DisplayPort™ CTS Tools for UCD-3XX

Guide to Product Options

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Edition

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GENERAL

Reference Standards

High-bandwidth Digital Content Protection, Revision 2.3 on DisplayPort, Compliance Test Specification, Revision 1.1, 4 March 2019.

Released Versions

This document explains features found in the following versions of the software:

Tool	Version
HDCP 2.2 CTS: UCD Console	1.8

HDCP 2.3 CTS FOR DISPLAYPORT SINK, SOURCE AND REPEATER DUT

DP HDCP 2.3 CTS Compliant Hardware Products

Product	P/N	Description
UCD-301 Digital **	*066510*	4K capable test unit for digital video outputs. USB 3.0 Interface to Host PC.
UCD-323 HDDP, 2GB onboard memory *	*066512*	4K capable test unit for digital video inputs and outputs. USB 3.0 Interface to Host PC.
UCD-340 USB-C DP Alt Mode Tester with Electrical Test *	*066515*	4K capable test unit for USB-C DP Alt Mode Sinks or Sources. USB 3.0 Interface to Host PC. TSI SDK Basic Test Set included
(UCD-400 DP 1.4 Test Device)	*066600*	Not covered in this document. Please refer to *DP CTS Tool Options for Unigraf UCD-400*

*) Approved as Authorized Test Tool for DP Sinks and Sources
**) Approved as Authorized Test Tool for DP Sources

CTS Test Software Product Options

Product	P/N	Tests included
HDCP 2.3 CTS for testing Source on DUT	*MT6634*	HDCP 2.3 on DisplayPort compliance tests for testing Source DUT. (Sets 1A + 1B)
HDCP 2.3 CTS for testing Sink on DUT	*MT6636*	HDCP 2.3 on DisplayPort compliance tests for testing Sink DUT. (Set 2C)

Description of HDCP 2.3 CTS Transmitter Tests

1A. Downstream procedure with Receiver

HDCP2.2 CTS 1A-01	Regular Procedure – With previously connected Receiver (With stored km)
HDCP2.2 CTS 1A-02	Regular Procedure – With newly connected Receiver (Without stored km)
HDCP2.2 CTS 1A-03	Regular Procedure – Receiver disconnect after AKE_Init
HDCP2.2 CTS 1A-04	Regular Procedure – Receiver disconnect after km
HDCP2.2 CTS 1A-05	Regular Procedure – Receiver disconnect after locality check
HDCP2.2 CTS 1A-06	Regular Procedure – Receiver disconnect after ks
HDCP2.2 CTS 1A-07	Regular Procedure – Receiver sends REAUTH_REQ after ks
HDCP2.2 CTS 1A-08	Irregular Procedure – Verify Receiver Certificate
HDCP2.2 CTS 1A-09	Irregular Procedure – SRM
HDCP2.2 CTS 1A-10	Irregular Procedure – Invalid H'
HDCP2.2 CTS 1A-11	Irregular Procedure – Pairing Failure
HDCP2.2 CTS 1A-12	Irregular Procedure – Locality Failure

1B. Downstream procedure with Repeater

HDCP2.2 CTS 1B-01	Regular Procedure – With Repeater
HDCP2.2 CTS 1B-02	Irregular Procedure – Timeout of Receiver ID list
HDCP2.2 CTS 1B-03	Irregular Procedure – Verify V'
HDCP2.2 CTS 1B-04	Irregular Procedure – MAX_DEVS_EXCEEDED
HDCP2.2 CTS 1B-05	Irregular Procedure – MAX CASCADE_EXCEEDED
HDCP2.2 CTS 1B-06	Irregular Procedure – Incorrect *seq_num_V*
HDCP2.2 CTS 1B-07	Regular Procedure – Re-authentication on HPD
HDCP2.2 CTS 1B-08	Regular Procedure – Re-authentication on REAUTH_REQ
HDCP2.2 CTS 1B-09	Irregular Procedure – Rollover of *seq_num_V*
HDCP2.2 CTS 1B-10	Irregular Procedure – Failure of Content Stream Management

Description of HDCP 2.3 CTS Receiver Tests

2C. Upstream procedure with Transmitter

HDCP2.2 CTS 2C-01	Regular Procedure – With transmitter
HDCP2.2 CTS 2C-02	Irregular Procedure – New Authentication after AKE_Init
HDCP2.2 CTS 2C-03	Irregular Procedure – New Authentication during Locality Check
HDCP2.2 CTS 2C-04	Irregular Procedure – New Authentication after SKE_Send_Eks
HDCP2.2 CTS 2C-05	Irregular Procedure – New Authentication during Link Synchronization
HDCP2.2 CTS 2C-06	Regular Procedure – Encryption Disable Bootstrapping