface can significantly increase throughput of a multi-user system by reducing the number of interrupts between user terminals and the host CPU. The Intelligent I/O Board accomplishes this by buffering data transfers between system and users and preprocessing of the data.

Appropriate on-board software and operating system drivers are required. Software and drivers for OS-9 Level 2 will be available shortly from GIMIX.

- INDEPENDENT ON-BOARD 2MHZ 68B09 CPU
- UP TO 20K OF ON-BOARD MEMORY (EPROM and RAM)
- BUFFERED DATA TRANSFER BETWEEN HOST AND ON-BOARD CPU USING A Z8038 FIO I/O INTERFACE UNIT
- THREE RS-232C SERIAL I/O PORTS (6551As) WITH SOFTWARE SELECTABLE BAUD RATES, WORD LENGTH, STOP BITS, PARITY

Standard Version Including 4K RAM (Without Software) .................................. $438.11

— PARALLEL VERSION COMING SOON —

Uniflex For GIMIX Winchester Systems

TSC will be providing UniFLEX compatible with GIMIX Winchester systems. The NEW versions of UniFLEX for use with the Winchester systems will be delivered on 5" media as well as 8" media.

GIMIX 30 Pin Prototyping Board Now Available

- Double sided with plated thru holes and gridded power and ground lines.
- 8 rows of pads on .100 x .300 centers: up to 41 fourteen pin ICs.
- Accepts standard 6, 8, 14, 16, 20, 24, and 40 pin DIP devices.
- The entire top edge has pads for .100 x .100 header (ribbon) connectors.
- Pads for solder connections or .100 center headers on all 30 bus lines.
- Accepts 3 TO-220 regulators, 1 on the +8V & 1 ea. on the +/− 16V lines.
- Provisions for decoupling caps distributed throughout the array.
- Can be used with wire wrap, wiring pencil, solder wiring, etc.

With gold bus connectors and heat sinks (unassembled) .................. $38.33

Now Available From GIMIX

(U.S. & Canada Only)

THE WINDRUSH EPROM PROGRAMMER

★ Probably the most versatile EPROM PROGRAMMER available. Interface & software for EXORcisor - II (fully addressable) and S-50 bus systems.
★ PROGRAMS AND VERIFIES 2508/2708, 2516/2716 (SINGLE AND TRI-VOLT TYPES) 2532, 2732, 2732A, 2564, 2764 and the 128K TMS2528 (16K x 8)
- - - - - - WITHOUT ADDITIONAL ‘PERSONALITY’ MODULES - - - - - -
★ PROGRAMMER extends out to your work area via 5’ of twisted pair cable.
★ EXTENSIVE COMMANDS MENU … MOVE DATE, READ, PROGRAM, VERIFY EPROMS, EXAMINE/CHANGE BUFFER, FORMATTED DUMP OF BUFFER, FILL BUFFER.
★ Fully documented user’s manual w/schematics & theory of operation. Professionally finished PCBs w/solder resist & component overlay.
★ SOFTWARE AVAILABLE FOR FLEX 2/9, SSB, OS-9 (LVL 1 NOW, LVL 2 LATER) and MDOS…All source files supplied. Specify disk size please!

NOTE: One version is supplied FREE. Extra versions: $25.00 each.

S-30 Interface/Programmer/Baseplate/Cable .................................................. $375.00
EXORcisor Interface/Programmer/Baseplate/Cable ......................................... $395.00

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