The Computer for the Professional

No matter what kind of professional you are, the System 8813 will make you more productive in your profession. Use it to do scientific, engineering, or financial analysis, to edit reports and proposals, or to collect data in the laboratory.

Reliable hardware and sophisticated software make this system a useful tool. A powerful BASIC interpreter allows you to solve sophisticated problems quickly. Scientific features built into BASIC include trig, inverse trig, exp, log, hyperbolic, and gamma functions, multi-dimensioned arrays, maximum and minimum value in an array, array

functions, string arrays, and more. An easy-to-use text editor allows you to write and update programs, reports, lists, schedules, and letters conveniently. A complete assembler lets you write and debug machine language programs, such as controllers and drivers, and connect them into BASIC.

See the System 8813 at your local computer store or contact us at 460 Ward Dr., Santa Barbara, CA 93111, (805) 967-0468.

PolyMorphic Systems

System 8813

The System 8813 by PolyMorphic Systems is easy for both the novice who wants already-existing programs and the programmer who wants to write his own programs to use. With our system software the novice just inserts the disk and pushes the button. The application program takes over and guides you to the solution. You don't need special commands or procedures to put the system to work.

For the programmer, the 8813 gives you a wide range of tools for applications development. All the tools you need to write or modify BASIC are an integral part of the system software. Disk BASIC can: save and load programs on the disk automatically with no need to pre-allocate files; give you access to up to four files at one time; read, write, and modify records in a file not only in sequence, but also based on position in the file; talk to serial devices in BASIC; and connect your device drivers to BASIC.

For those who want to write their own programs in assembly language, we provide a disk-to-disk assembler. Assembly options allow assembly with a complete listing, a listing of errors only, or no listing, on either the video screen or a printer. The powerful debugger makes it possible for you to interrupt running programs, alter memory or register, then return to exactly where you left the interrupted program and resume running. Our versatile text editor, which gives you full screen cursor control, can help you create or edit assembly language or BASIC source files, or plain text files.

The system executive program (EXEC) gives you disk management capabilities: you may copy, delete, or type files on the video screen or on a printer. An "UNDELETE" command allows you to recover deleted files, and the "IMAGE" command allows you to copy an entire disk onto another. Users also get a detailed directory: program size, and name, location, and load and start addresses allow you to get at programs easily. Several system overlays are also provided for the programmer, including error messages and diagnostics.

System 88 software is designed to be powerful, yet easy to use. This ease lets the computer novice use pre-programmed applications without training. The power of the system allows those who wish to design their own programs to also be immediately productive; you can quickly build and validate the applications you need.
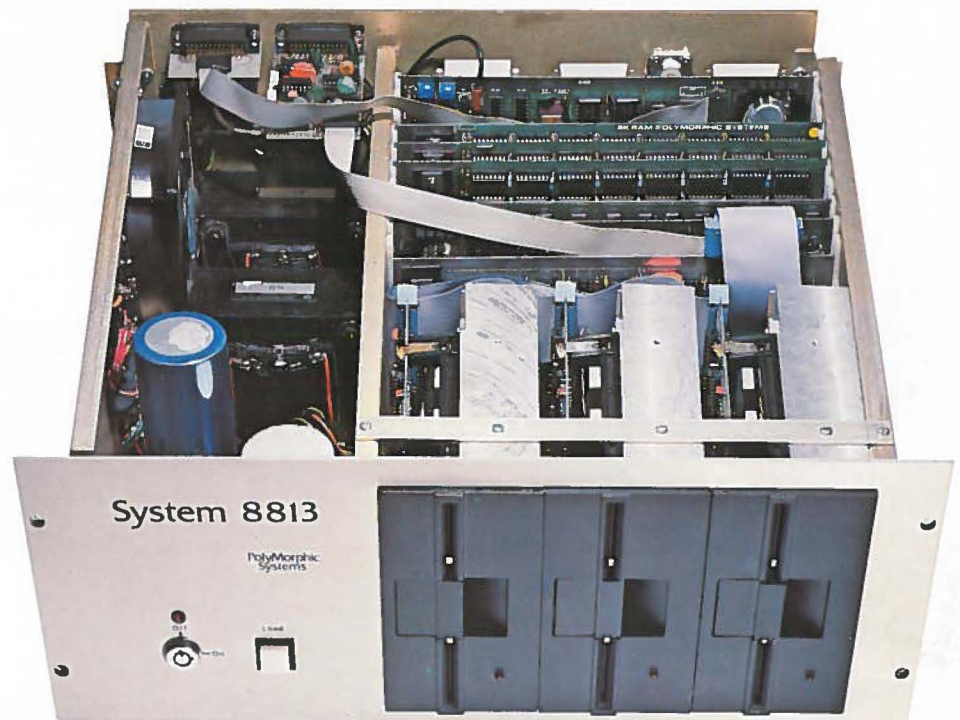
PolyMorphic Systems   BASIC

