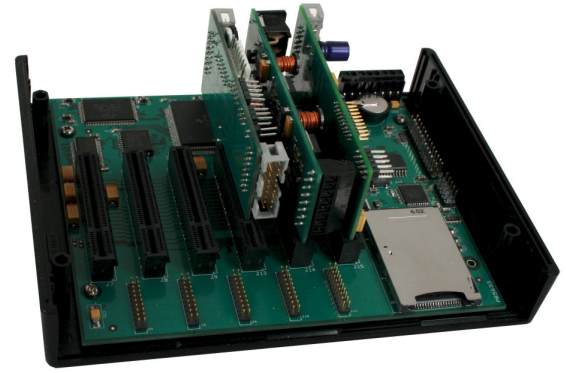


## Overview

The Model 4100- **SmartLync Flex** card takes the FreeScale ColdFire® processing core power of the SmartLync family and adds six plug-in card slots that can be used for virtually any interface need. A common bus ties the boards together for user-definable applications in a small and affordable package. It is designed to offload PC based functions while providing customized interface solutions. This card has the horsepower and flexibility to be more than just a peripheral control box. **Explore the endless possibilities of our SmartLync Flex!**



## SmartLync Flex Features

- ✓ Freescale® ColdFire 5206 (32-Bit) Processor
- ✓ 512KB FLASH
- ✓ 512KB SSRAM
- ✓ Real Time Clock & Prog Watchdog
- ✓ JTAG Port
- ✓ ColdFire BDM Port
- ✓ Large Variety of Plug-In Cards Available

## On-Board Media FLASH Drive

- ✓ Enables "configuration transfer" to multiple SmartLync Flex Control Units
- ✓ Media FLASH Drive (XD) Card or Onboard FLASH will host customized application software

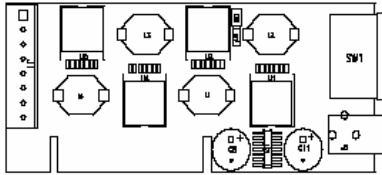
## Flex Plug-in Card Options

- **Power Supplies**
- **LCD/Keypad/Discrete**
- **Motor Controllers (Stepper and Servo)**
- **Communication Cards**
- **Analog Input**
- **USB/RS-485**
- **Display Controllers**
- **Keypad Scanners**
- **General Purpose A/D and D/A Cards**
- **Hi-Pot Testers**
- **Laser Drivers/Receivers**
- **General Purpose Discrete I/O**

*ProTech Enterprises continues to expand on the SmartLync Flex Product Line by releasing new Plug-in Card designs. Please call us if your application requires a specific and unique Plug-In card. We would be happy to assist you!*

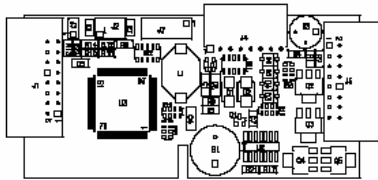
## Plug-In Cards

### Model SL4101- Power One Card



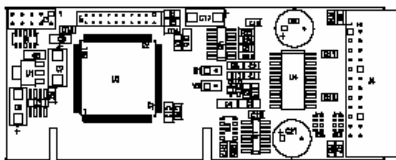
- ✓ 24 Vdc Input Power via standard 6.3mm barrel connector
- ✓ Generates +5V, -5V, +12V and +3.3V
- ✓ Rear Power Switch (accessed from rear panel)
- ✓ Optional Output Connector (J1) – all voltages available for user specific wiring configurations

### Model SL4102- LCD/Keypad/Discrete I/O Card



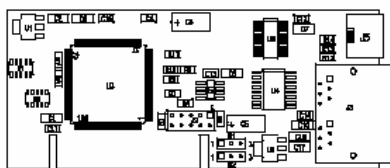
- ✓ Generic LCD Controller Interface (re-configurable)
- ✓ On-board Switcher provides adjustable voltages for various backlighting options
- ✓ Keypad scanning interface to connect standard matrix style keypads
- ✓ Rotary Optical Encoder to create a simple user input mechanism for menu-oriented selections
- ✓ Four input discretes (analog comparators) with a threshold of 2V
- ✓ Four output discretes use high-current drive FET transistors configured as low-side drivers

### Model SL4103- Motor One Card



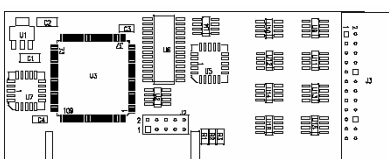
- ✓ Local power drivers that will support two synchronized motors: either Stepper Motors (in bi-polar mode) or DC Servo Motors
- ✓ Software controllable stepper motor frequency
- ✓ Software controllable PWM drive output controls the speed of rotation
- ✓ Full-scale H-Bridge drive is capable of forward and reverse operation
- ✓ Programmable ramps are built-in to the controller chip to eliminate abrupt starting and stopping
- ✓ Each drive circuit also contains independent rotary encoder inputs

### Model SL4104- Com One Card



- ✓ One USB 1.1 port using a mini-jack connector (PC drivers available)
- ✓ One RS-485 multi-drop serial communication port to support harsh and noisy environments often encountered with industrial applications
- ✓ RS-485 uses Galvanic Isolation (equivalent to Optical Isolation) alleviates ground loops and other noise factors
- ✓ Both interface ports use large FIFO memory buffers to send and receive transmissions

### Model SL4105- Analog Input Card



- ✓ Low Cost approach to digitizing external analog signals
- ✓ 8 Analog Differential Inputs
- ✓ Using Resistor Networking, inputs can be configured for strain gauges, thermocouples, hall effect sensors, eddy-current probes and many other analog signals
- ✓ Each channel digitized using a 16-bit DAC (up to 50kHz sample rate) or up to 400kHz for a single channel
- ✓ Each channel contains a software configurable digital filter that can implement LPF, HPF, and BPF type signal conditioning at various frequencies

**ProTech Enterprises, Inc.**