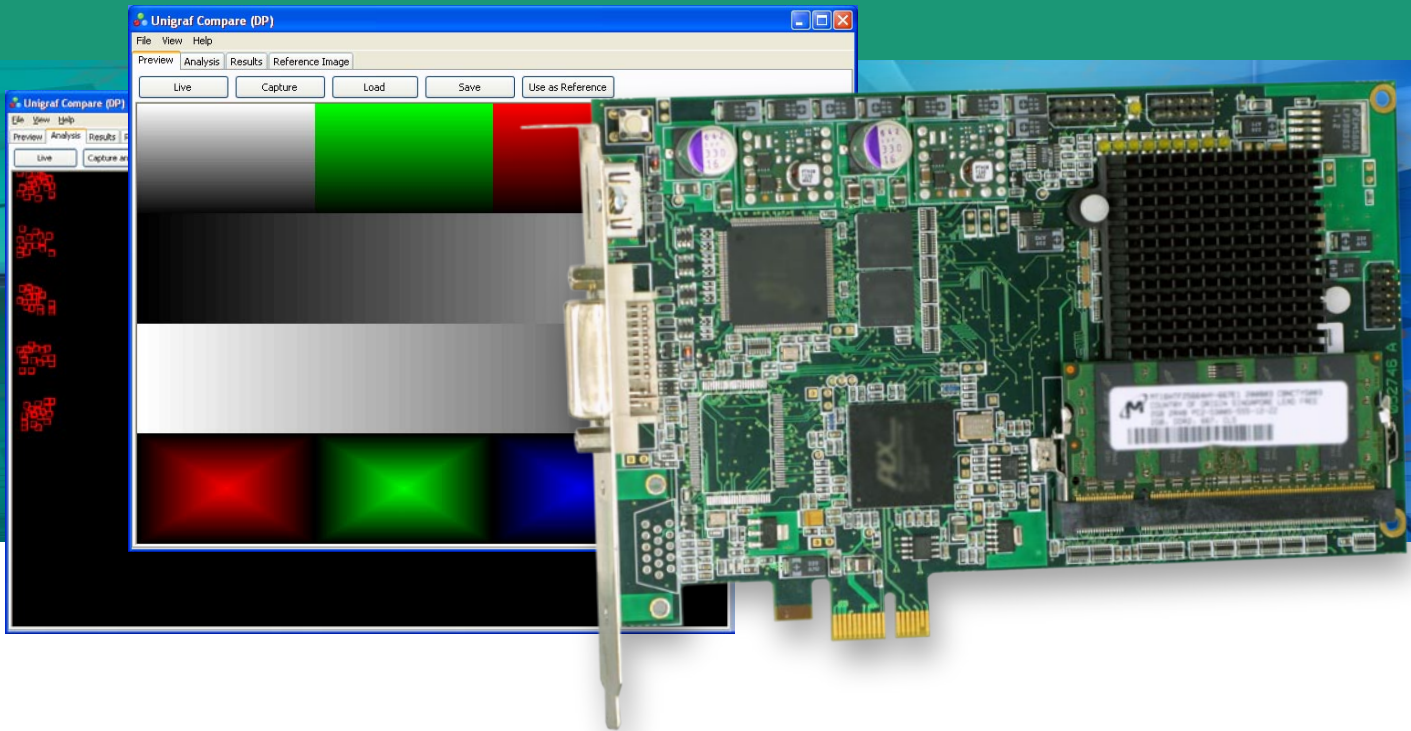


# UFG-04 HDMA

HDMI 1.3 frame grabber and stream analyzer



## HDMI 1.3 Stream Analyzer

UFG-04 HDMA frame grabber card enables the capture of HDMI 1.3 content with up to 12 bits per color component and resolution up to VESA 1920x1200@60 (RB) and Full HD 1080p60. The on-board frame buffer enables the capture of up to 500 frame-to-frame video clips regardless of the PC bottlenecks.