Scientific Functions: Sine, cosine, log, exponential, square root, random number, x to the y power.

Read and Write Disk Files from BASIC.

Input type-ahead • Cassette Save, Load, and Verify of Named Programs • Multi-line Functions • Point-Plotting on Video Display • Real-Time Clock • String Manipulation and String Functions • Formatted Output • Memory Load and Store • 8080 Input and Output • Multiple Statements Per Line • Renumber • If Then Else • Array Dimensions Limited by Memory • Single Character Input.

Commands: RUN, LIST, SCR, CLEAR, REN, CONT, SAVE, LOAD, VERIFY, FILE, OPEN, CLOSE, REW, POS, DEF.

Statements: LET, IF THEN ELSE, FOR NEXT, GOTO, ON, EXIT, STOP, END, REM, READ, DATA, RESTORE, INPUT, GOSUB, RETURN, PRINT, OUT, POKE, PLOT.

Built in Functions: FREE, ABS, SGN, INT, LEN, CHR$, VAL, STR$, ASC, SIN, COS, RND, LOG, TIME, EXP, CALL, SQRT, PEEK, INP.

Chassis

Backplane: 10 S-100 card slots
Disc Drives: 3 mounting slots
Dimensions: 19" W x 17¼" D x 7" H (including rack mount ears)

Firmware Debugger

Functions: Tape loader for Byte standard or Polyphase encoded Poly format absolute binary cassette files. Front panel simulator program displays register and memory on system video display. Commands allow register or memory modification, program interrupt and single step of or return to interrupted program. The debugger is completely stack re-entrant.

Disk Drives

Transfer Rate: 125,000 bits/sec
Latency: 100 ms
Access Time: 40 ms track to track
Maximum Number of Drives: 3
Tracks/Disk: 35
Sectors/Track: 10
Data Bytes per Disk: 89,600
MTBF: 8000 hours
Hard Error Rate: less than 1 in 10^{11} bits read

Video Display

Number of Characters: 1024
Characters per Line: 64
Character Set: 96 ASCII characters; 32 Greek characters and special symbols
Character Font: 7 x 9 dot matrix
Graphics Resolution: 128 horizontal; 48 vertical

Processor Card

Processor Type: 8080A.
Clock: Crystal controlled 1.8432 MHz.
Interrupts: 8 level vectored.
Real Time Clock: 50/60 Hz (referenced to line frequency).
Serial I/O Port TTL levels for optional minicards (Printer Interface & Cassette Interface available).
Baud Rate: Software controlled 12.5 to 9600 baud (asynchronous) 800 to 57,600 baud (synchronous).
Data Format: 5, 6, 7, or 8 bits with or without parity.
Ports: Can handle up to 2 minicards.

Memory

RAM: 16,896 bytes   **ROM:** 3,072 bytes
Access Time: 500 ns

Power Supplies

AC Input: 105-125VAC, 50-60 Hz, 400 W max.
+8V Supply: 15A
+16V Supply: 5A
–16V Supply: 1A

Cabinet

Material: Walnut exterior
Dimensions: 20" W x 17¾" D x 8" H (including rubber feet)