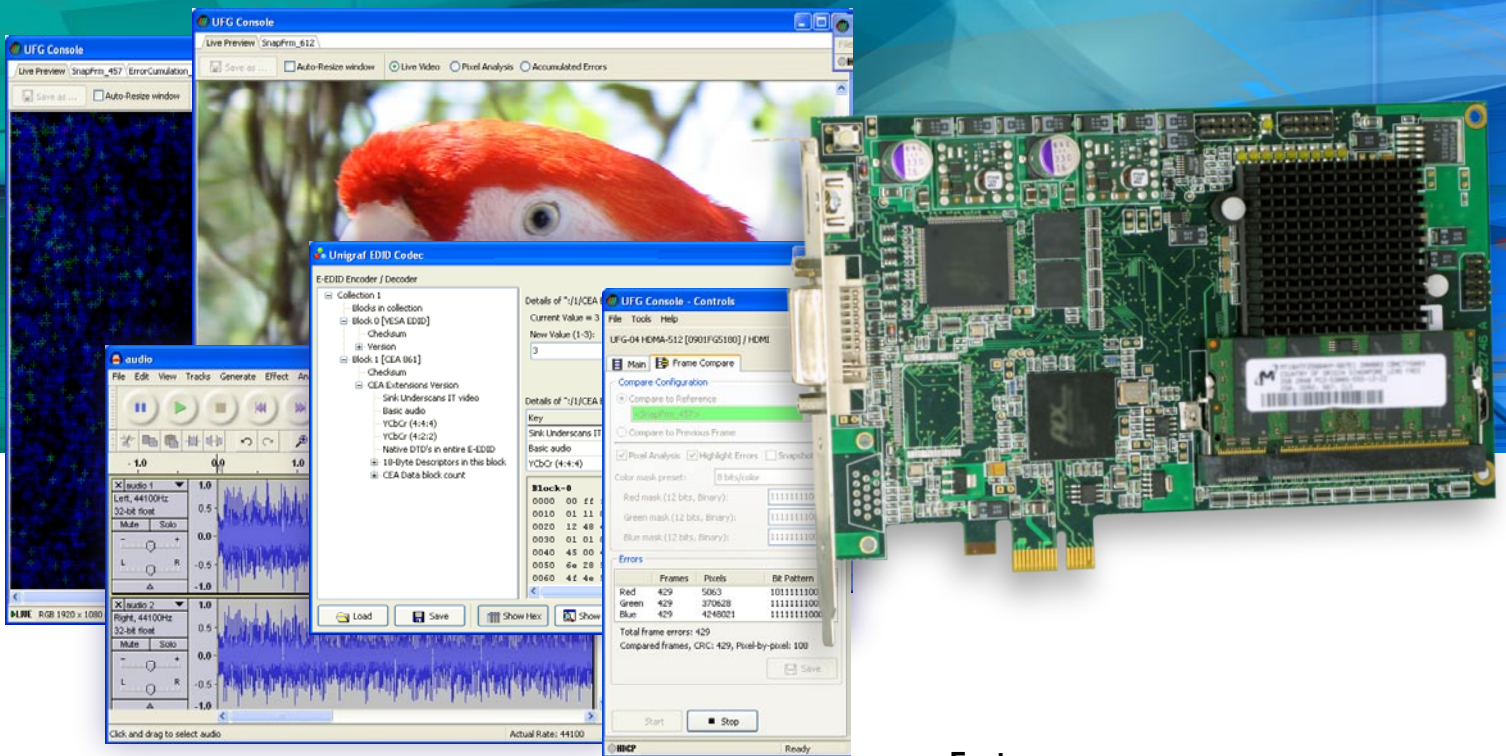# Unigraf HDMA Console

reliable and effective HDMI source testing

Fast, Effective and Flexible

Unigraf HDMA Console including the UFG-04 HDMA frame grabber is a fast and effective tool for testing HDMI source equipment. You can emulate numerous sinks in minutes to verify your source performance. You can also verify the fidelity of the whole image and audio signal path by comparing the output data to the original material. Both static images, multimedia sequences or timing mode changes can be evaluated with the tools provided.
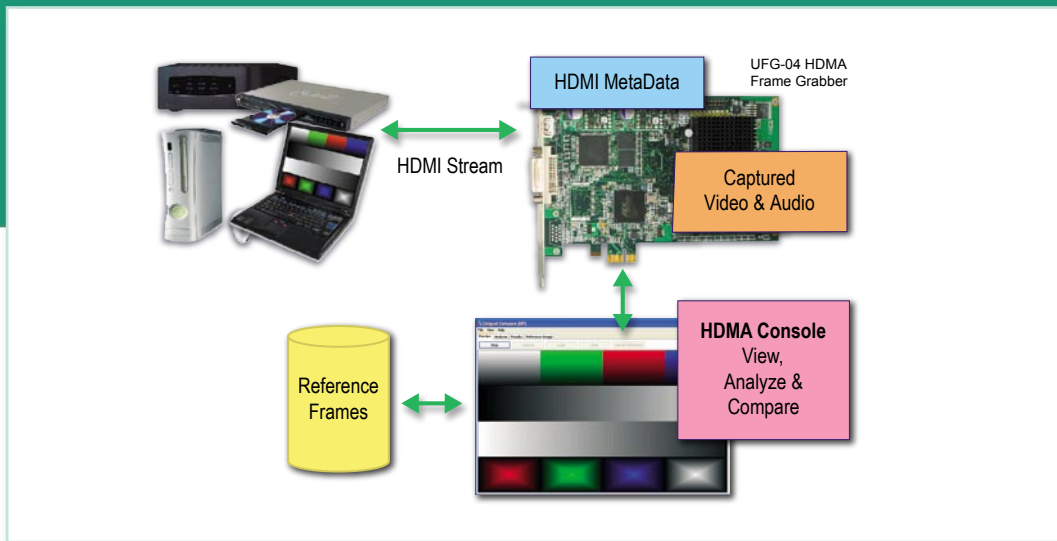
Ideal for Test Automation

Unigraf HDMA Console is an unique method for testing HDMI source devices. The powerfull features can be used both from the GUI in an engineering test lab or or in the production line by using the software API. This ensures a fast engineering test time and more test cycles in a limited time span.

Features

- Capture HDMI video and audio, preview HDCP protected content
- Program EDID from database for emulation
- Video analysis, compare captured frames to source image
- Log video parameter status and mode changes
- Monitor InfoFrames
- Comprehensive SDK for full control in Test Automation
- HDMI 1.3 Deep Color capture
- Capture up to 500 frames on-board without loss

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Unigraf HDMA Console
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HDMI MetaData

UFG-04 HDMA
Frame Grabber

HDMI Stream

Captured
Video & Audio

Reference
Frames

HDMA Console
View,
Analyze &
Compare

Emulate Different Sinks

