

LEXIDATA SYSTEM 2000

MODEL 2400

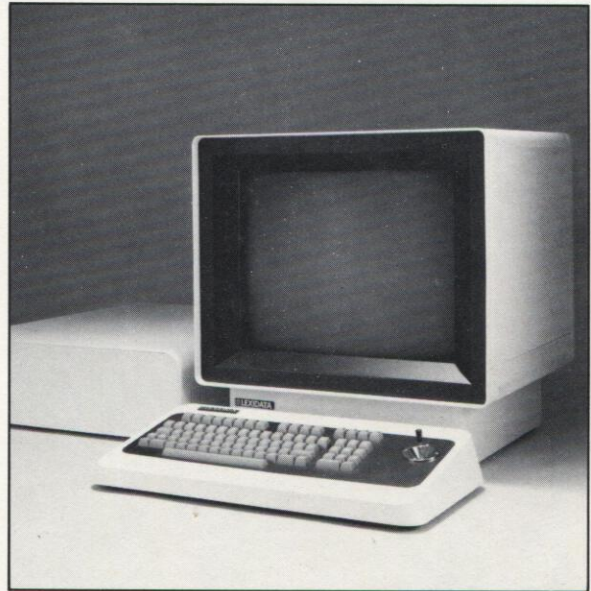
The Lexidata System 2000 is an intelligent, black and white display terminal which provides the user the advantages of distributed graphics processing. It is a totally integrated display system developed to deliver high performance graphics at a low cost while providing high reliability and serviceability to meet the needs of both OEMs and sophisticated end users.

The S2400 is comprised of an electronics module containing all system electronics, a 19" black and white monitor (125MHz) and a detachable 85 key ASCII keyboard with an integral, proportional-rate joystick. The keyboard generates all 128 ASCII characters and includes 12 function keys for user-programming and a numeric entry/cursor control keypad. The joystick is a 2-D rate-control device located on the right-hand side of the keyboard; it provides control of each window's graphics cursor. Simultaneous use of the joystick and keypad provides control of both a graphics and text cursor.

STANDARD FEATURES

- 1280 x 1024 resolution at 50/60Hz non-interlaced
- Screen workspace offering four user-definable video windows, each with special attributes for different tasks
- PROM-resident software offering both raster graphics primitives and Tektronix PLOT-10™ for coding vectors
- Single board architecture built around Motorola's MC68000 microprocessor with five processor option slots and two RS-232 interface ports
- Detached 85 key ASCII keyboard with integral proportional-rate joystick

The system offers the flexibility of plug-in options, enabling additions such as serial ports and expansion RAM, peripheral storage devices and communications interfaces. The design also addresses the issue of oper-



ator efficiency; a unique video workspace layout permits the performance of multiple tasks simultaneously.

ARCHITECTURE

The 16/32-bit Motorola MC68000 microprocessor and a video display memory are configured together on a single PC board. The MC68000 is equipped with a large memory address range for optimizing display speed and handling user programming. The video display memory is configured to allow user definition of as many as four video windows into the screen workspace to enable the user to select a window optimal for handling a specific activity: W1 is configured with pan and zoom and is ideal for handling interactive graphics, W2 is a static window which readily accommodates system select menus because of its shape and position, W3 is capable of vertical scroll with wraparound and is well suited for processing text and W4 is a static window which can be used for log-

ging error messages or annotating keyboard function keys. Additionally, each window is configured with its own graphics and text cursor and is adjustable in size. A four window configuration optimized for efficiency would enable the user to simultaneously perform interactive graphics, conduct system dialogue, maintain a system select menu and log error messages. The position of each window and its associated attributes appear below.

