

This product is obsolete.

CONTROLLERS CLASSIC LC4

OPTO 22 DATA SHEET

Form 475-230124

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Description

*** This product is OBSOLETE and no longer available. ***

The LC4 is a powerful, low cost, single-board computer which performs the function of a local controller on a Pamux or Optomux network. The LC4 can be programmed in either BASIC or FORTH. The BASIC interpreter is command-set compatible with the IBM PC BASIC interpreter, except for commands related to screen and disk I/O.

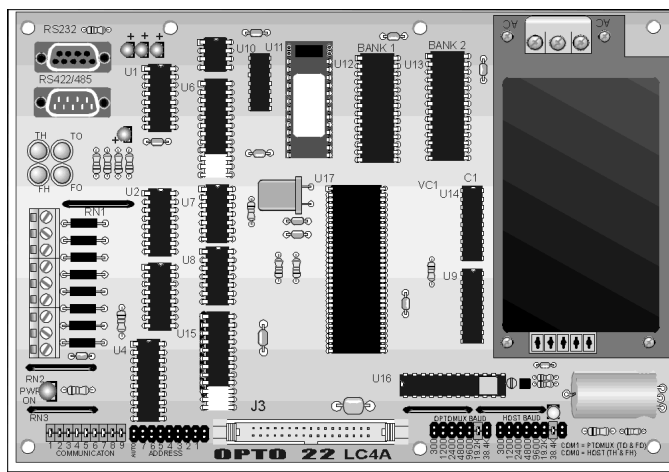
The LC4 Local Controller has an expansion port which can accept a daughter card to provide various functions. A daughter card (EX1) is available to allow LC4 to control a Pamux bus. Another daughter card (EX2) is available to provide two additional serial ports as well as a 24-bit, bi-directional parallel port for direct connection to Opto 22 digital I/O mounting racks.

The LC4A includes an onboard 115 VAC power supply, the LC4B includes an onboard 220 VAC power supply, and the LC4DC requires a 10 to 28 VDC power source. The maximum inrush current for the LC4DC is three (3) amperes.

The LC4 Local Controller can be used to replace a host computer for stand-alone applications or several LC4's can be networked to a host computer for distributed applications. The following are several areas where LC4 can be applied:

- Distributed Process Control
- PID Loop Control
- Energy Management
- Protocol Conversion
- Remote Telemetry Unit (RTU)
- Data Acquisition
- Machine Control

Part Number	Description
LC4A	LC Controller 120 VAC
LC4B	LC Controller 220 VAC
LC4DC	LC Controller DC Filter Board



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Specifications [OBSOLETE]

Hardware

Power Requirements: LC4A LC4B LC4DC	115 VAC \pm 10 VAC, 60 Hz 220 VAC \pm 20 VAC, 50 Hz 10–28 VDC, 1.5 amperes @ 10 VDC, 0.50 amperes @ 24 VDC
Power Dissipation:	less than 8 watts @ 25o C
Operating Temperature:	0° to 70° C 95% relative humidity, non-condensing
Interface:	one full duplex, RS-422/485 serial port one full duplex, selectable RS-232 or RS-422/485 port one expansion bus for daughter card
Baud Rate:	300 to 38,400 baud
Distance: RS-422/485 RS-232	up to 5,000 feet total length up to 100 multidrop stations up to 50 feet
CPU:	64180, 8-bit microprocessor
CPU Clock Frequency:	6.144 MHz
EPROM:	32K bytes
RAM:	64K CMOS with battery backup (32K for the application program and 32K for a RAM disk)
Real-Time Clock:	clock/calendar with battery backup, 0.01 second resolution (Interrupt)
RAM/Clock Battery:	3 volt lithium, over 10 year life
Indicators:	power, host transmit and receive, and Optomux transmit and receive
Jumper Options:	auto run baud rates LC4 address termination and biasing resistors

