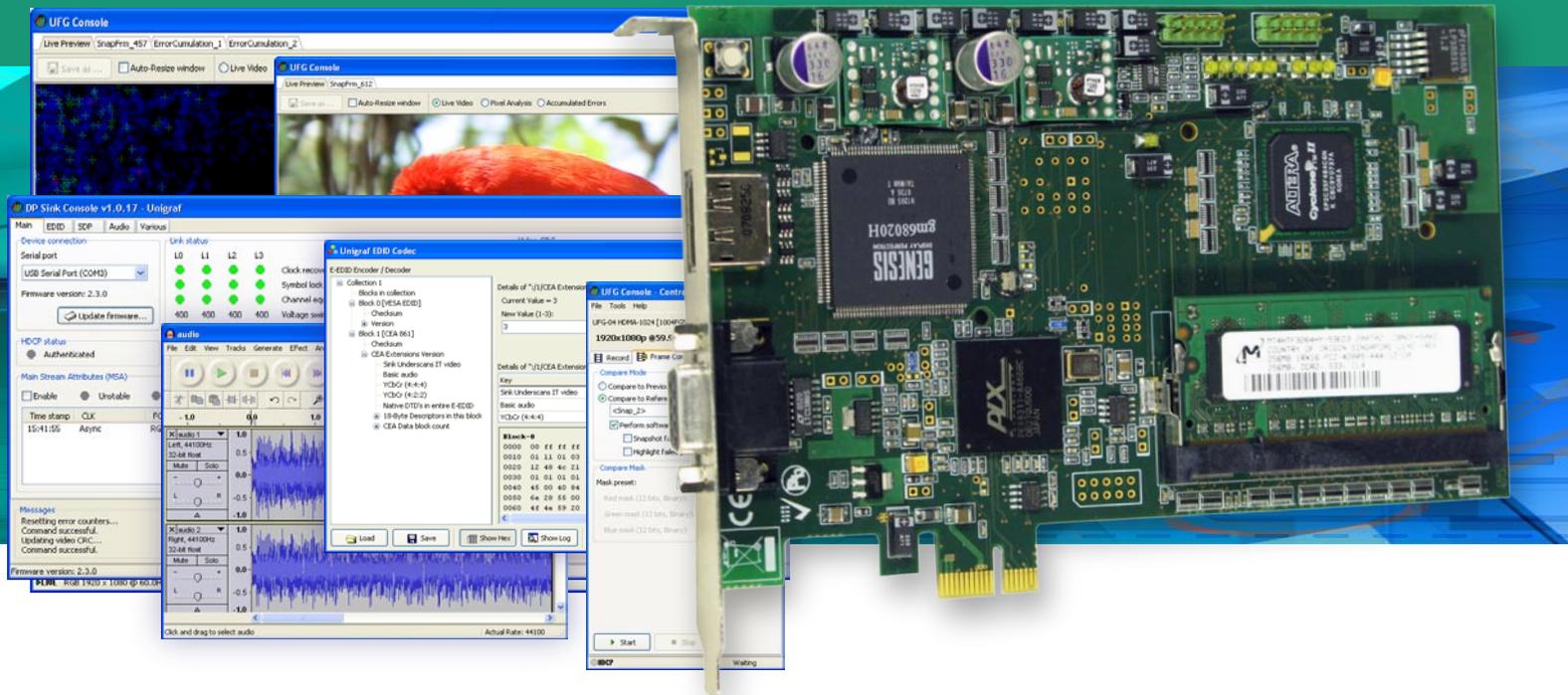# UFG-04 DP

DisplayPort™ frame grabber and Reference Sink

Full Featured DisplayPort™ Sink

UFG-04 DP frame grabber enables the capture of full resolution DP image content with up to 12 bits per color depth and resolution up to WQXGA (2560 x 1600). The on-board frame buffer enables the capture of up to 500 frame-to-frame video clips with audio regardless of the PC bottlenecks.

DisplayPort™ Reference Sink

Unigraf DisplayPort™ Reference Sink realised with UFG-04 DP board is an optimum solution for testing DisplayPort™ 1.1 Source devices. It implements the full requirements set in DisplayPort™ specification and supports all required display modes. Unigraf CTS Tools used with UFG-04 DP provide a certifies Link Layer and HDCP Compliance testing setup.

