

# UCD-1 MLC

USB connected  
mini-LVDS capture device



## USB Connected Frame Grabber

UCD series is a family of compact sized capture devices utilizing USB interface. They provide a flexible and robust way of image capture in automated testing of display related ASICs and display electronics. The dedicated hardware and the easy to apply SW library provide an optimal platform for creating sensitive but short cycle time routines for test systems.

UCD series frame grabbers are designed for test applications. They provide the captured image bit-to-bit in the way it was received without any compression or data loss. The software routines provide full control of the interface and options for e.g. color depth selection, pixel mapping and channel allocation configuration. The dedicated software API is tailored for the purpose, no DirectShow overhead included.

## mini-LVDS Signal Capturing

UCD-1 MLC is a frame grabber that can capture four (4) 6-lane mini-LVDS channels. It enables automated testing of TFT LCD module T-Con boards, T-Con chips and TV Main Boards with mini-LVDS output. Multiple signaling schemes can be configured to make testing of various mini-LVDS bus signaling types easy and straightforward.

### Highlights

- Compact, USB connected device
- Captures 4 parallel mini-LVDS channels with 6 data lanes
- Easy to use SW SDK for Windows and Linux
- Configuration data for compatibility with various mini-LVDS types

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## Buffering Frame Grabber

UCD series capture devices provide a flexible way of retrieving the video output of the D.U.T. Their role is to replace part of the display electronics (Source and gate drivers) and provide the received image and sync data for the test software for evaluation.

## Windows and Linux

The use of UCD devices is easy since they are compatible with any PC with an USB connection. Drivers and software are available for both Windows and Linux operating system. SDK with example application help the designer for a short design-in time.

UCD series currently includes capture devices for mini-LVDS and V-by-One capturing. Additional interfaces will be introduced soon.

## Flexible Configuration

The user is able to provide UCD-1 a separate configuration data for each mini-LVDS application. UCD-1 will separate the active video data for each mini-LVDS synchronization type and convert the captured mini-LVDS video data to RGB based on this configuration data. This will e.g. enable real time preview of captured data.

A raw dump of all mini-LVDS data including the sync signals is available with a special version of the API and firmware. Please contact Unigraf for details.

## Specifications

Image Data Input	4 parallel mini-LVDS channels with 6 data lanes. Divided in 2 groups 1 frame start input per group 1 lane start input per channel 10 control inputs
Input Connector	3 x FI-RE51S-HF-R1500 (JAE Electronics) (2 x for data lanes 1 x for control)
Link Speed	270 MHz maximum
Input Configuration	6 or 8 bits / link.
Capture Speed	Approximately 4 FHD frames / second
Computer Interface	USB 2.0
Sync In / Out	Synchronizing input and output for Master / Slave configuration
Operating System	Windows 8, 7 and XP, Linux
SW SDK	SW API with example and preview applications
Power Input	+5 Vdc (AC/DC converter included)
Module Size	170 x 128 x 34 mm
Weight	630 g

All specifications subject to change without notice.



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