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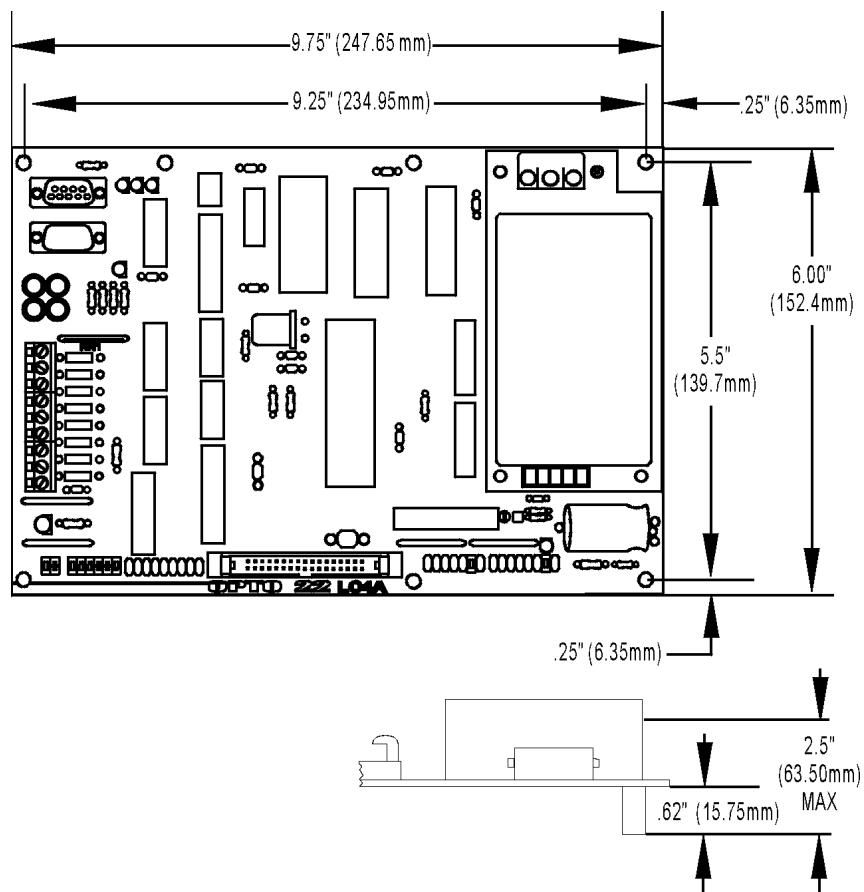
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Specifications [OBSOLETE]

Software

- IBM PC command compatible BASIC interpreter
- FORTH interpreter (subset of FORTH-83 Standard)
- OptoWare (Optomux communications Driver) and Pamux Driver
- Integer and IEEE floating-point arithmetic

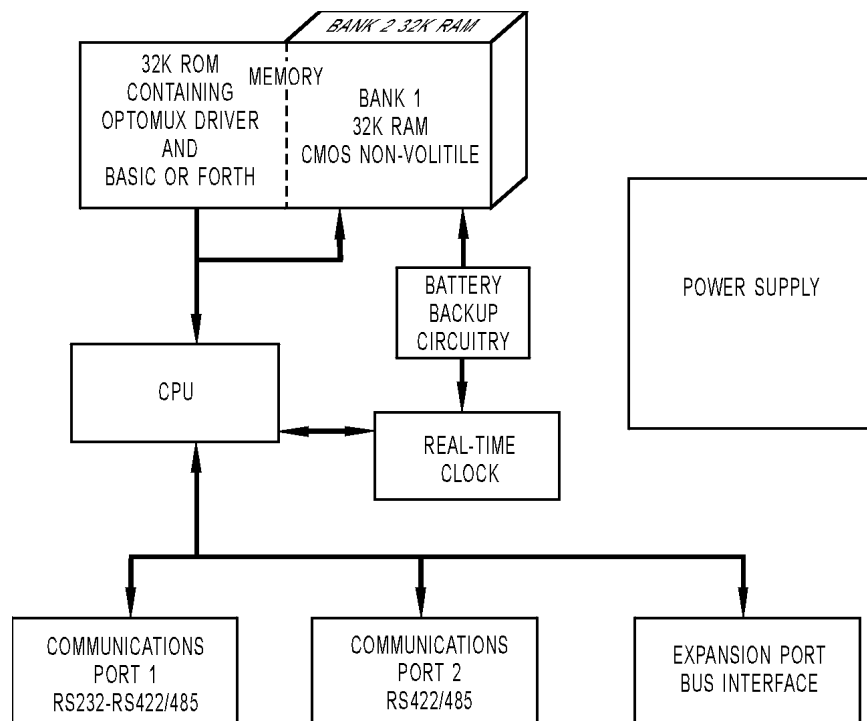
Dimensions



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Architecture



PRODUCTS

Opto 22 develops and manufactures reliable, easy-to-use, open standards-based hardware and software products. Industrial automation, process control, remote monitoring, data acquisition, and industrial internet of things (IIoT) applications worldwide all rely on Opto 22.

