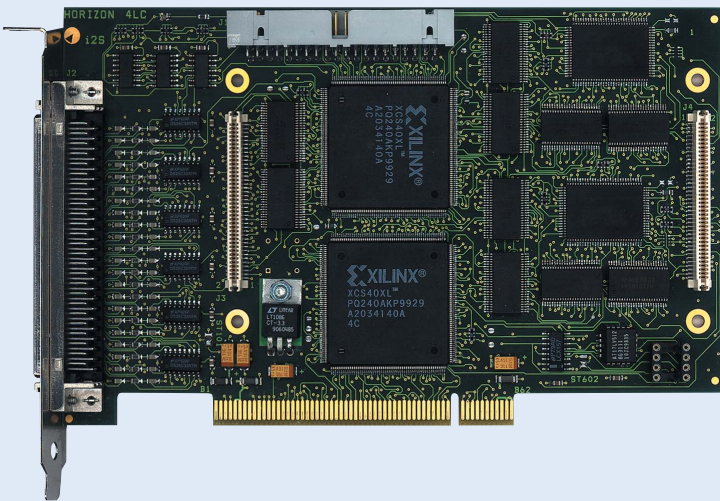


# HORIZON 4LC

## PCI Board for Digital Line Scan Cameras :



The HORIZON 4LC board is an i2S line scan multi-channel PCI board, designed to easily interface all types of digital line scan cameras.

The HORIZON 4LC board extends the family of i2S line scan boards which also includes the HORIZON 1 & HORIZON 3 products with on-board processing.

The HORIZON 4LC allows real time image acquisition for monochrome and color line scan cameras.

## Applications :

- Multi-tap line scan camera image acquisition
- Continuous web inspection
- Scrolling, rotating object analysis
- High speed gauging, positioning control
- High resolution image capture

## FEATURES :

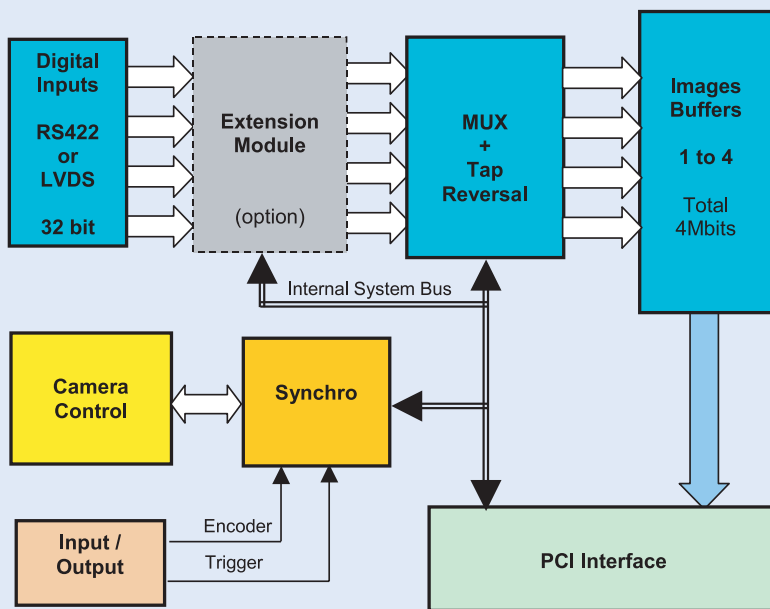
- Plug & play 32-bit PCI board
- 132 MB/sec bus-master interface
- Optimized PCI transfer for up to 4 DMA channels
- Monochrome or color capture from RS422 or LVDS digital line scan cameras, up to 40 MHz per channel
- On-line frequency, pixel and exposure-time, line scan camera synchronization
- Industrial interface with 8 I/O, triggers and encoders
- Real time tap-reversal for high speed multi-tap digital cameras
- Supports up to 4 synchronized line scan or TDI cameras
- Optional module for real time flat field correction
- Continuous acquisition of grayscale or color images
- 8 TTL input/output lines
- Windows NT4.0 and Windows 2000 Drivers (included)
- C/C++ Library (included)
- Interactive software CAP (included)

i2S - BP214 - 19, rue Jean Perrin - 33608 PESSAC - FRANCE

Tel. +(33)(0) 557 26 69 02 - Fax +(33)(0) 557 26 68 99 - [www.i2s-linescan.com](http://www.i2s-linescan.com) - [info@i2s-linescan.com](mailto:info@i2s-linescan.com)



## BLOCK DIAGRAM



The HORIZON 4LC architecture is designed exclusively for Line Scan cameras. HORIZON 4LC is well-suited for the most demanding web inspection applications :

- Real time data re-organization (tap reversal) for high-speed multi-tap digital line scan cameras
- DMA acquisition and transfer for up to 4 channels
- Optional extension modules for added processing
- Process synchronization interface: encoder, triggers
- Industrial Input/Output interface

### Accessories :

- iSC511 I/O TTL bracket
- iSM503 Real time flat field correction module
- iSE135/136 Junction box for up to 4 cameras

### Ordering Information :

**HORIZON-4LC/R** PCI board 4 ch x 8-bit RS422  
**HORIZON-4LC/L** PCI board 4 ch x 8-bit LVDS

## Software

**Drivers :** Windows NT4.0, Windows 2000  
**C/C++** library of acquisition procedures and functional block settings

- Flat field correction emulated by software if the hardware module is not used.
- Compatible with software library for other HORIZON boards
- Interface with MIL

**CAP :** User-friendly Interactive configuration software for set-up & testing of board & camera. Allows non-programming capture and storage of test images to optimize system configuration.

**PARALLELIX :** Line scan image in real time processing library

- Continuous labelling and flaw detection
- Flaw classification
- Morphological and convolution filtering on continuous images
- MMX and SSE optimised

