quantumdata

980 MHL CBUS Compliance Testing

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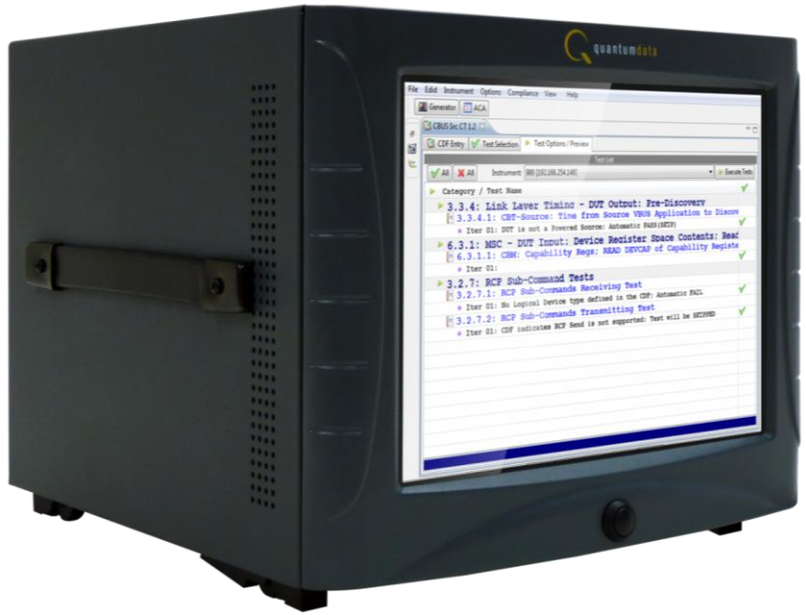


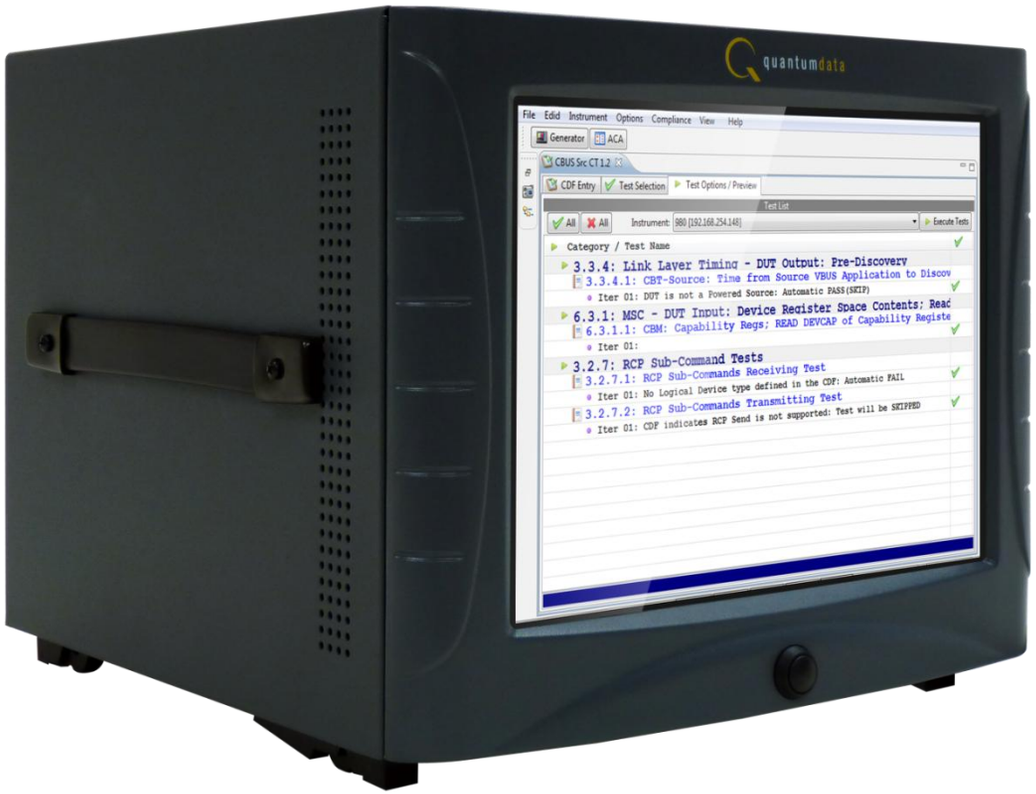
980 Advanced Test Platform

980B Advanced Test Platform

CBUS Compliance Test Module:

- Equipped in either the Advanced Test Platform:
  - 980
  - 980B

980 MHL CBUS Compliance Testing



CBUS Compliance requires new module:

980 MHL CBUS Compliance Module

No external equipment or devices required.

980 MHL CBUS Source Compliance Test Coverage

- MHL CBUS source compliance tests currently supported through 980 MHL CBUS Compliance Test Module:
  - CBUS compliance test support for MHL Source devices per MHL CTS 1.2 & 2.0.
  - Test 3.1.1.7: Rx Sense Impedance test (MHL 2.0).
  - Section 3.2.6: EDID and Device Capability Registers tests.
  - Section 3.2.7: RCP tests.
  - Section 3.2.10: UCP tests (MHL 2.0).
  - Sections 3.3.1 through 3.3.23: Link Layer electrical and timing tests.
  - Section 6.3.1 through 6.3.22: Common MSC & DDC tests.

980 MHL CBUS Sink & Dongle Compliance Coverage

- MHL CBUS sink and dongle compliance tests supported through 980 MHL CBUS Compliance Test Module:
  - CBUS compliance test support for Sinks and Dongles with support for MHL CTS 1.2 & 2.0.
  - Tests 4.1.1.7/5.1.1.7/8: Rx Sense Impedance test (MHL 2.0).
  - Sections 4.2.5/5.2.5: EDID and Device Capability Registers tests.
  - Sections 4.2.6/5.2.6: RCP tests.
  - Sections 4.2.9/5.2.9: UCP tests (MHL 2.0).
  - Sections 4.3.3/5.3.3 through 4.3.25/5.3.26: Link Layer electrical and timing tests.
  - Section 6.3.1 through 6.3.22: Common MSC & DDC tests.

Additional 980 MHL Compliance Test Coverage

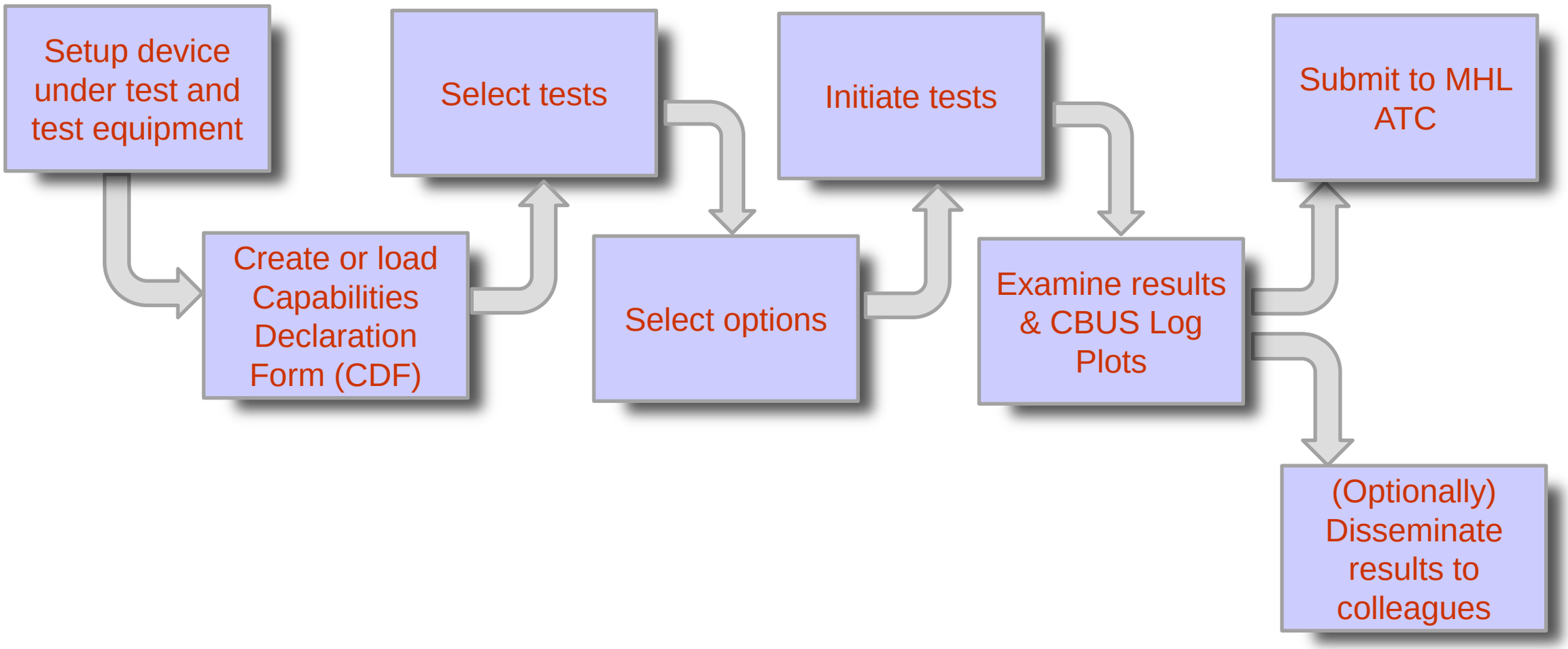
- MHL Source and Sink Compliance – Approved by MHL Consortium – supported through **980 HDMI Protocol Analyzer module**:
  - MHL source compliance tests in Sections 3.2.2, 3.2.3, 3.2.4 of MHL Compliance Test Specification version 1.2.
  - MHL sink/dongle compliance tests in Sections 4.2.1/5.2.1, 4.2.2/5.2.2, 4.2.3/5.2.3 of MHL Compliance Test Specification.
- Quantum Data 882EA supports HDCP compliance testing for MHL sources Sections 3.2.5 and sinks Section 4.2.4/5.2.4.

MHL CBUS Source Compliance Test Module - Benefits

- **Pre-Testing** - Invaluable tool for ensuring that your MHL source device is compliant. Ideal solution for pre-testing prior to submission to ATC.

  No external equipment or devices required.
- **Faster Time to Market** - Enables you to get your product to market quicker by avoiding submission delays at the ATC. And reduces expenses of submission to ATC.
- **Root Cause Identification** - Optimized for debugging compliance test failures; Solution provides easy access to the raw MHL CBUS event data in the Event Log Plots to view the details about the failure.
- **Data Portability** - Enables you to share test results, CBUS Log Plots and captured data with other subject matter experts without requiring a 980. Use 980 GUI Manager available from Quantum Data website.

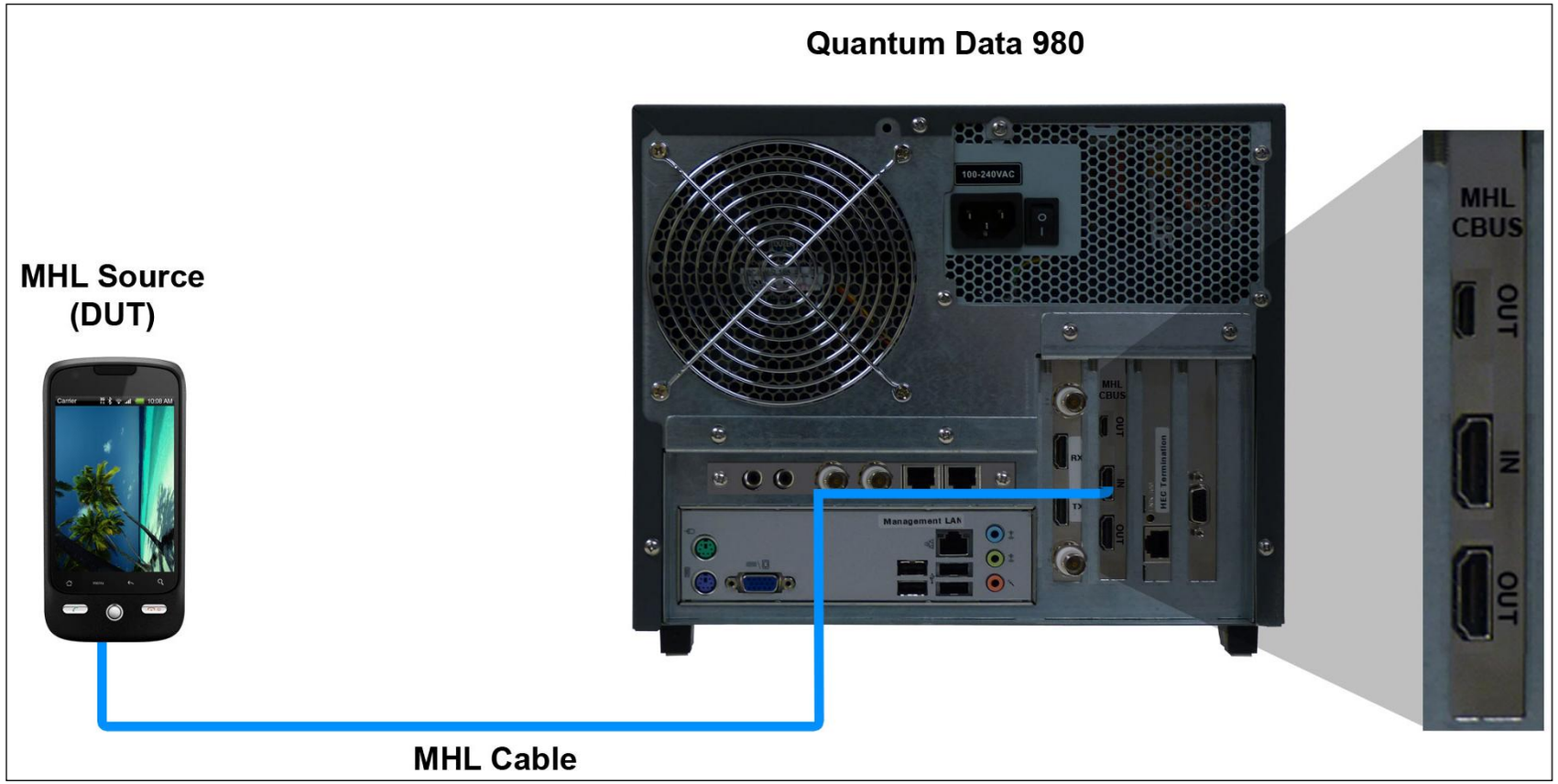
MHL CBUS Compliance - Workflow



MHL CBUS Source Compliance Testing

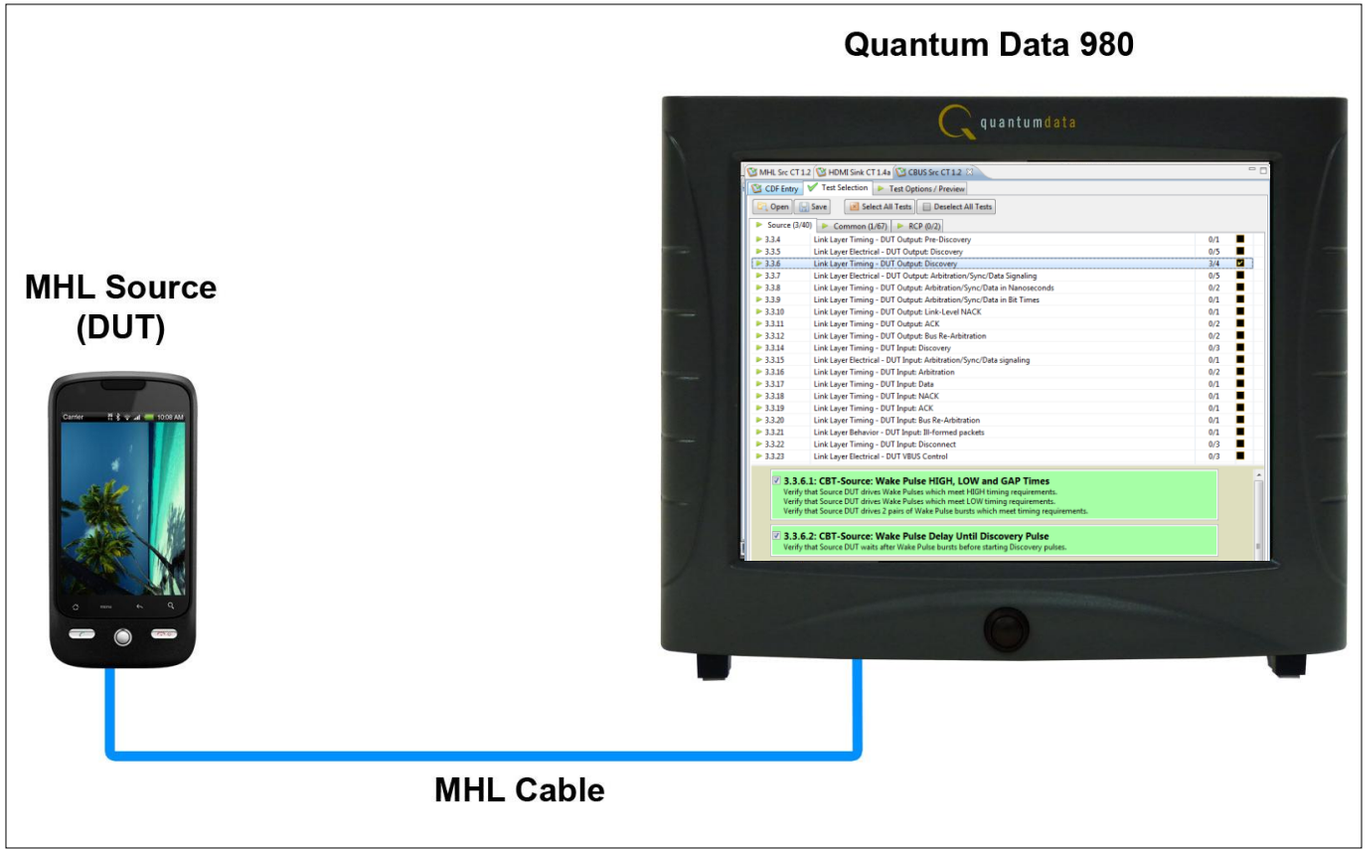
MHL CBUS Source Compliance Test – Setup

- Test setup with external GUI shown below



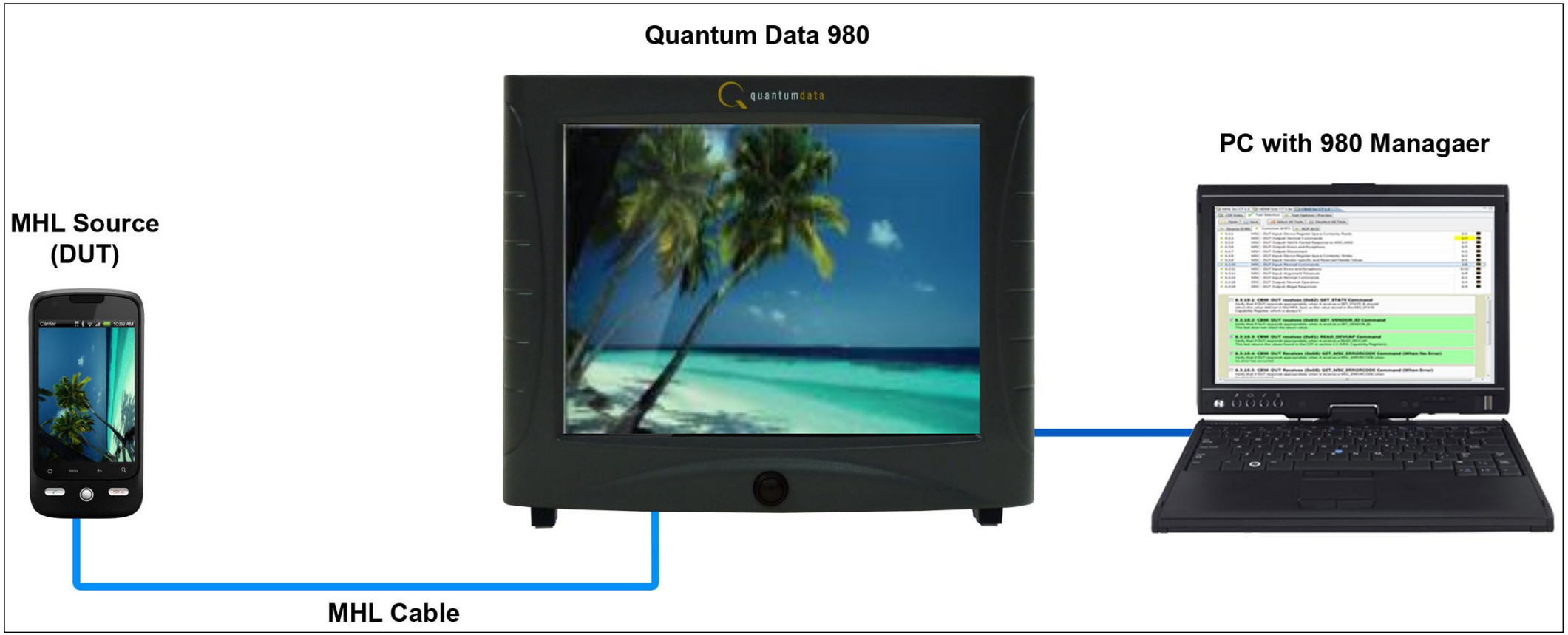
MHL CBUS Source Compliance Test – Setup

- Run tests through the embedded GUI.



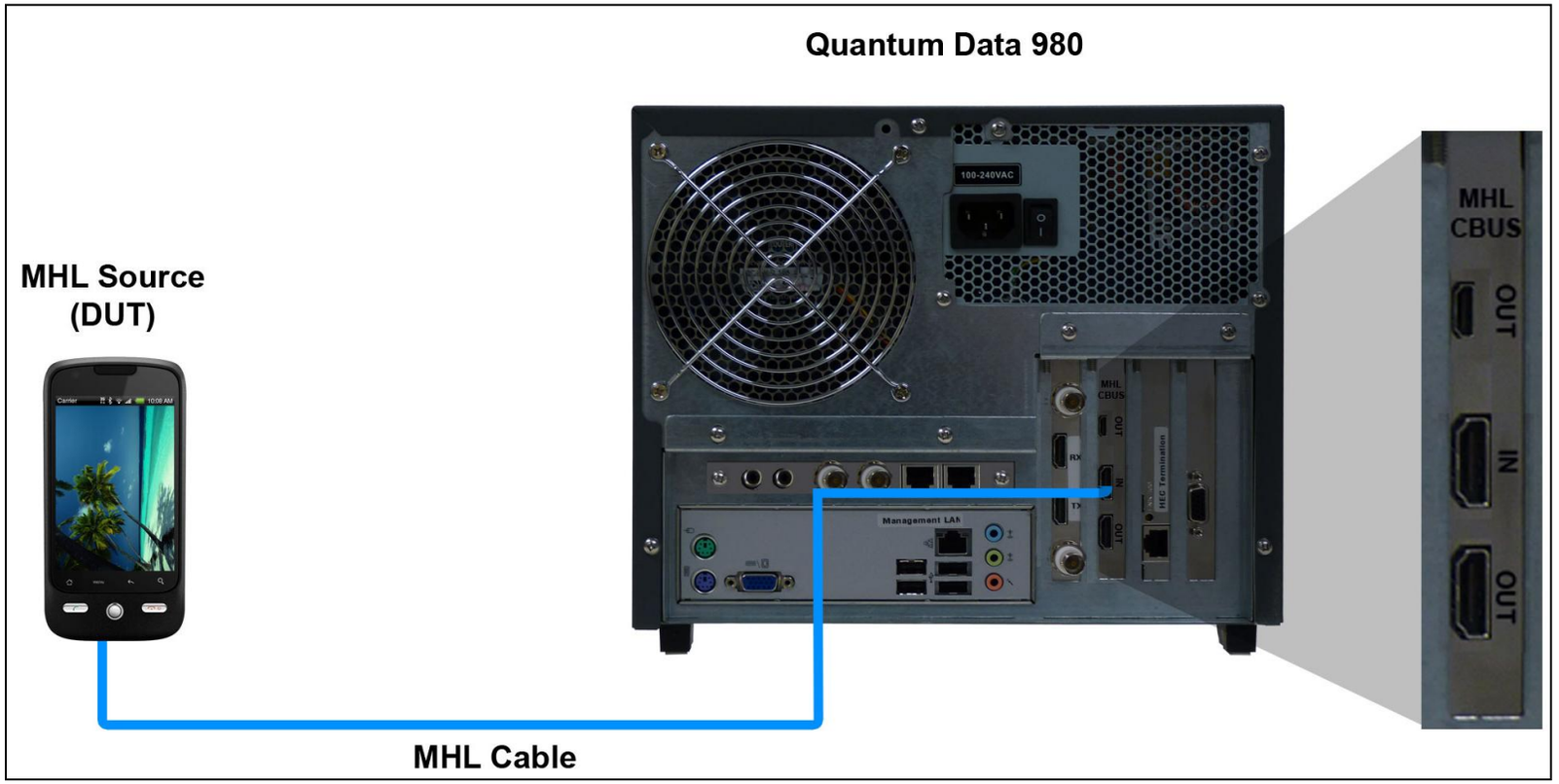
MHL CBUS Source Compliance Test – Setup

- Run tests through the external GUI.

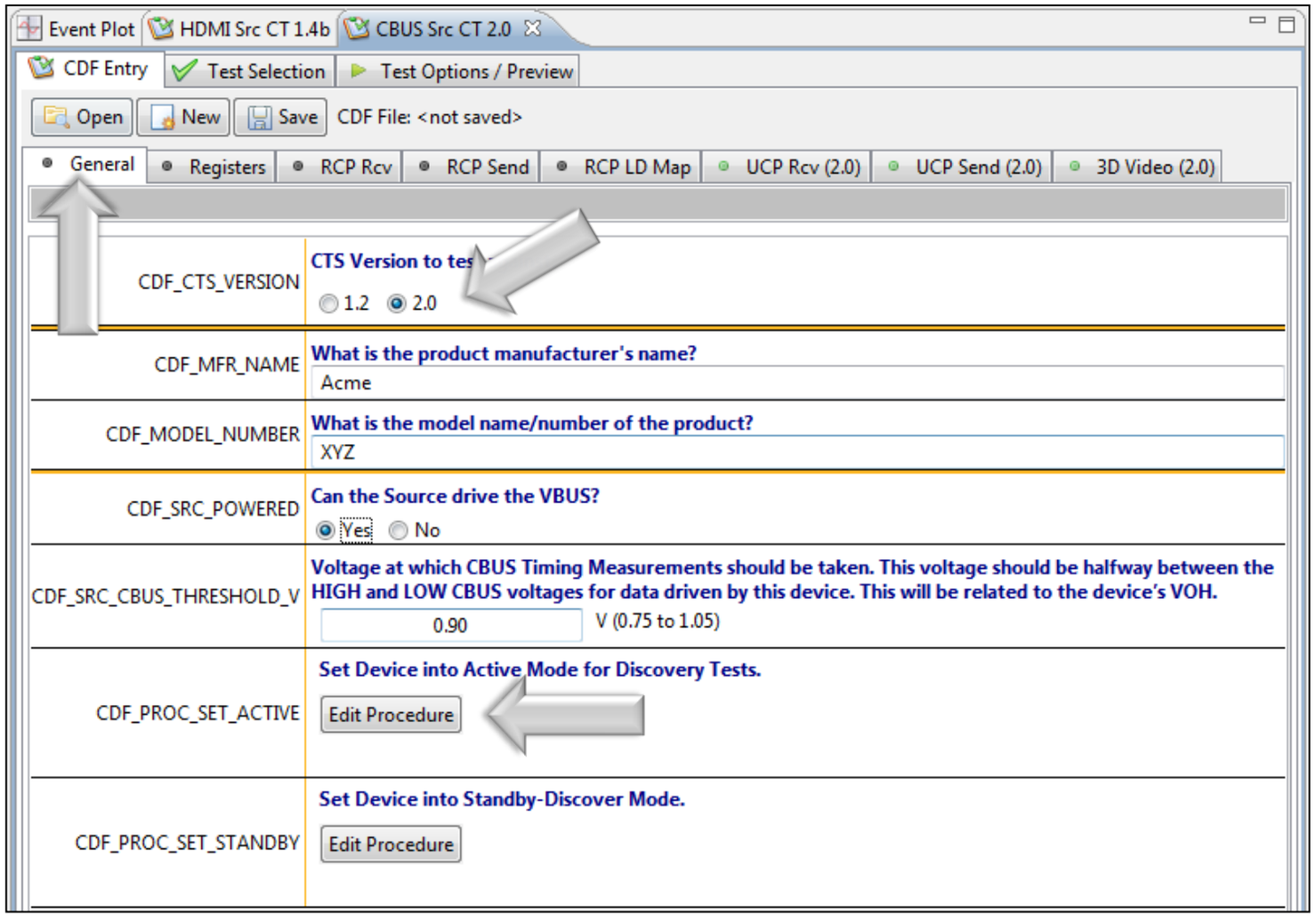


MHL CBUS Source Compliance Test – Setup

- Rear connections to CBUS module.



MHL CBUS Source Compliance - CDF

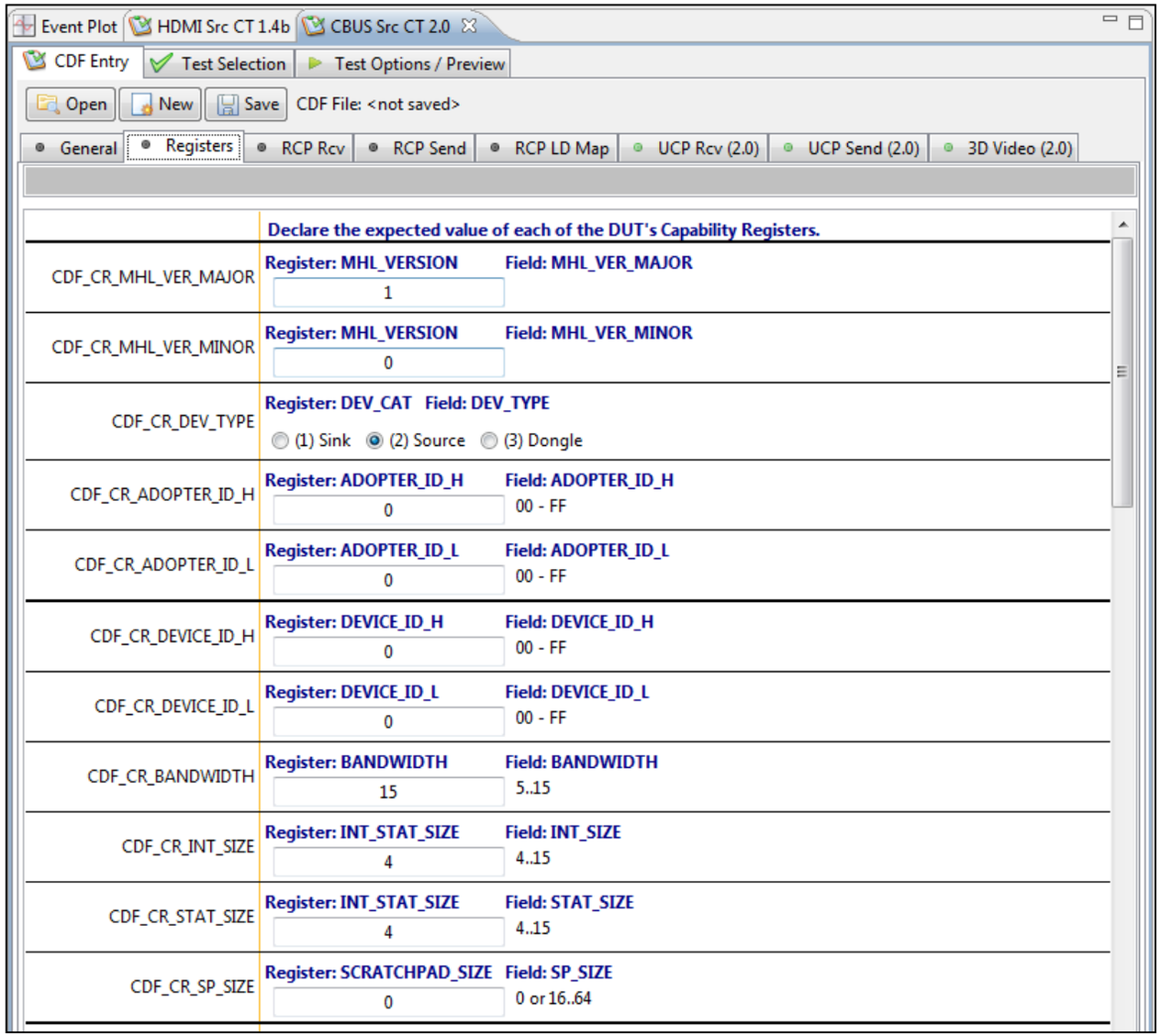


CDF:

- Defines the capabilities of the device under test.
- Provides a series of tabs for each type of feature.
- Provides description of each field.
- Example: General tab.
- Determines which tests to run.

  Note: You can enter helpful information using the “Edit Procedure” dialog box. The information entered into this dialog box will appear during the test and can be helpful to users running a particular test.

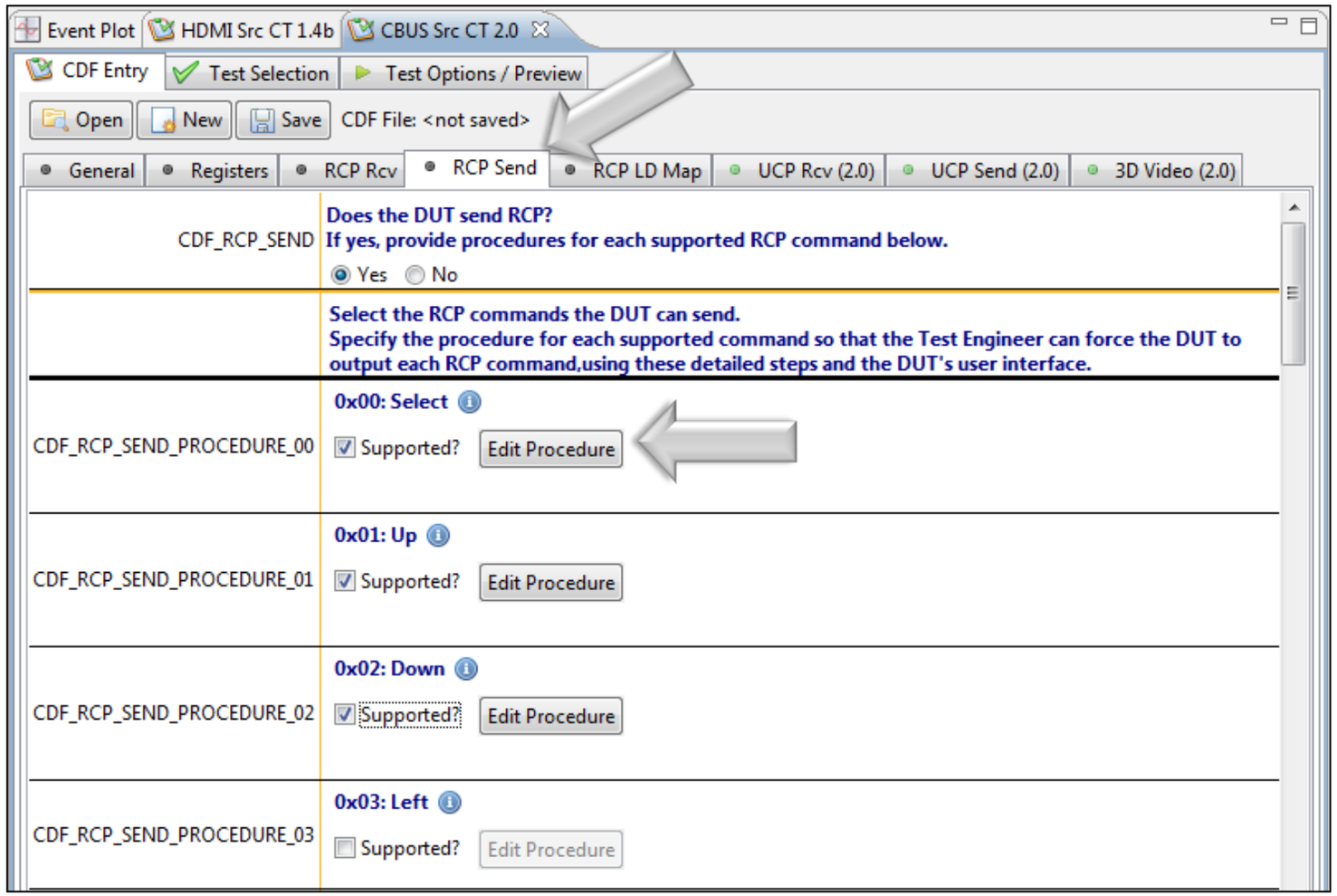
MHL CBUS Source Compliance - CDF



CDF:

- Example: Registers CDF tab.