groov RIO®

groov RIO edge I/O offers a single, compact, PoE-powered industrial package with web-based configuration and IIoT software built in, support for multiple OT and IT protocols, and security features like a device firewall, data encryption, and user account control.

Standing alone, groov RIO connects to sensors, equipment, and legacy systems, collecting and securely publishing data from field to cloud. Choose a universal I/O model with thousands of possible field I/O configurations, with or without Ignition from Inductive Automation®, or a RIO EMU energy monitoring unit that reports 64 energy data values from 3-phase loads up to 600 VAC, Delta or Wye.

You can also use groov RIO with a Modbus/TCP master or as remote I/O for a groov EPIC system.

groov EPIC® System

Opto 22's groov Edge Programmable Industrial Controller (EPIC) system gives you industrially hardened control with a flexible Linux®-based processor with gateway functions, guaranteed-for-life I/O, and software for your automation and IIoT applications.

groov EPIC Processor

The heart of the system is the groov EPIC processor. It handles a wide range of digital, analog, and serial functions for data collection, remote monitoring, process control, and discrete and hybrid manufacturing.

In addition, the EPIC provides secure data communications among physical assets, control systems, software applications, and online services, both on premises and in the cloud. No industrial PC needed.

Configuring and troubleshooting I/O and networking is easier with the EPIC's integrated high-resolution color touchscreen. Authorized users can manage the system locally on the touchscreen, on a monitor connected via the HDMI or USB ports, or on a PC or mobile device with a web browser.

groov EPIC I/O

groov I/O connects locally to sensors and equipment. Modules have a spring-clamp terminal strip, integrated wireway, swing-away cover, and LEDs indicating module health and discrete channel status. groov I/O is hot swappable, UL Hazardous Locations approved, and ATEX compliant.

groov EPIC Software

The groov EPIC processor comes ready to run the software you need:

- Programming: Choose flowchart-based PAC Control, CODESYS Development System for IEC61131-3 compliant programs, or secure shell access (SSH) to the Linux OS for custom applications
- Node-RED for creating simple IIoT logic flows from pre-built nodes
- Efficient MQTT data communications with string or Sparkplug data formats
- Multiple OPC UA server options
- HMI: groov View to build your own HMI viewable on touchscreen, PCs, and mobile devices; PAC Display for a

Windows HMI; Node-RED dashboard UI

- Ignition or Ignition Edge® from Inductive Automation (requires license purchase) with OPC-UA drivers to Allen-Bradley®, Siemens®, and other control systems, and MQTT communications

Older products

From solid state relays, to world-famous G4 and SNAP I/O, to SNAP PAC controllers, older Opto 22 products are still supported and working hard at thousands of installations worldwide. You can count on us for the reliability and service you expect, now and in the future.

QUALITY

Founded in 1974, Opto 22 has established a worldwide reputation for high-quality products. All are made in the U.S.A. at our manufacturing facility in Temecula, California.

Because we test each product twice before it leaves our factory rather than testing a sample of each batch, we can afford to guarantee most solid-state relays and optically isolated I/O modules for life.

FREE PRODUCT SUPPORT

Opto 22's California-based Product Support Group offers free technical support for Opto 22 products from engineers with decades of training and experience. Support is available in English and Spanish by phone or email, Monday–Friday, 7 a.m. to 5 p.m. PST.

Support is always available on our website, including [free online training](#) at OptoU, how-to [videos](#), [user's guides](#), the Opto 22 KnowledgeBase, and [OptoForums](#).

PURCHASING OPTO 22 PRODUCTS

Opto 22 products are sold directly and through a worldwide network of distributors, partners, and system integrators. For more information, contact Opto 22 headquarters at **800-321-6786** (toll-free in the U.S. and Canada) or **+1-951-695-3000**, or visit our website at www.opto22.com.