Testing how your source behaves with different types of monitors and TV's is a time consuming task because of the vast number of variations in the sinks. By changing the EDID of the UFG-04 HDMA you can easily emulate any sink performance option. You can reliably monitor and document the reaction of your sink: video mode, audio mode and the InfoFrame data sent.

The test is fast. By using the provided API your automated test system will able to test tens of of different combinations in minutes.

Analyze Video and Audio

Human detection is not a very precise tool for detecting random failures in a screen image or audio clip. Often the most demanding test material is not optimal for bare eye problem detection, specially during extended testing sessions. UFG-04 HDMA does not have this limitation. It allows you to verify several purpose designed display patterns or audio test clips in seconds and get a reliable result every time.

Video Capture without Dropping Frames

The UFG-04 HDMA frame grabber provides an unique feature of capturing up to 500 non-compressed frames into the on-board frame buffer. By using this unique feature the user can e.g. evaluate display controller rendering pixel by pixel and without any lost frames.

Specifications

Input	HDMI Type A connector
	Silicon Image Sil9135 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
Frame Buffer	2 GBytes
Capture tools	Capture image, load & store image, capture sequence of images, compare captured/loaded image with reference image, display compare errors visually on difference image, display compare errors in numerical report format
Audio	8 channels. Capture audio to a file
EDID	Load EDID data from file, Program new EDID, Display & edit EDID contents.
Data Interface	1-lane PCI Express
Operating Systems	Windows® XP and Vista
Module Size	107 x 168 mm
Power Consumption	12 V: 7.5 W max; 3.3 V: 1.7 W max

All specifications subject to change without notice.