MHL CBUS Source Compliance - CDF

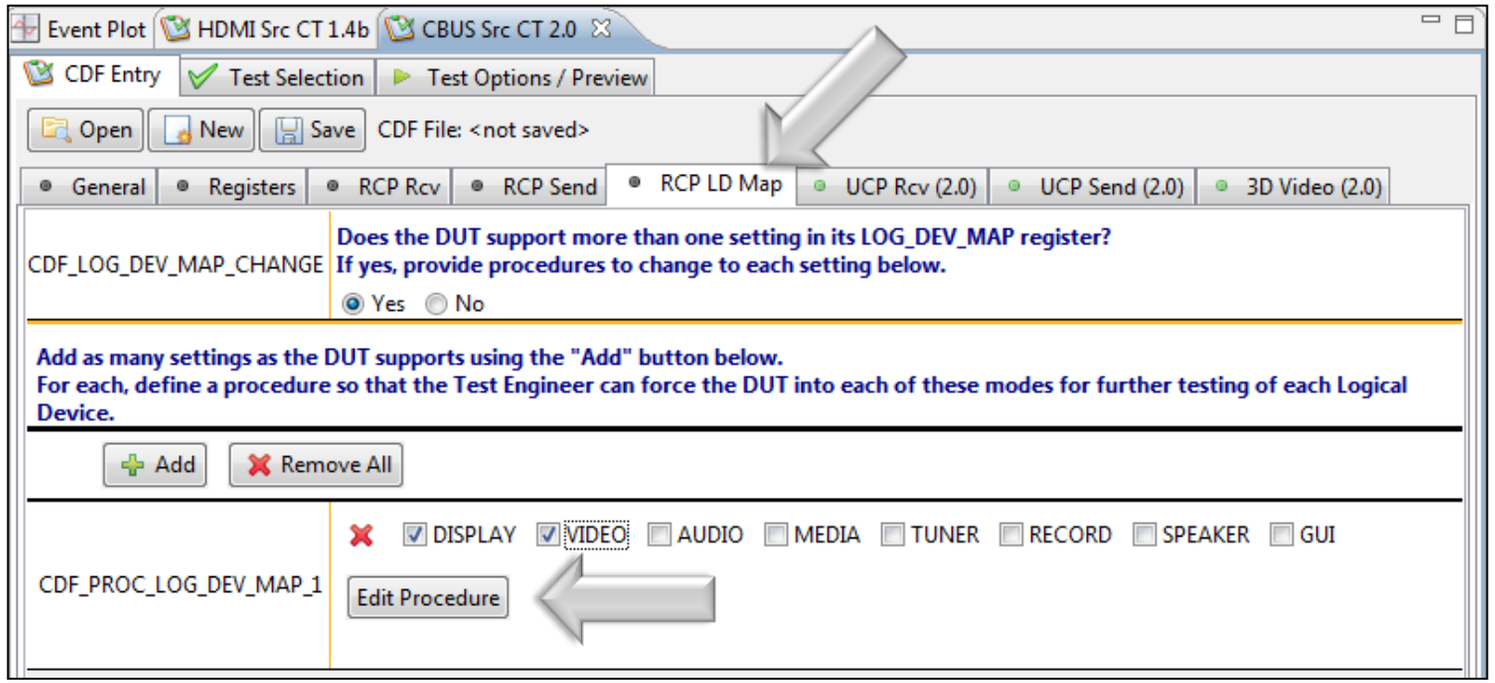


CDF:

- Example: RCP Send Tab.

  Note: You can enter helpful information using the "**Edit Procedure**" dialog box. The information entered into this dialog box will appear during the test and can be helpful to users running a particular test.

MHL CBUS Source Compliance - CDF

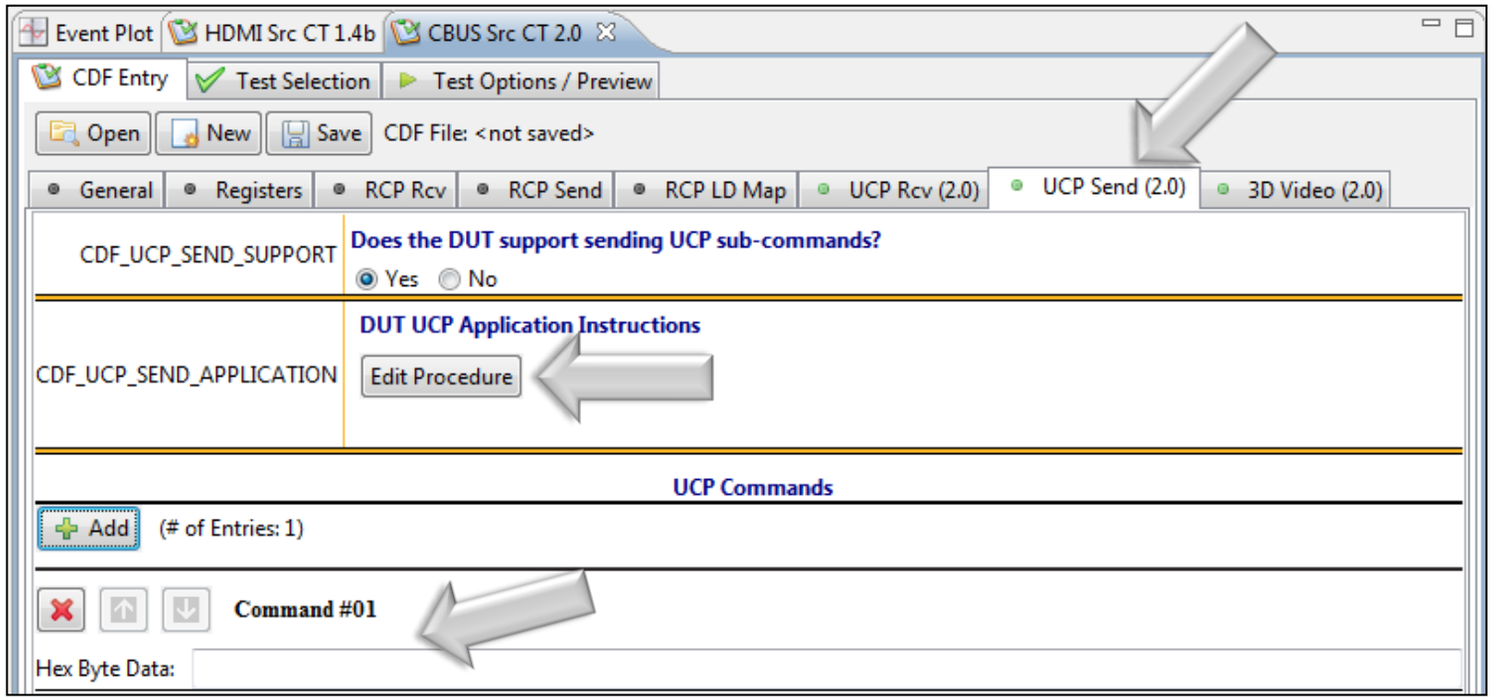


CDF:

- Example: RCP LD Map Tab.

  Note: You can enter helpful information using the "**Edit Procedure**" dialog box. The information entered into this dialog box will appear during the test and can be helpful to users running a particular test.

MHL CBUS Source Compliance - CDF



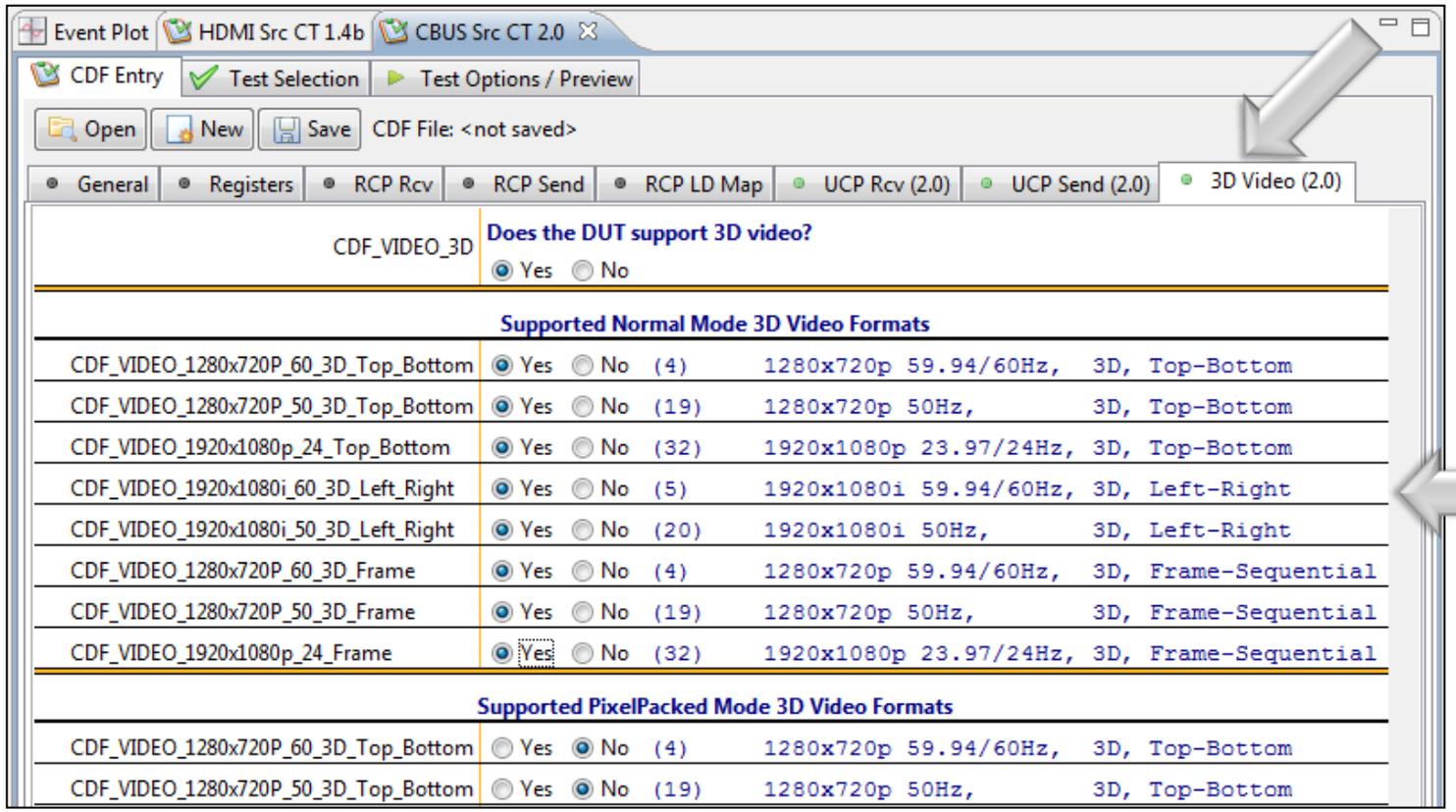
CDF:

- Example: UCP Send Tab.

  Note: You can enter helpful information using the "**Edit Procedure**" dialog box. The information entered into this dialog box will appear during the test and can be helpful to users running a particular test.

- Enter the UCP commands supported in the command section at the lower portion of the window.

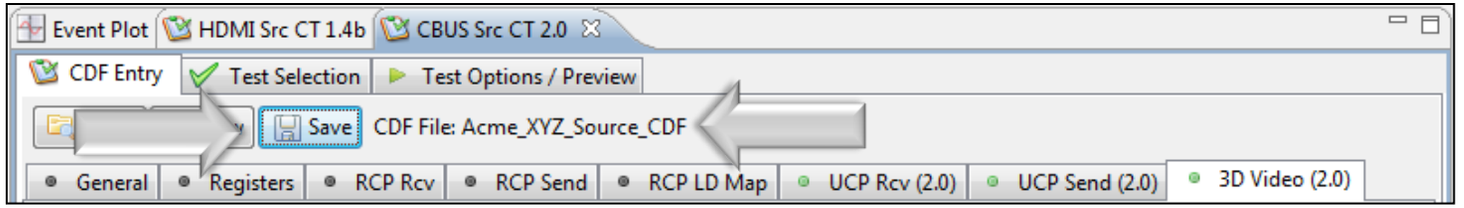
MHL CBUS Source Compliance - CDF

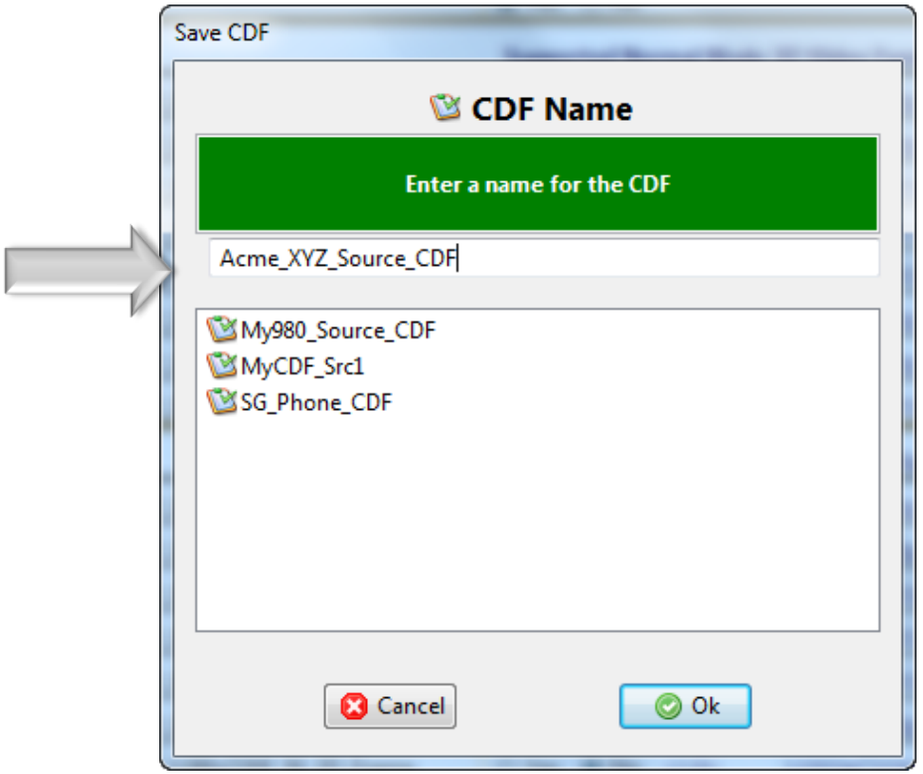


CDF:

- Example: 3D Video Tab.
- Indicate the 3D formats supported.

MHL CBUS Source Compliance - CDF



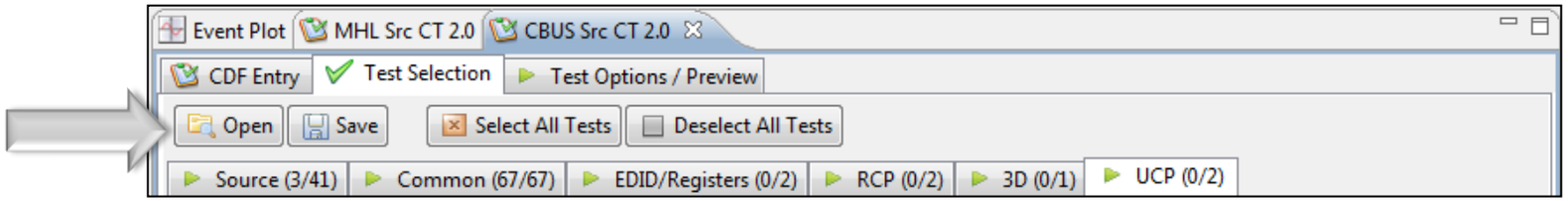


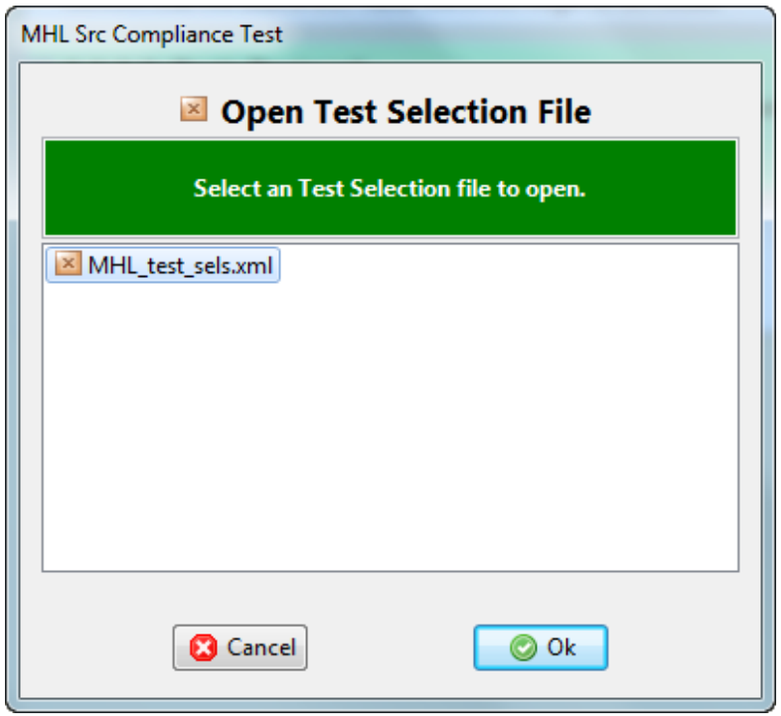
CDF:

- CDF file used is shown in status area on top of panel. Indicates file used or “not saved”.
- Save and reuse CDF definitions.
- Saves time of re-entering data.
- Files can be transferred to colleagues to help expedite product capability selection process in a test series.

MHL CBUS Source Compliance Test Selection

MHL CBUS Source Compliance – Test Selection

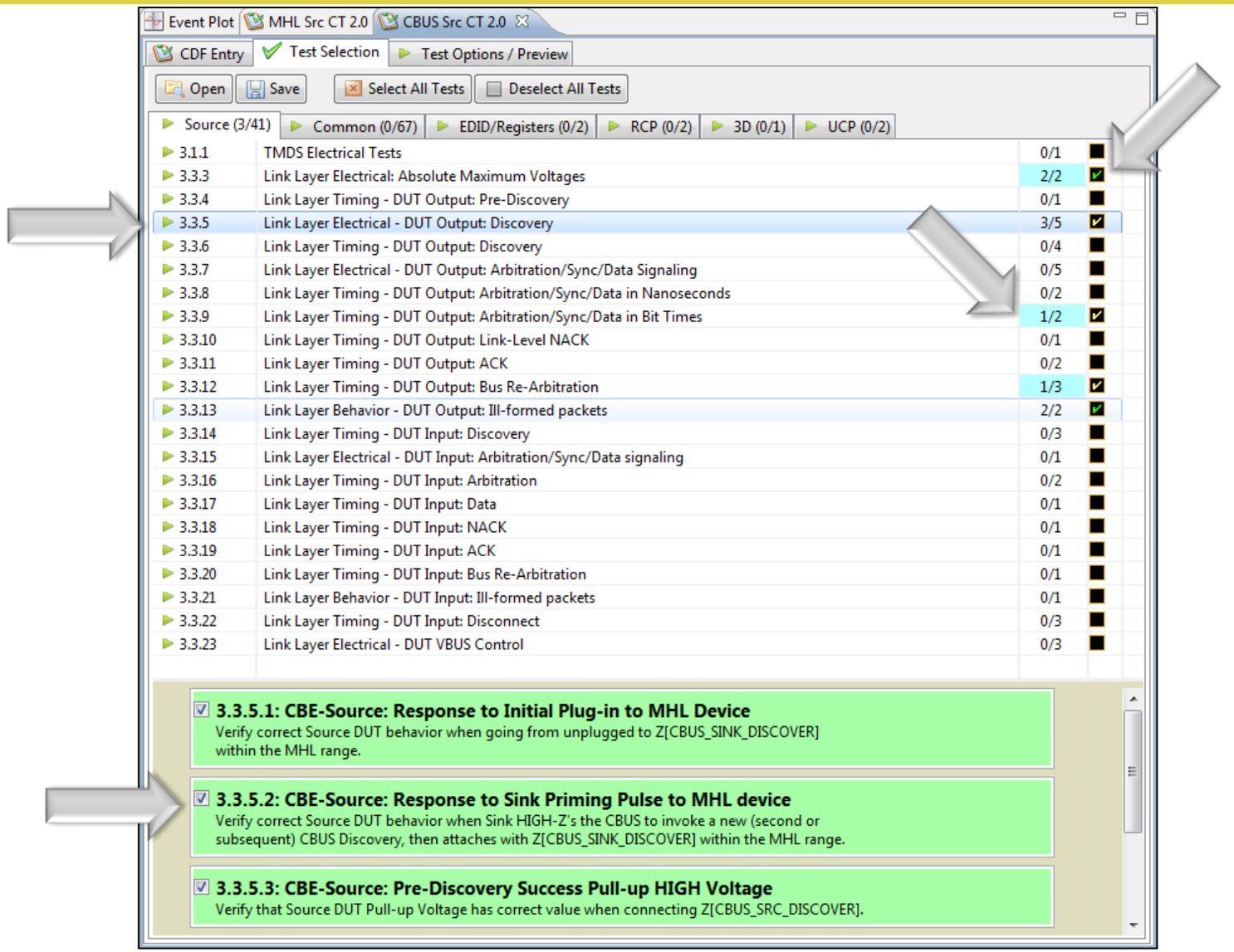




Test Selection:

- Open an existing Test Selection file.

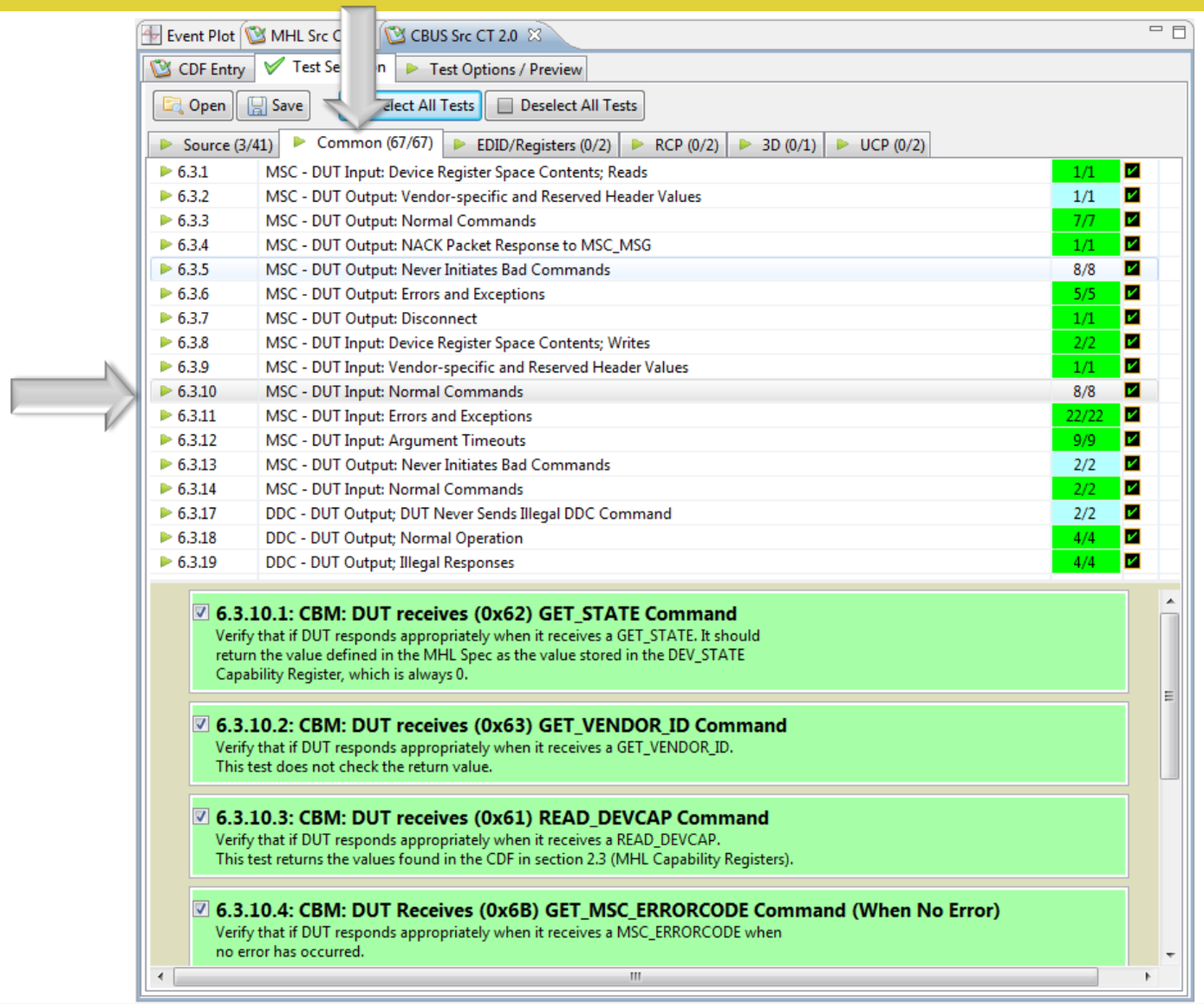
MHL CBUS Source Compliance – Test Selection



Test Selection:

- Determine which specific tests to run in a test suite.
- Select all tests or select specific test sections or particular tests within each section.
- Check box indicators inform how many tests in each section and how many are selected.
- Example: CBUS Source test tab with Link Layer Electrical – DUT output Arbitration/ sync/data signaling.

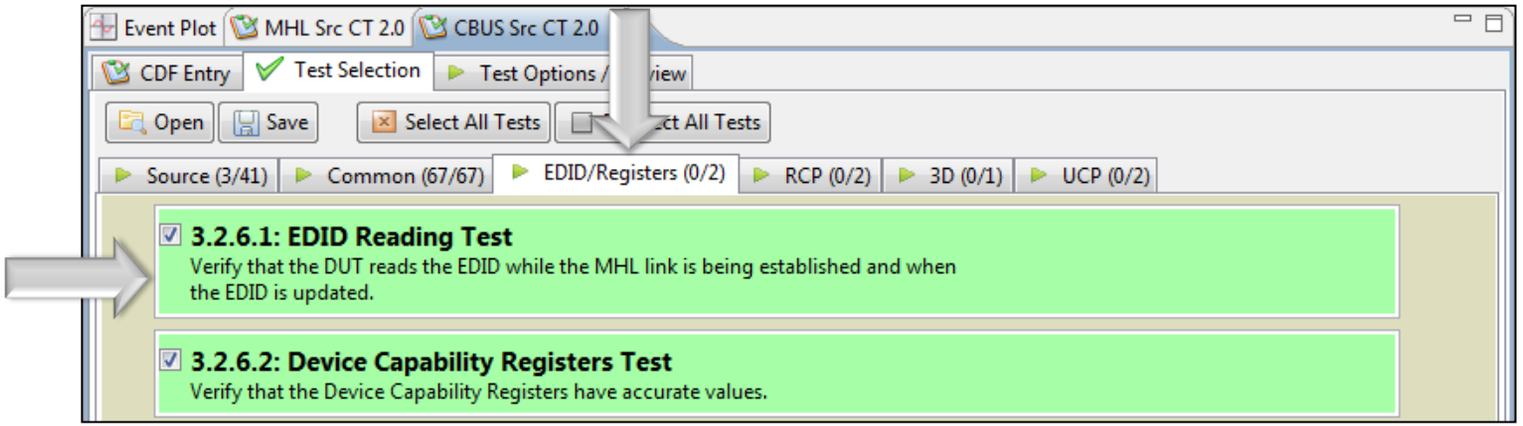
MHL CBUS Source Compliance – Test Selection



Test Selection:

- Select “Common” tests for MSC and DDC.

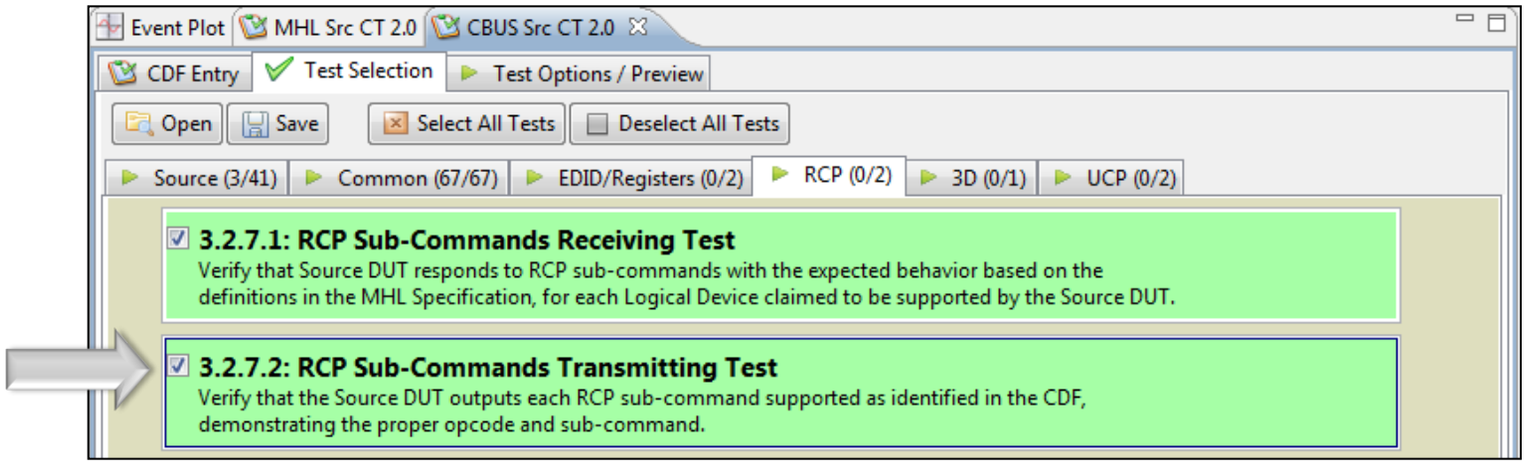
MHL CBUS Source Compliance – Test Selection



Test Selection:

- Select “EDID/Registers” tests.

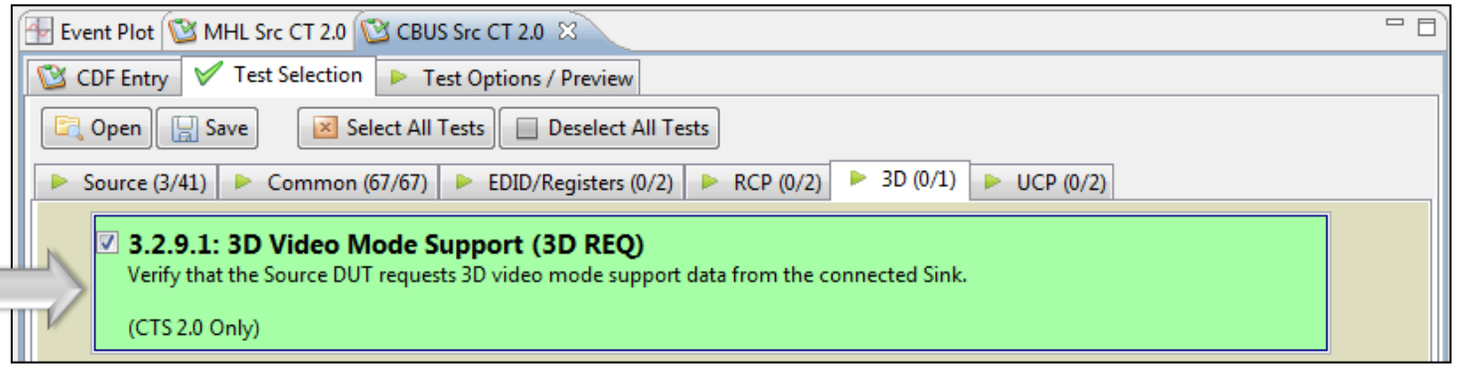
MHL CBUS Source Compliance – Test Selection



Test Selection:

- Select “RCP” tests.

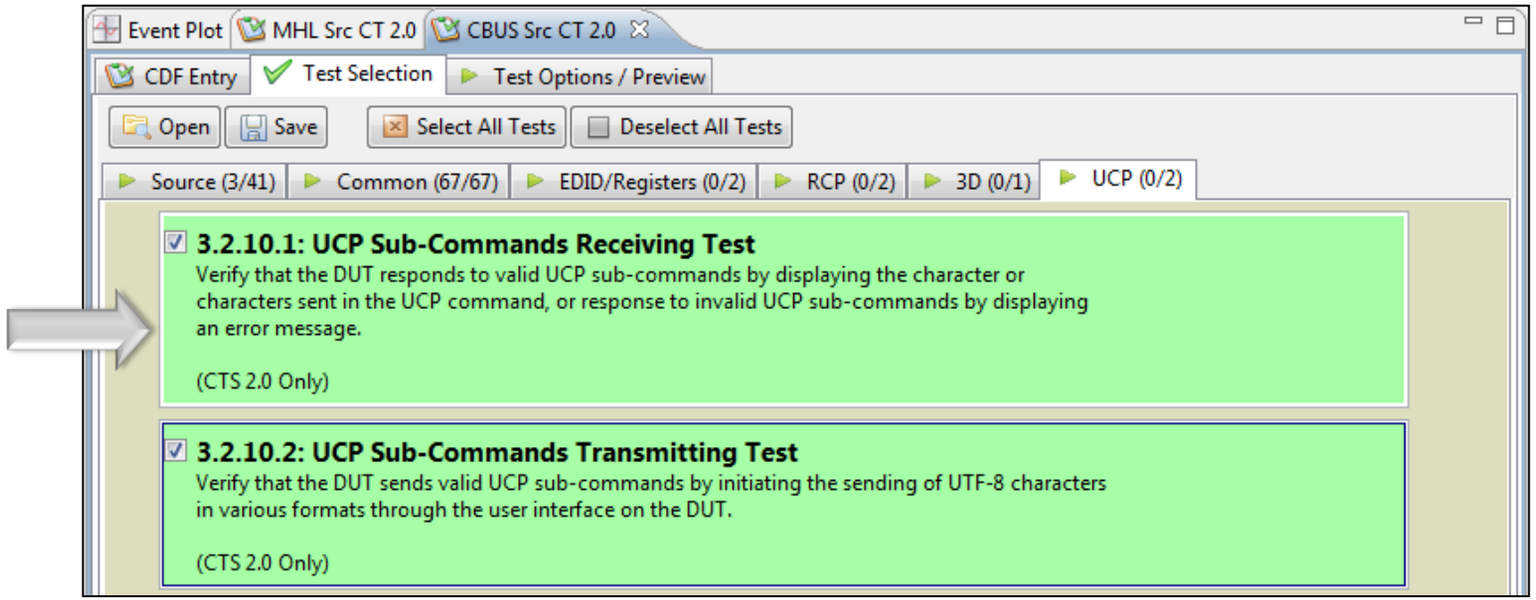
MHL CBUS Source Compliance – Test Selection



Test Selection:

- Select “3D” test tab.

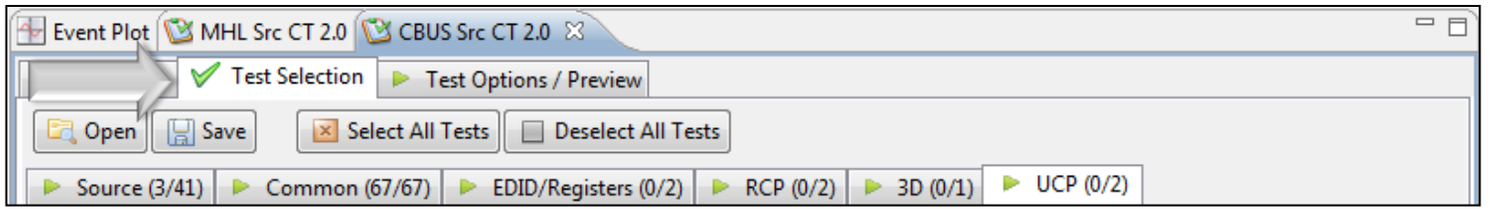
MHL CBUS Source Compliance – Test Selection

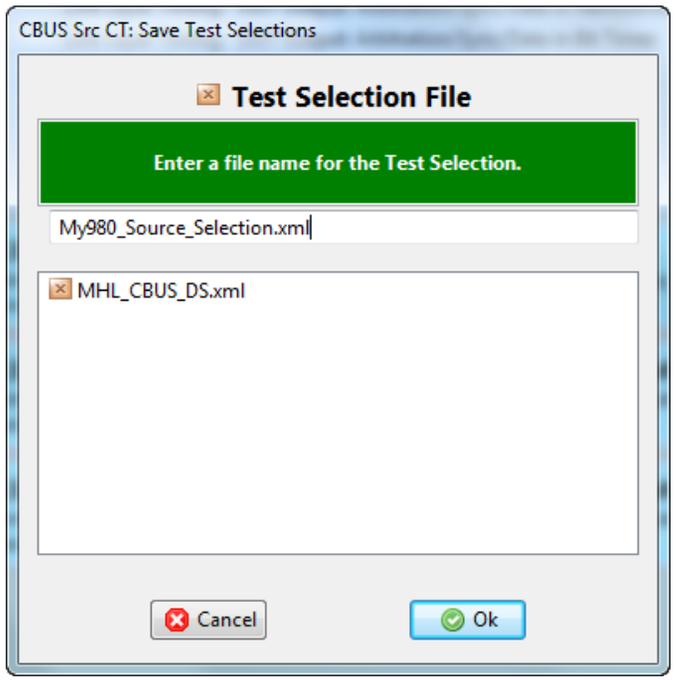


Test Selection:

- Select “UCP” test tab.

MHL CBUS Source Compliance – Test Selection



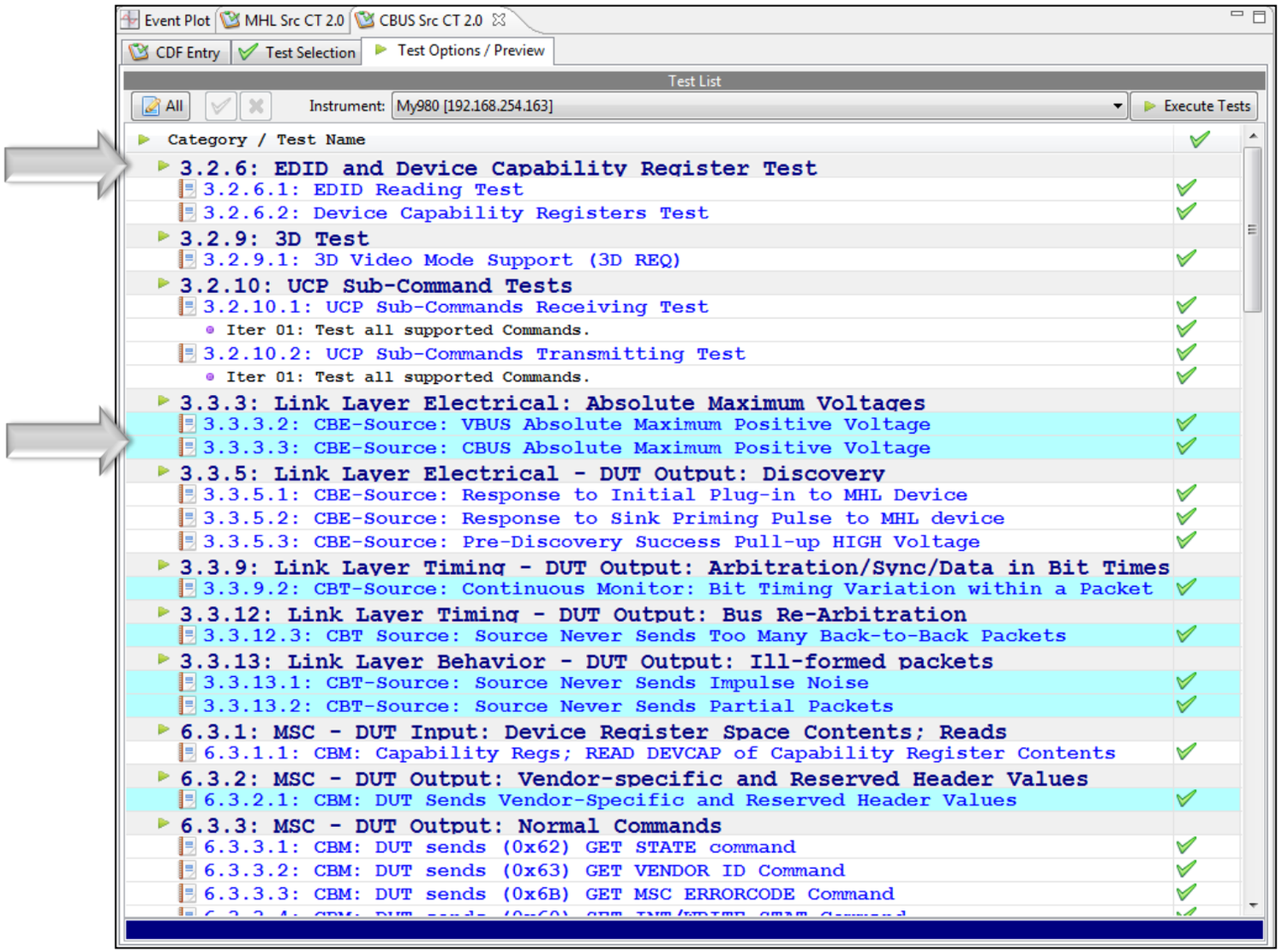


Test Selection:

- Save and reuse Test Select definitions.
- Saves time of re-entering specific tests.

