UCD-424

USB-C DisplayPort Alt Mode Test Unit DP 1.4a, HBR3 & PD 3.0



TESTING THE FUTURE

Test 8K

UCD-424 is interface test unit for verifying DisplayPort™ Alternate mode over USB-C™ up to 8K@30 Hz and 4K@120 Hz video modes. The device gives you control for USB-C data and power roles. It is a flexible and robust tool either via a GUI on a laboratory desktop or via automated functional tests. The associated software provides the user access to the vital parameters and controls needed when evaluating the various functions of the interface.

For R&D and Test Automation

UCD-424 supports both hands-on debugging and running extended automated test sequences. UCD Console GUI is a preview and test application for desktop use. Each interface function has a well-structured dialog for superior at-a-glance viewability.

Unigraf TSI is a test software API that provides the system integrator a fast and reliable way for ensuring the functionality of the tested equipment.

Validation Tool

UCD-424 is a Compliance Test Tool for testing DisplayPort 1.4a Link Layer CTS on Sinks and Sources. The device is also capable of HDCP 2.2 and 2.3 CTS on Transmitters and Receivers. The unit supports FEC, DSC Sink and LTTPR. Please contact Unigraf for details.

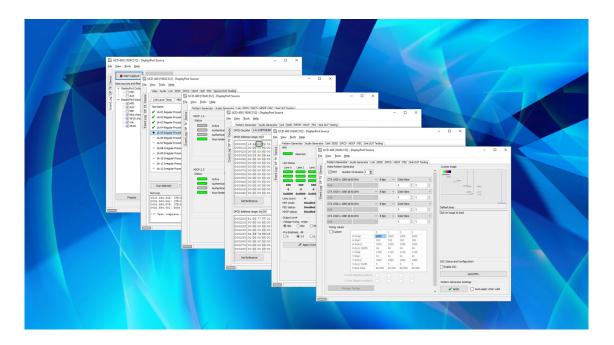
Highlights

- 8K and 4K Reference Sink & Source
- DP 1.4a Link Layer CTS for Sinks & Sources
- HDCP 2.3 CTS for Transmitters & Receivers
- DP 1.4a features:
 - » Up to HBR3 simultaneous input and output in one unit
 - » DSC Sink & Source with off-line encoding and decoding
 - » FEC and LTTPR support
 - » MST support (4 streams)
- USB-C v1.3 with Power Delivery 3.0
 - » DP Alt Mode
 - » Capable to sink & source 9V@3A
 - » PD Role swaps supported
- USB3.2Gen2 (10Gbit/s) bypass between test interfaces
- HDCP 1.3 and HDCP 2.3 support



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USB-C DP Alt Mode Test Unit with DP1.4a, HBR3 & PD3.0



UCD Console GUI

The graphical user interface for R&D debugging is called UCD Console. It features video and audio preview, and a built-in pattern generator with custom patterns and timings in the UCD-424.

UCD Console also features an EDID editor and access to the state and control of HDCP function.

UCD Console is the user interface for DP 1.4a Link Layer and HDCP 2.3 Compliance Tests.

High Level Test Functions

Unigraf high-level test software interface TSI (Test System Interface) provides the System Integrator a set of reliable and short cycle time interface specific tests. TSI readily implements the low-level procedures needed for verifying the various functions of the tested interface and the required software integration is minimal.

Specifications

Input	USB-C & PD 3.0 compliant DRP port with DP 1.4a Alt
	Mode Receiver capability (8K@30 Hz / 4K@120Hz)

Output USB-C & PD 3.0 compliant DRP port with DP 1.4a Alt

Mode Transmitter capability (8K@30 Hz / 4K@120 Hz)

USB Pass Through USB3.2 Gen2 data pass-through between test interfaces

Vbus Power Up to 3A@9V input and ouput

Content Protection HDCP 1.3, 2.2, and 2.3

DSC Capability DSC 1.2a sink with off-line decompression

DSC 1.2a source using pre-compressed content Support RGB / YCbCr up to 12 bits per component

24 slices, max with 7680 pixels

Up to 8K@60 Hz

Additional features MST*, FEC*, LTTPR*

DP 1.4a LL CTS, DP DSC CTS

HDCP 2.3 CTS

Computer Interface USB 3.0

Operating System Windows 10, 8 and 7

macOS*, Linux* and Asterix* available Q2/20

Software UCD Console GUI

TSI API with interface specific Test Sets

Power Input +12 Vdc (AC/DC converter included)

Module Size $310 \times 190 \times 61 \text{ mm}$ Weight 1.3 kg w/o power supply

*) Please contact Unigraf for detailed availability All specifications subject to change without notice



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