<p>W1</p> <ul style="list-style-type: none"> • Graphics and Text Cursor • Pan • Zoom at 2x, 4x • Variable Size 	<p>W2</p> <ul style="list-style-type: none"> • Graphics and Text Cursor • Variable Size
<p>W3</p> <ul style="list-style-type: none"> • Graphics and Text Cursor • Vertical Scroll with Wraparound • Variable Size 	
<p>W4</p> <ul style="list-style-type: none"> • Graphics and Text Cursor • Variable Size 	

SOFTWARE

The S2400 supports two independent command formats: a Lexidata version based on an English language command structure and a version based on Tektronix PLOT-10™ code. The architecture of the software is based on MC68000-resident firmware and is made up of 64KB of PROM and 32KB or 128KB of RAM. The PROM contains the S2400 operating system, while the RAM is

present for downloading user fonts and application software. Additional program memory can be added via the processor option slots.

LEXIDATA PROTOCOL FUNCTIONS

Text	Graphics	Display
<ul style="list-style-type: none"> • Four Character Sizes • Tab Stops • Text Wrap Around to Next Line • Locatable at Current Graphics Position 	<ul style="list-style-type: none"> • Chained Vector • Absolute and relative vectors • Circle • Area Flood • Selective Erase 	<ul style="list-style-type: none"> • Read/Write Displayed Plane • Replacement and Completion Writing Modes • Read/Write Pixels • Block Pixel Copy

PLOT-10™ PROTOCOL FUNCTIONS

<ul style="list-style-type: none"> • Absolute vectors • Point Plot mode • Incremental Plot mode 	<ul style="list-style-type: none"> • Interactive graphics cursor • Text with two character sizes • Dashed vectors
--	--