Running the CBUS Source Compliance Tests

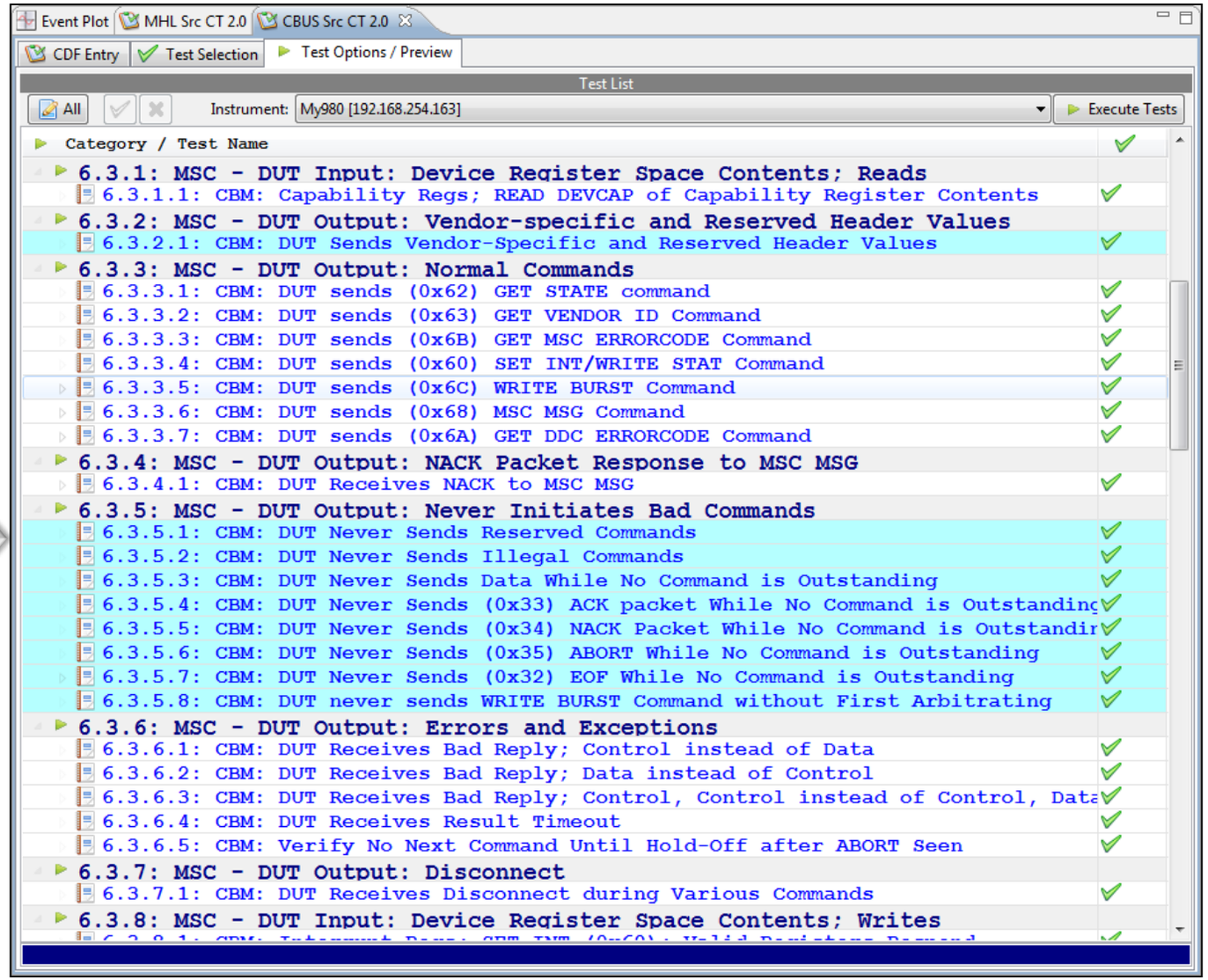
MHL CBUS Source Compliance – Review Test Selections



Test Options / Preview:

- Review list of tests by Section.
- Scroll through list.
- Example: Section 3.3.x.
- Note tests in light blue are tests that are run in background mode.

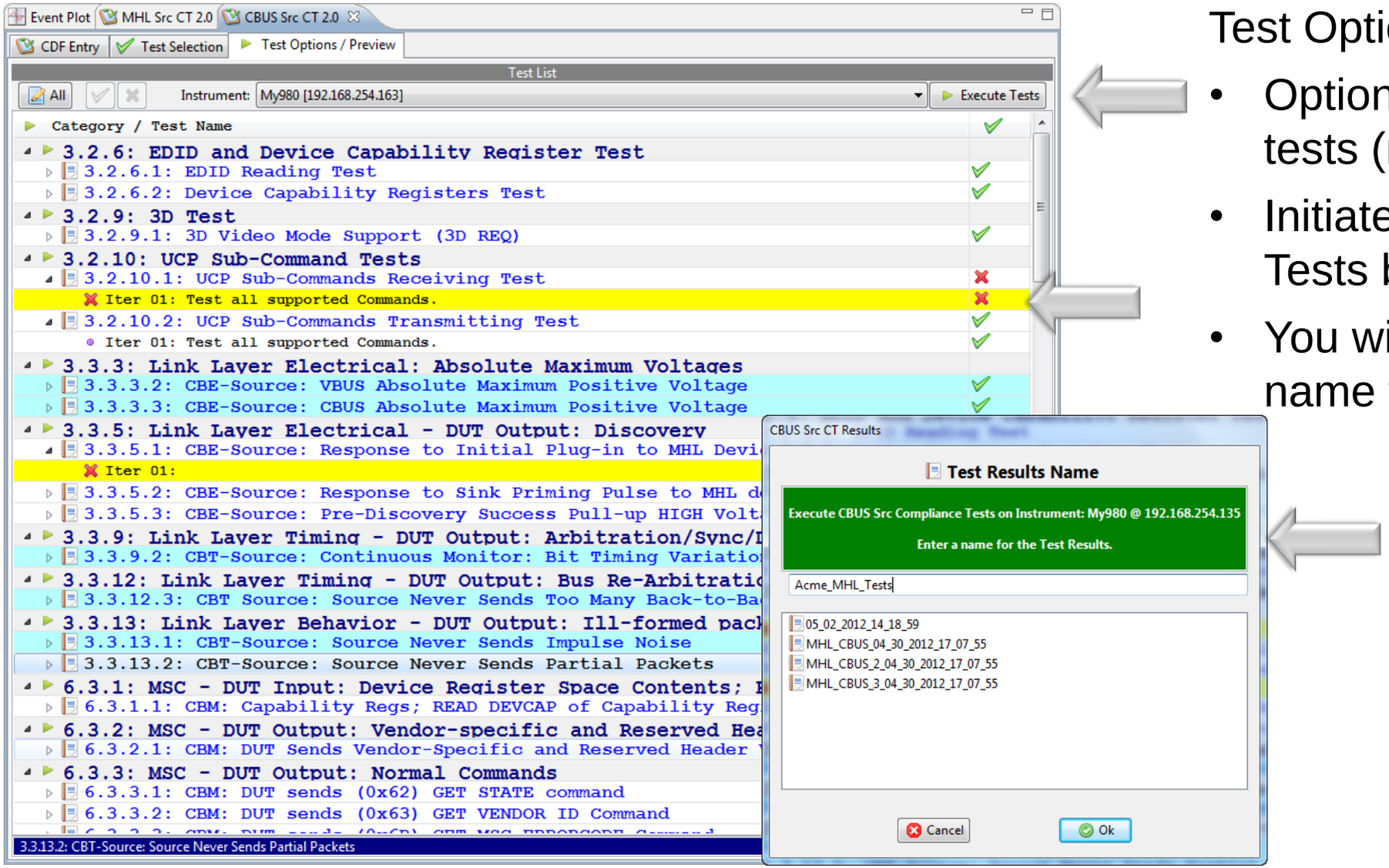
MHL CBUS Source Compliance – Review Test Selections



Test Options / Preview:

- Review list of tests by Section.
- Tests highlighted in blue are tests that are run in background mode.
  Example: Section 6.3.5.x

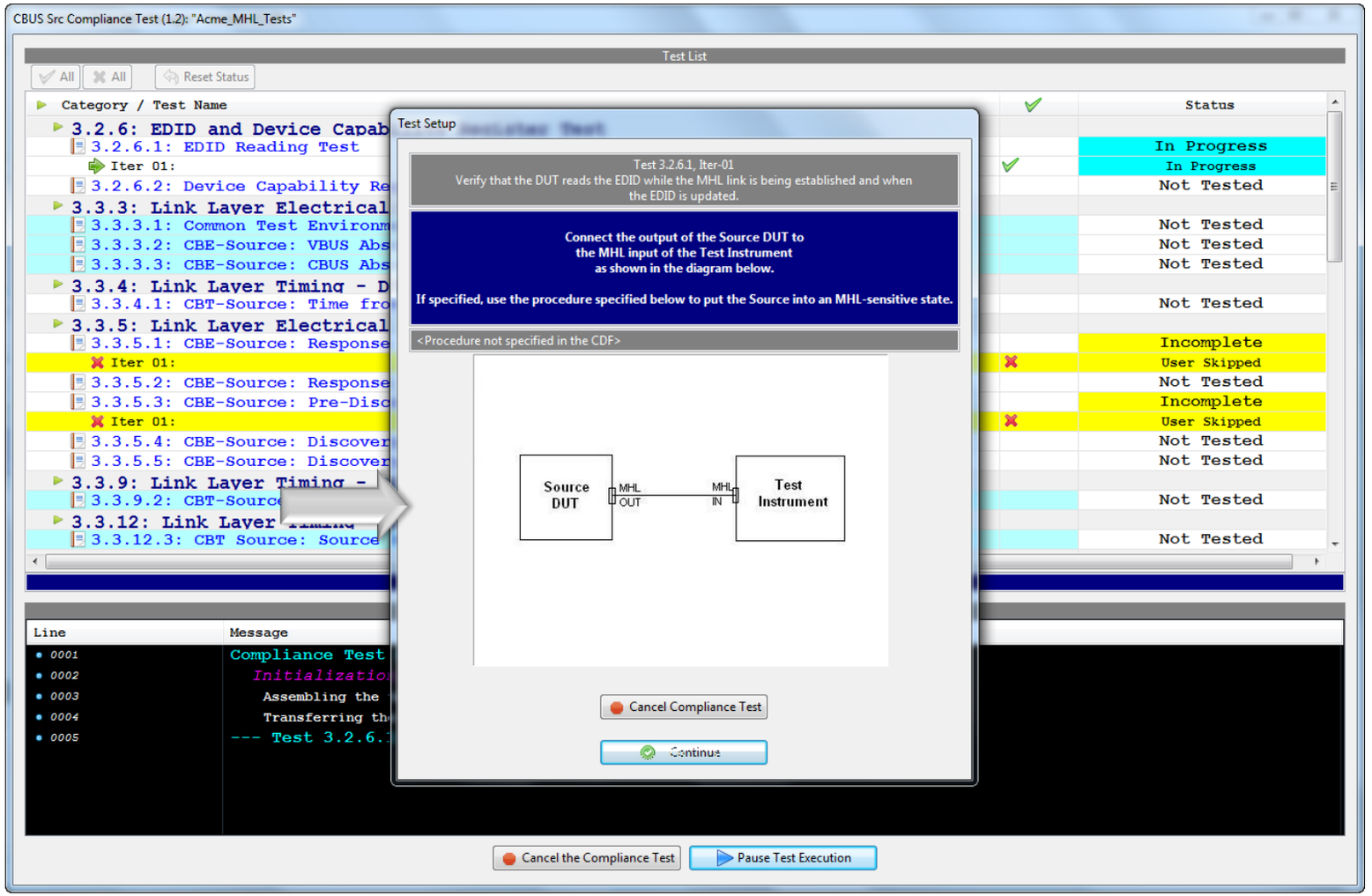
MHL CBUS Source Compliance - Optionally Skip Tests



Test Options / Preview:

- Optionally, skip certain tests (red X).
- Initiate test with Execute Tests button when ready.
- You will be prompted to name the test results file.

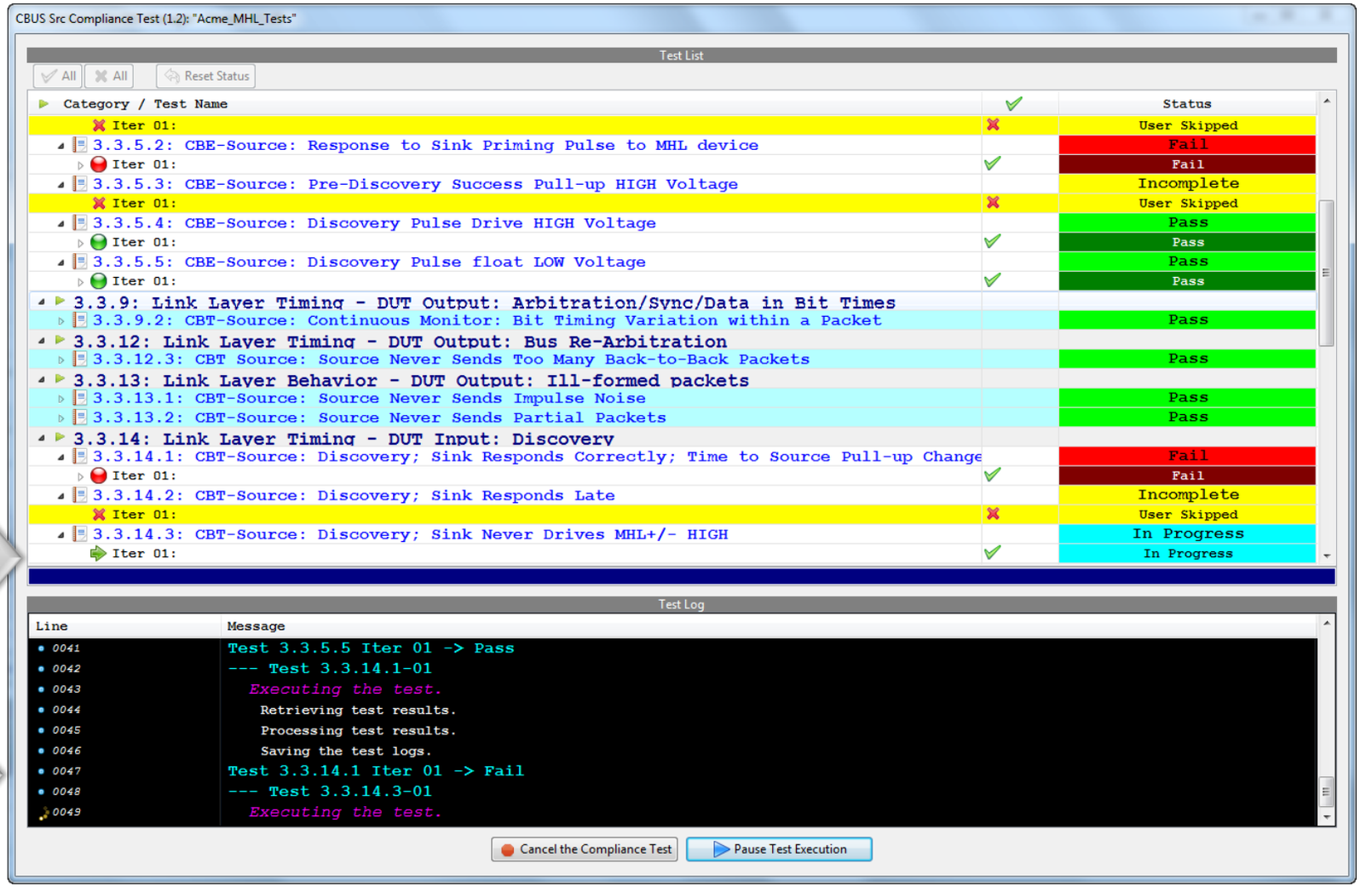
MHL CBUS Source Compliance – Test Execution/Setup



Test Options / Preview:

- Test Setup and special notes are provided where necessary

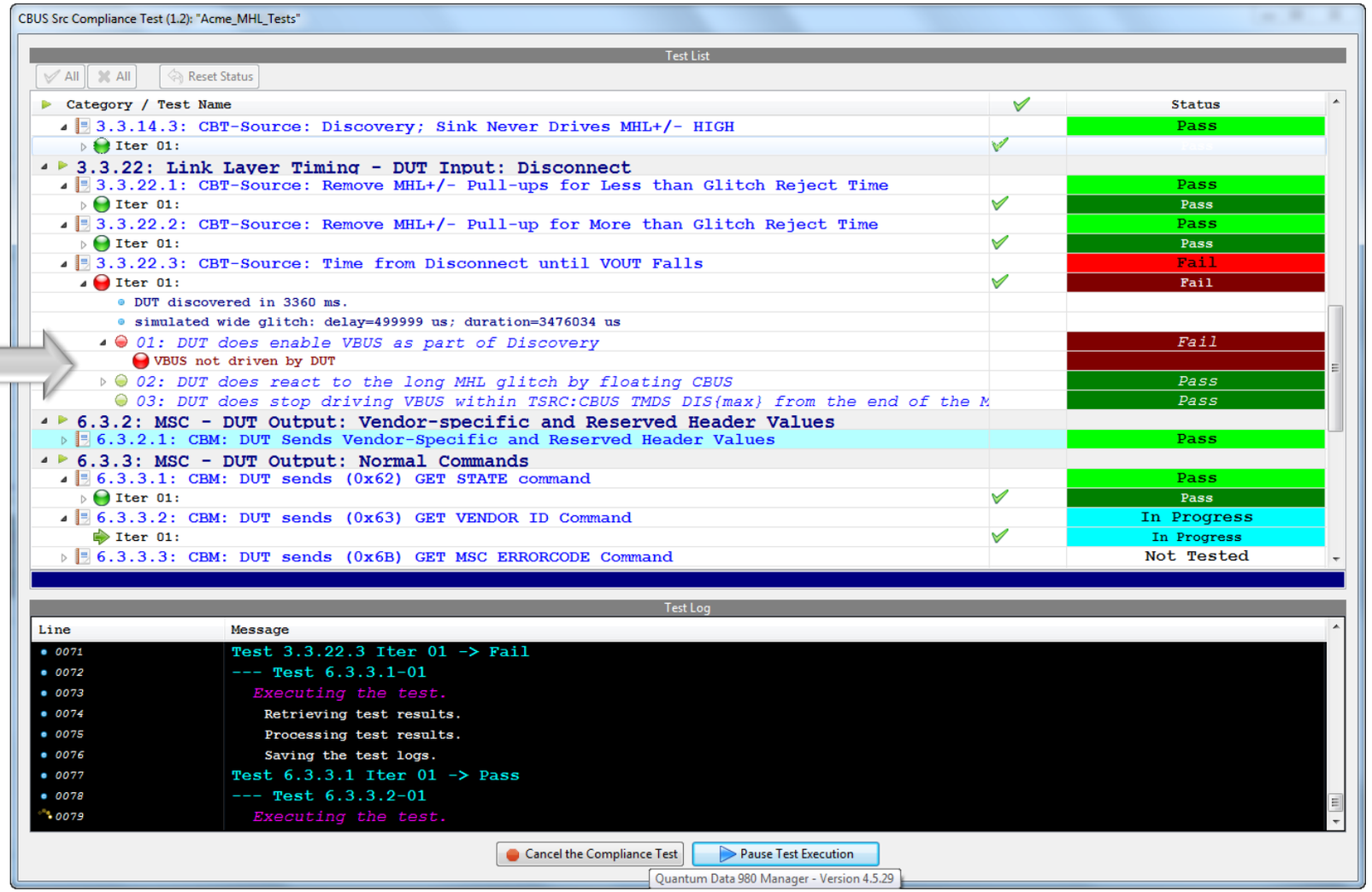
MHL CBUS Source Compliance – Test Execution



Test Execution log:

- Summary of test progress status shown on top.
- Progress arrow indicates current test.
- Detailed log of test events shown on bottom.

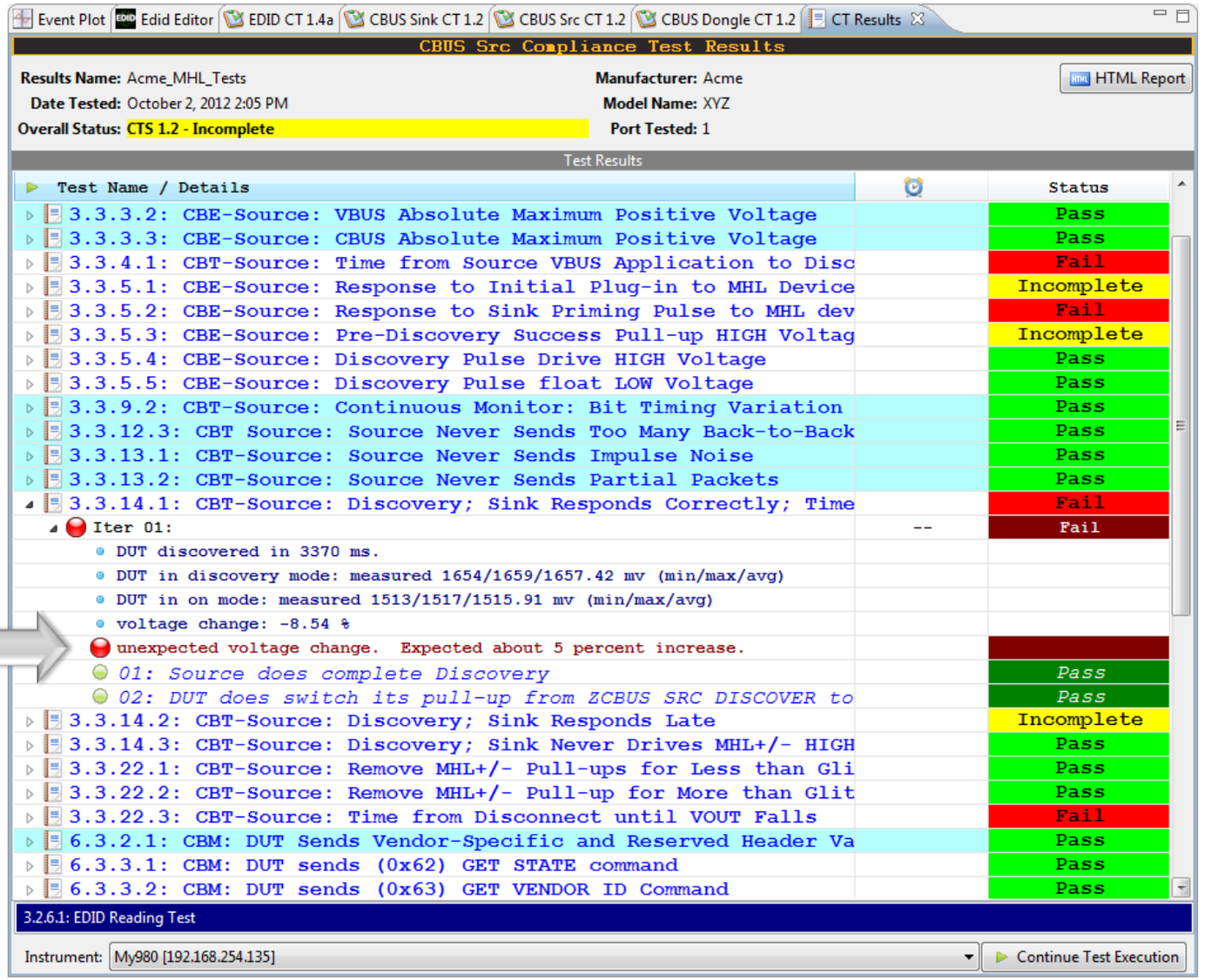
MHL CBUS Source Compliance – Test Execution



Test Execution failures:

- Detailed information when failures occur.

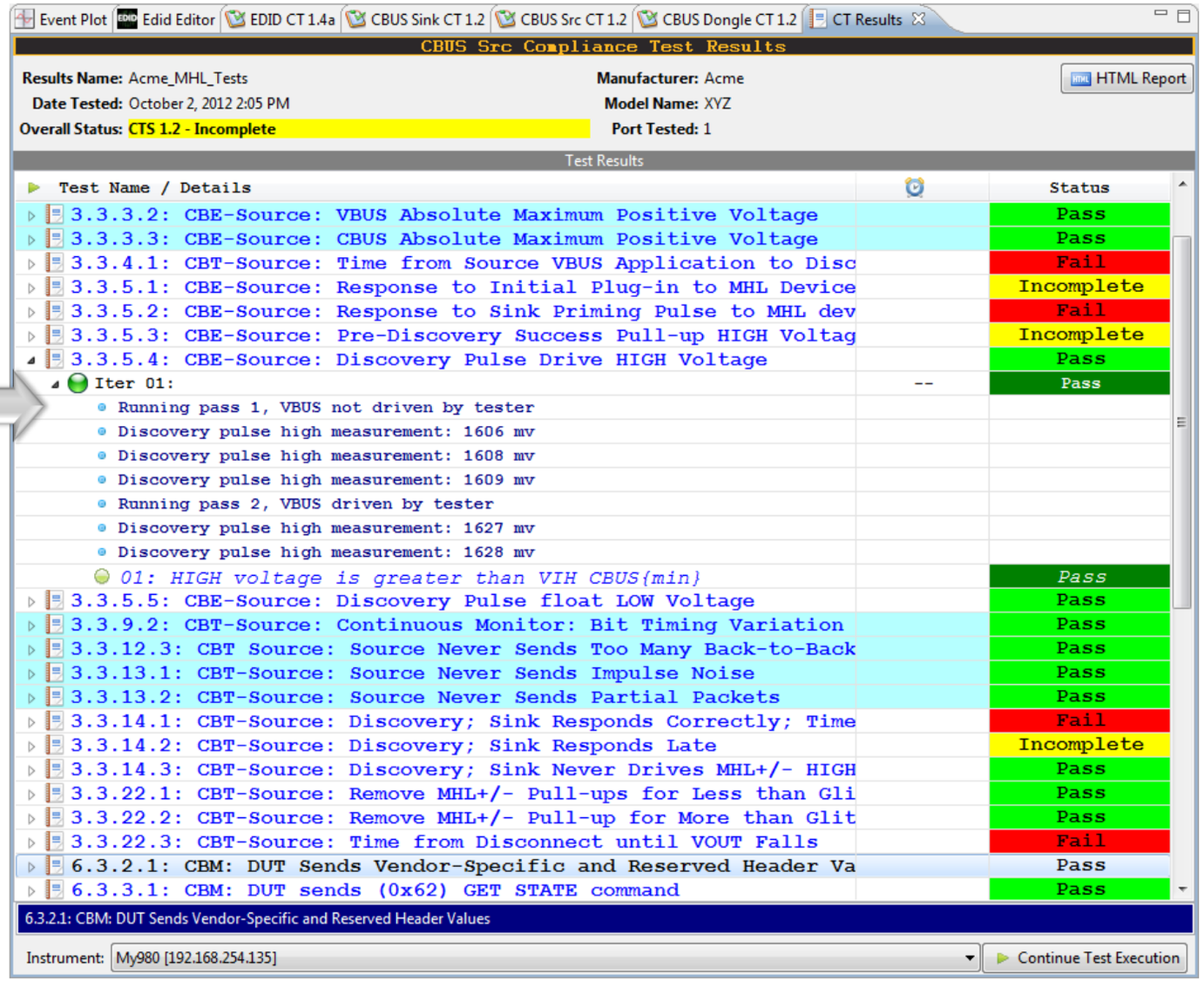
MHL CBUS Source Compliance – Test Results



Test Results:

- Results tab shows summary of test results.
- Results can be saved and viewed through 980 GUI Manager.

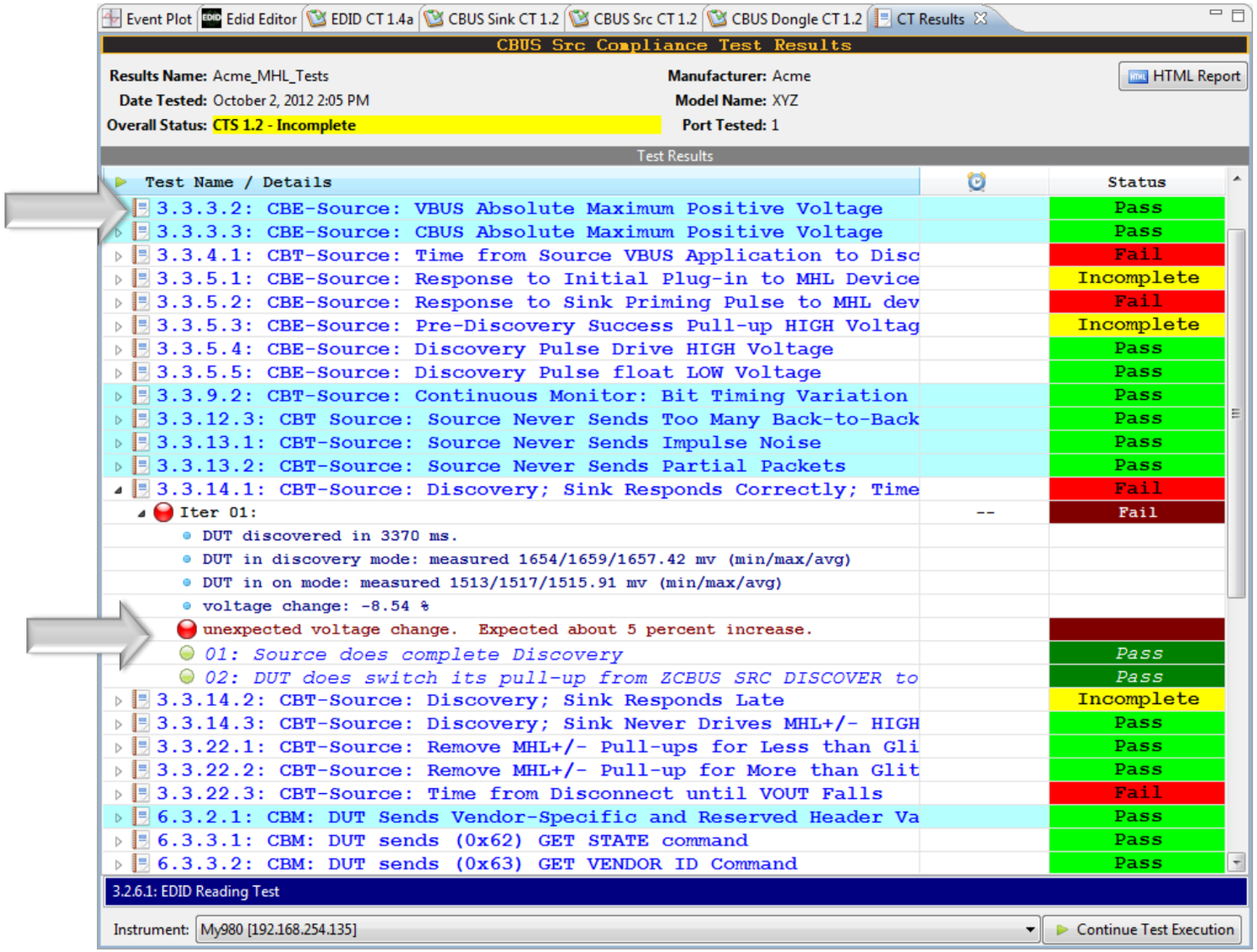
MHL CBUS Source Compliance – Test Results



Test Execution Pass Results:

- Results tab shows detail results for tests that pass and fail.

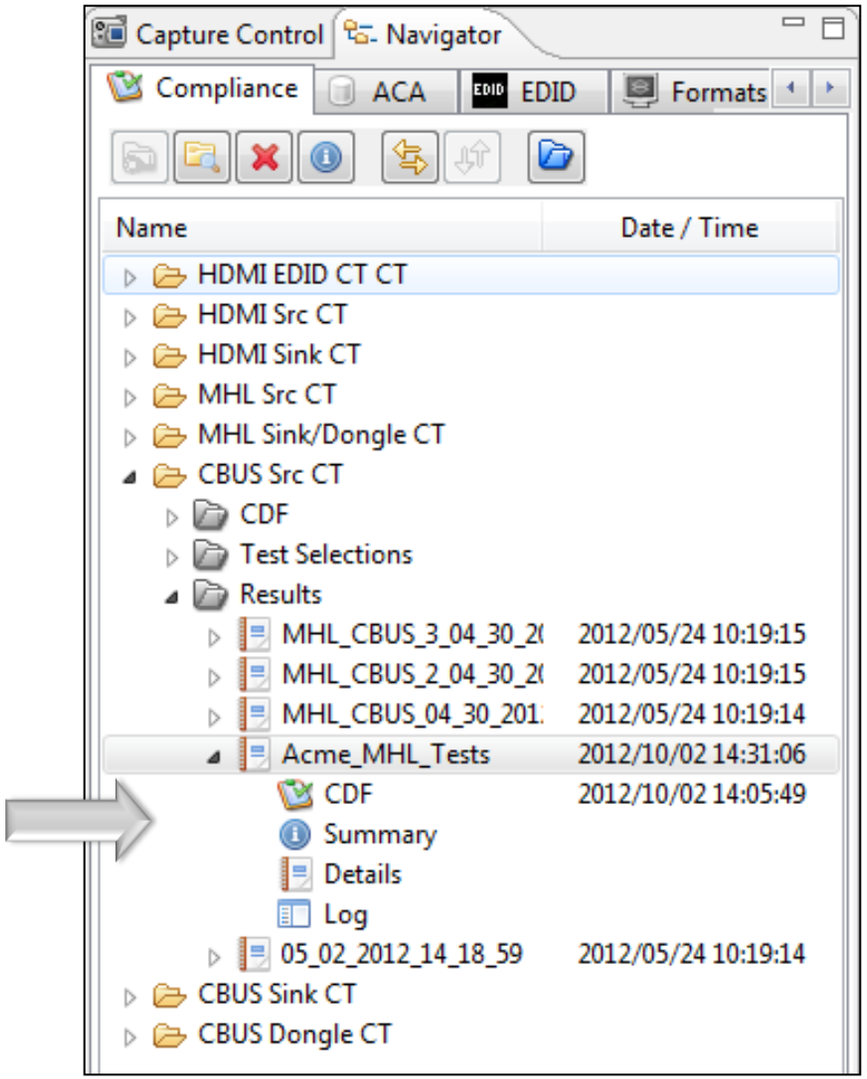
MHL CBUS Source Compliance – Test Results



Test Execution failures:

- Results tab shows detail results for tests that pass and fail.

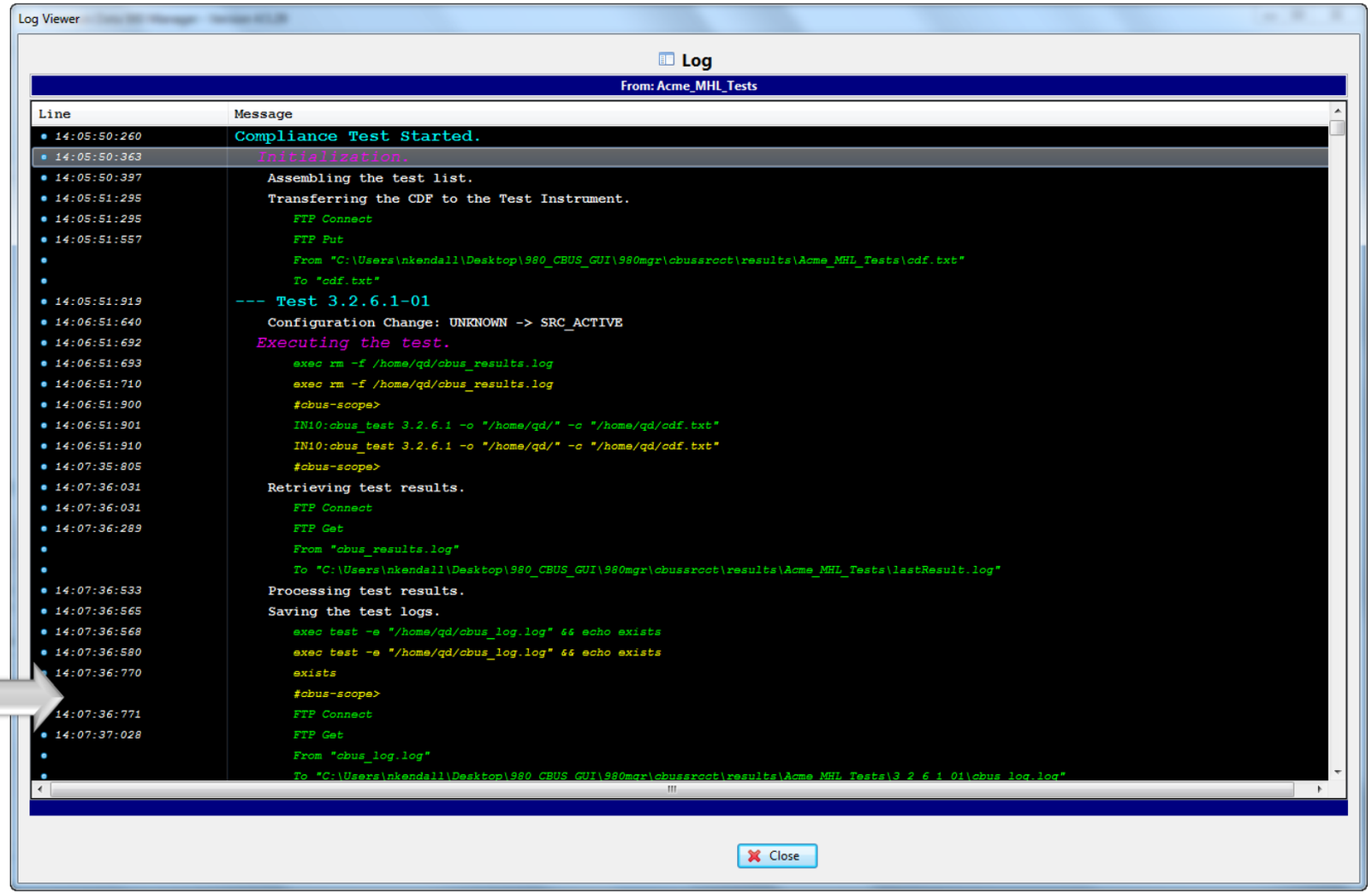
MHL CBUS Source Compliance – Test Results



Test Results:

- Access results at any time through Navigator/ Compliance tab.

