

Features

- ◆ Generic node for high performance EIA709 and BACnet based controller applications
- ◆ User application development in ANSI-C Programming Language
- ◆ Fully supported by network management tools like LonMaker or NL220
- ◆ Integrated web server for easy configuration
- ◆ CPU: ARM7TDMI LC3020 @ 50 MHz
- ◆ Memory: 16 MB RAM, 8 MB Flash
- ◆ JTAG debug interface
- ◆ Supports firmware update through serial port, Ethernet and EIA-709 channels
- ◆ Real-Time Operating System (RTEMS)
- ◆ Flash File-System
- ◆ EIA-709 interface based on the ORION Protocol Stack for EIA-709 and EIA-852 channels
- ◆ BACnet interface based on Cimetrics BACstack protocol stack
- ◆ Supports multiple parallel transactions, 1024 network variables and 1024 alias network variables, 1024 address table entries, 256 groups per domain, 2 domains, dynamic network variables
- ◆ Supports multiple transceivers: FT-10/LPT-10, TP-1250, RS-485, PLT-22, Ethernet 100BaseT
- ◆ RS-232 serial port (full handshaking)
- ◆ Diagnostic LEDs
- ◆ EIA-709 status and activity LED
- ◆ Ethernet link and activity LED
- ◆ Monitoring of the supply voltage and device temperature
- ◆ Real-time clock with battery backup
- ◆ 12-35 V DC / 12-24 V AC supply voltage
- ◆ 105 x 86 x 60 (L x W x H in mm) i.e. 6 TE
- ◆ DIN-rail or wall mountable
- ◆ Requires the L-CORE-KIT development tools for application development

Description

Application areas for L-Control XP are powerful controller nodes that require one or more of the following features at a competitive price: additional memory, a powerful CPU, an Ethernet port with a TCP/IP stack and a web server, advanced EIA-709 features like multiple parallel transactions, more than 15 address table entries, more than 64 network or alias network variables, dynamic network variables, or simply a powerful development environment with revision control and programming in ANSI-C.



The L-Control XP node is a generic EIA-709/EIA-852 node for high performance controller applications in EIA-709 and EIA-852 networks. The network interface is based on the ORION Protocol Stack and the LC3020 micro-controller for the EIA-709 channel and the 100 BaseT Ethernet interface for the EIA-852 channel. The ARM7TDMI CPU runs at 50 MHz and uses a real time operating system (RTEMS) to execute the ORION Protocol Stack, TCP/IP stack, and user applications. User tasks access the ORION Protocol Stack via the ORION Application Programming Interface (ORION API). JTAG debugging is supported through a dedicated connector. This port allows the connection of the debug interface.

Due to multiple concurrent in- and outgoing transactions of the ORION Protocol Stack, it's high packet throughput and short response times, L-ControlXP can solve many problems typical for centralized controller nodes, which communicate with many different nodes on the network at the same time.

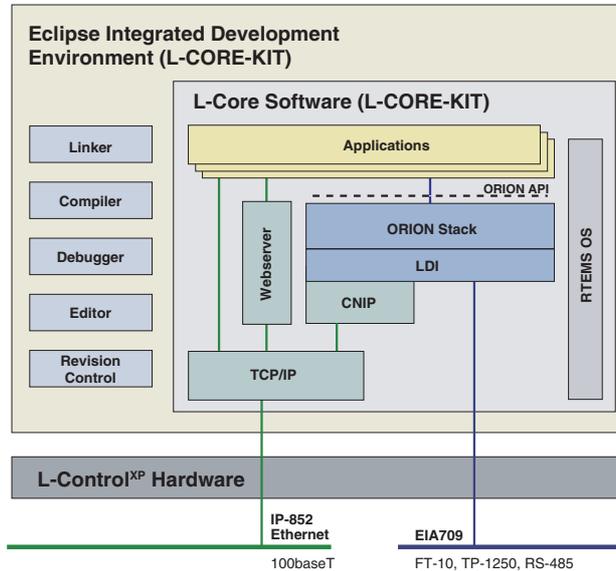
L-Control XP can also be used as a starting point for the development of ORION based EIA-709 or EIA-852 nodes on an embedded hardware platform.

L-Control XP is fully integrated into the L-CORE-KIT development platform that must be ordered separately. This powerful integrated development environment based on the Eclipse framework from IBM allows easy application development.

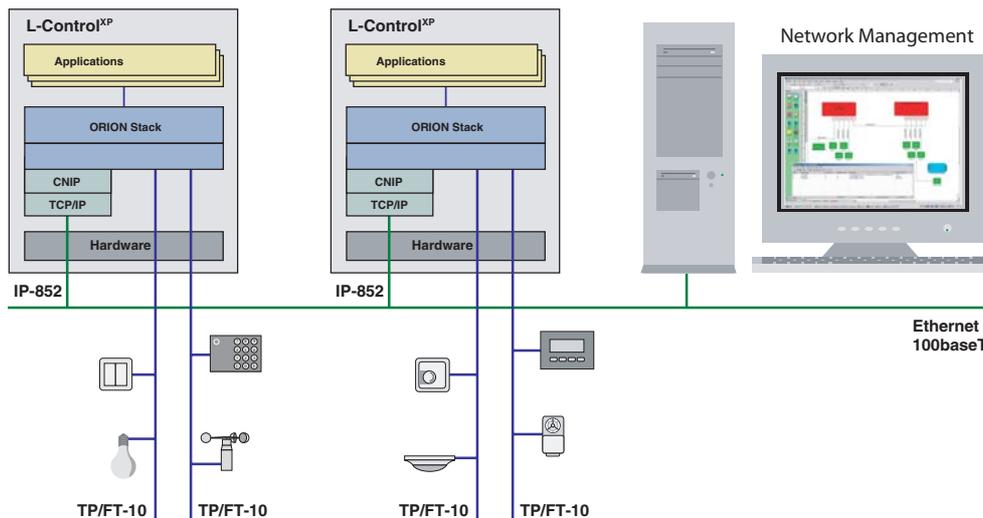
Order Information

Order Number	Configuration
LC-33ECTB	1 Ethernet Port 2 FT-10 Ports
Other transceiver configurations on request.	
L-CORE-KIT	Design Kit

The basic architecture diagram of L-Control XP is shown in the following drawing. One or several application programs written in ANSI-C transmit and receive packets over the EIA-709 (FT-10, TP-1250, RS-485) or EIA-852 (Ethernet IP) channel through the ORION API, which supports multiple parallel transactions, a large number of network and alias network variables, large address tables and dynamic network variables. L-Control XP based nodes are fully integrated into network management tools like LonMaker, NL220, Alex, and are perfectly suited for applications that require more resources than are available on standard EIA-709 nodes, at a competitive price.



The following diagram shows a perfect example for L-Control Xp based applications. One controller supervises a group of FT-10 based nodes that control a single room or a group of rooms. All L-Control nodes are connected via the IP-852 channel to a central SCADA system for monitoring and maintenance. Network variables on the EIA-709 nodes are bound to static or dynamically created network variables on the EIA-709 port on L-Control XP. The SCADA system can either poll or bind to network variables on the Ethernet port (IP-852) of the L-Control XP.



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