

DP 2.1 LL **CTS**

HDCP 2.3 **CTS**

16K
UHD



UCD-500

DisplayPort™ 2.0/2.1 16K Video Generator & Analyzer

UCD-500 is a video generator and analyzer unit for testing DisplayPort™ 2.0/2.1 Sinks and Sources up to 8K@60Hz (16K@60 Hz with DSC) video modes with UHBR 20 Max Bit Rate Capability. 10 Gb rate max capability on DP connectors and 20 Gb rate max capability for USB-C connectors. UCD-500 supports DP 2.1 features like Adaptive Sync, DSC, FEC and LTTPR.

Compliance Test Tool

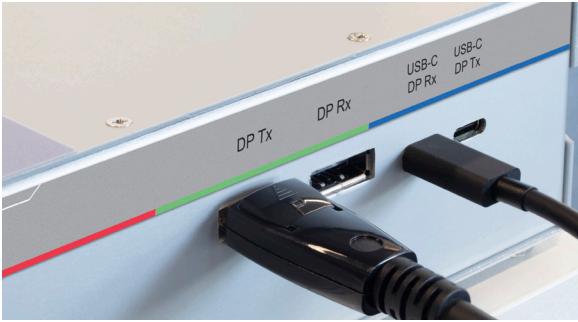
UCD-500 is a Compliance Test Tool for validating DP 2.1 & DP 1.4a Link Layer on DP Sinks and Sources. UCD-500 also supports DisplayID/EDID and Adaptive Syncs CTS tests. It is also a Compliance Test Tool for HDCP 2.2/2.3 on DP Transmitters, Receivers and Repeaters.

DP Link Analyzer

Capture bulk data and analyze main link data with DP Link Analyzer. For each bulk capture, the data is parsed in a timeline view presenting the captured frames. Within each frame, users can have a deep view of the events and metadata that occurs in each line. Measure distances in nanoseconds and symbol size to identify the length of problems in between events. Observe descrambled and scrambled symbols in hexadecimal format in each of the active lanes. The DP Link analyzer is a valuable debugging tool for DP source designers.

Highlights

- 16K Video Generator & Analyzer
- DP and USB-C inputs and outputs
- 10, 13.5 and 20 Gbp/s lane rates
- 8K@60Hz without compression
- 16K@60Hz with DSC
- DP 2.1 Link Layer CTS
- HDCP 2.3 CTS for receivers, transmitters and repeaters
- Support for Adaptive Sync, DSC, FEC and LTTPR
- View and edit EDID and DPCD registers
- Color depth 6 to 16bpc
- Color formats: RGB, YCbCr 444, 422, 420, Raw
- Capture memory 16G
- Color formats: RGB, YCbCr 444, 422, 420, Raw
- **DP80 (20 Gb rate max) capability on DP connectors will require HW upgrade to UCD-500 Gen2 in Q1, 2023. Contact Unigraf for more details.**



DP and USB-C input and output

UCD-500 features both DisplayPort and USB-C inputs and outputs and it can be used simultaneously as a reference sink and source.

UCD-500 Test Environment

All UCD series test tools are controlled via easy-to-use PC GUI called UCD Console. UCD devices are connected to PC with USB 3.0 cable. UCD Console's test coverage includes everything from a basic video capture to the most complex DisplayPort Link Layer and HDCP 2.3 compliance tests. For all run tests it's possible to print out test reports that can easily be viewed and shared. UCD Console consists of different interface specific tabs that cover all necessary test items. In UCD-500 there are separate test functionalities for DisplayPort and USB-C interfaces. The latest version of the UCD Console can always be downloaded from Unigraf website. Firmware updates of the UCD-500 device are automatically suggested by the UCD Console when the application is opened.