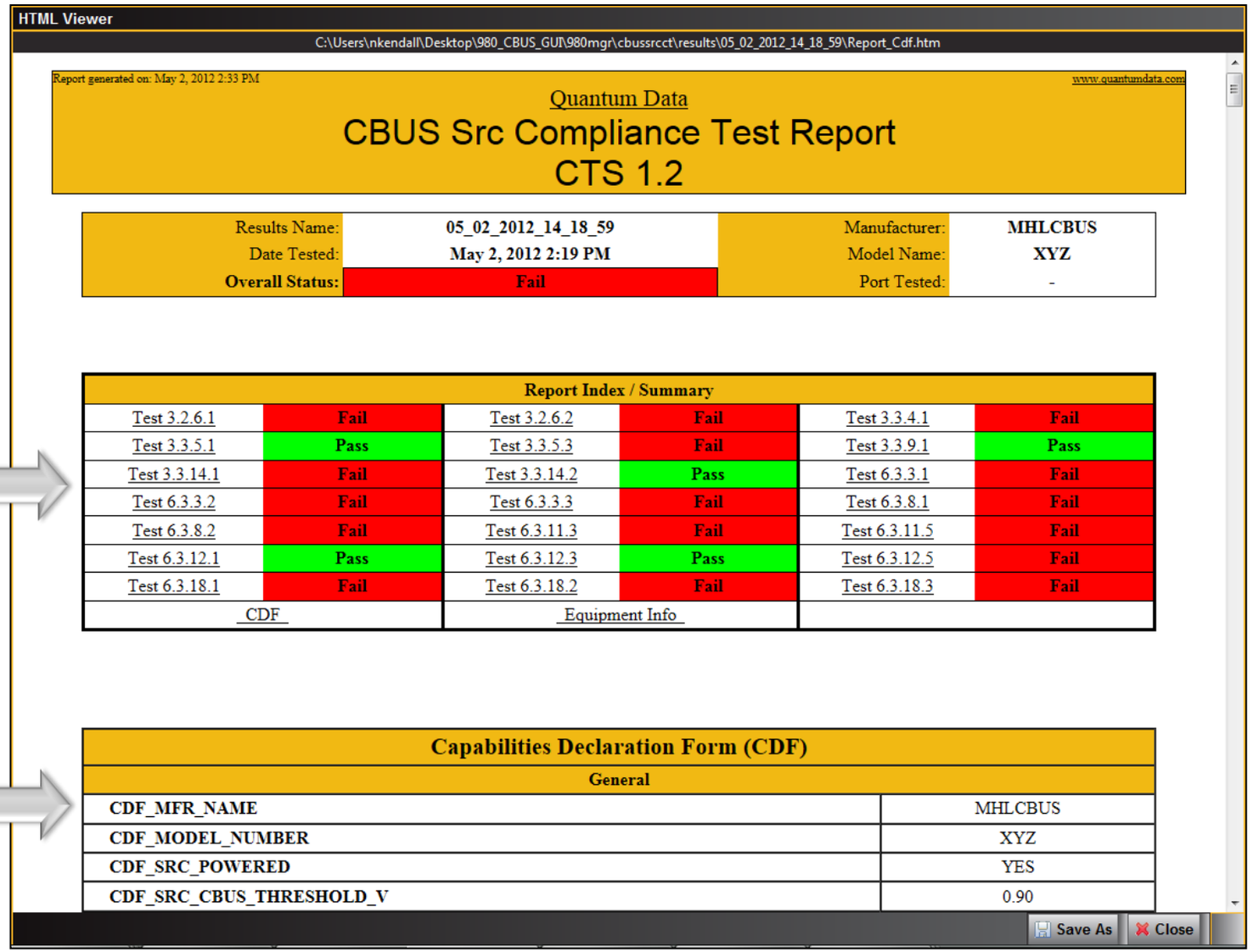
MHL CBUS Source Compliance – Test Results



Test Results:

- Access detailed test log through Navigator/ Compliance tab.

MHL CBUS Source Compliance – HTML Test Report


HTML Viewer

C:\Users\nkendall\Desktop\980_CBUS_GUI\980mgr\cbussrcct\results\05_02_2012_14_18_59\Report_Cdf.htm

Report generated on: May 2, 2012 2:33 PM

www.quantumdata.com

Quantum Data

CBUS Src Compliance Test Report

CTS 1.2

Results Name:	05_02_2012_14_18_59	Manufacturer:	MHLCBUS
Date Tested:	May 2, 2012 2:19 PM	Model Name:	XYZ
Overall Status:	Fail	Port Tested:	-

Report Index / Summary

Test 3.2.6.1	Fail	Test 3.2.6.2	Fail	Test 3.3.4.1	Fail
Test 3.3.5.1	Pass	Test 3.3.5.3	Fail	Test 3.3.9.1	Pass
Test 3.3.14.1	Fail	Test 3.3.14.2	Pass	Test 6.3.3.1	Fail
Test 6.3.3.2	Fail	Test 6.3.3.3	Fail	Test 6.3.8.1	Fail
Test 6.3.8.2	Fail	Test 6.3.11.3	Fail	Test 6.3.11.5	Fail
Test 6.3.12.1	Pass	Test 6.3.12.3	Pass	Test 6.3.12.5	Fail
Test 6.3.18.1	Fail	Test 6.3.18.2	Fail	Test 6.3.18.3	Fail
CDF		Equipment Info			

Capabilities Declaration Form (CDF)

General

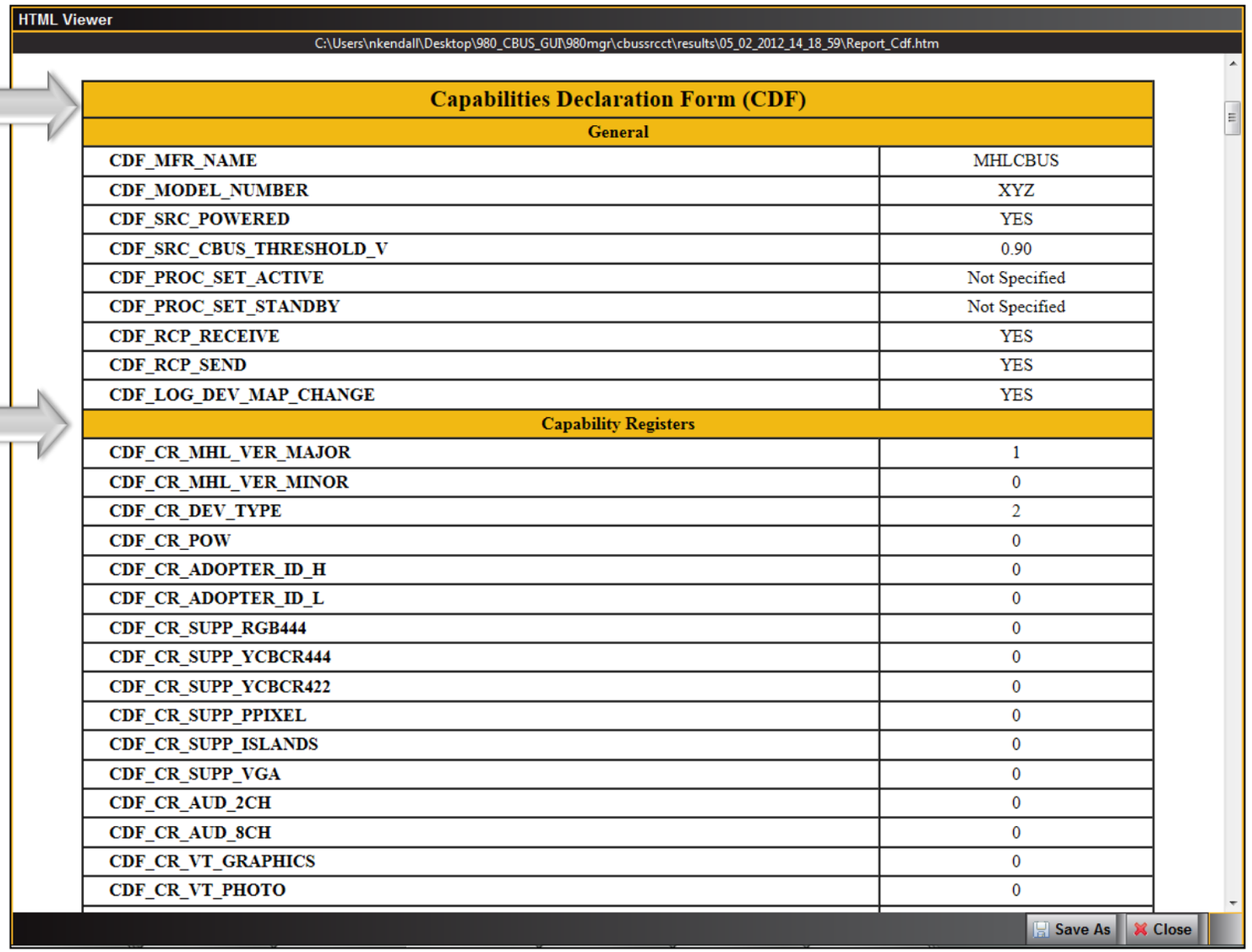
CDF_MFR_NAME	MHLCBUS
CDF_MODEL_NUMBER	XYZ
CDF_SRC_POWERED	YES
CDF_SRC_CBUS_THRESHOLD_V	0.90

Save As | Close

HTML Test Report:

- Shows summary information and pass/fail.
- Example shows MHL 1.2 test; MHL 2.0 test results are similar in structure and content.

MHL CBUS Source Compliance – HTML Test Report


HTML Viewer

C:\Users\nkendall\Desktop\980_CBUS_GUI\980mgr\cbussrcct\results\05_02_2012_14_18_59\Report_Cdf.htm

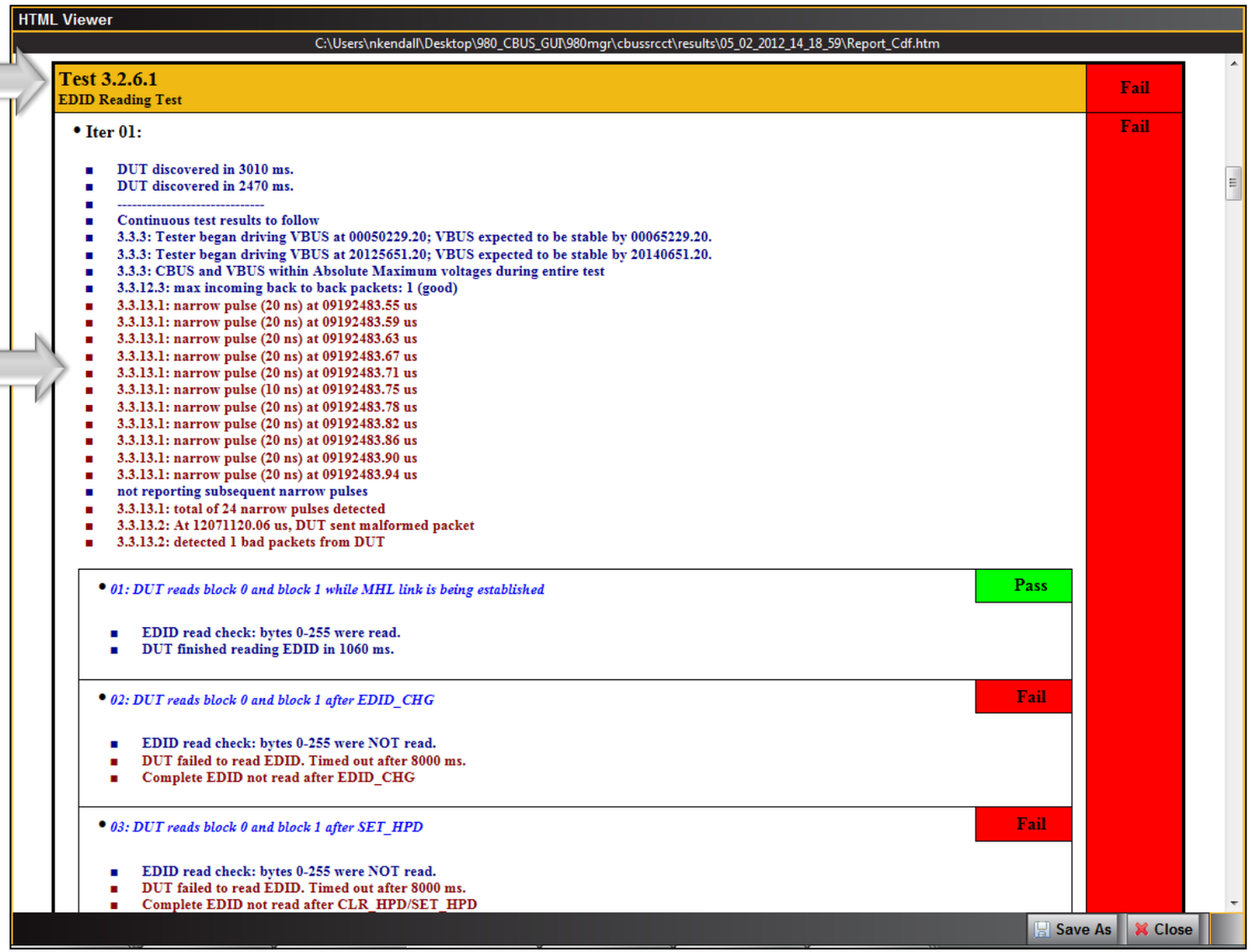
Capabilities Declaration Form (CDF)	
General	
CDF_MFR_NAME	MHLCBUS
CDF_MODEL_NUMBER	XYZ
CDF_SRC_POWERED	YES
CDF_SRC_CBUS_THRESHOLD_V	0.90
CDF_PROC_SET_ACTIVE	Not Specified
CDF_PROC_SET_STANDBY	Not Specified
CDF_RCP_RECEIVE	YES
CDF_RCP_SEND	YES
CDF_LOG_DEV_MAP_CHANGE	YES
Capability Registers	
CDF_CR_MHL_VER_MAJOR	1
CDF_CR_MHL_VER_MINOR	0
CDF_CR_DEV_TYPE	2
CDF_CR_POW	0
CDF_CR_ADOPTER_ID_H	0
CDF_CR_ADOPTER_ID_L	0
CDF_CR_SUPP_RGB444	0
CDF_CR_SUPP_YCBCR444	0
CDF_CR_SUPP_YCBCR422	0
CDF_CR_SUPP_PPIXEL	0
CDF_CR_SUPP_ISLANDS	0
CDF_CR_SUPP_VGA	0
CDF_CR_AUD_2CH	0
CDF_CR_AUD_8CH	0
CDF_CR_VT_GRAPHICS	0
CDF_CR_VT_PHOTO	0

Save As Close

HTML Test Report:

- Shows Capabilities Declaration information.

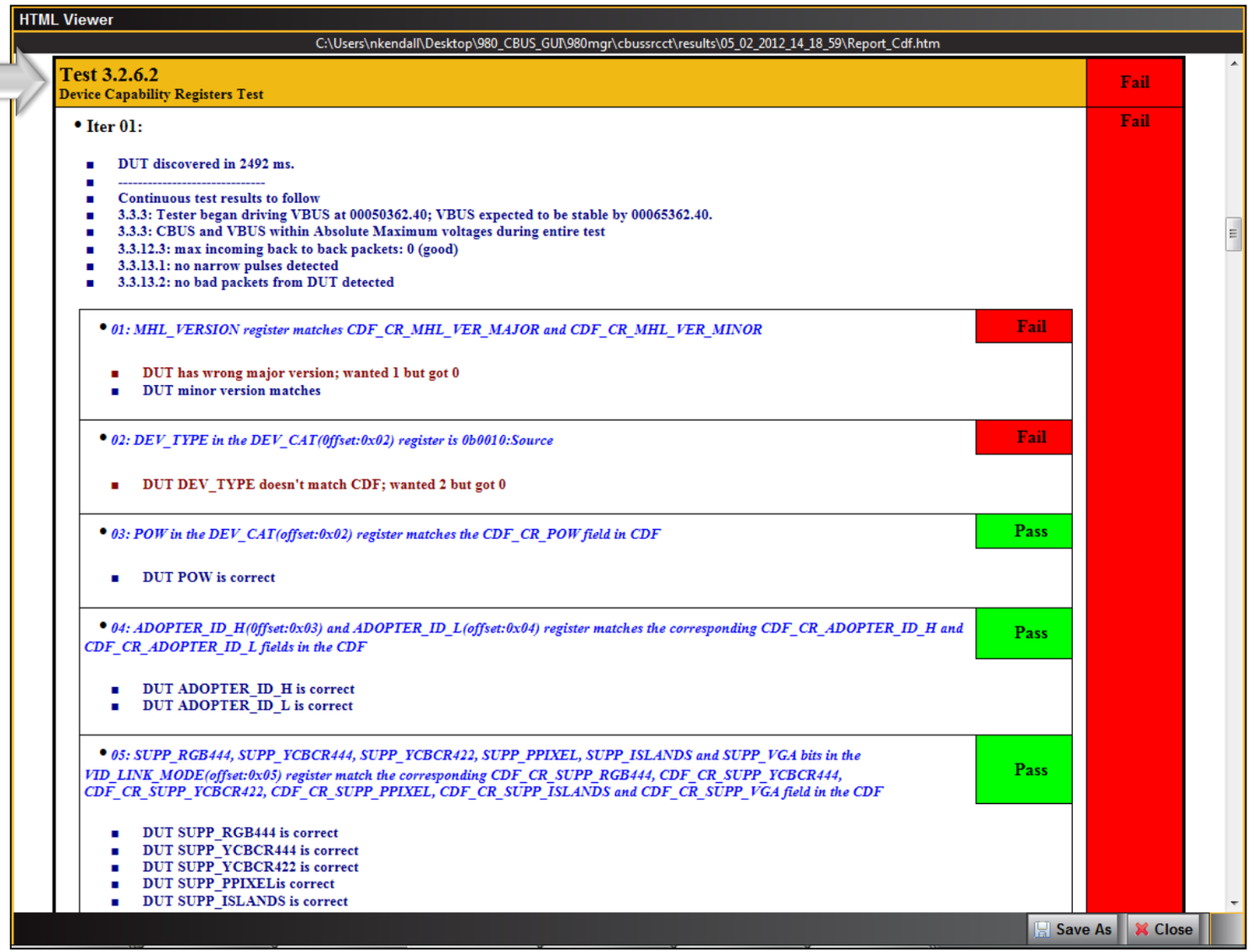
MHL CBUS Source Compliance – HTML Test Report



HTML Test Report:

- Shows detailed results for each whether pass or fail.

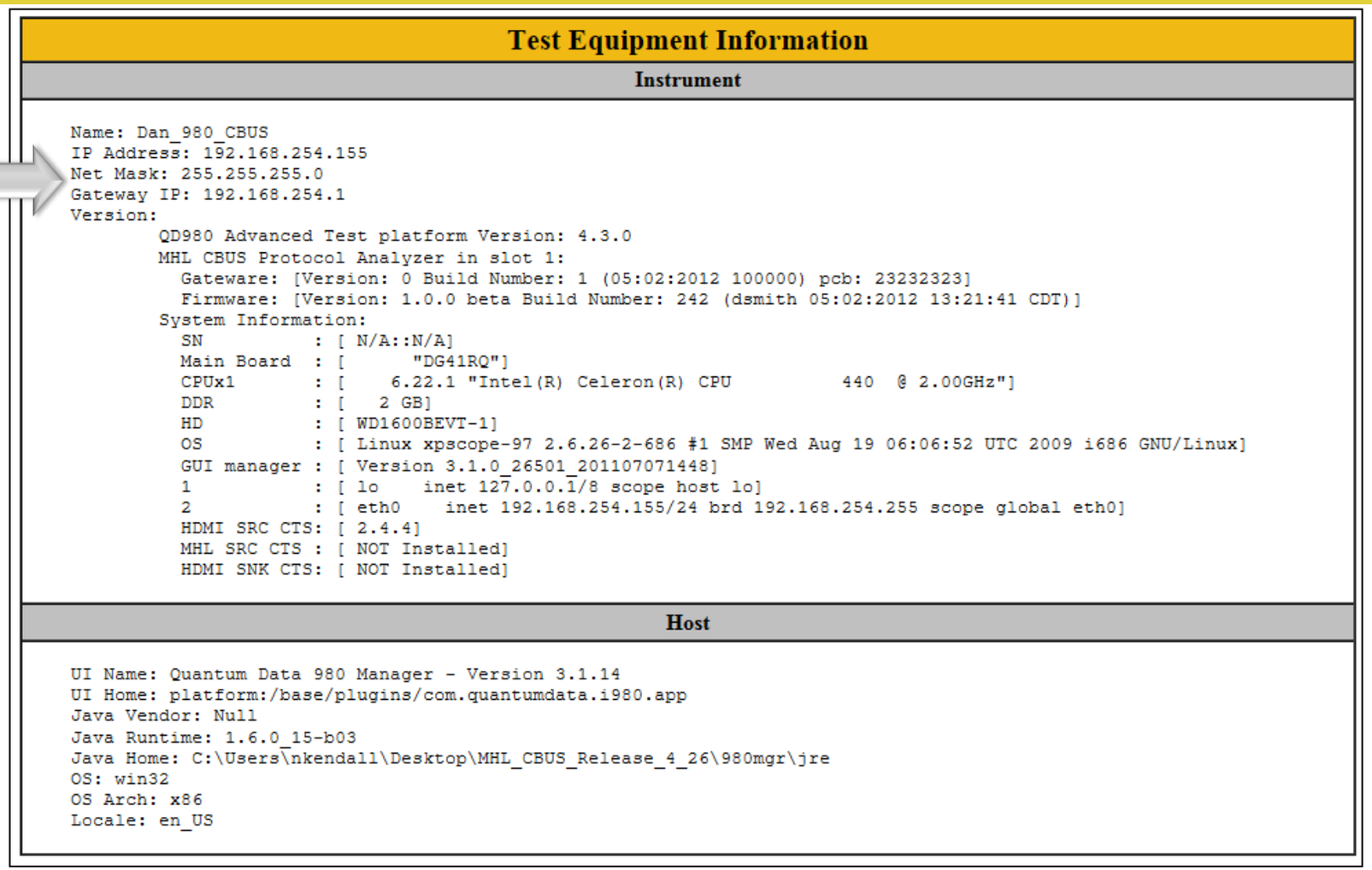
MHL CBUS Source Compliance – HTML Test Report



HTML Test Report:

- Shows detailed results for each whether pass or fail.

MHL CBUS Source Compliance – HTML Test Report



Test Equipment Information

Instrument

```
Name: Dan_980_CBUS
IP Address: 192.168.254.155
Net Mask: 255.255.255.0
Gateway IP: 192.168.254.1
Version:
        QD980 Advanced Test platform Version: 4.3.0
        MHL CBUS Protocol Analyzer in slot 1:
          Gateware: [Version: 0 Build Number: 1 (05:02:2012 100000) pcb: 23232323]
          Firmware: [Version: 1.0.0 beta Build Number: 242 (dsmith 05:02:2012 13:21:41 CDT)]
        System Information:
          SN           : [ N/A::N/A]
          Main Board   : [      "DG41RQ"]
          CPUx1        : [    6.22.1 "Intel(R) Celeron(R) CPU          440  @ 2.00GHz"]
          DDR          : [   2 GB]
          HD           : [ WD1600BEVT-1]
          OS           : [ Linux xpscope-97 2.6.26-2-686 #1 SMP Wed Aug 19 06:06:52 UTC 2009 i686 GNU/Linux]
          GUI manager  : [ Version 3.1.0_26501_201107071448]
          1            : [ lo    inet 127.0.0.1/8 scope host lo]
          2            : [ eth0    inet 192.168.254.155/24 brd 192.168.254.255 scope global eth0]
          HDMI SRC CTS: [ 2.4.4]
          MHL SRC CTS  : [ NOT Installed]
          HDMI SNK CTS: [ NOT Installed]
```

Host

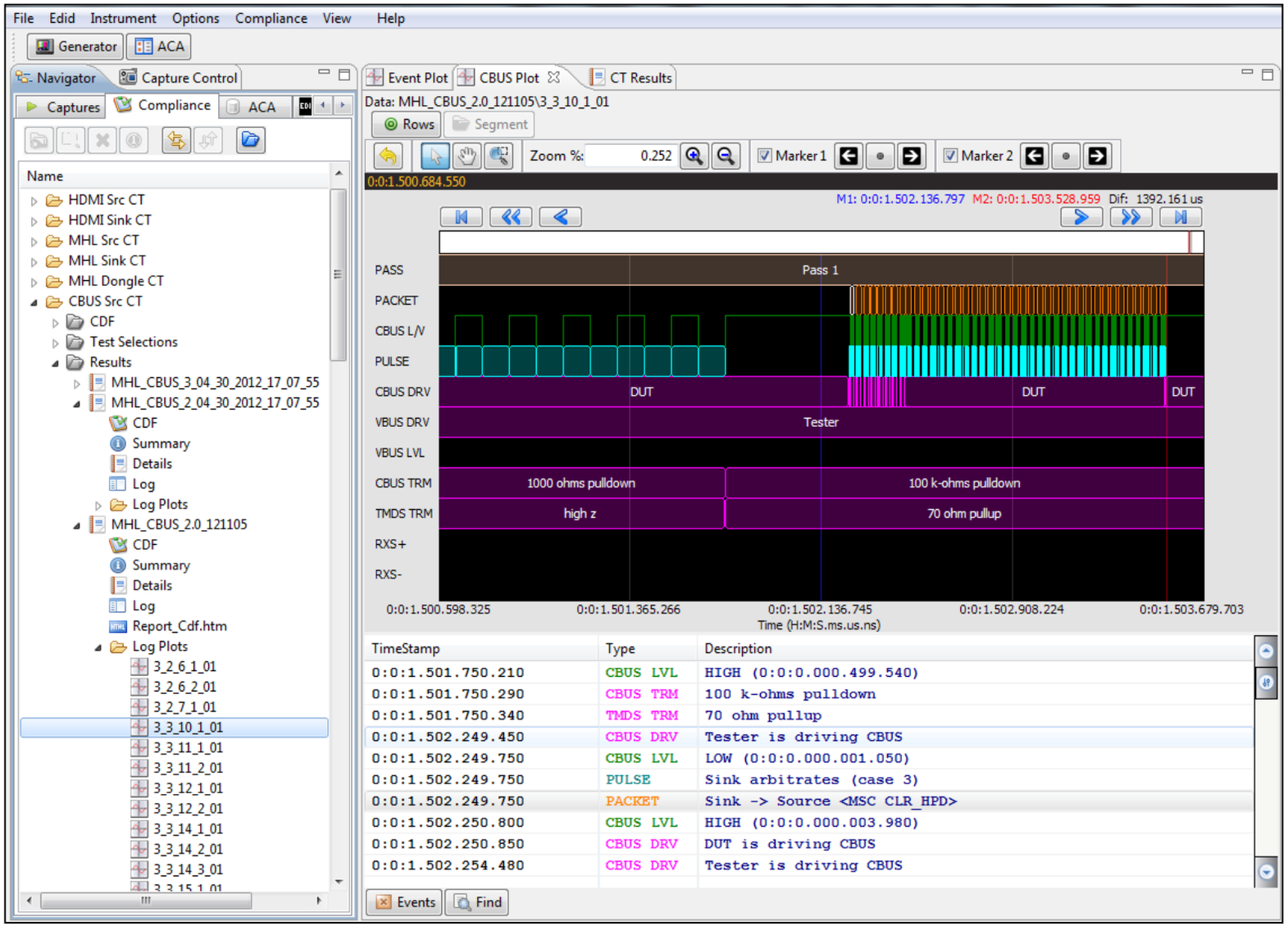
```
UI Name: Quantum Data 980 Manager - Version 3.1.14
UI Home: platform:/base/plugins/com.quantumdata.i980.app
Java Vendor: Null
Java Runtime: 1.6.0_15-b03
Java Home: C:\Users\nkendall\Desktop\MHL_CBUS_Release_4_26\980mgr\jre
OS: win32
OS Arch: x86
Locale: en_US
```

HTML Test Report:

- Show test equipment information.

MHL CBUS Log Plots – Source Tests

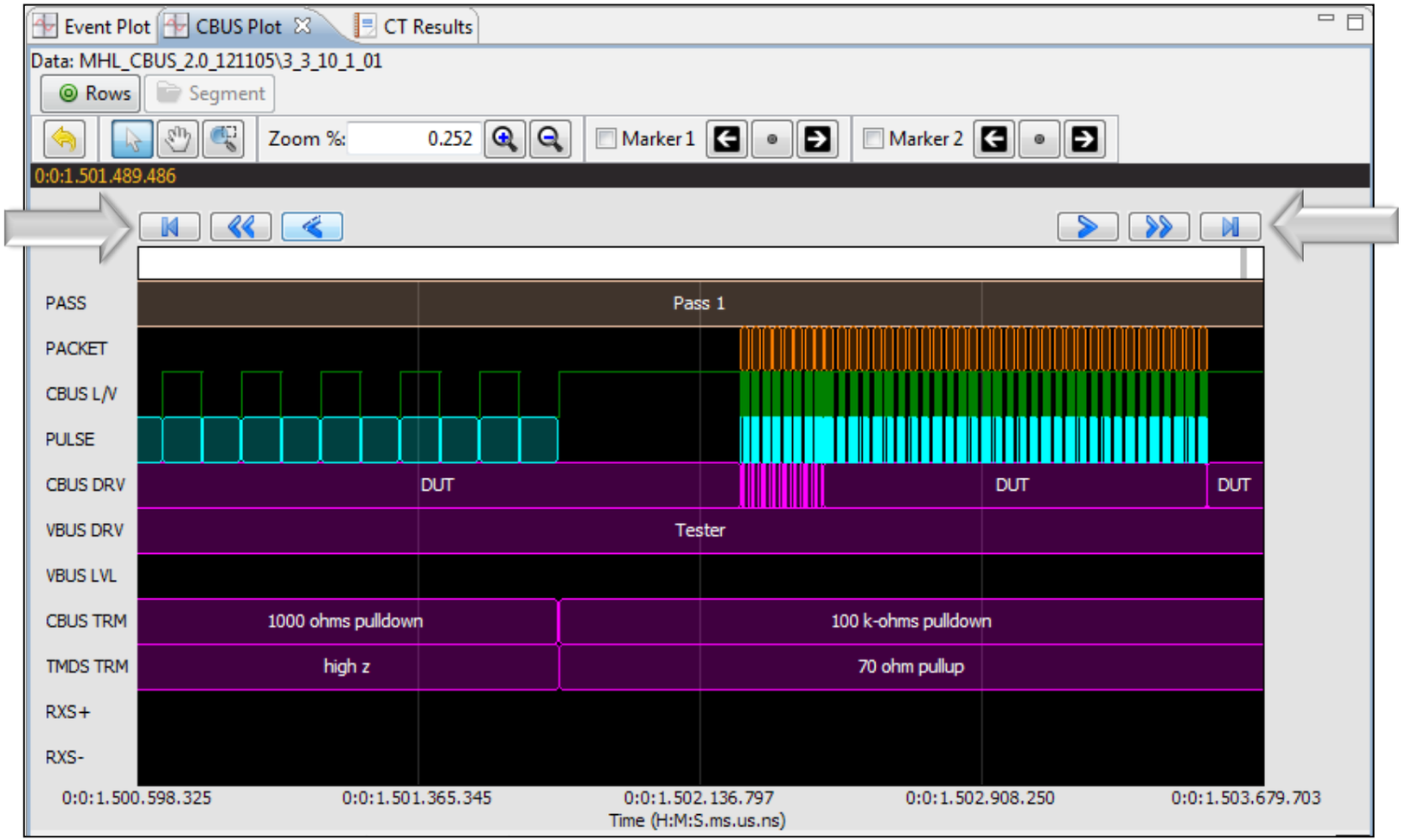
MHL CBUS Log Plots – Graphical Event View



CBUS Event Log Plot:

- View Events for each test.
- Access Event Log Plots from Navigator/Compliance panel.
- Diagnose compliance test failures.

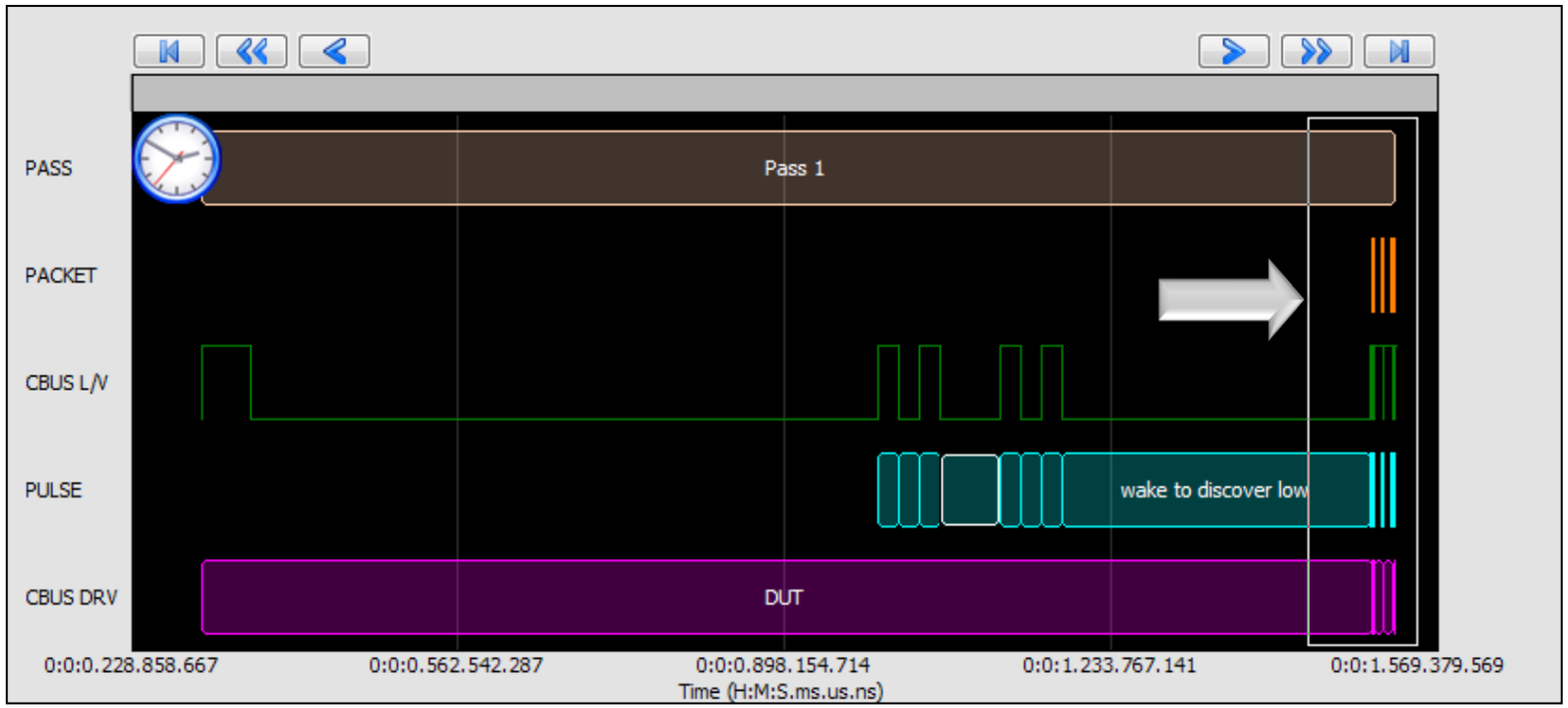
MHL CBUS Log Plots – Graphical Event View



Scrolling through the graphical time line view:

- Arrow forward and back.