With UFG04 SDK the application designer can effectively integrate the UFG-04 DP as a part of an automated test system. UFG-04 DP with Unigraf's VTG-5000 series video pattern generators form an unique combination of most advanced video testing system available.
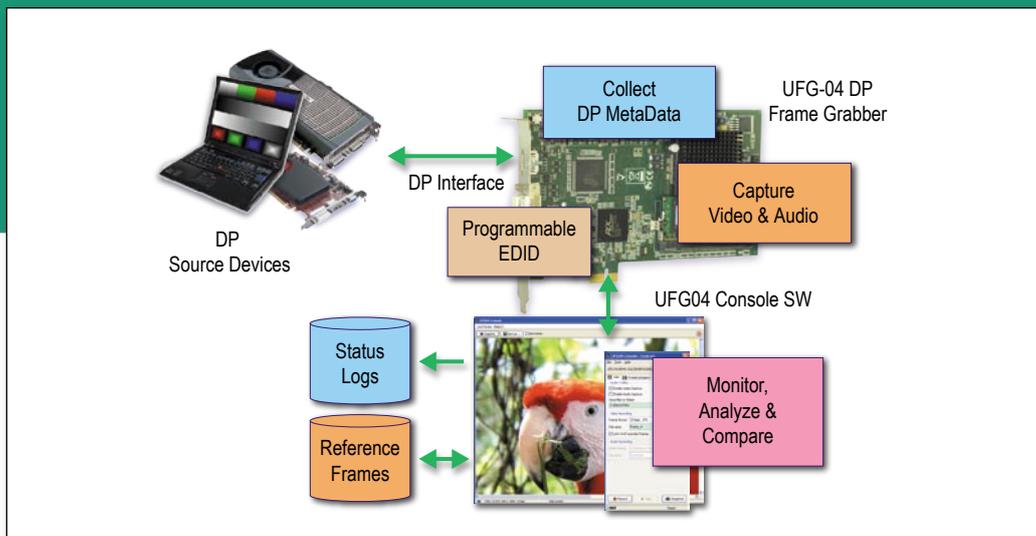
Benefits

- Capture video, audio and metadata, preview HDCP [1]

- Up to WQXGA (2560 x 1600)

- Up to 10 bits per color depth

- Up to 500 frames on-board capture

- User programmable EDID for emulation of any monitor model

- Options:
  DisplayPort™ Link Layer CTS test
  DisplayPort™ HDCP CTS test

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UFG-04 DP
DisplayPort™ frame grabber and Reference Sink

UFG04 Console

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

With the user programmable EDID you can emulate the problem sink devices and verify the performance of your source reliably. By using UFG04 SDK, you can build automated test sequences that can repetedly perform your routine compliance tests.

Video Capture without Dropped Frames

The UFG-04 series frame grabbers provide 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 lost frames.

Unigraf DisplayPort Tools

UFG Console	User interface for UFG-04 boards
PowerTools	Interface specific tools for UFG-04
DP CTS LL	Link Layer compliance test
DP CTS LL & HDCP	Link Layer and HDCP compliance tests
DP CTS LL & HDCP & EXT HDCP	
	Link Layer, HDCP and Extended HDCP compliance tests

Specifications

DisplayPort™ input	DisplayPort™ connector STMicroelectronics GM 68020 receiver
Color spaces	RGB or YUV
Pixel Depth	18, 24 or 30 bits per pixel
Resolutions	All VESA DMT/CVT and CEA 861-D timings up to 2560 x 1600 (RB) 60 Hz
Link bandwith	10.8 Gbps over 4 lanes
Number of lanes	4 Main Link lanes
EDID	Load EDID data from file, Program new EDID, Display & edit EDID contents
Frame buffer	2 GBytes
HDCP	Preview and snapshot HDCP content
Audio	Up to 8 LPCM channels at 192 kHz, 24-bits or multi-channel compressed (AC3, DTS, etc) compliant with IEC60958 / IEC61937
Operating Systems	Windows® XP or Windows® 7[1]
SW Interface	Custom C/C++ library with full functionality to configure the board and capture video, audio, metadata and link status. Multi-board Support
Data Interface	PCI Express 1 lane
Module Size	107 x 168 mm
Power Consumption	12 V: 7.5 W max; 3.3 V: 1.7 W max

[1]   HDCP preview available only with Windows XP

All specifications subject to change without notice.