

LEXIDA

LEX 90/35 Model 3 High Resolution Graphics System

The LEX 90/35 Model 3 is a high-performance raster display system featuring 1280x1024x8, 60Hz non-interlaced color graphics. A member of the LEX 90 family, the Model 3 offers eight planes of dual ported interleaved image memory which can be refreshed at either 60Hz non-interlaced, or 30Hz interlaced. An 8 bit-in/24 bit-out Color Lookup Table (CLUT) provides 256 colors out of a total palette of 16.7 million.

Upward Compatibility As with all members of the LEX 90 family, the Model 3 is software compatible with Lexidata's popular Series 3000 products. The LEX 90 software architecture is based upon Lexidata's Extended Graphics Operating System (EGOS™). EGOS provides all the graphics primitives such as circles, arcs, vectors, fills, and text, as well as other fundamental graphics tools. This operating system thus enables the user to work with an upwardly compatible command set, protect previous software investments, and provide room for growth as application demands become more complex.

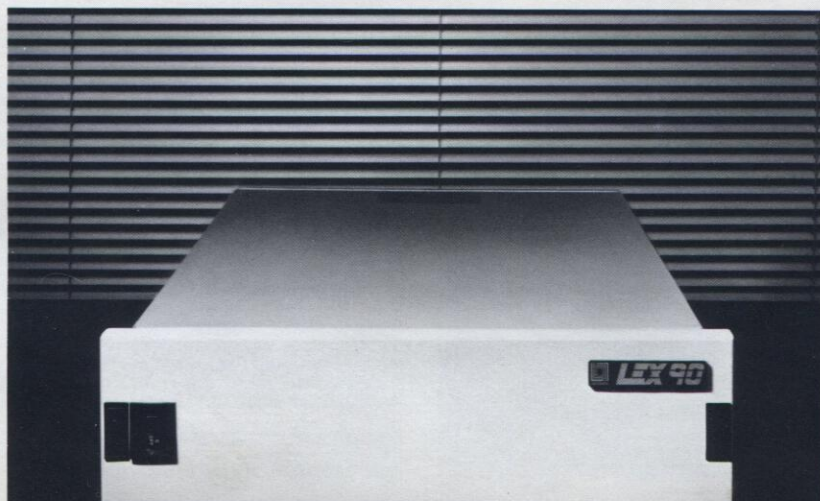
Family Architecture Every LEX 90 model features the System Control

Features	Benefits
1280x1024, 60Hz Non-Interlaced Color	Displays Flicker-Free Color Graphics
Affordable, High Resolution Raster Display	Lower Total System Cost
600ns Per Pixel Write Time (Average)	Displays Complex Drawings Quickly
Certified Integrated Circuit Components and DIN Connectors	High Quality and Reliability
Plug Compatible With Lexidata's Series 3000	Protects Previous Software Investments
On-Board Diagnostics	Assures Quick System Diagnosis and Repair

Module (SCM) as its basic display controller. Based on a 56-bit word microprocessor, the SCM uses the latest bit-slice technology to achieve vector writing speeds of 600ns per pixel in any direction. This 56-bit horizontal microcode, designed with an advanced high-speed LSI microsequencer, yields increased speed and efficiency by processing multiple read/write and arithmetic instructions concurrently. As a result, complex calculations and set-up times are executed rapidly during each of the 12MHz processor's cycles.

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On-Board Diagnostics A 6801 microprocessor is dedicated to system diagnostics. After power-up, diagnostics quickly check registers, memory boards, and Lookup tables(LUTs). Another test can be selected to perform an extensive diagnosis of the processor, all video Random Access Memory (RAM), and LUT locations. This test provides information on clipping, pan and zoom, blink, and monitor alignment.

Expansion* A 1280x1024x4 configuration of the Model 3 will be offered with a 4 bit-in/12 bit-out CLUT. Additionally, 640x512x8 60Hz SOLID-VIEW™ firmware for the Model 3 will be available with a 16-bit Z-buffer.

LEX 90/35 Model 3 Specifications

Performance

Vectors: 2µs Set-Up + 600ns (average) in any direction

Fills: 37.5ns per pixel

Random Pixels: 375ns per pixel

Viewable Resolution

1280x1024

Refresh Rates

60Hz non-interlaced

(30Hz interlaced also available)

Pan/Scroll/Zoom/Blink

Horizontal Pan Step: 80 pixel increments

Vertical Scroll Step: 1 pixel increments

Zoom: 2:1 ratio

Blink: Blink-by-plane

Graphics Processor

2900 Family

12 MHz Bipolar Processor

16-Bit Data Path

56-Bit Internal Word

Diagnostic Processor

6800 Family with 8K PROM

Dip Switch Reconfigurable

Signature Analysis

Standard Power-Up Diagnostics

Extended Full System Check

Lookup Tables

Standard: 8 bits in/24 bits out

Video Output

RS343 Compatible

64 KHz Scan Rate

112.88 MHz Data Rate

Composite Sync on RGB

Chassis Dimensions

5.25" high x 17" wide x 28" deep

Average Weight: 45 lbs.

Power

Voltage: Selectable between 90-132VAC and 180-264VAC

Frequency: 47-63Hz

Consumption: 250-400W (DC)

Universal Power Supply (line frequency independent)

Environmental Requirements

Operating Temperature: 10 to 40 degrees C

Storage Temperature: -35 to 70 degrees C

Operating Relative Humidity: 10% to 90% (non-condensing)

Storage Relative Humidity: 10% to 90% (non-condensing)

Acoustic Noise Level: NC-55 (noise criteria curve)

Regulatory Compliance: LEX 90/35 Model 3 meets FCC and UL regulations and is designed to conform with CSA and VDE regulations.

Input/Output Processor (Option)

MC68000 16/32-bit (8MHz)

4 RS232 Serial Ports (up to 19.2K baud)

128KB RAM

128KB PROM

Peripheral Multiplexing

Cursor Tracking

Peripherals

Data Tablet

Joystick

Mouse*

Host Interfaces

Parallel DMA or Serial

Data Transfer Rate

DMA: Up to one megaword (16 bits/word) per second

Serial: 19.2K baud

LEX 90/35 Model 3 Ordering Guide

Order No.	Description
903503.001	1280x1024x8
903503.002*	1280x1024x4

LEXIDATA™

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Product specifications subject to change without notice.

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*NOTE: Contact sales representative regarding availability.