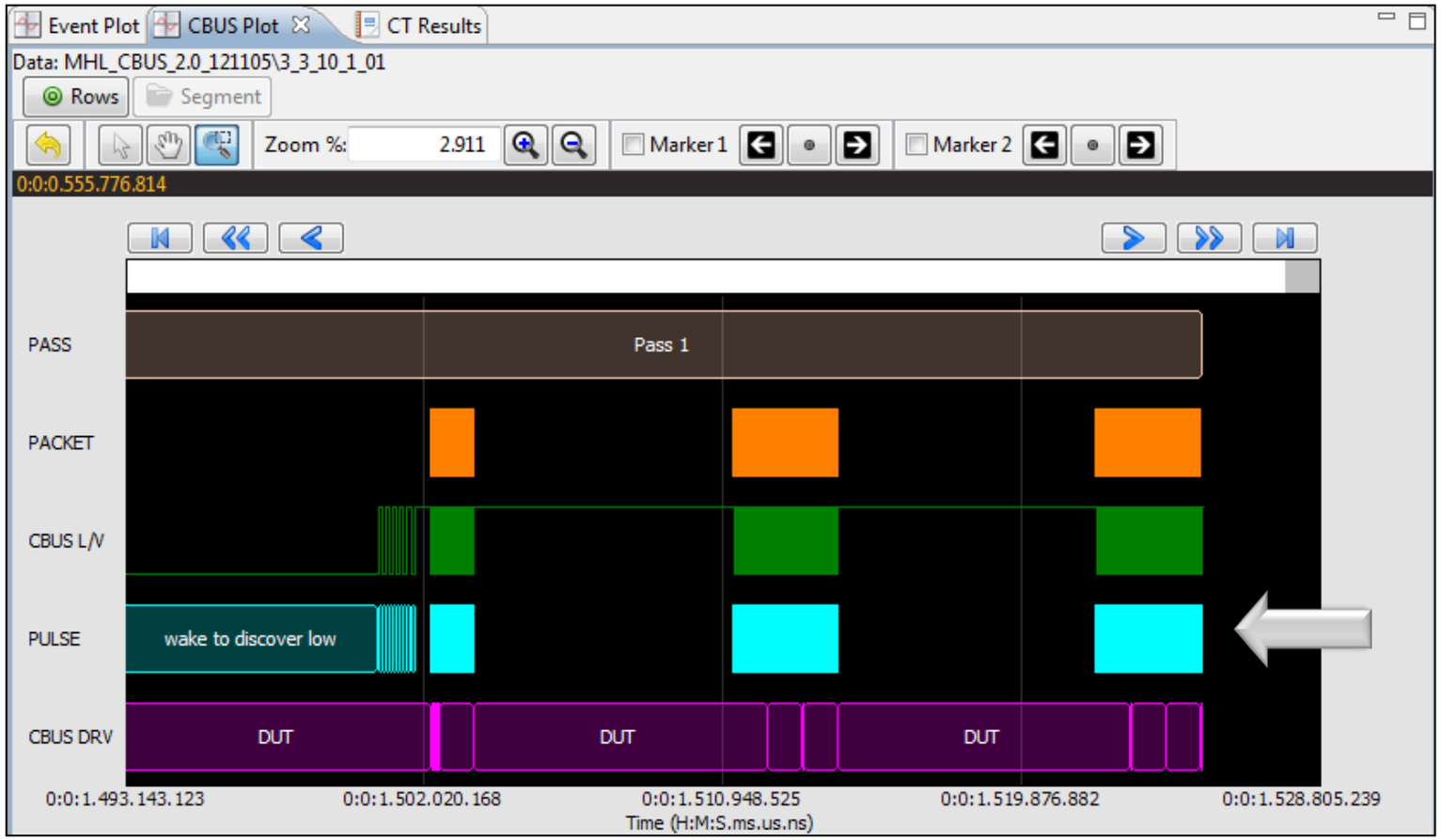
MHL CBUS Log Plots – Graphical Event View



Range Zoom tool.

- View a specific range of events on the Event Log Plot.
- Surround an area to zoom in.

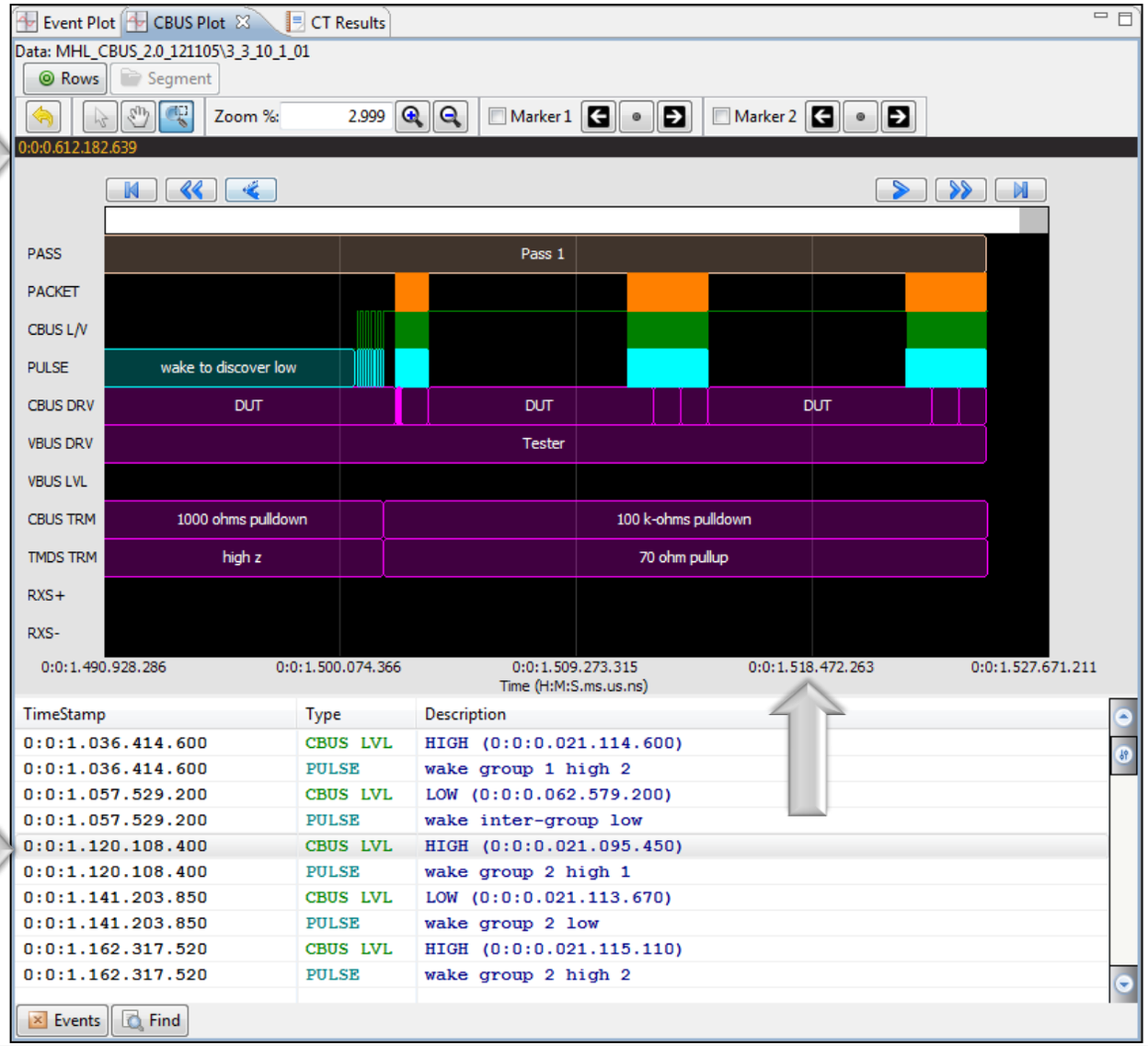
MHL CBUS Log Plots – Graphical Event View



Range Zoom tool.

- View a specific range of events on the Event Log Plot.
- Zoom select - Result.

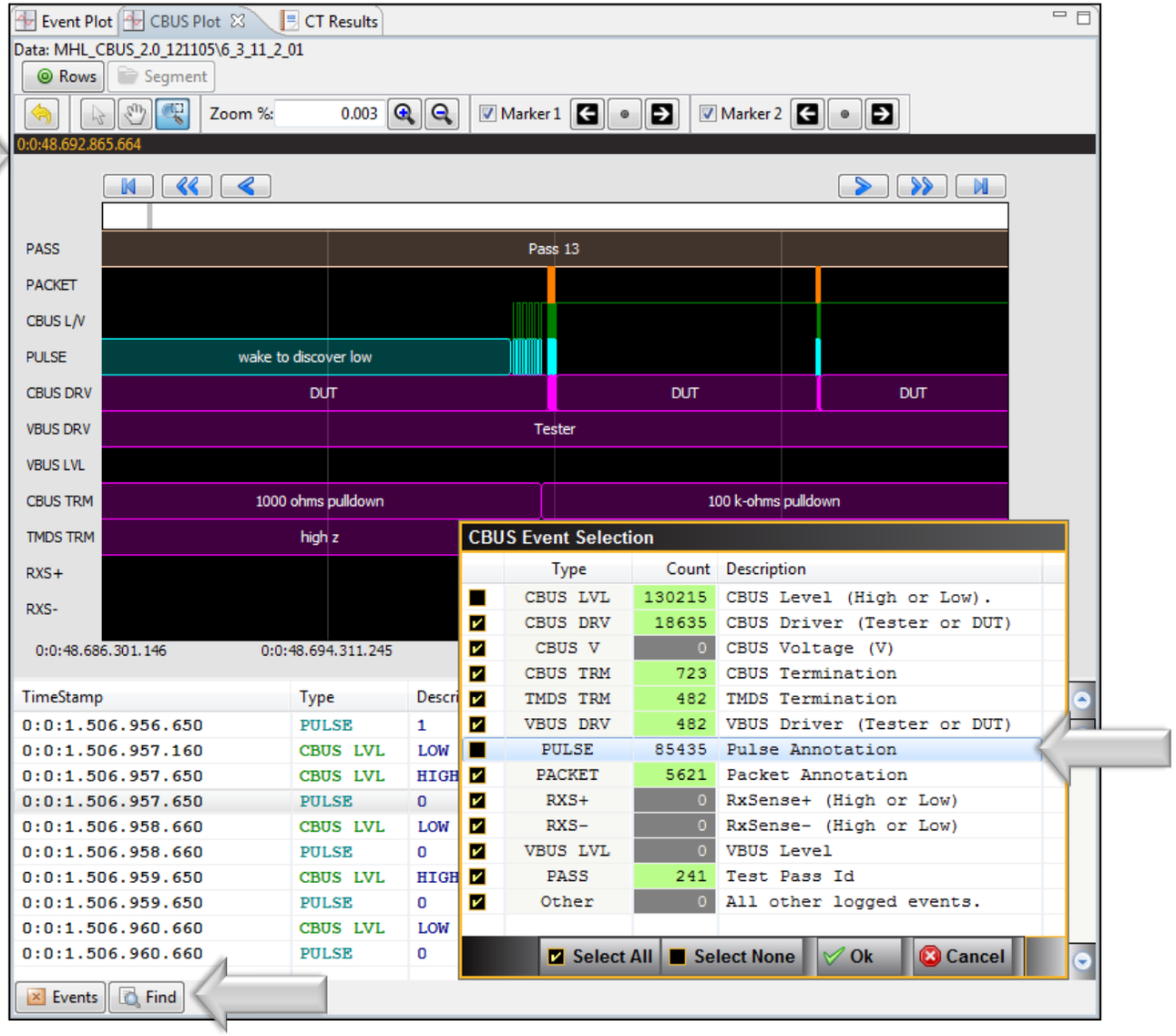
MHL CBUS Log Plots – Graphical Event View



CBUS Event Log Plot Timestamps:

- Specific cursor location shown on top panel status strip.
- Shown on graphical timeline view.
- Shown in the table view for each event.

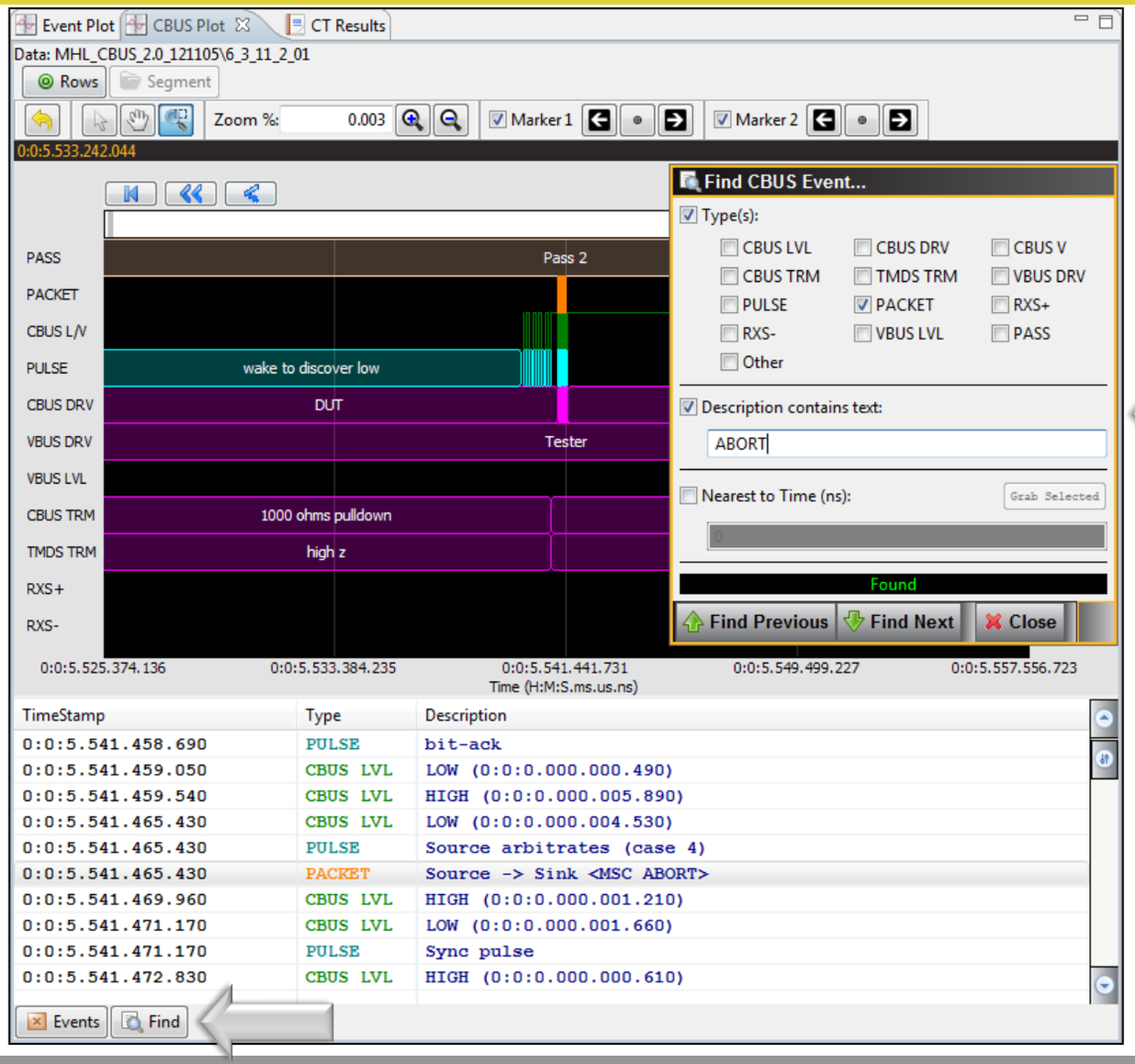
MHL CBUS Log Plots – Graphical Event View



CBUS Event Log Plot Filtering:

- Select which CBUS events to view on the plot.
- Example shows CBUS LVL and Pulse deselected.

MHL CBUS Log Plots – Graphical Event View



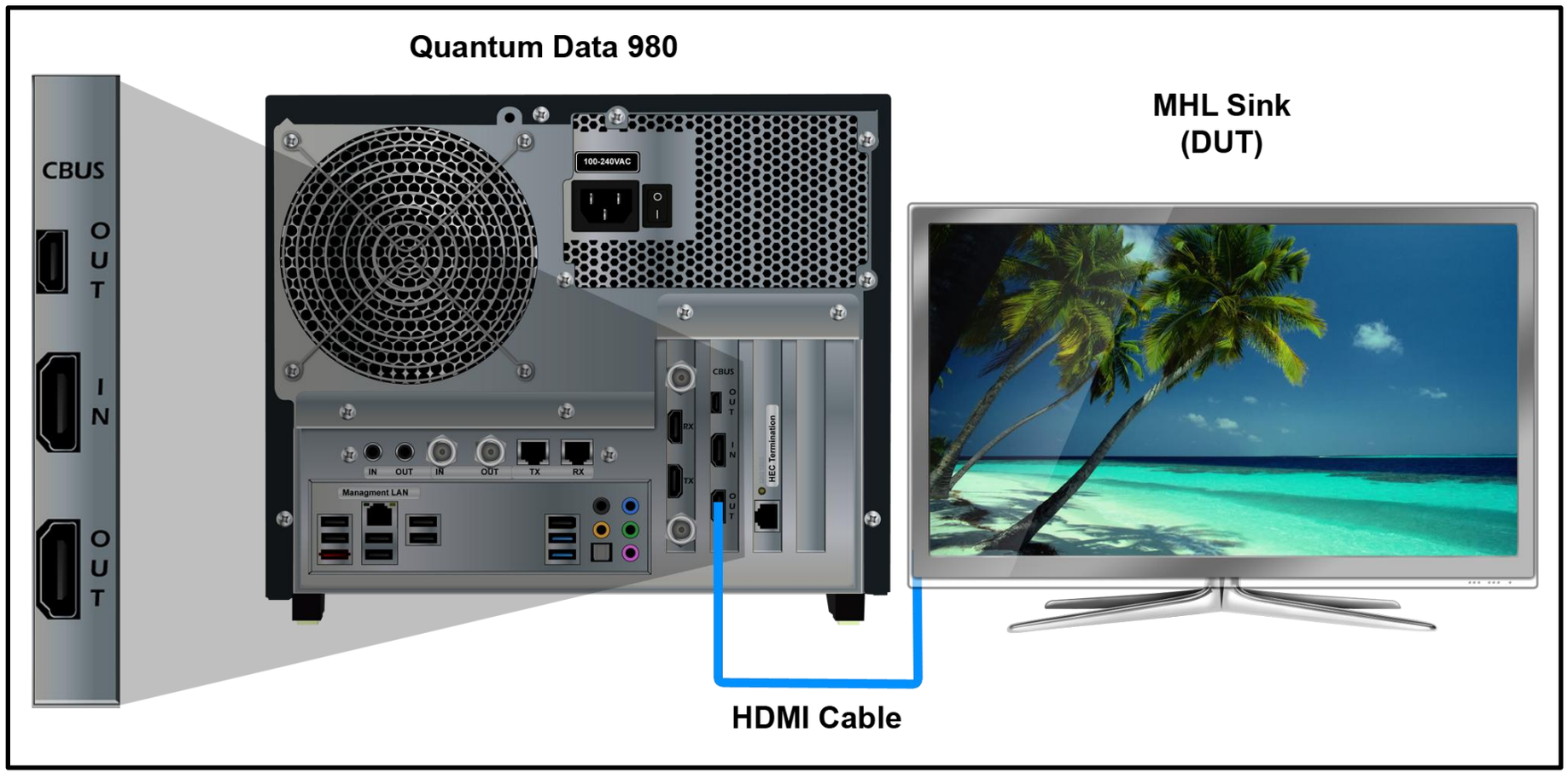
CBUS Event Log Plot Searching:

- Specify a CBUS event type (PACKET shown in example) to view on the plot.
- Enter text in a message (example ABORT).
- Search through the Event Log Plot forward and backward.

MHL CBUS Sink Compliance Test

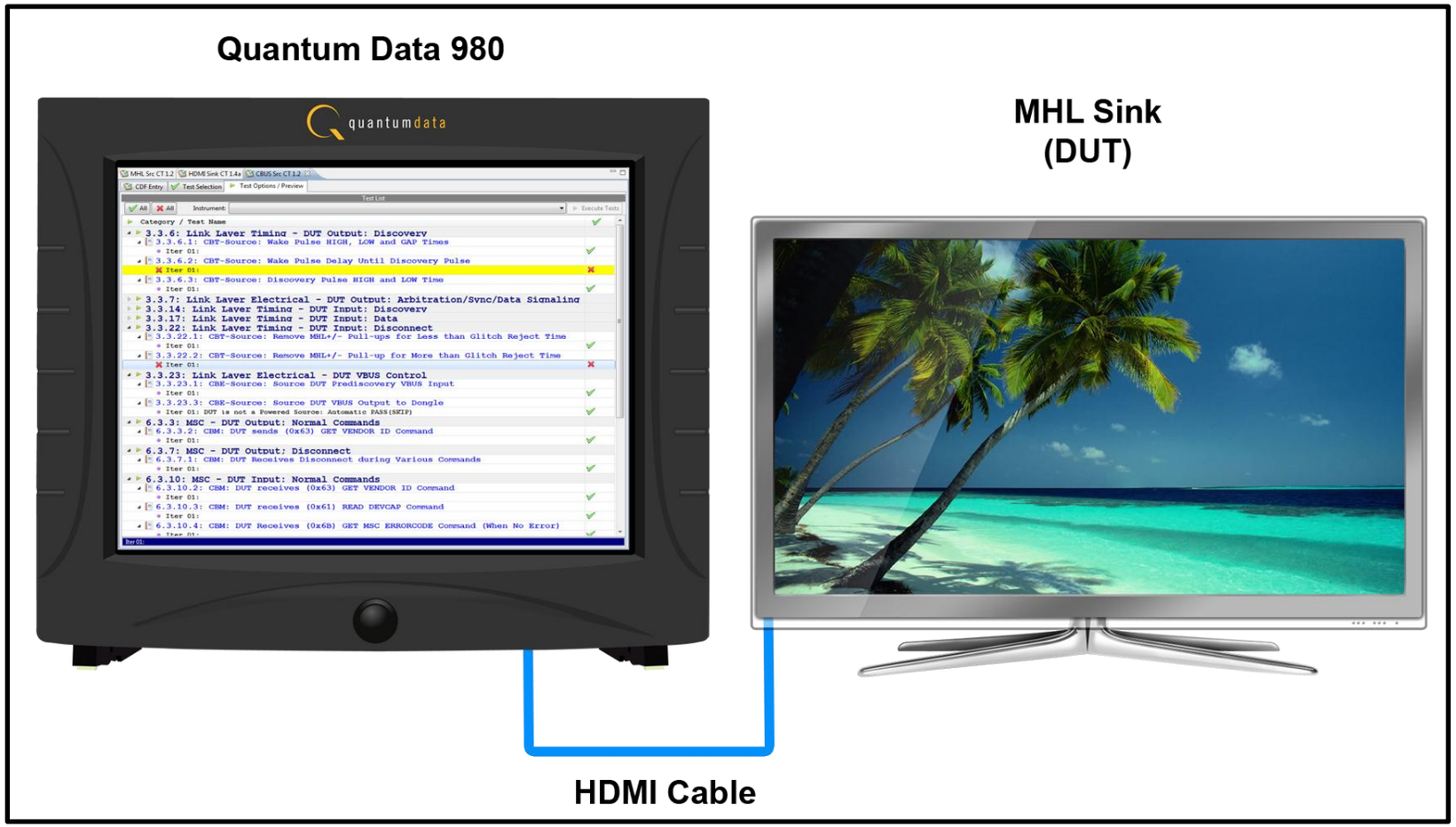
MHL CBUS Sink Compliance Test – Setup

- Test setup with external GUI shown below



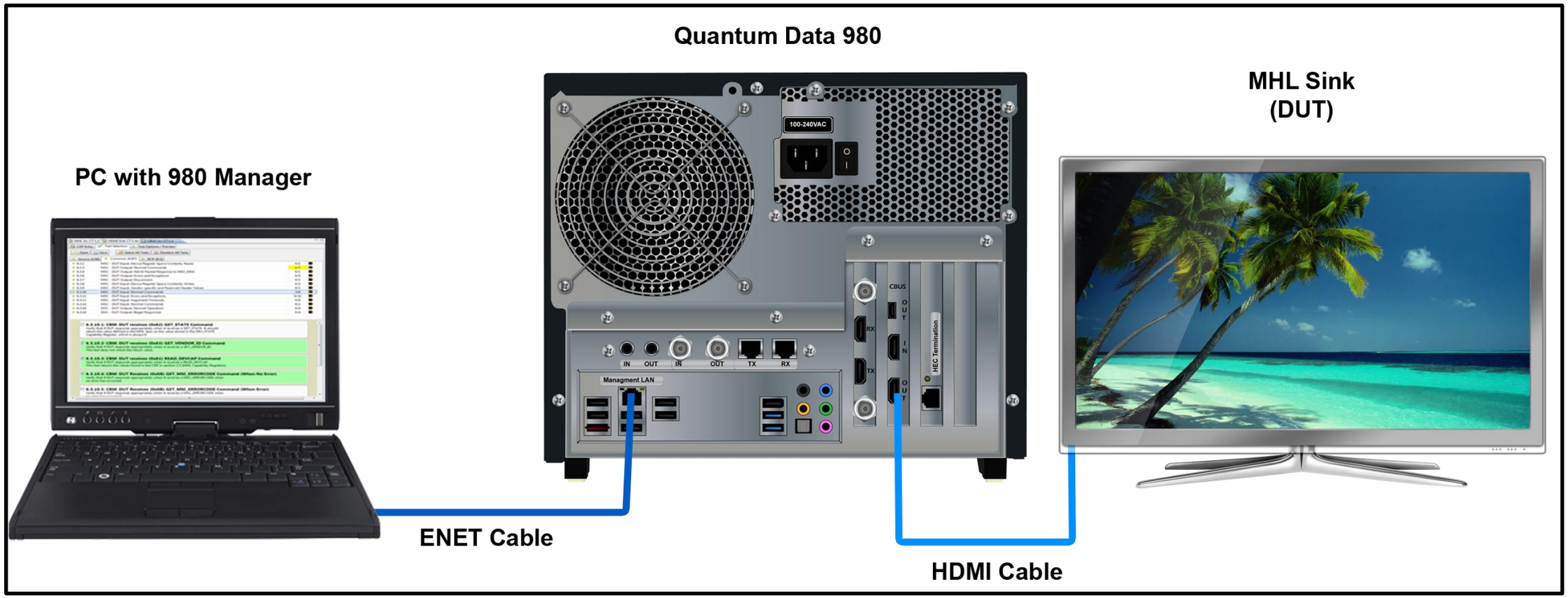
MHL CBUS Sink Compliance Test – Setup

- Run tests through the embedded GUI.



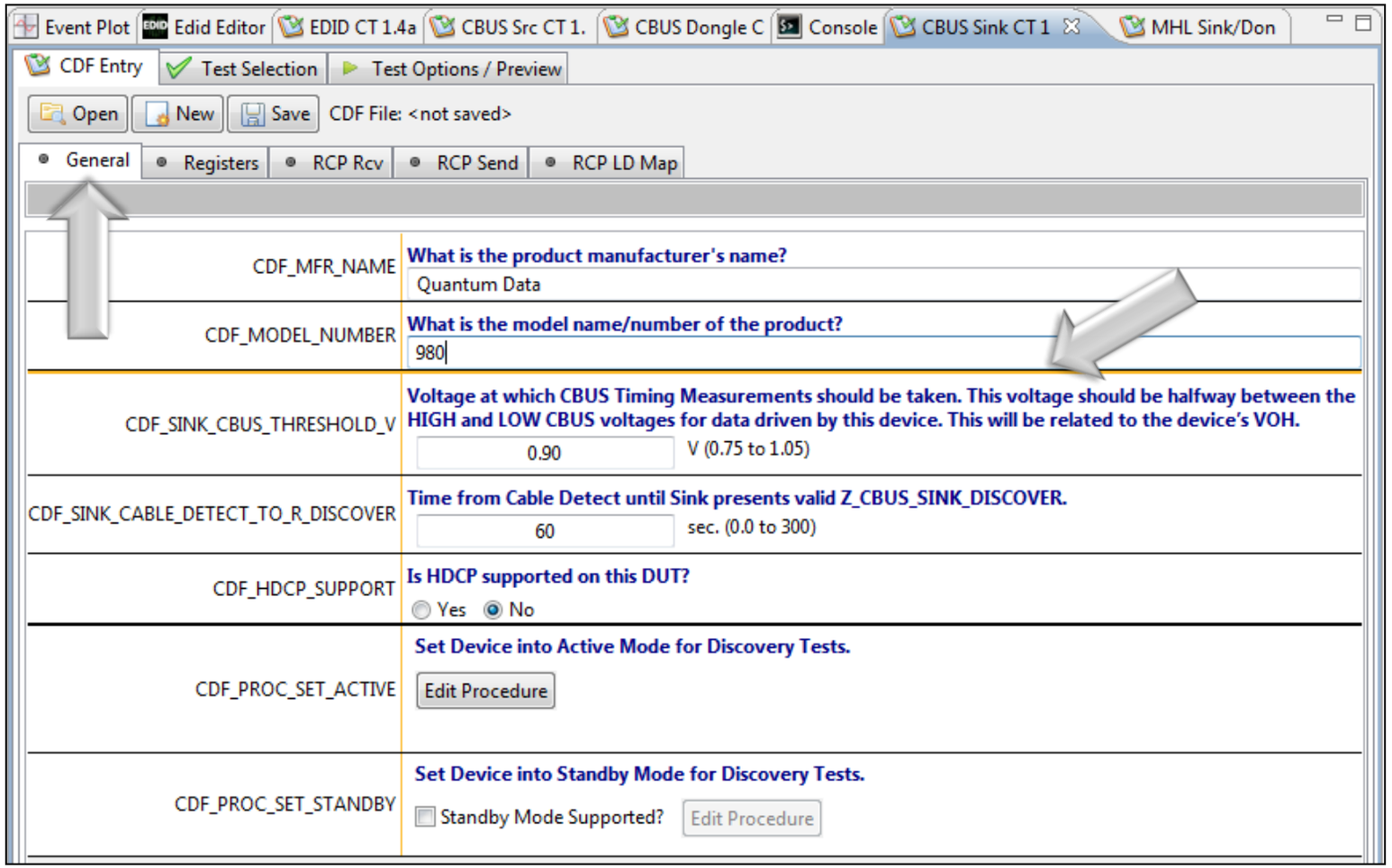
MHL CBUS Sink Compliance Test – Setup

- Run tests through the external GUI.



Note: Quantum Data provides a short HDMI cable with low capacitance for these tests.

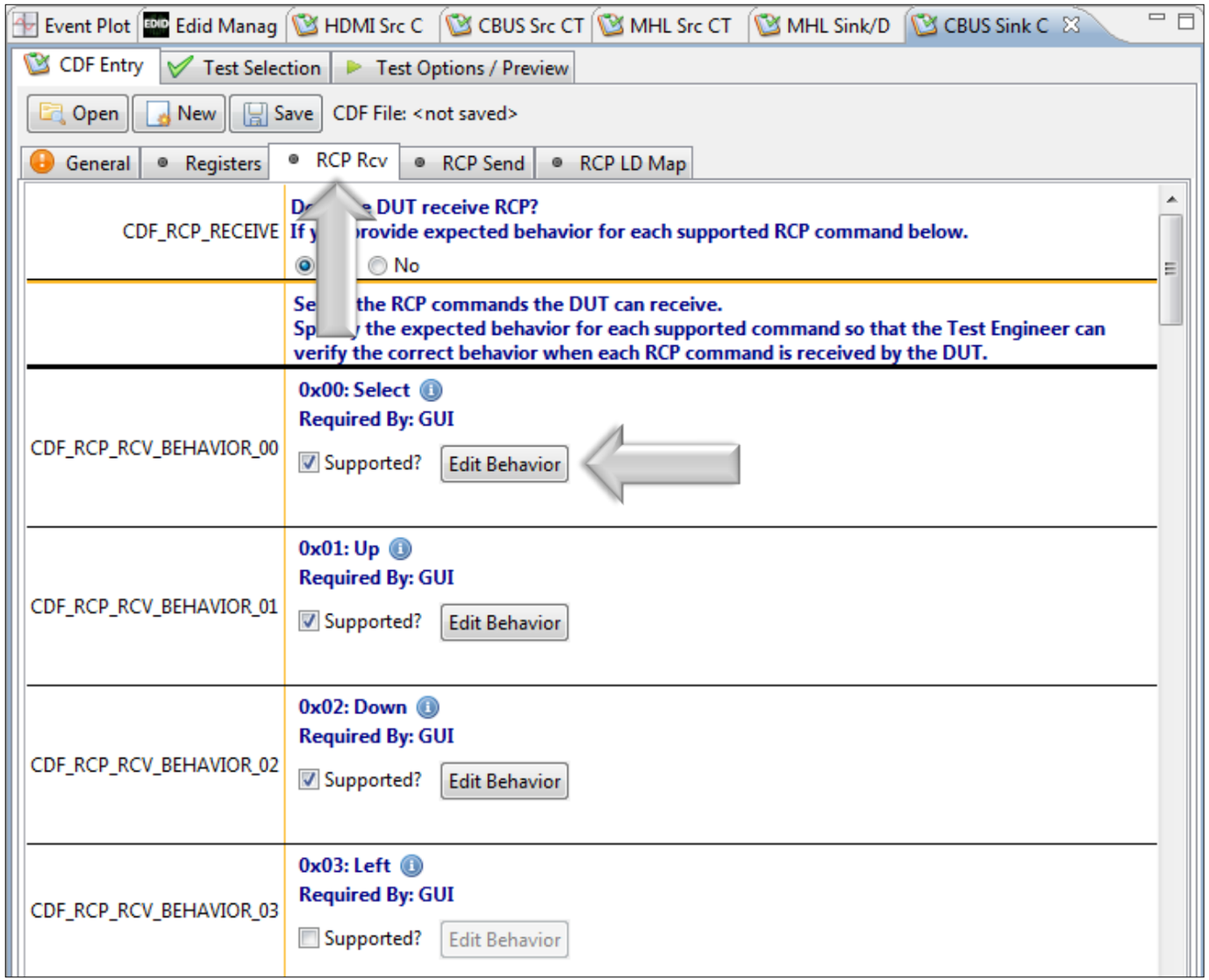
MHL CBUS Sink Compliance - CDF



CDF:

- Defines the capabilities of the device under test.
- Provides a series of tabs for each type of feature.
- Provides description of each field.
- Example: General tab.
- Determines which tests to run.

MHL CBUS Sink Compliance - CDF

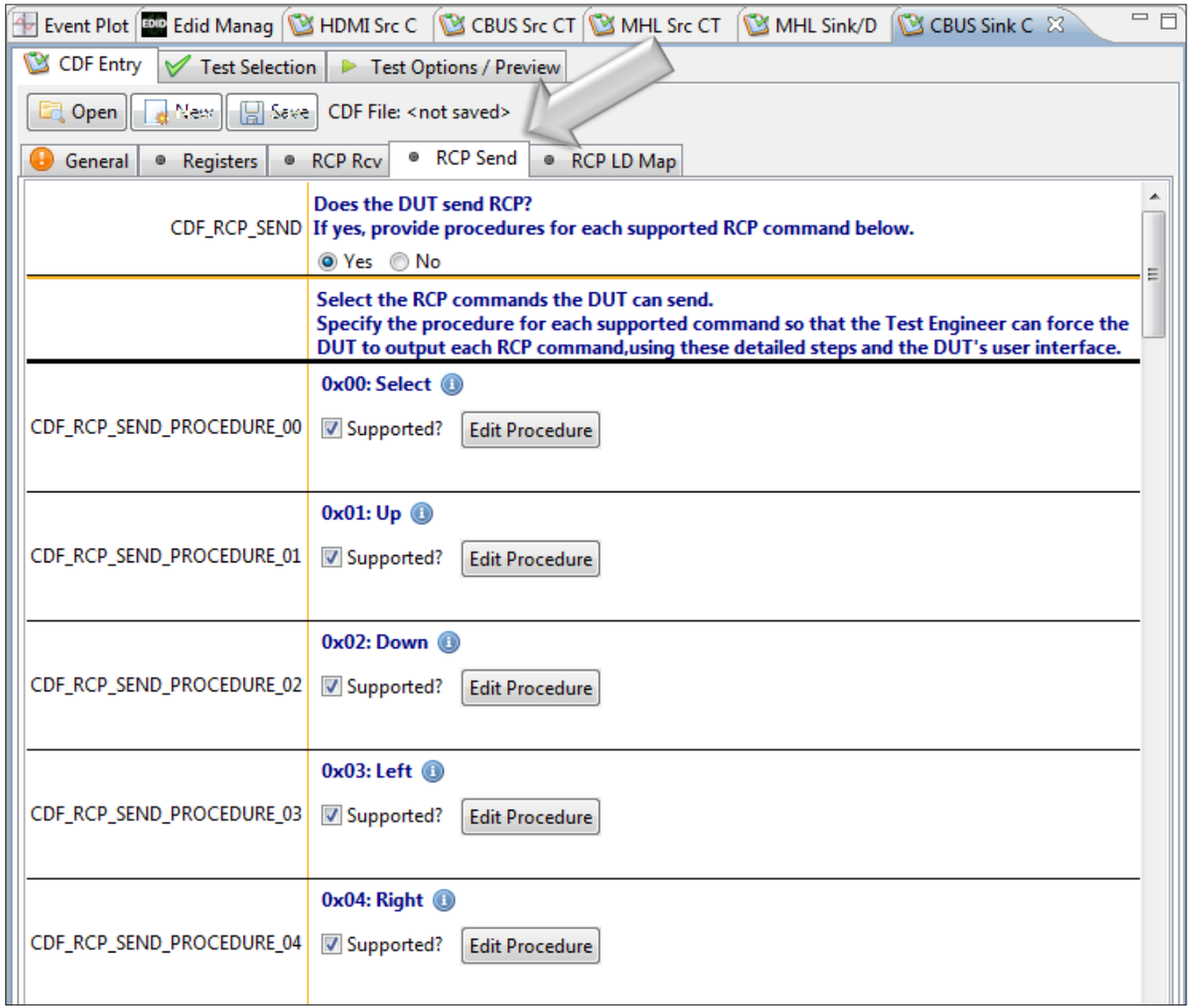


CDF:

- Example: RCP Rcv tab.

  Note: You can enter helpful information using the “Edit Procedure” dialog box. The information entered into this dialog box will appear during the test and can be helpful to users running an particular test.