## Analyze Image and Metadata

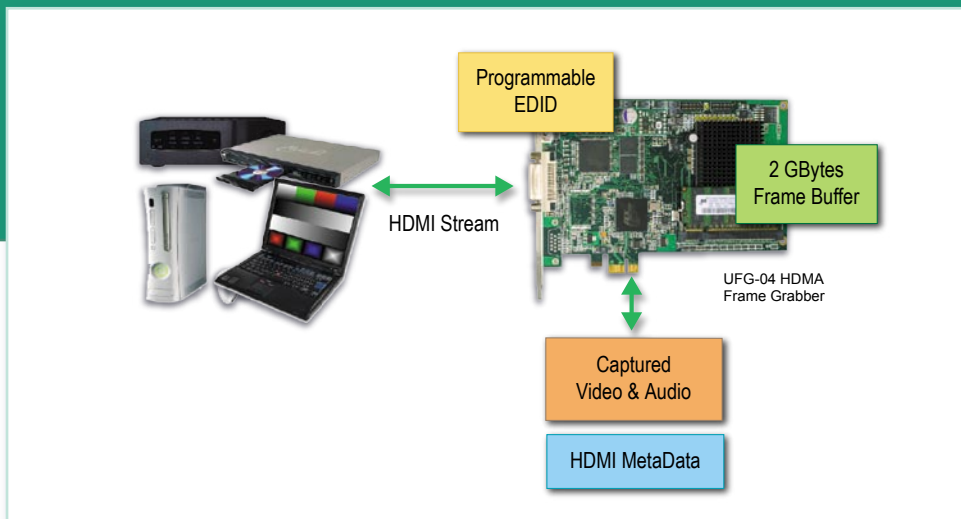
Unigraf HDMA Tool that includes UFG-04 HDMA frame grabber card is a unique tool for testing HDMI source devices. You can easily verify the fidelity of the image frame to frame, pixel to pixel, bit to bit. You can monitor all information on the HDMI stream including video, audio, DDC communication and InfoFrames. The SDK with DLL library enables the full functionality in custom testing systems.

## Benefits

- HDMI 1.3 Deep Color capture
- Up to 1920x1200@60 (RB) and 1080p60 Full HD
- Up to 12 bits per color depth
- Up to 500 frames on-board capture
- User programmable EDID
- HDCP compatible
- SDK with DLL library
- Full HDMI source analysis when used with HDMA Tool

# UFG-04 HDMA

HDMI 1.3 frame grabber and stream analyzer



## HDMA Tool (optional)

Test the fidelity of your HDMI source within seconds. Measure each of the millions of pixels reliably each time. Analyze any test image and the associated metadata to find any mismatches. Review each individual result in detail and include the long term trends into your quality reports.

The library of pre-programmed EDID information that can be loaded to the unit enables the emulation of various monitor models making the compatibility testing easy.

## Video Capture without Dropped Frames

The UFG-04 series frame grabbers provide a unique feature of capturing up to 500 non-compressed frames into the on-board frame buffer. This equals to more than 20 seconds at 24 fps frame rate. By using this unique feature the user can e.g. evaluate display controller rendering pixel by pixel and without lost frames.

The table below lists the size of the frame buffer in number of frames and the recording time at 24 frames per second with two selectable pixel color depths.

Resolution	# frames @30 bpp	time @ 24 fps	# frames @36 bpp	time @ 24 fps
1920 x 1200	230	9.6 s	170	7.1 s
1920 x 1080	250	10.4 s	190	7.9 s
1600 x 1200	270	11.3 s	200	8.3 s
1280 x 720	500	20.8 s	430	17.9 s

## Specifications

Inputs	HDMI Type A and DVI-D connector Silicon Image SiI9135 receiver
Color Spaces	RGB or YCbCr
Capture Pixel Depth	24, 30 or 36 bits per pixel
Resolutions	All VESA DMT/CVT and CEA 861-E timings up to 1080p60 and 1920x1200@60 (RB).
Input Bandwidth	225 MHz maximum TMDS clock
EDID	User programmable
Frame Buffer	2 GBytes
Capture Modes	Single frame, sequence capture.
Audio	8 channels.
Data Interface	PCI Express bus master; sustained transfer rate up to 125 MBytes/s.
Operating Systems	Windows® XP
SW Interface	Custom C/C++ library with functions for accessing the configuration parameters and capturing the image. Multi-board Support
Module Size	107 x 168 mm
Power Consumption	12 V: 7.5 W max; 3.3 V: 1.7 W max



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