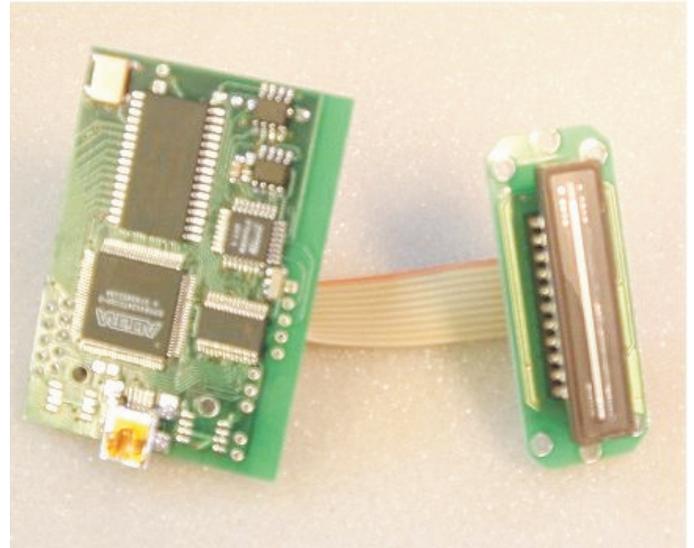


Electronics for Linear CCD arrays

Based on many years designing and manufacturing cameras using Linear photodiode arrays and CCDs, Spectronic Devices Ltd. now offers this expertise to OEM and low quantity users alike in the form of inexpensive circuit boards. These circuit boards offer a complete solution, for users of CCD detectors, to connect in a very easy way a wide variety of CCD types to a PC or embedded system. Interfaces available include USB, RS232 and a parallel interface.



Controller with USB interface and detector board for a Toshiba TCD1205

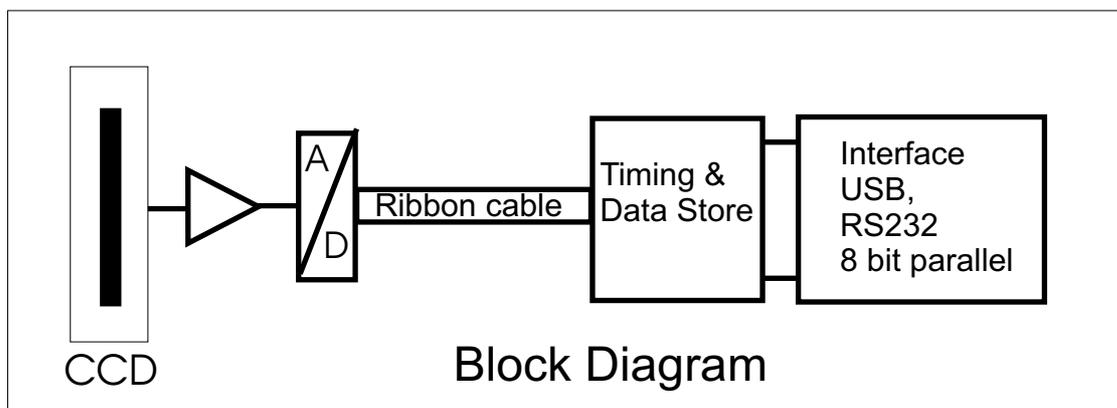
This circuit board set comprises two separate boards. A small, 50mm x 20mm circuit contains all the pre-amplifier and A/D electronics. This circuit board is hardly bigger than the detector itself. This enables it to be used in situations where very little space is available. The detector board connects to the controller board using a 10 way ribbon cable. The second board is the controller board which provides all the signals required by the detector board to scan the detector and convert the video signal into 12 bit digital data. The controller also has a large memory used to store the video data. A computer interface completes this circuit board, providing a USB, RS232 or parallel interface.

Digital resolution	12 bit
Frame rates up to	1000 fps
Data storage	512kbyte (standard)
Power supply	USB bus powered or 5VDC for RS232 or parallel

Detectors supported: See table on reverse side.

Others available on request.

Also available in an aluminium housing with detector mounted behind slit.



Features

- ▶ Programmable Integration time (50µs to seconds)
- ▶ Storage of multiple scans (up to 512 scans with a 1024 pixel device)
- ▶ Very small size Controller 36mm x 60mm Detector 50mm x 20mm
- ▶ High frame rates up to 1000 fps with 1024 pixel device
- ▶ Wide range of pixel formats and number.
- ▶ Region of interest programmable. Programmable number of pixels

Available detectors.

Type	No. of Pixels	Pixel width	Pixel height
TCD1205	2048	14µm	200µm
TCD1304	3648	8µm	200µm
ILX511	2048	14µm	200µm
ILX526	3000	7µm	200µm
Hamamatsu Photodiode & CCD arrays 256 to 2048 pixels			

New detectors types added periodically.
Call to check if required type available



Also supplied in housing

Software

Supplied with these circuit boards are software drivers and demonstration programs. Examples of VisualC++, VisualBasic, Delphi and LabView are supplied.

Software drivers are supplied in the form of a DLL or COM server, ActiveX. The COM server enables access to the hardware with applications such as EXCEL, MatLab, LabView and most programming languages.

Communication with the USB and RS232 devices is also possible using simple ASCII commands.

Custom VID, PID serial number and device identifications can be programmed into an EEPROM which allows the installation of custom software drivers.

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