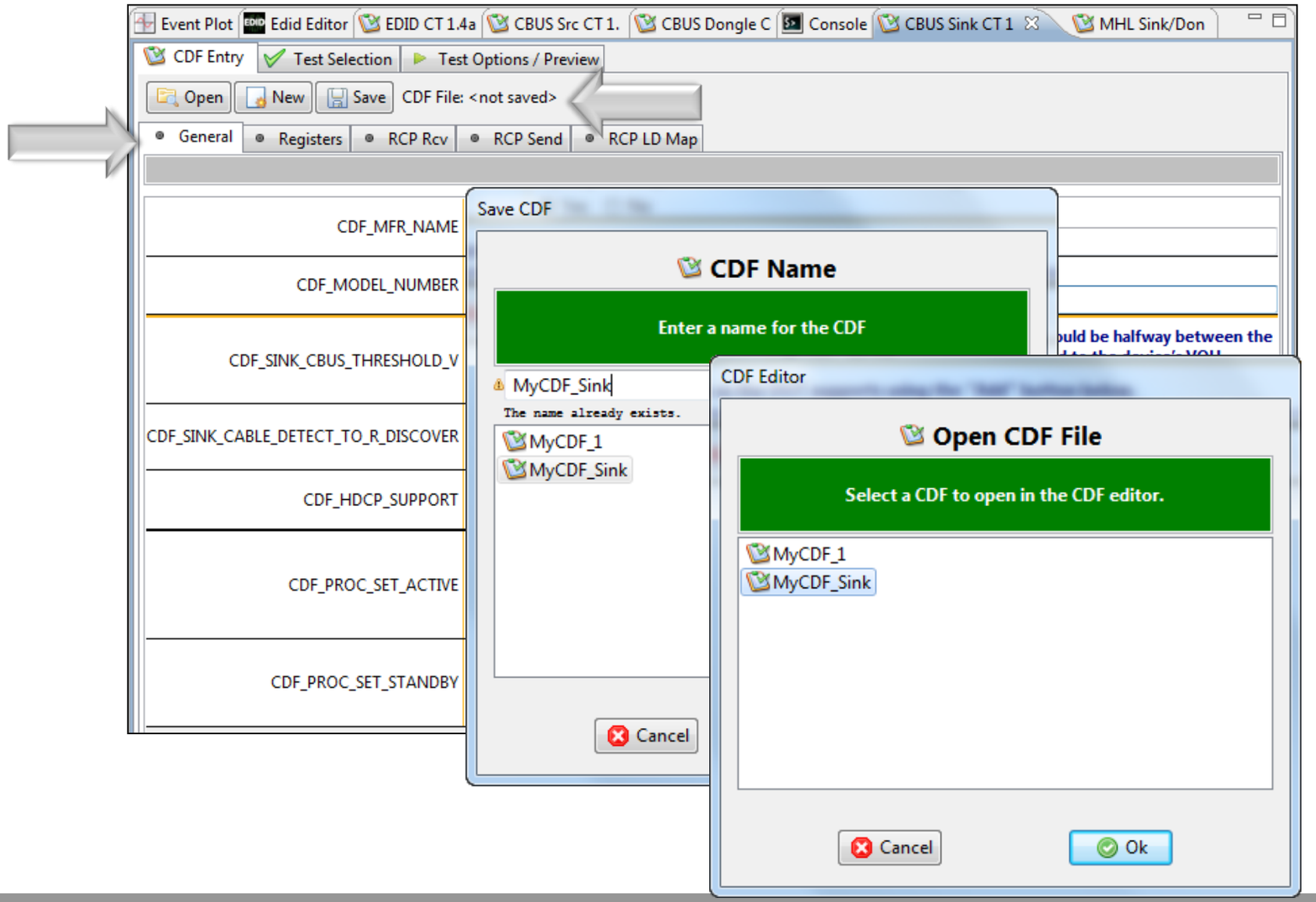
MHL CBUS Sink Compliance - CDF



CDF:

- Example: RCP Send Tab.

MHL CBUS Sink Compliance – CDF Saving and Loading

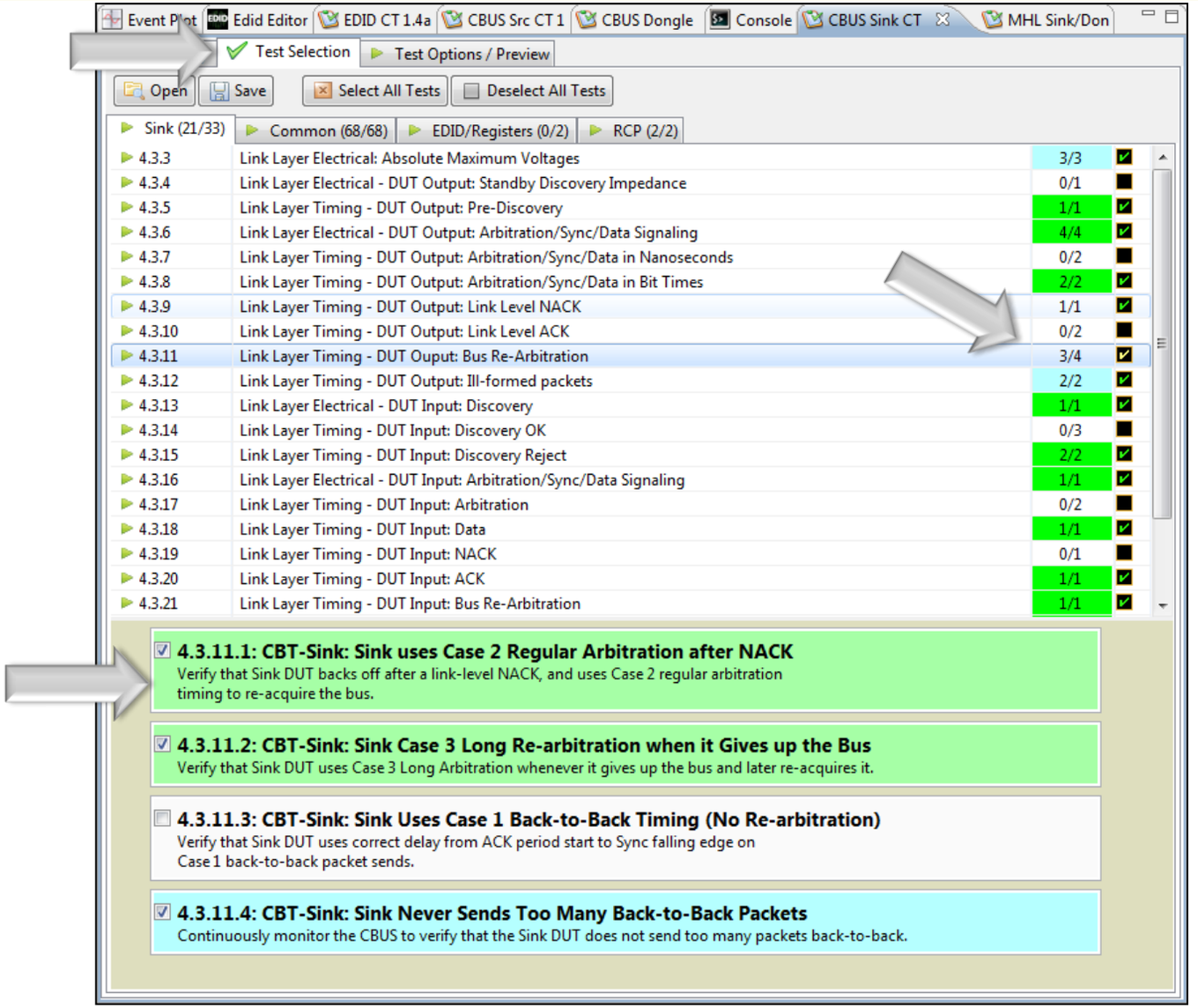


CDF:

- Status of the file is shown in the header area. Either the name will be indicated or “<not saved>”.
- Save and reuse CDF definitions.
- Saves time of re-entering data.
- Files can be transferred to colleagues to help expedite product capability selection process in a test series.

CBUS Sink Compliance Test Selection

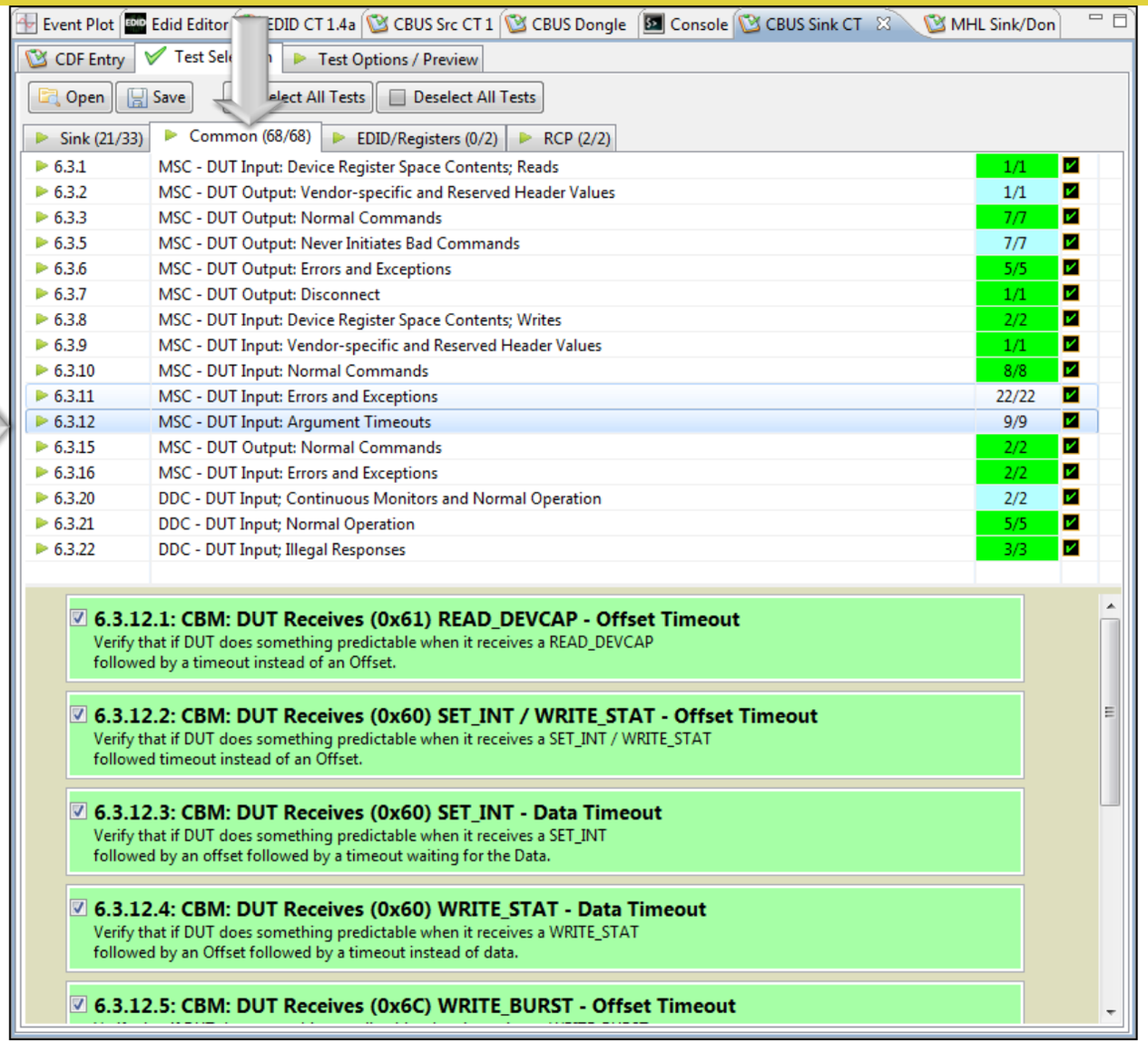
MHL CBUS Sink Compliance – Test Selection



Test Selection:

- Determine which specific tests to run in a test suite.
- Select all tests or select specific test sections or particular tests within each section.
- Check box indicators inform how many tests in each section and how many are selected.
- Example: CBUS Sink test tab with Link Layer Timing – DUT Output Bus Re-Arbitration.

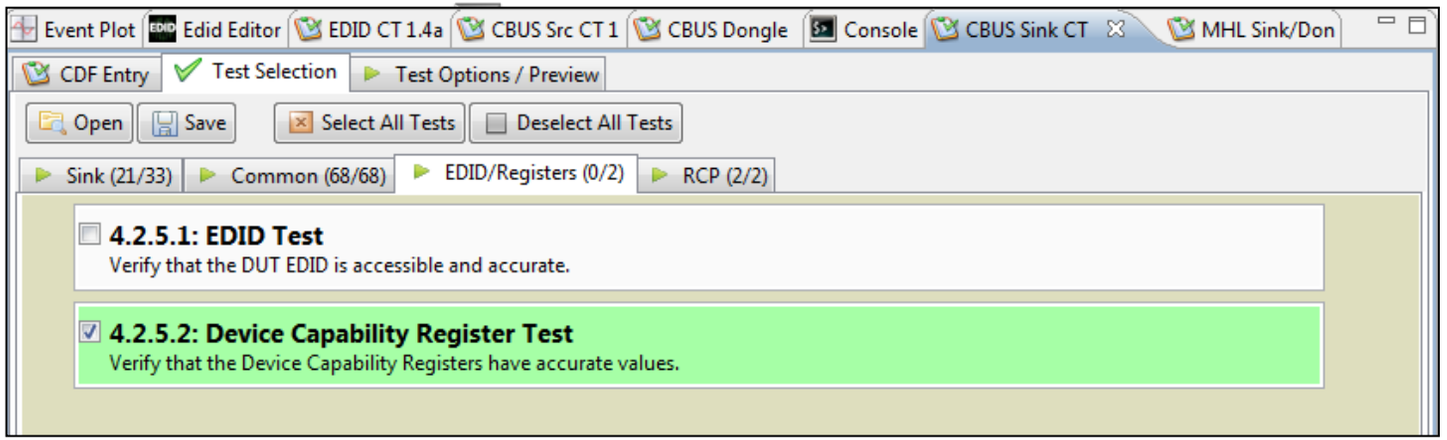
MHL CBUS Sink Compliance – Test Selection



Test Selection:

- Select “Common” Sink tests for MSC and DDC.

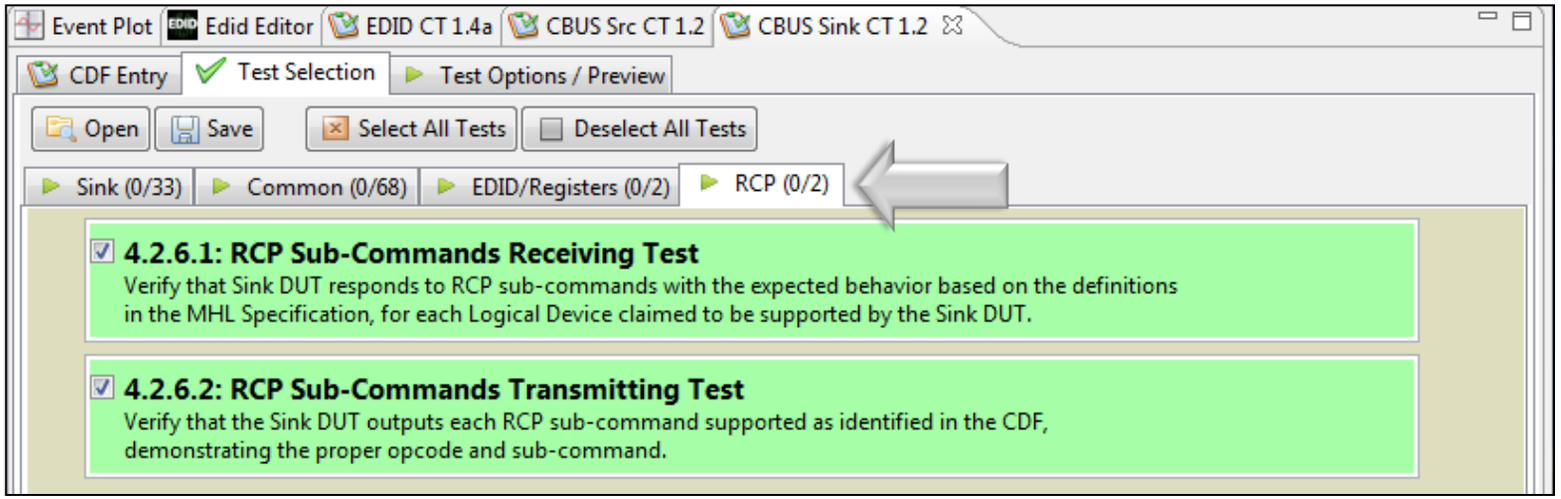
MHL CBUS Sink Compliance – Test Selection



Test Selection:

- Select EDID Registers Tests.

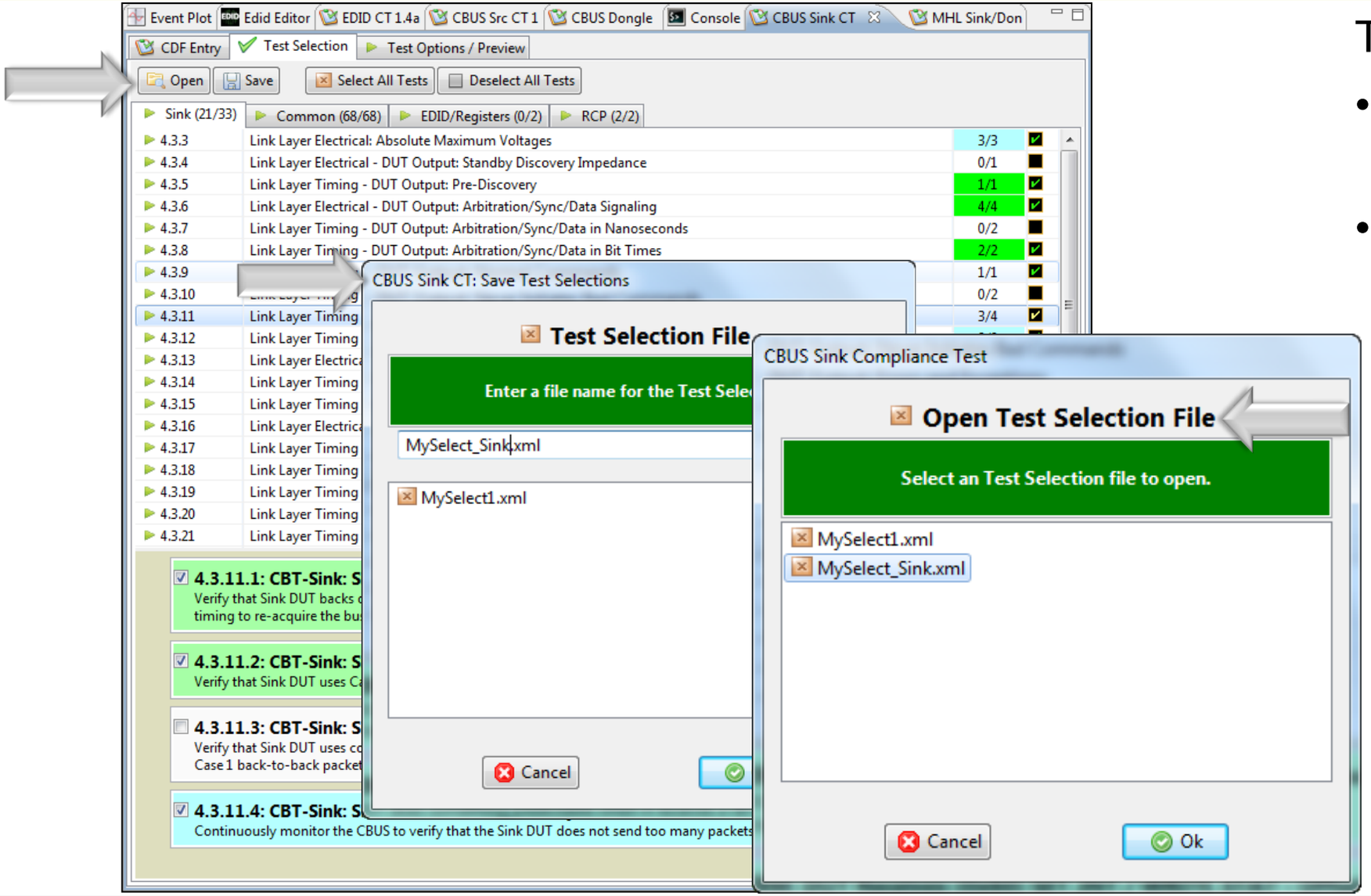
MHL CBUS Sink Compliance – Test Selection



Test Selection:

- Select “RCP” Sub-commands.

MHL CBUS Sink Compliance – Test Selection

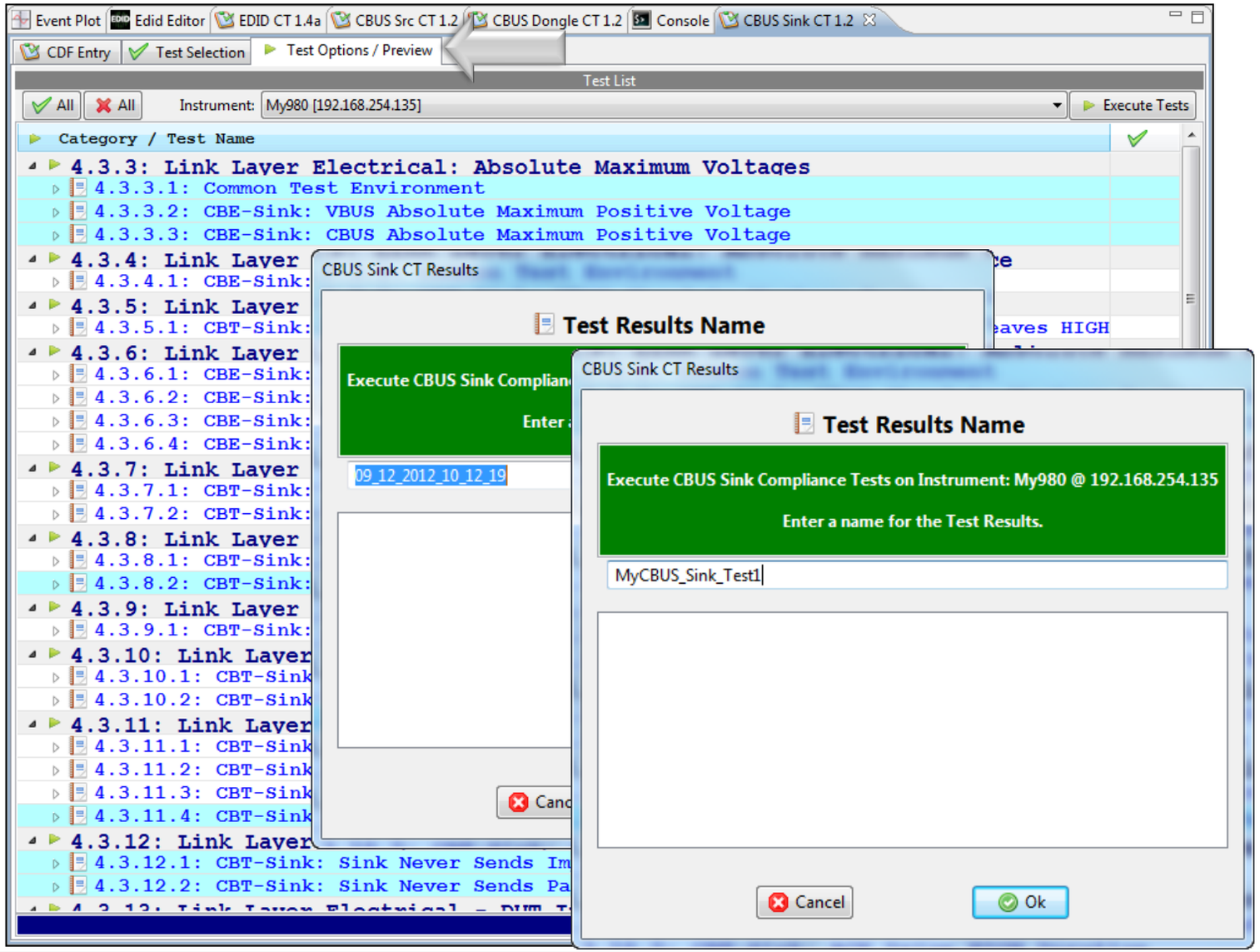


Test Selection:

- Save and reuse Test Select definitions.
- Saves time of re-entering specific tests.

Reviewing the CBUS Sink Compliance Tests

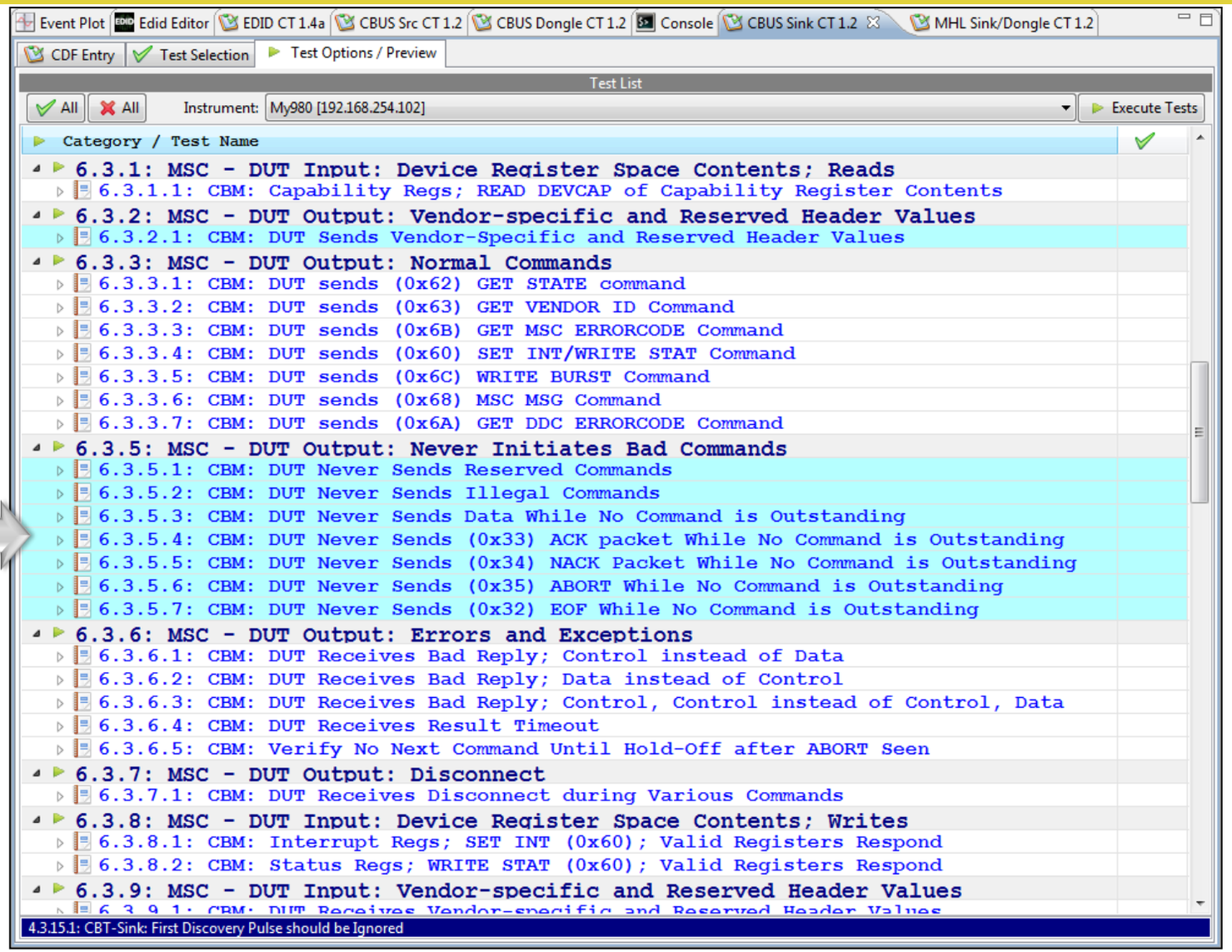
MHL CBUS Sink Compliance – Review Test Selections



Test Options / Preview:

- Review list of tests by Section.
- Example: Section 4.3.x.

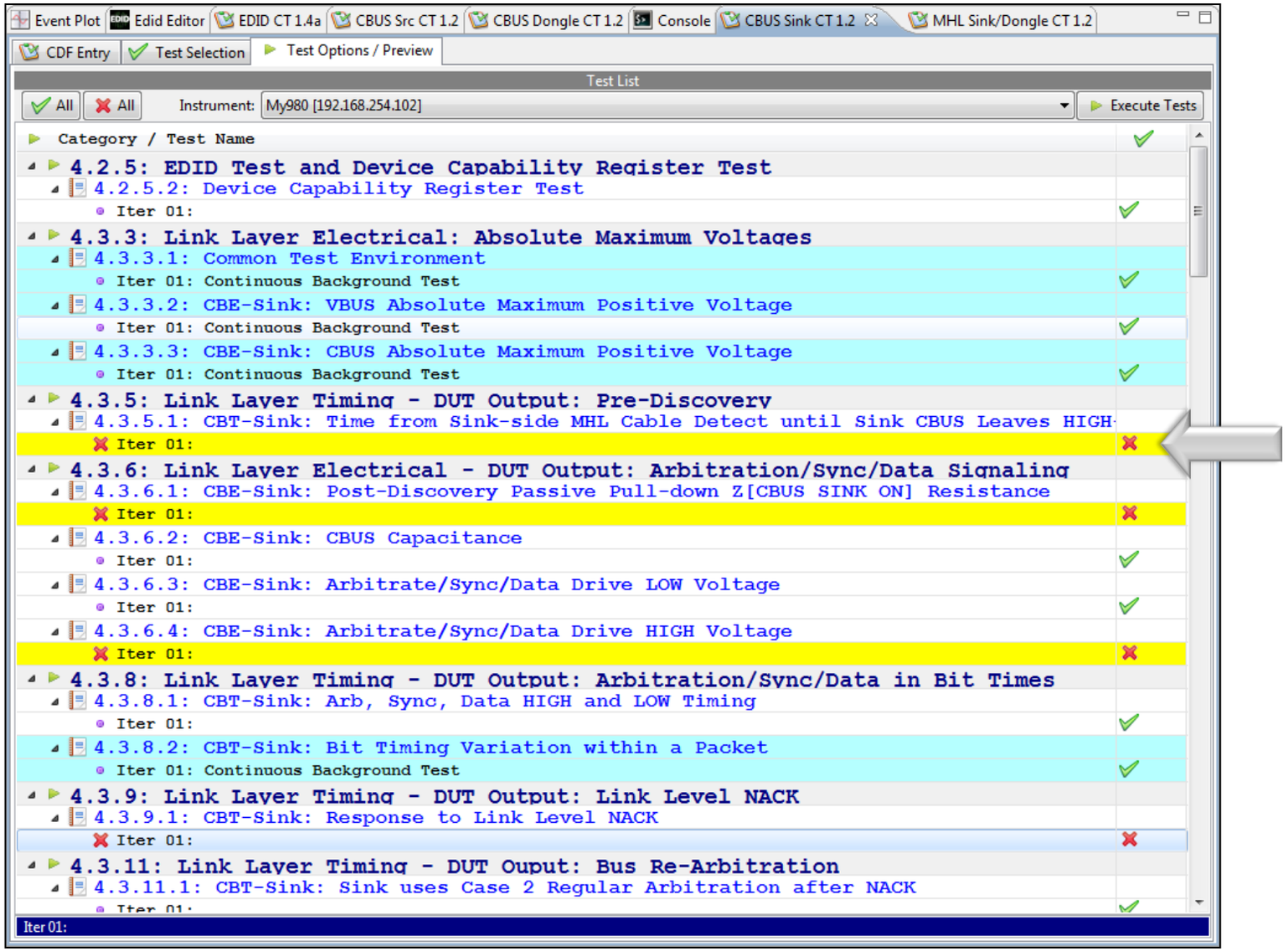
MHL CBUS Sink Compliance – Review Test Selections



Test Options / Preview:

- Review list of tests by Section.
- Example: Section 6.3.5.x.
- Tests highlighted in blue are test that are run in background mode.

MHL CBUS Sink Compliance – Review Test Selections

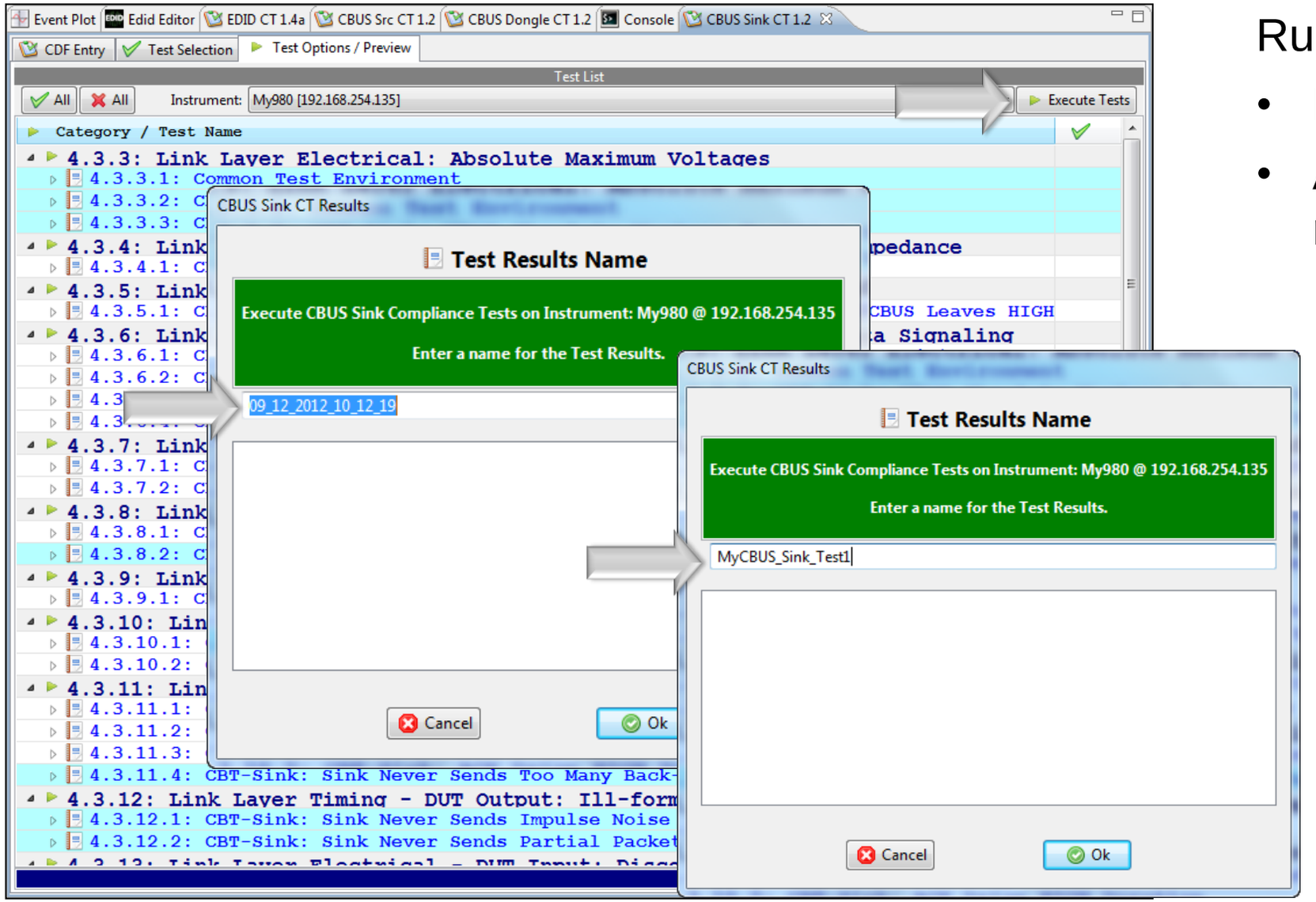


Test Options / Preview:

- Optionally, skip certain tests (red X).

Running the CBUS Sink Compliance Test

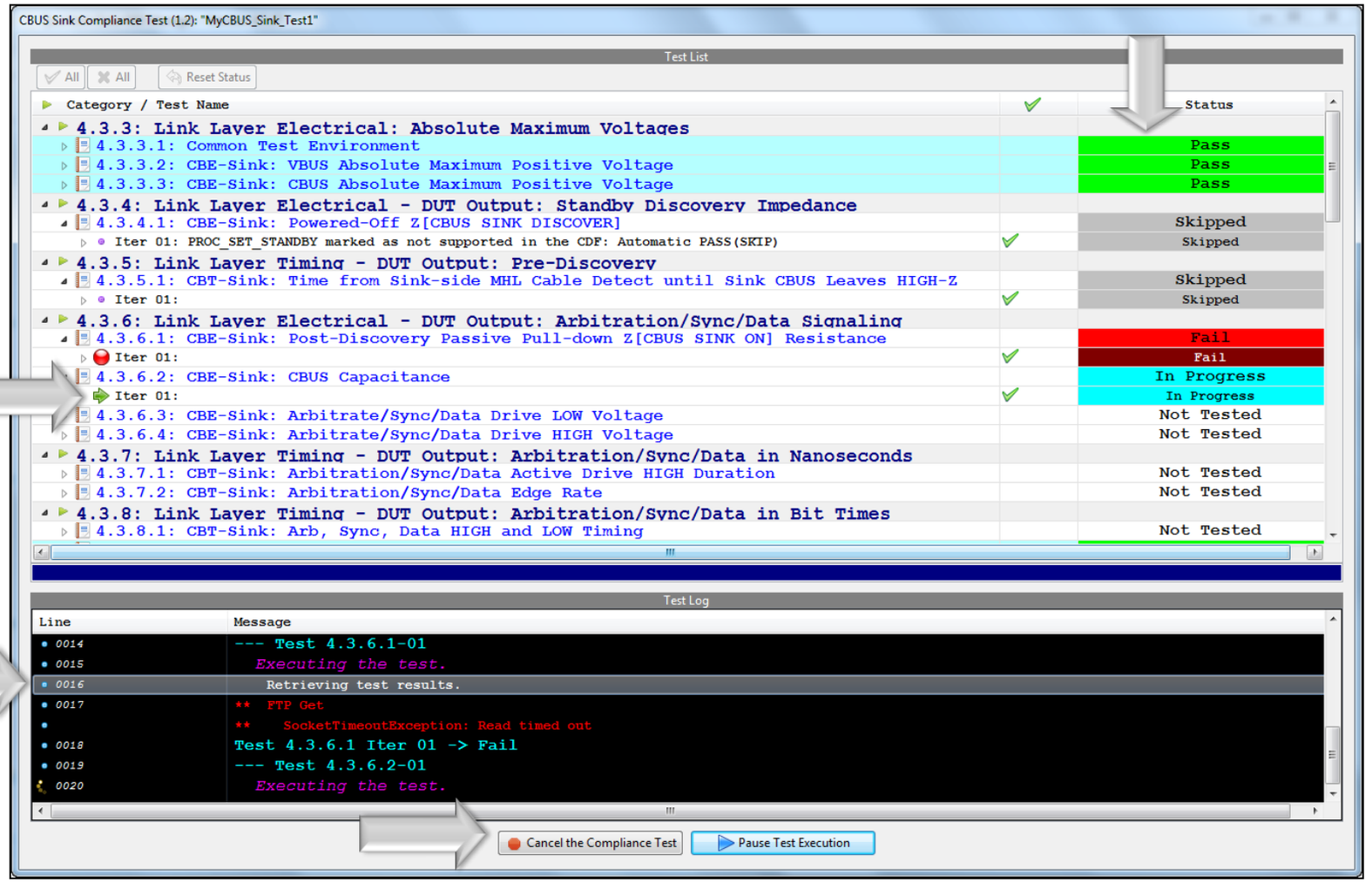
MHL CBUS Sink Compliance – Running the Tests



Running the tests:

- Execute Tests.
- Assign a name for test results file.