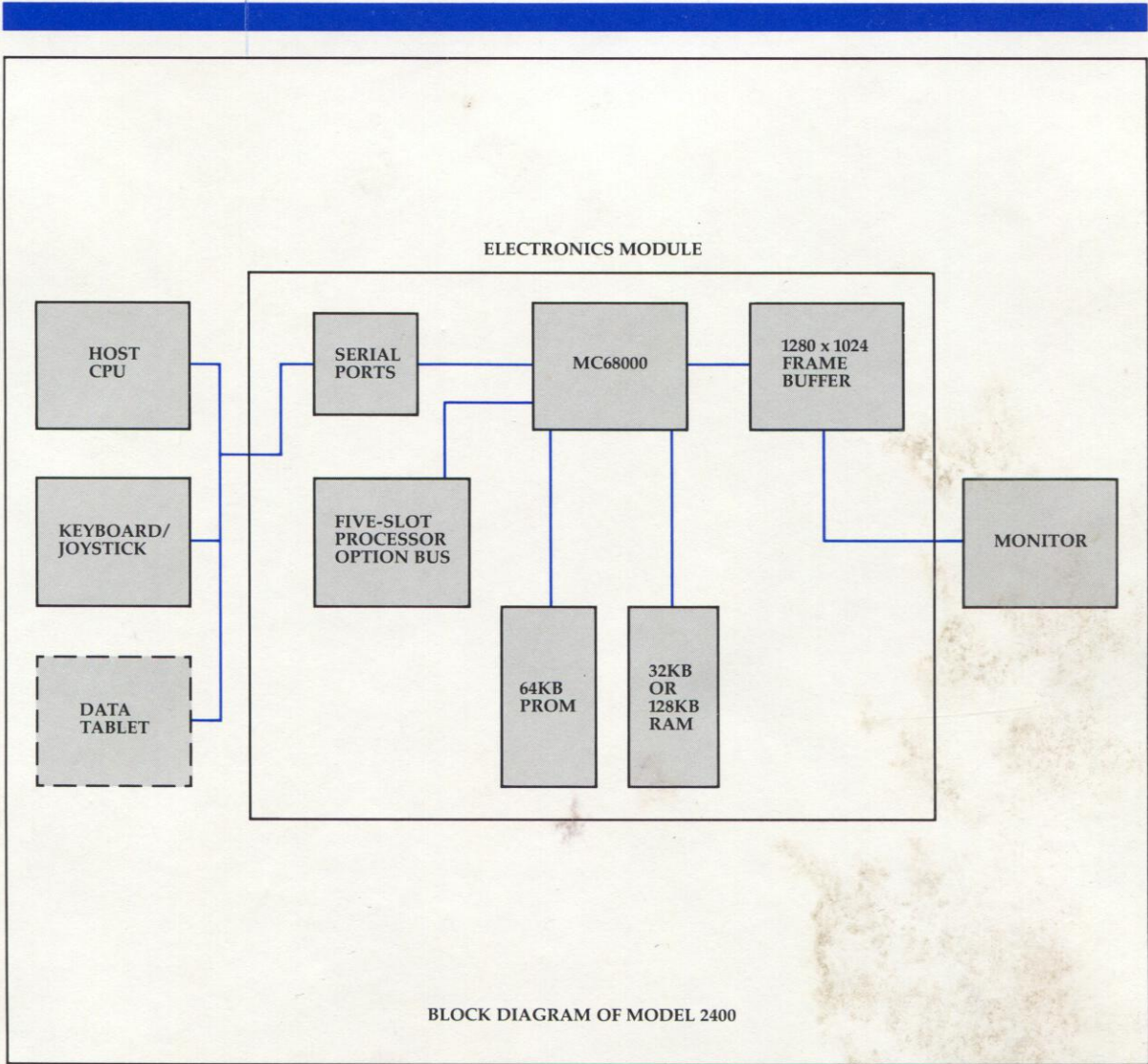
OPTIONS

Processor The system controller board is configured with five processor option slots for upgrading system functionality. Option boards providing additional serial ports and additional program memory (up to 256KB per option board) can be added to the basic version to tailor configurations to user needs.

Input Devices 11 inch x 11 inch data tablet with ballpoint stylus or four-button puck for digitizing.

CONFIGURATION

The S2000 is packaged as three separate components: a 19" CRT; a standard ASCII keyboard with integral joystick; and an electronics module containing system electronics and interfaces.



SYSTEM SPECIFICATIONS

DISPLAY MONITOR

Screen Size

19" diagonal measure

Phosphor Type

P4 phosphor

Refresh Rate

50/60Hz non-interlaced

Text Format

51 lines x 80 characters or 102 lines x

160 characters

Character

10x14 matrix in 16x20 box with descenders or

5x7 matrix in 8x10 box with descenders

Character Set

ASCII display, 96 characters (upper/lower case, numeric and punctuation)

Cursor

Blinking block character in text mode or flashing crosshair in graphics mode. Both programmable.

Cursor Control

Host, joystick, and keypad; data tablet optional

KEYBOARD

General

Detached, 85 key with 2-axis joystick

Key Set

Standard 85 key arrangement

Auxiliary Keys

11-key cursor/numeric pad with cursor arrows, numbers and period

Function Keys

16-key function pad with programmable keys, function select, learn key and cursor/numeric select

KEYBOARD (continued)

Visual Indications

Function select, learn key and cursor numeric with LED indicator

Audible Signal

Bell produced by CTRL G

N-Key Rollover

Rapid entry permitted

Method of Interface

RS232 connection via coiled cable

GRAPHICS FEATURES

Resolution

1280 x 1024 x 1

Graphics Format

1280 horizontal x 1024 vertical for 5:4 aspect ratio

Protocols

Lexidata command language (based on English language structure)
PLOT-10™

Pan and Zoom

Window 1 only. Zoom at 2x and 4x.

Pan in any direction at 2x or 4x

Scroll

Window 3 only. Single or multiple line scroll.

POWER

Input

110/220VAC, 50/60Hz

Consumption

300W, nominal

HOST INTERFACE

Method

Serial via RS232 port connection

Data Transfer Speed

Up to 9600 baud



LEXIDATA 755 Middlesex Turnpike, Billerica, MA 01865