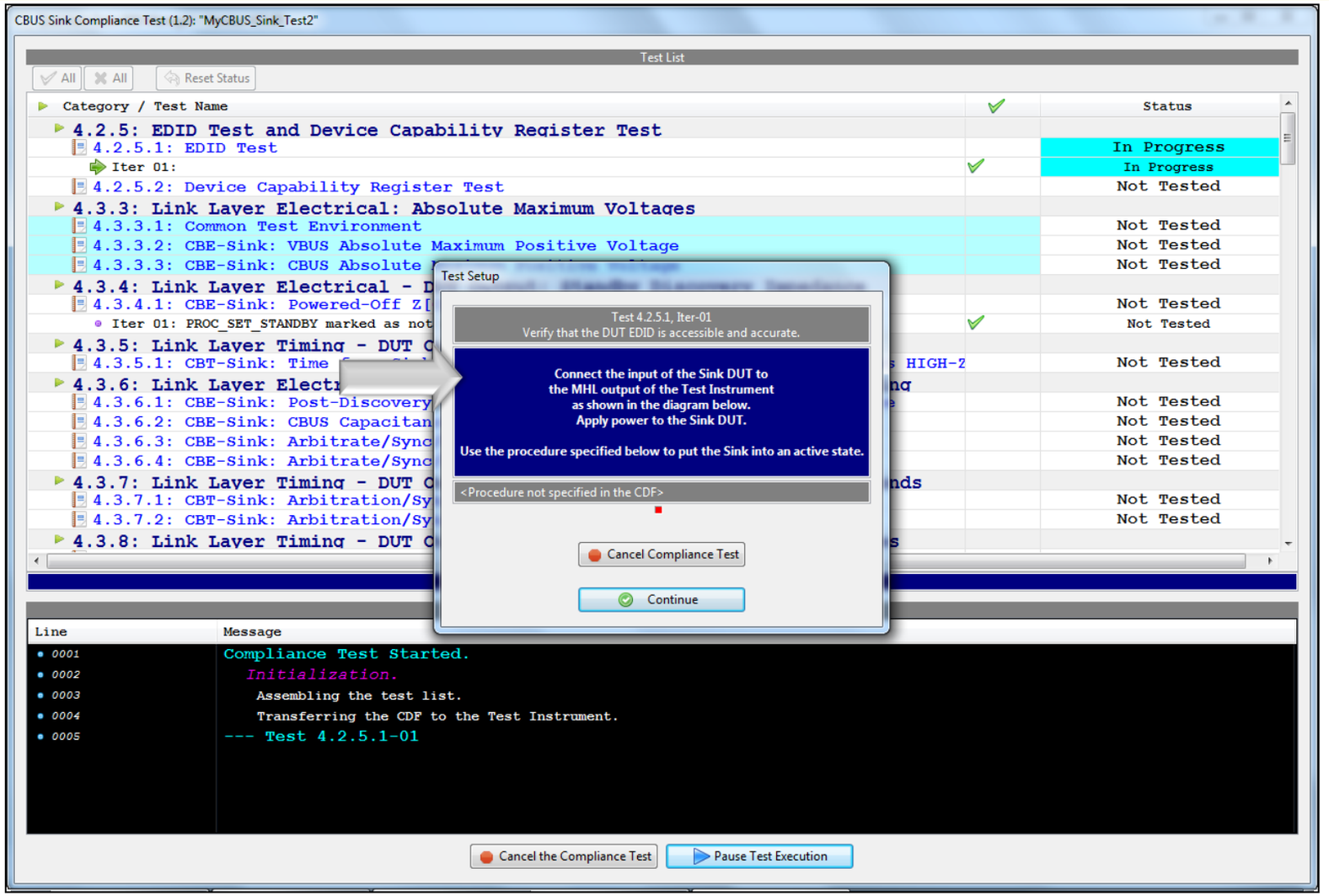
MHL CBUS Sink Compliance – Running the Tests



Running the tests:

- Green arrow indicates which test is being run.
- Status column provides Pass/Fail results or In Progress.
- Log panel provides detailed information about each step in the test.
- You can pause or cancel the test at any time.

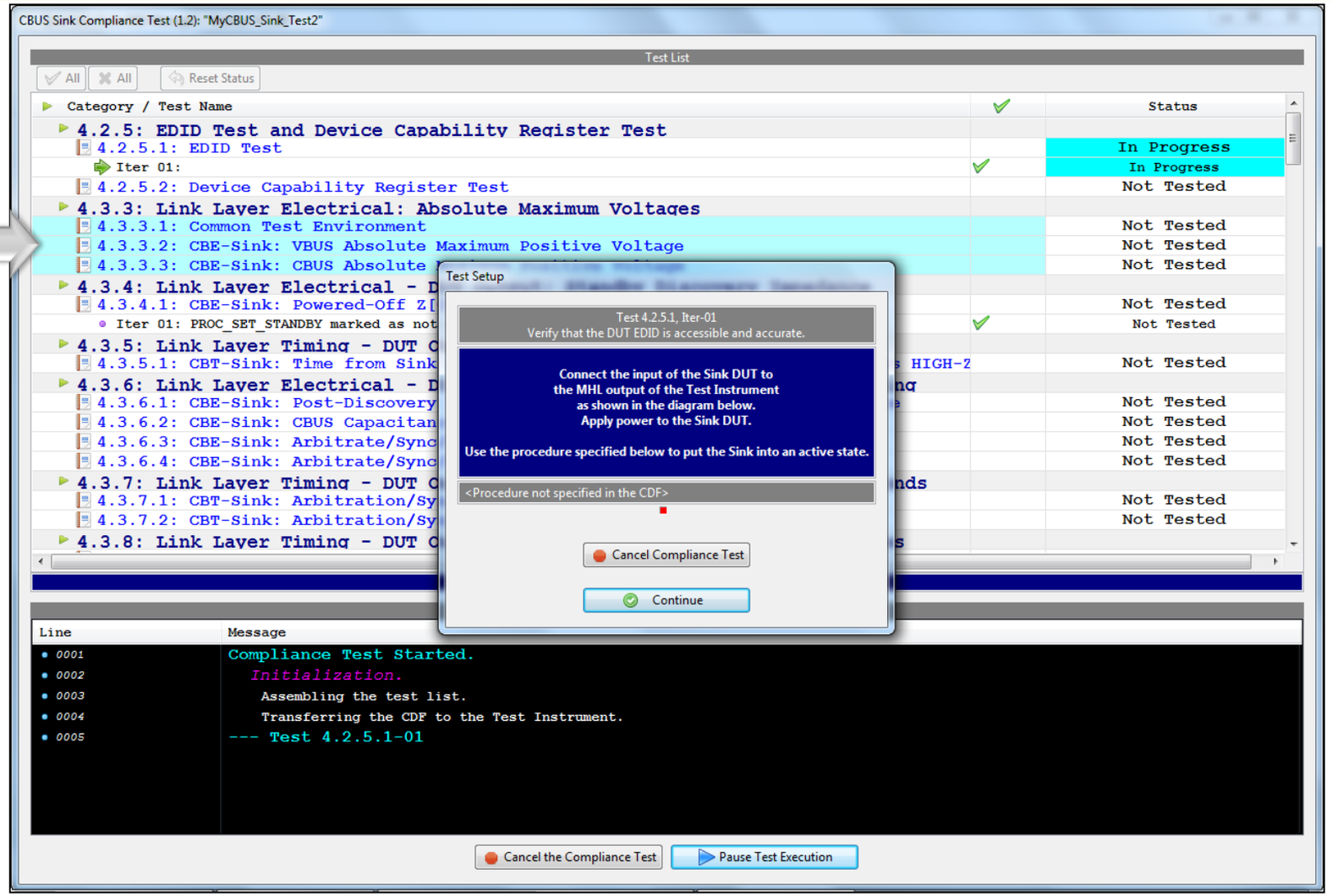
MHL CBUS Sink Compliance – Running the Tests



Running the tests:

- Review list of tests by Section.
- Example: Section 4.3.4.x.
- Instructions provided on test setup configuration.

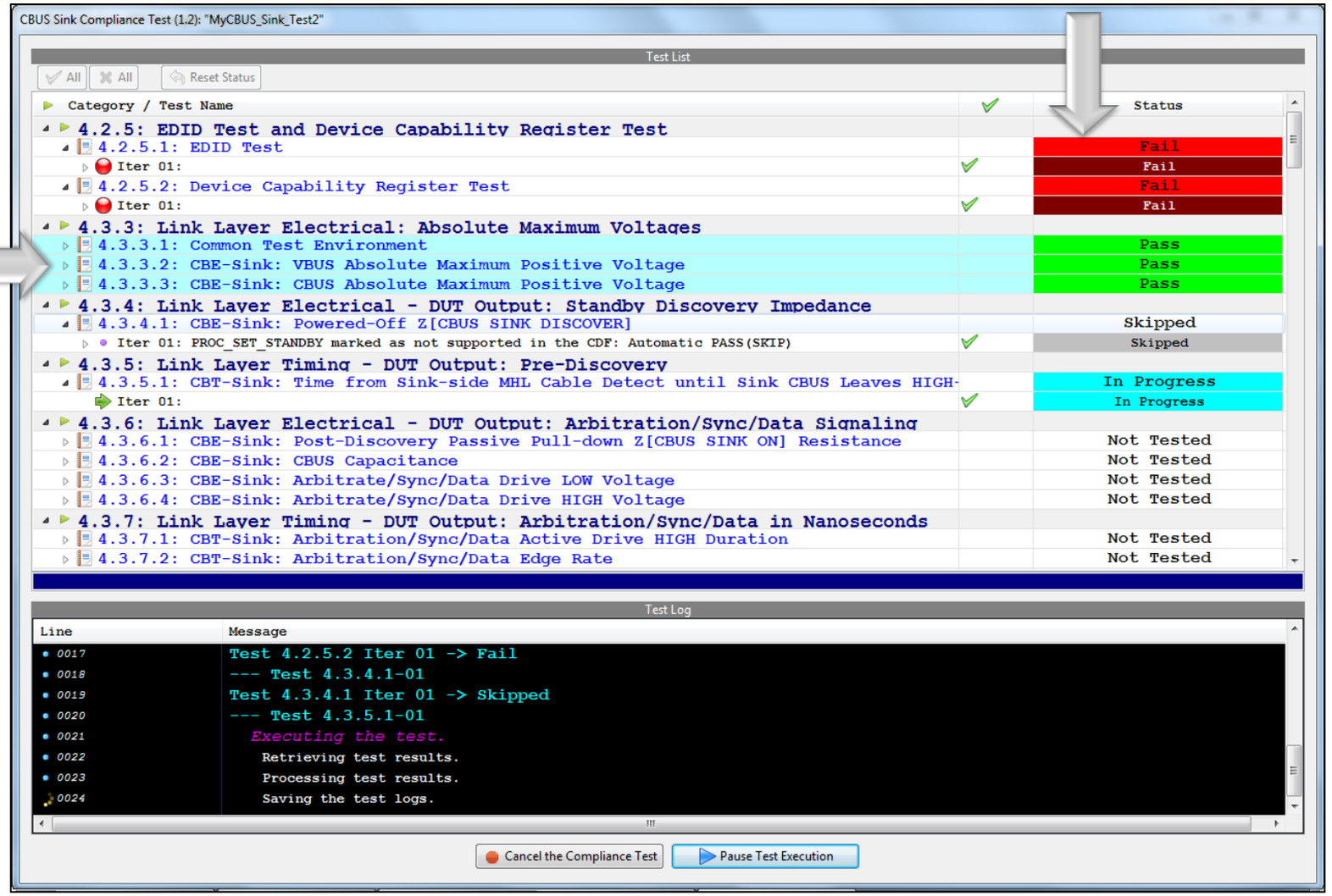
MHL CBUS Sink Compliance – Running the Tests



Running the tests:

- Review list of tests by Section.
- Example: Section 6.3.5.x.

MHL CBUS Sink Compliance – Running the Tests

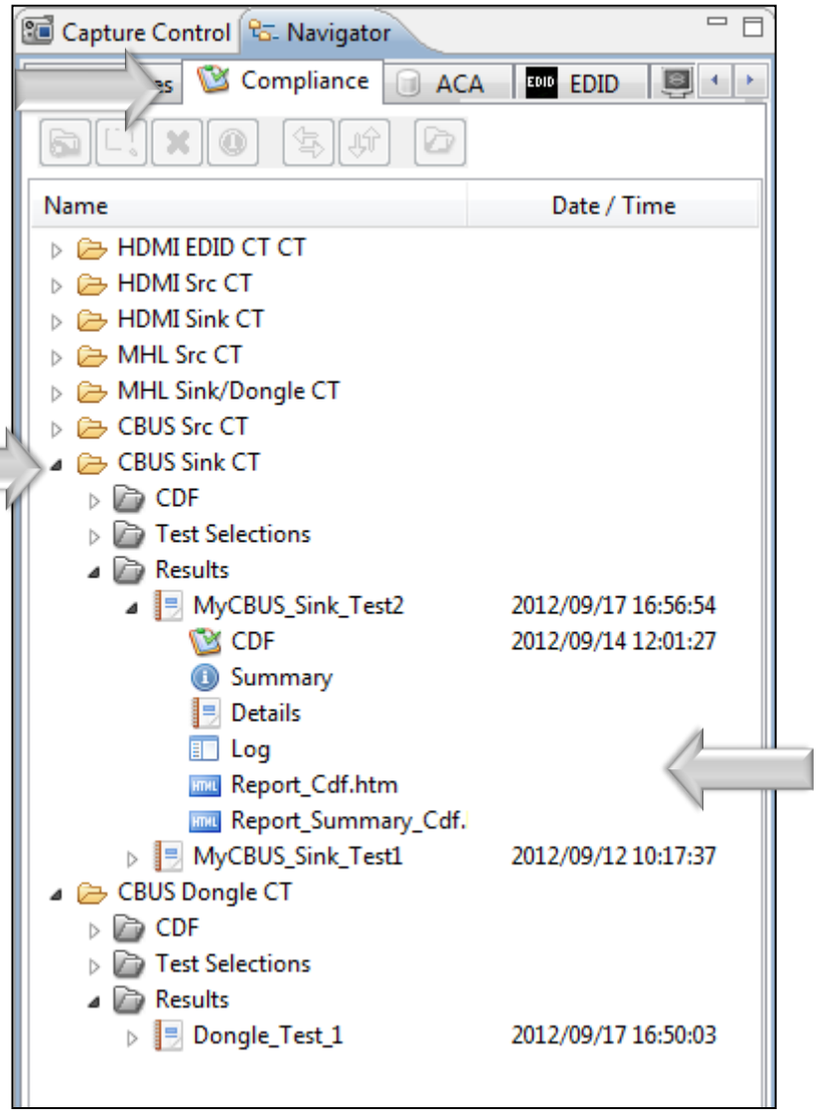


Running the tests:

- Pass/Fail indication shown under status.
- Note that status of test highlighted in blue is provided as these back-ground tests progress. Final test results for these tests are only provided when the test suite is completed.

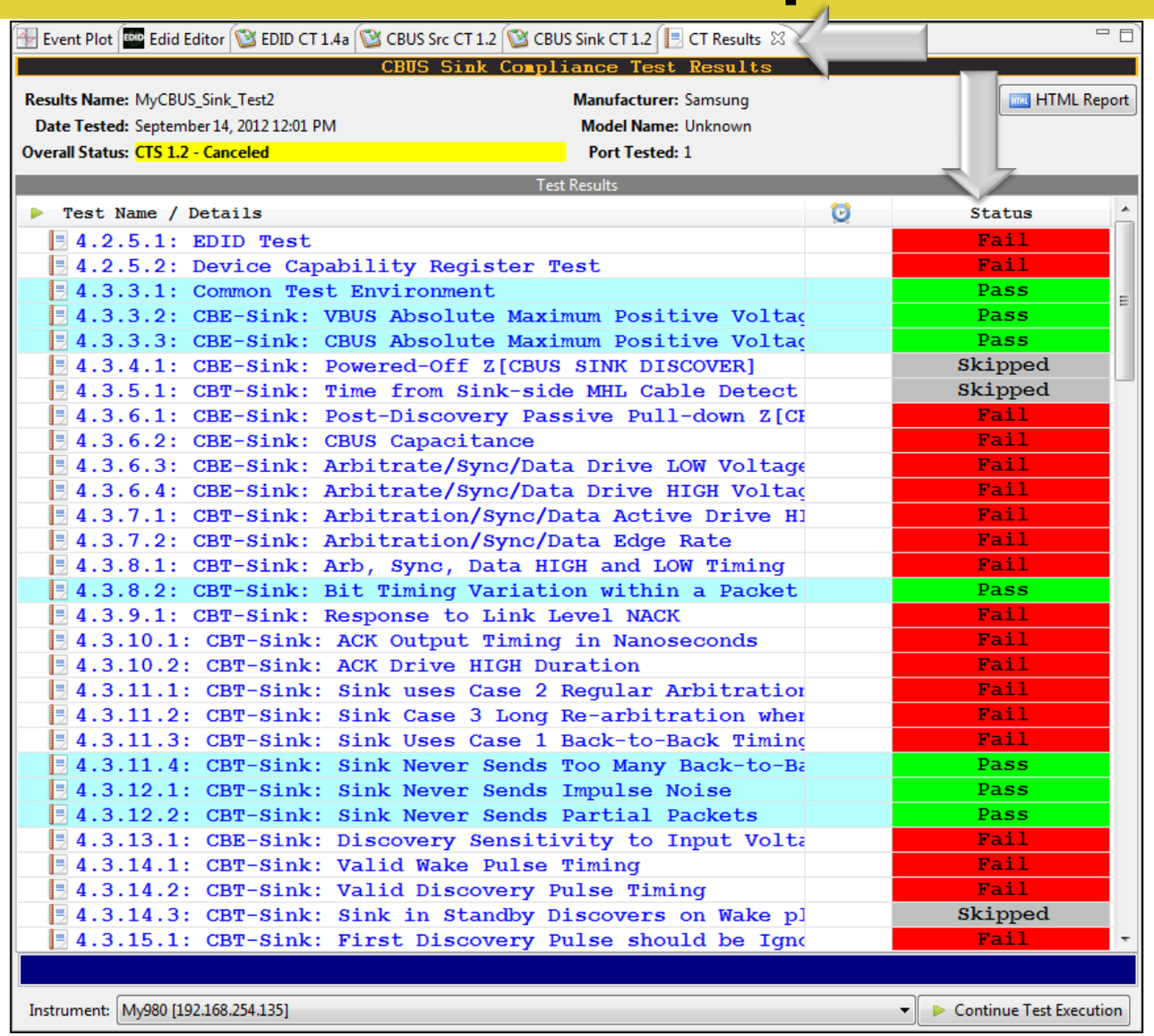
Viewing the CBUS Sink Compliance Test Results

MHL CBUS Sink Compliance – Review Test Selections



Access test results through Navigator/Compliance panel:

MHL CBUS Sink Compliance – View Test Results

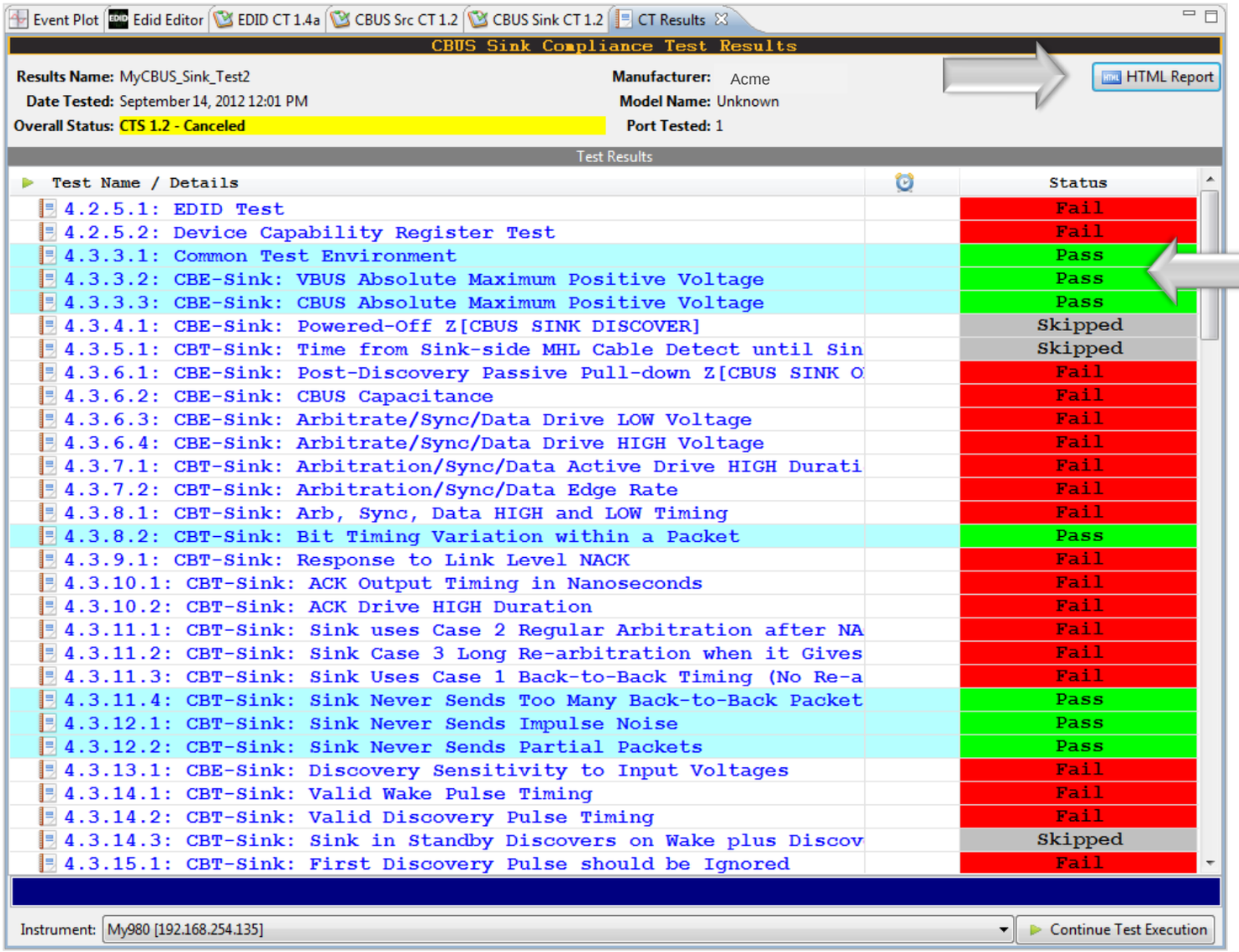


View Test results:

- Pass/Fail indication provided under Status column.

Viewing the CBUS Sink Compliance Test Report

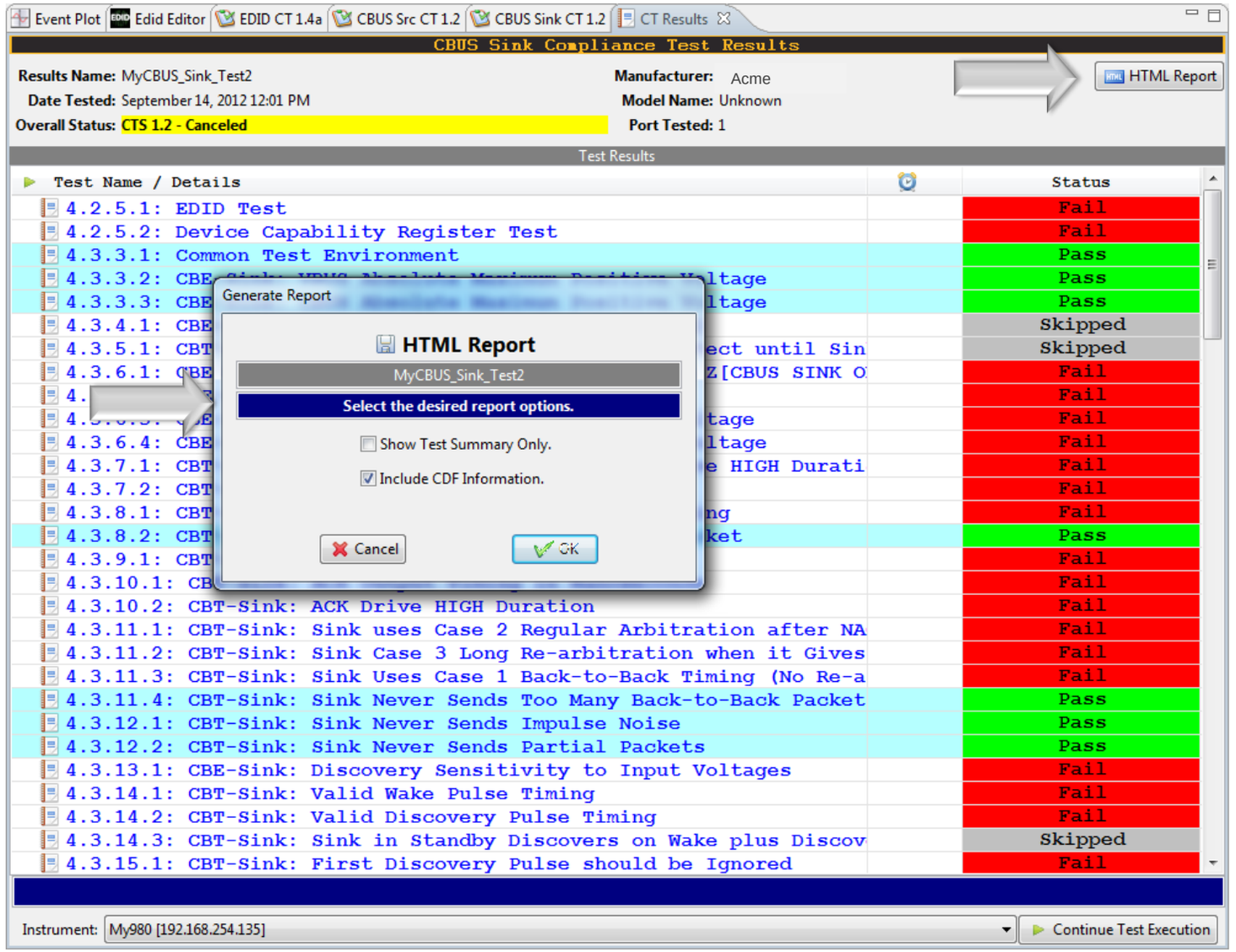
MHL CBUS Sink Compliance – Viewing the Test Results



Viewing the test results:

- Pass/Fail indication shown under status.
- Obtain an HTML report.

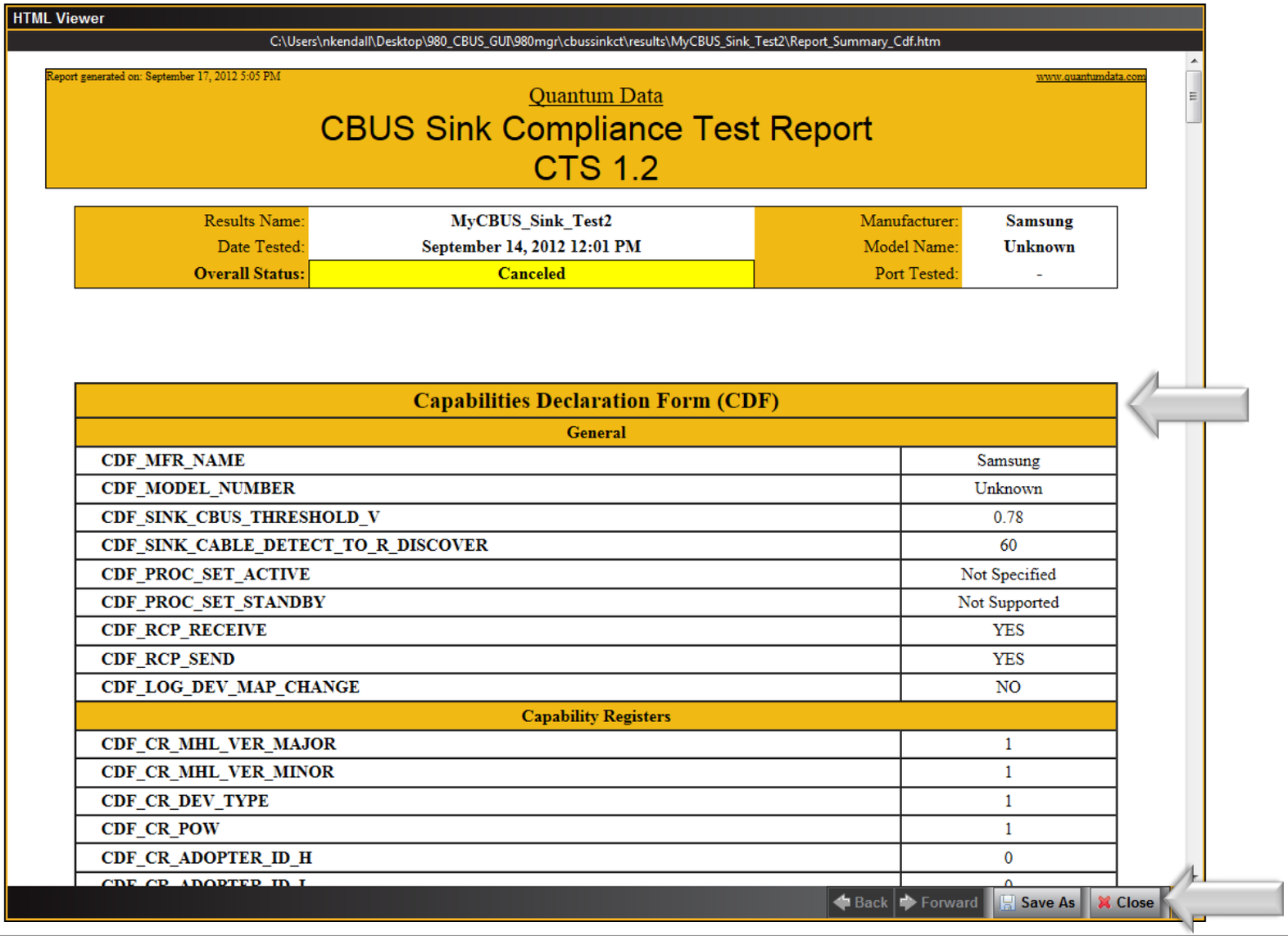
MHL CBUS Sink Compliance – Viewing the Test Results



Viewing the test results:

- Obtain an HTML report.
- Indicate summary test report or include CDF.

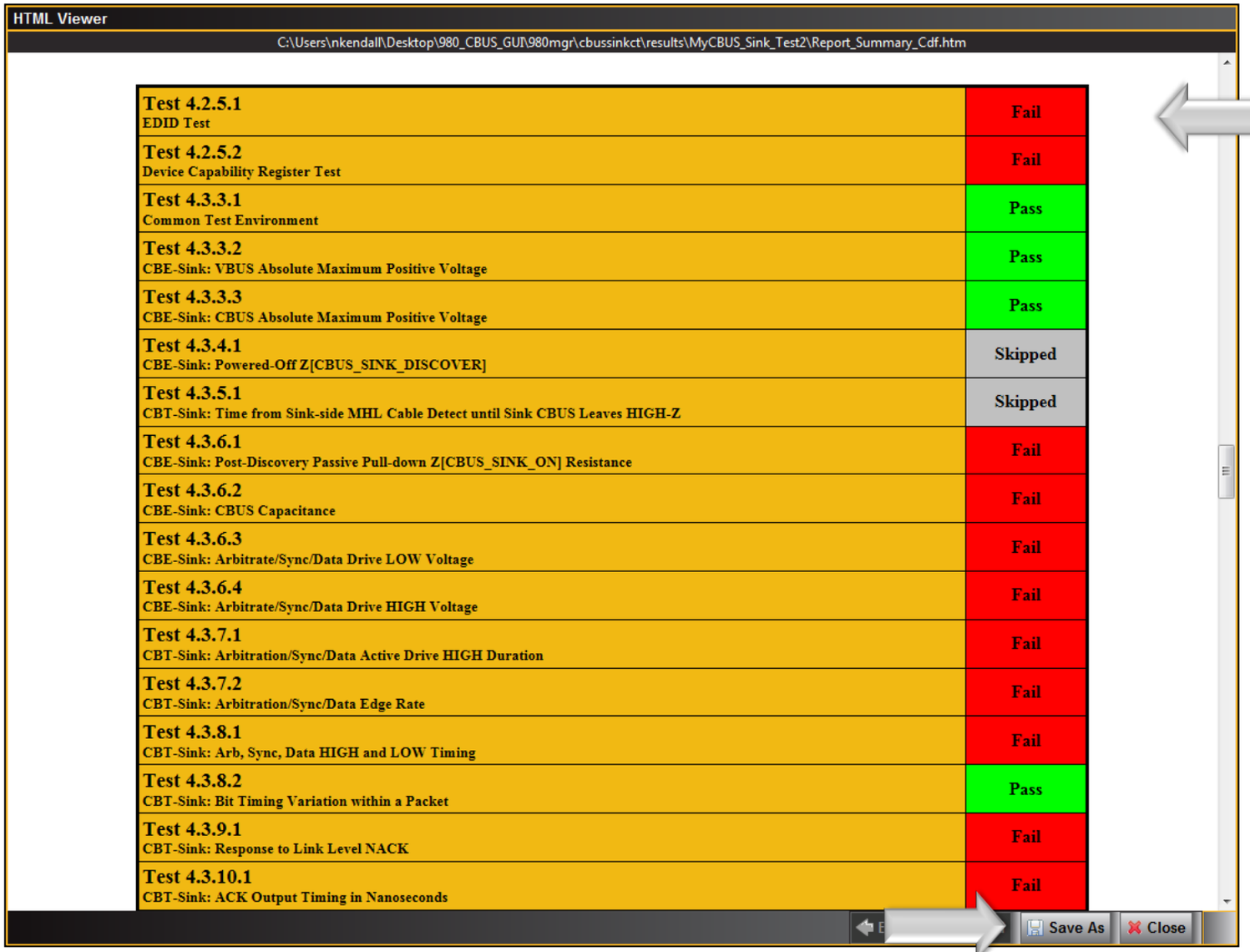
MHL CBUS Sink Compliance – Viewing the Test Results



Viewing the HTML Test Report:

- Save report for later viewing or dissemination to colleagues.

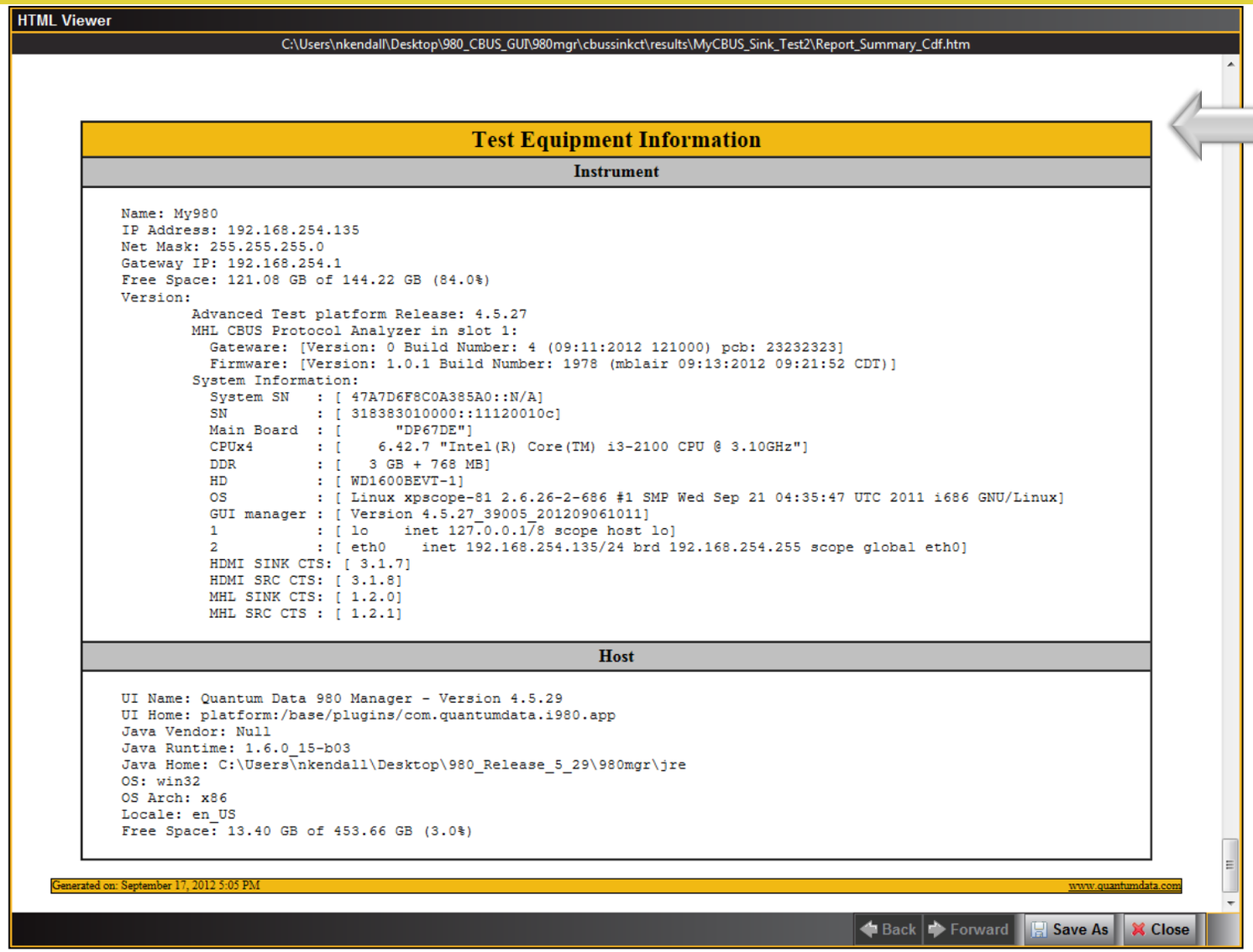
MHL CBUS Sink Compliance – Viewing the Test Results



Viewing the HTML Test Report:

- Save report for later viewing or dissemination to colleagues.

MHL CBUS Sink Compliance – Viewing the Test Results



Viewing the HTML Test Report:

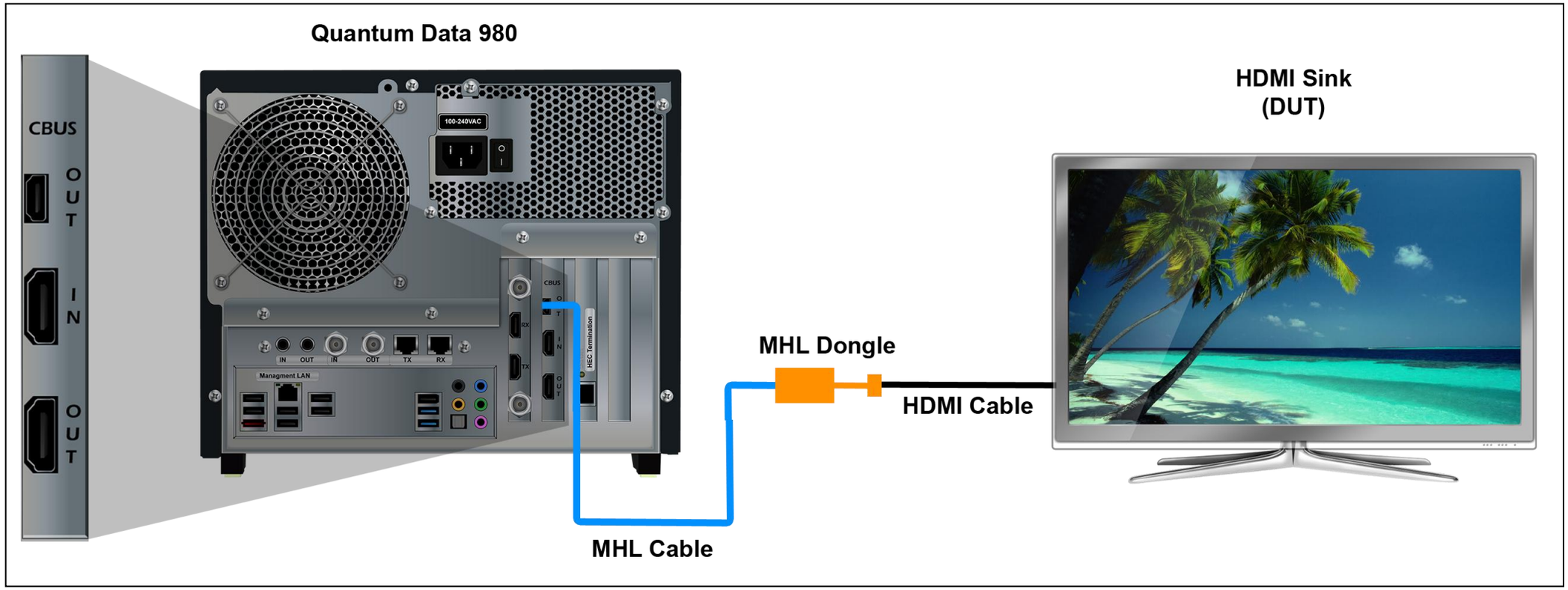
- View Test Equipment information.

MHL CBUS Log Plots – Sink Tests
Refer to Source Section

MHL CBUS Dongle Compliance Test

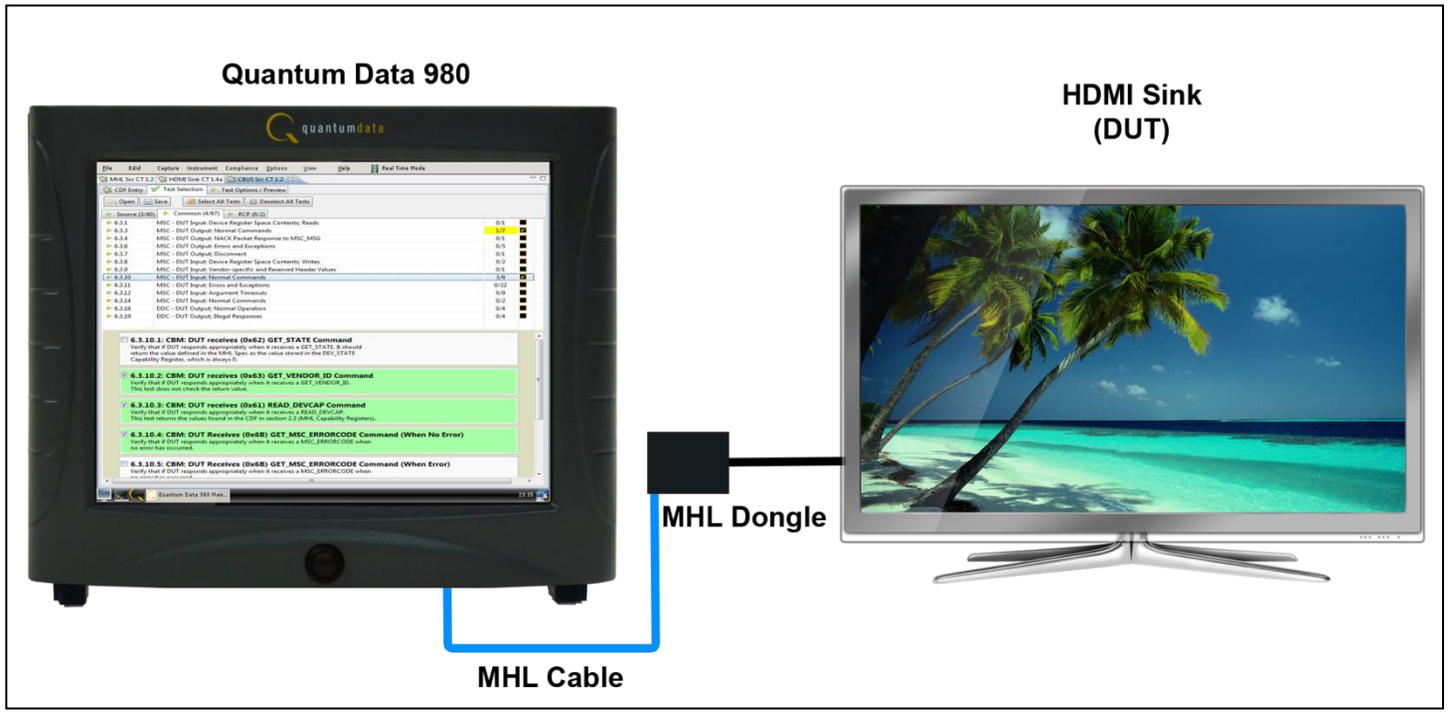
MHL CBUS Dongle Compliance Test – Setup

- Test setup with external GUI shown below



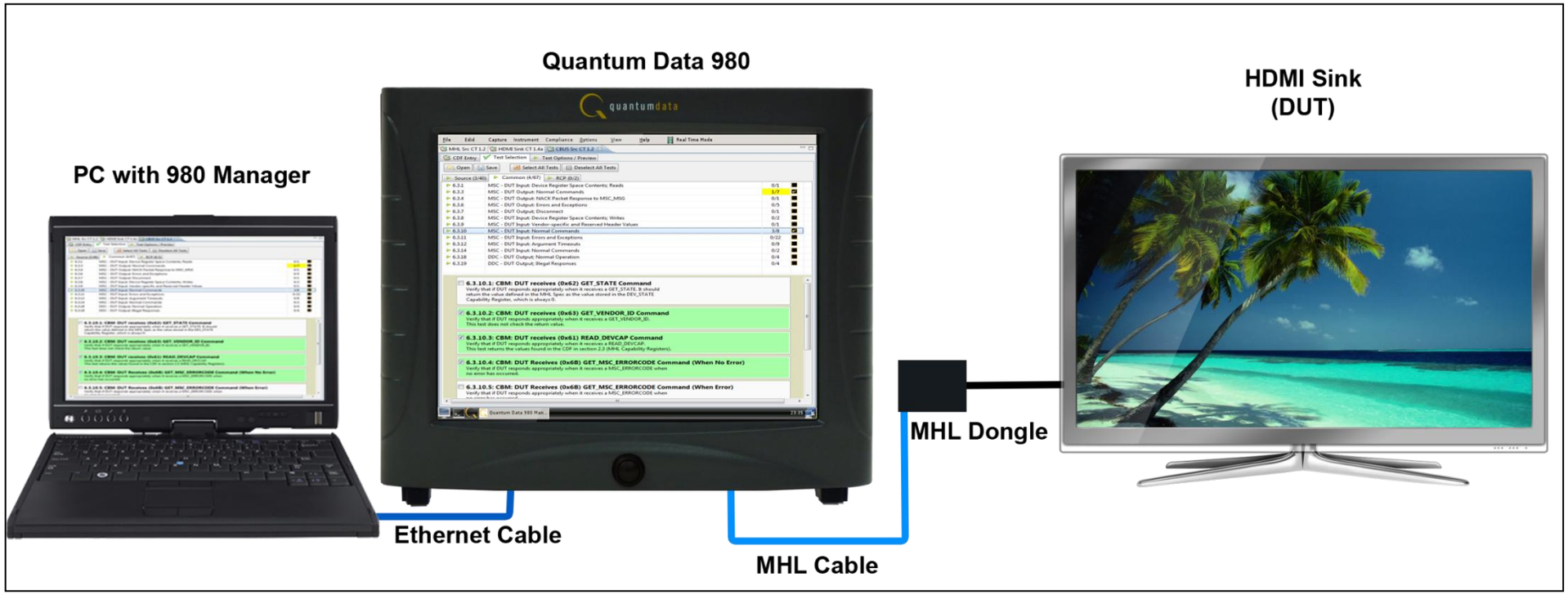
MHL CBUS Dongle Compliance Test – Setup

- Run tests through the embedded GUI.

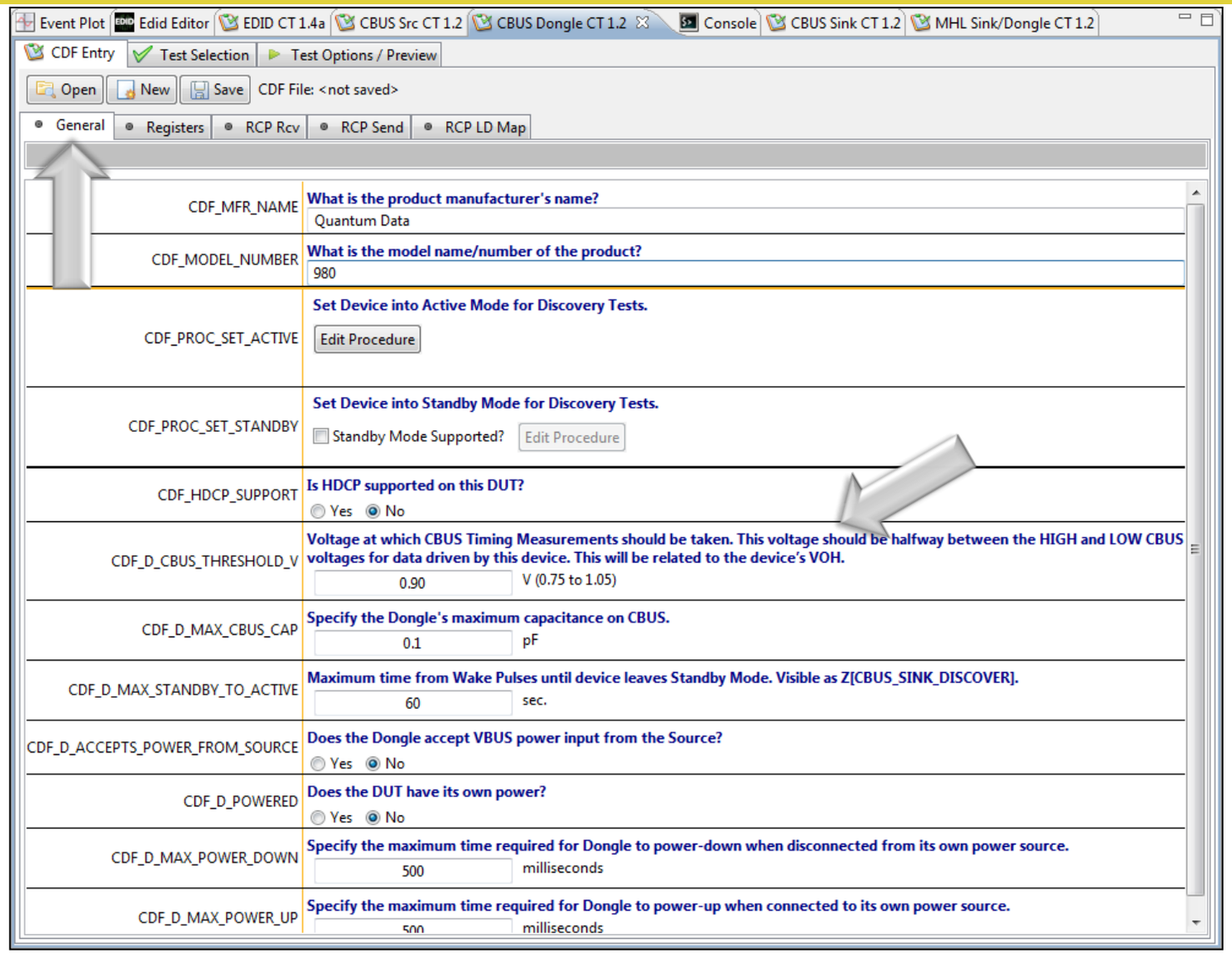


MHL CBUS Dongle Compliance Test – Setup

- Run tests through the external GUI.



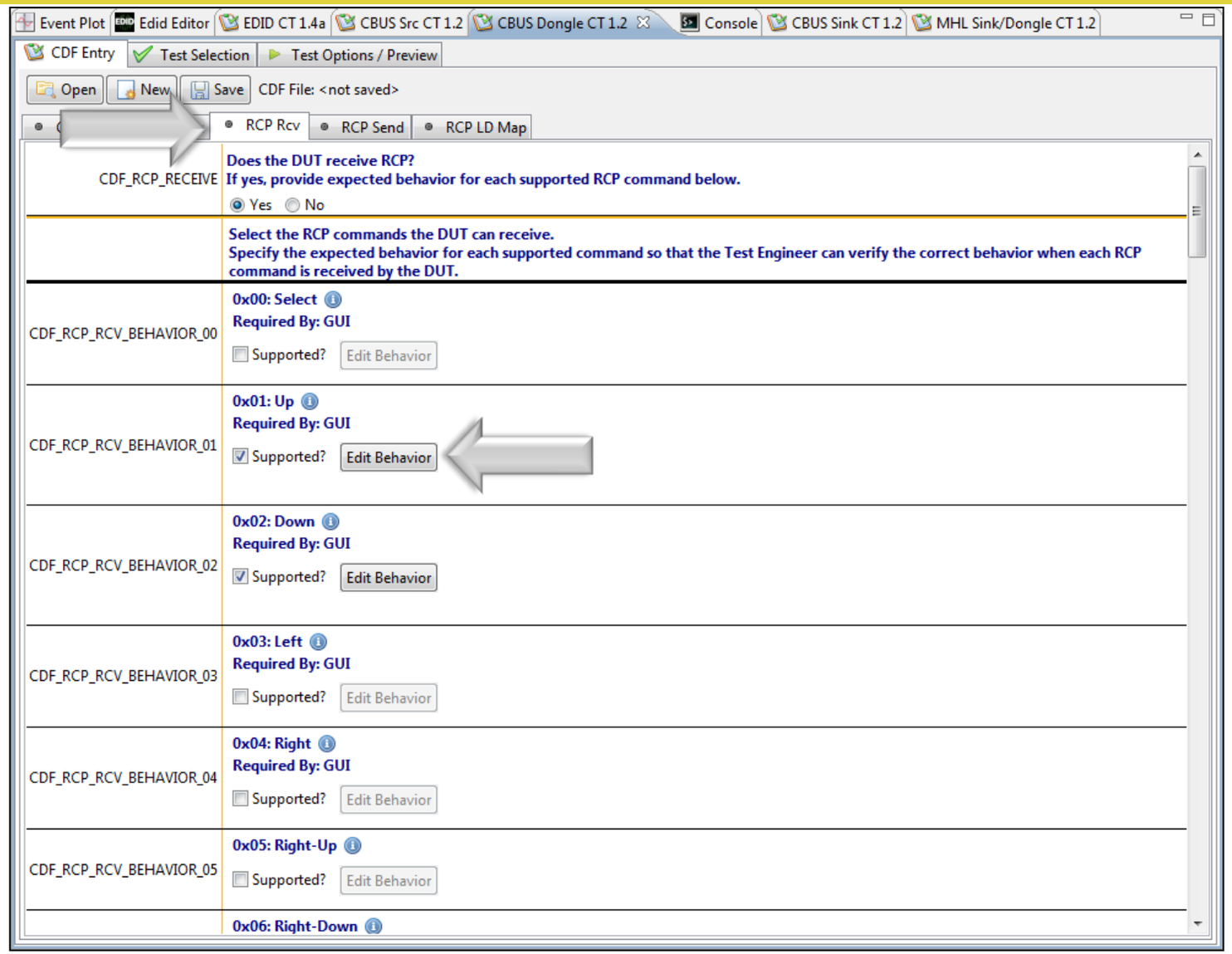
MHL CBUS Dongle Compliance - CDF



CDF:

- Defines the capabilities of the device under test.
- Provides a series of tabs for each type of feature.
- Provides description of each field.
- Example: General tab.
- Determines which tests to run.

MHL CBUS Dongle Compliance - CDF

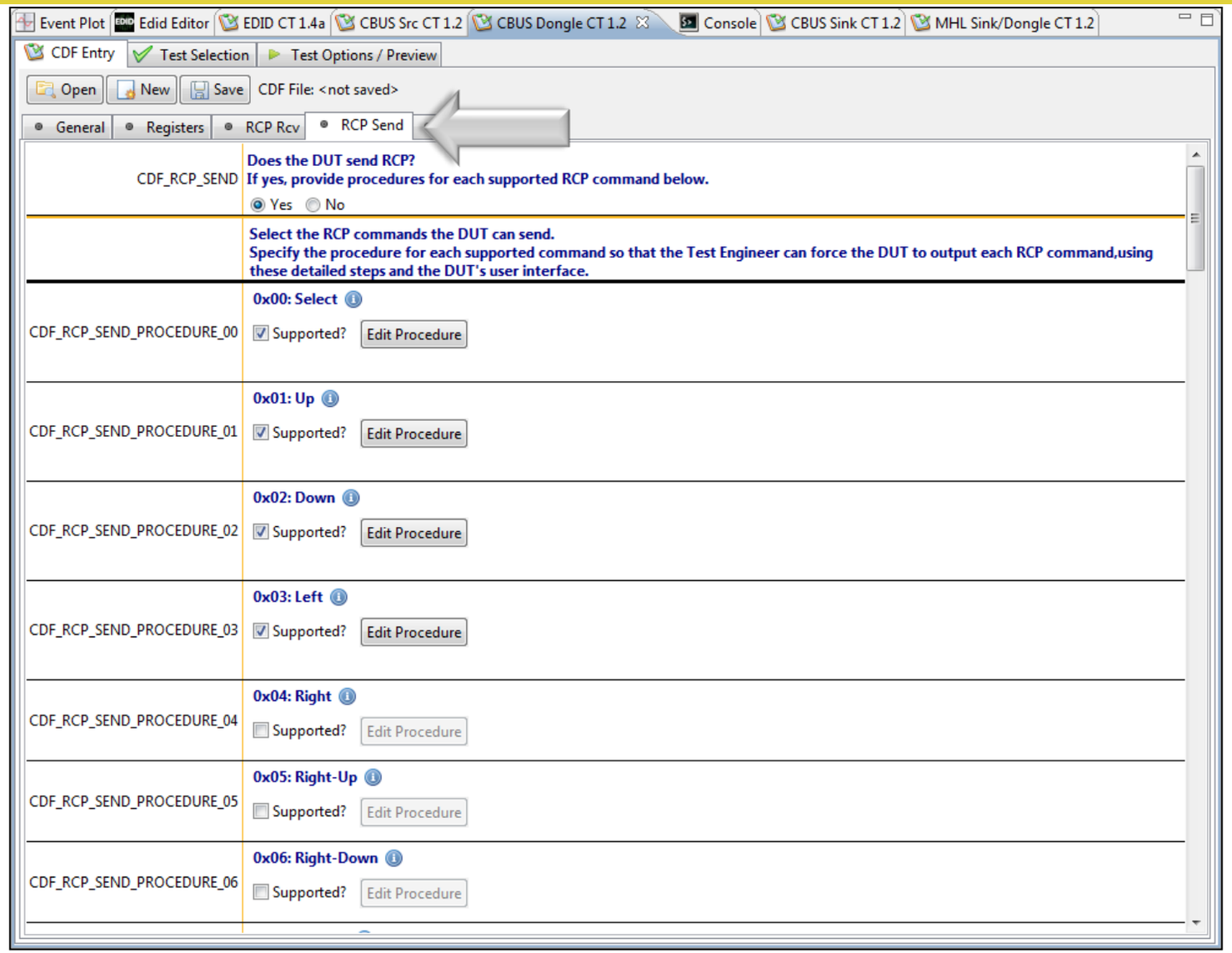


CDF:

- Example: RCP Rcv tab.

  Note: You can enter helpful information using the “Edit Procedure” dialog box. The information entered into this dialog box will appear during the test and can be helpful to users running an particular test.

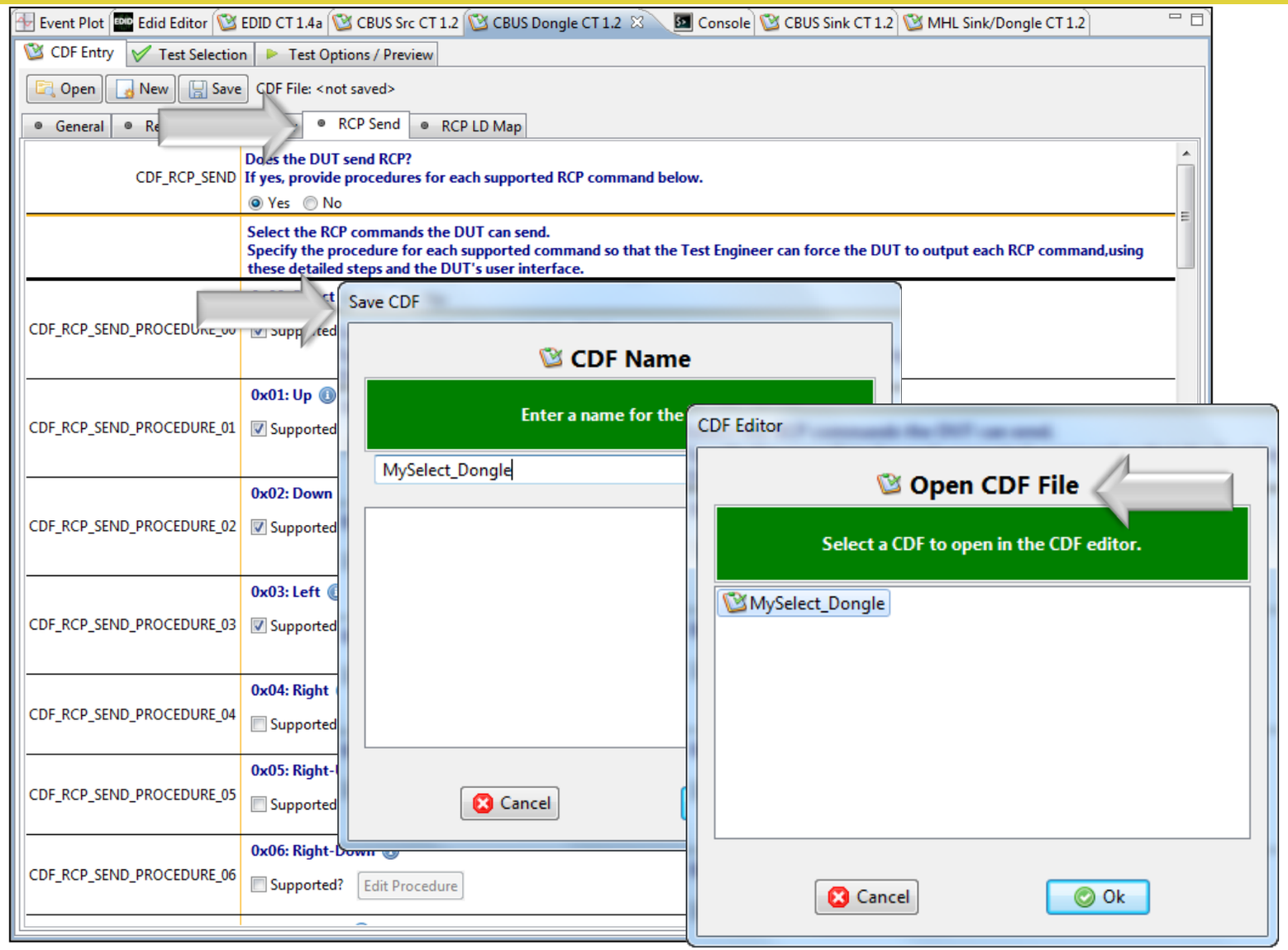
MHL CBUS Dongle Compliance - CDF



CDF:

- Example: RCP Send Tab.

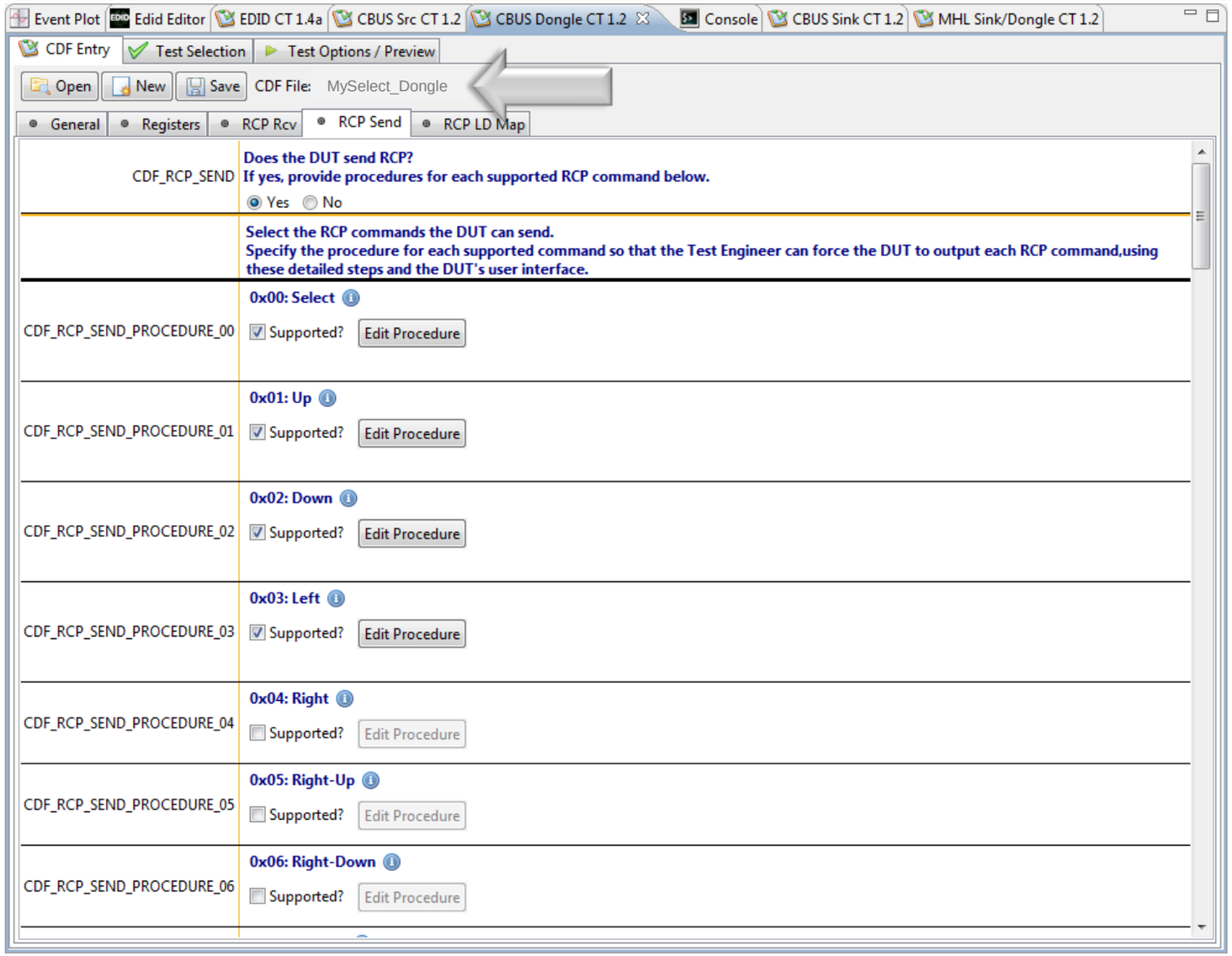
MHL CBUS Dongle Compliance - CDF



CDF:

- Save and reuse CDF definitions.
- Saves time of re-entering data.
- Files can be transferred to colleagues to help expedite product capability selection process in a test series.

MHL CBUS Dongle Compliance - CDF

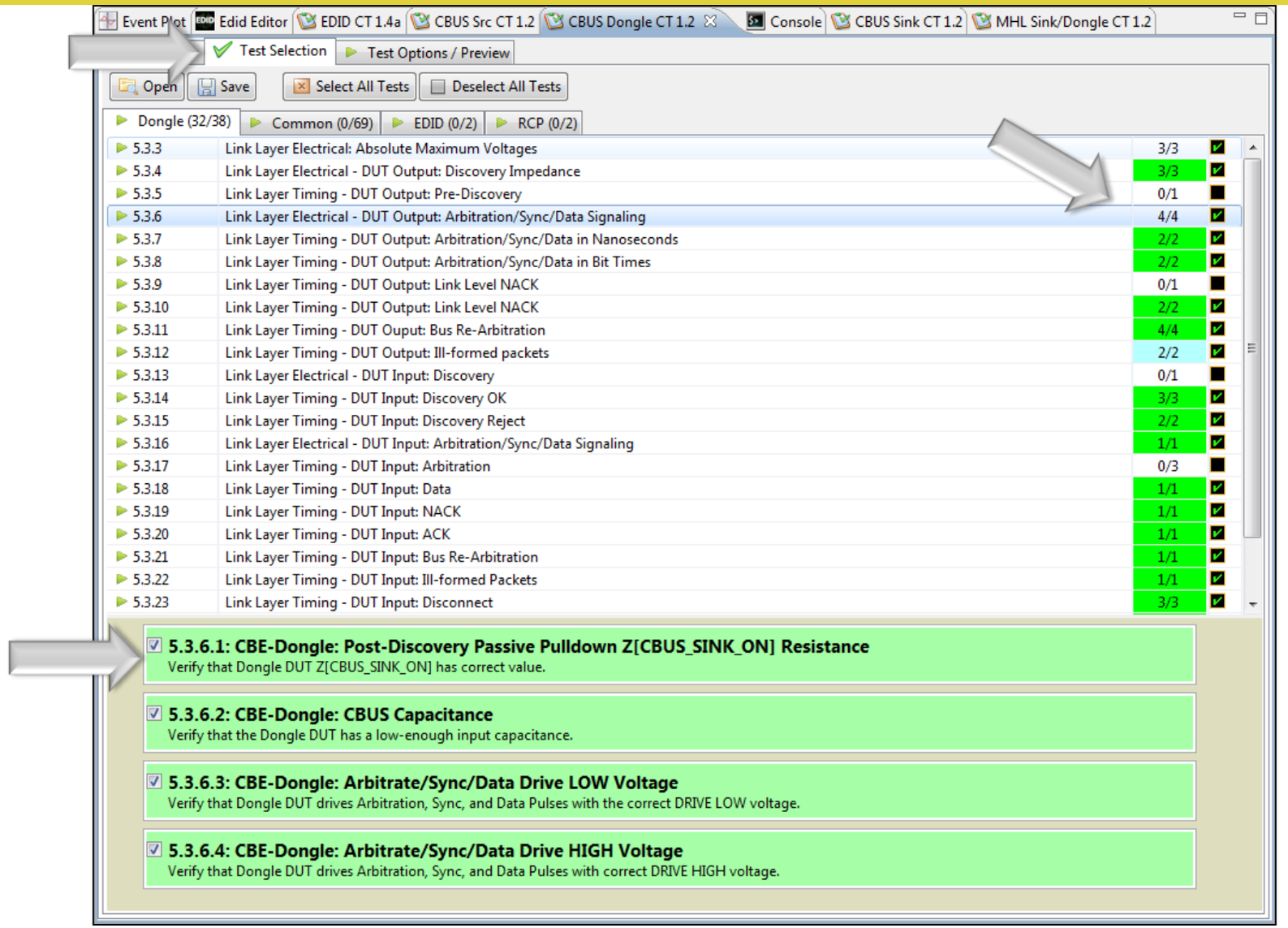


CDF:

- CDF saved for later re-use.

CBUS Dongle Compliance Test Selection

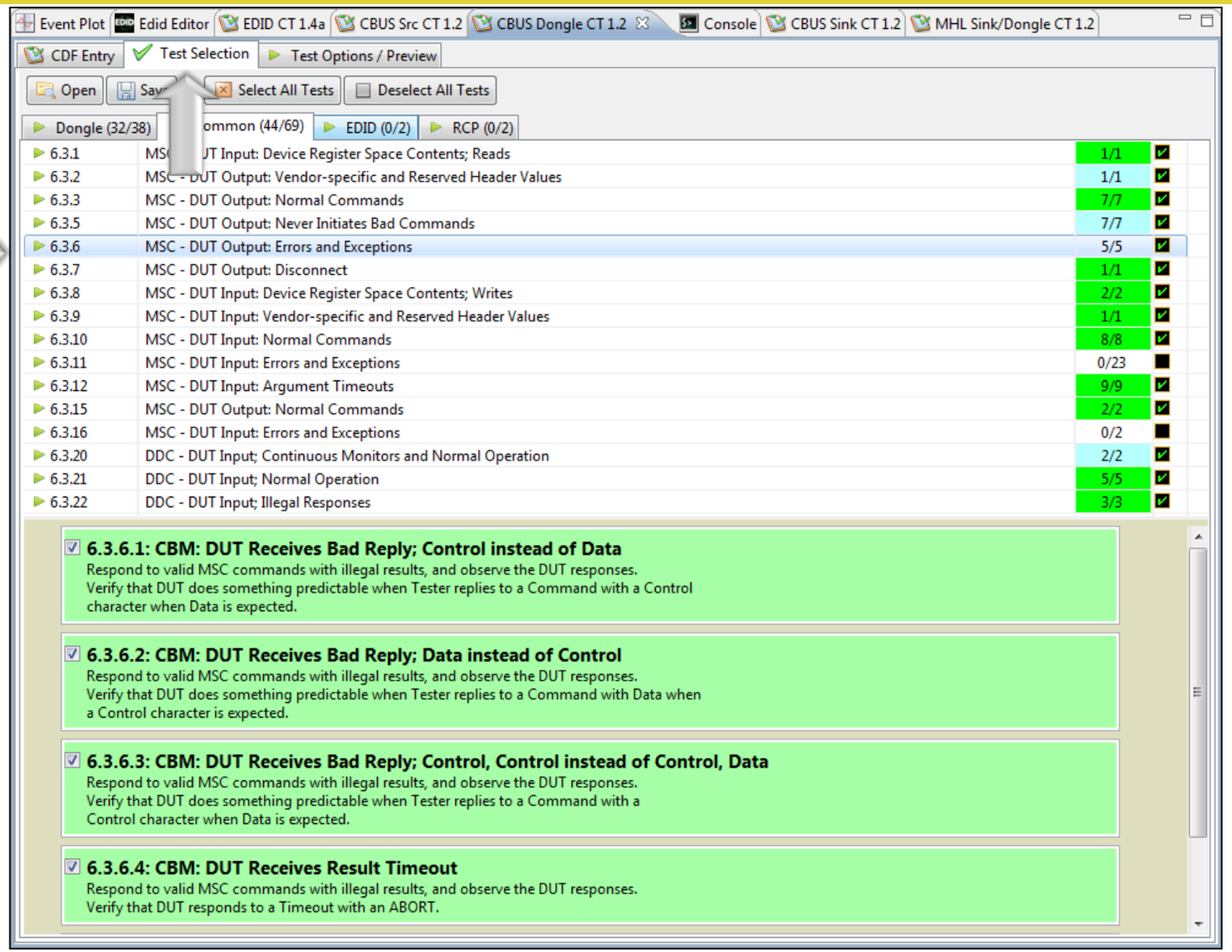
MHL CBUS Dongle Compliance – Test Selection



Test Selection:

- Determine which specific tests to run in a test suite.
- Select all tests or select specific test sections or particular tests within each section.
- Check box indicators inform how many tests in each section and how many are selected.
- Example: CBUS Dongle test tab w/ Link Layer Electrical – DUT Output Bus Arbitration/ Sync/ Data Signaling.

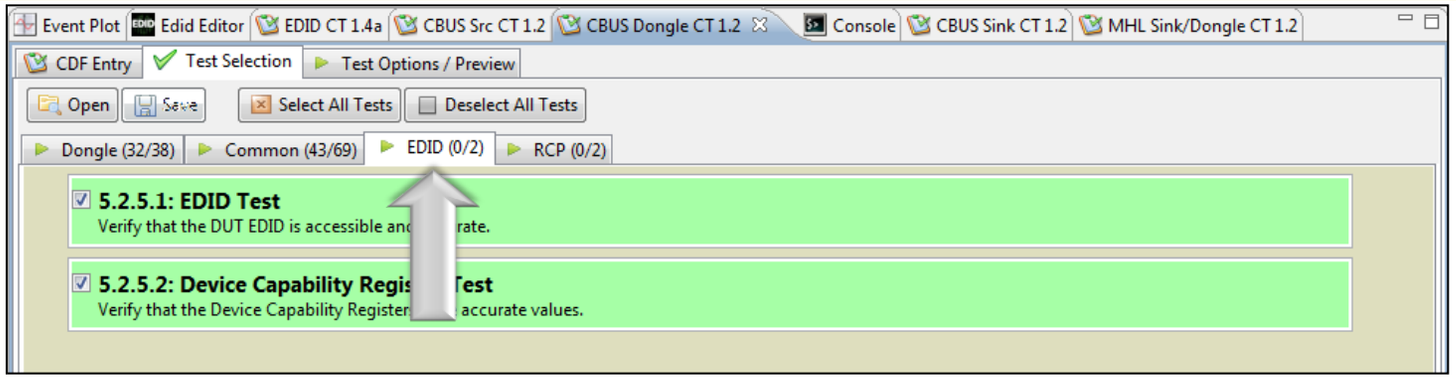
MHL CBUS Dongle Compliance – Test Selection



Test Selection:

- Select “Common” Sink tests for MSC and DDC.

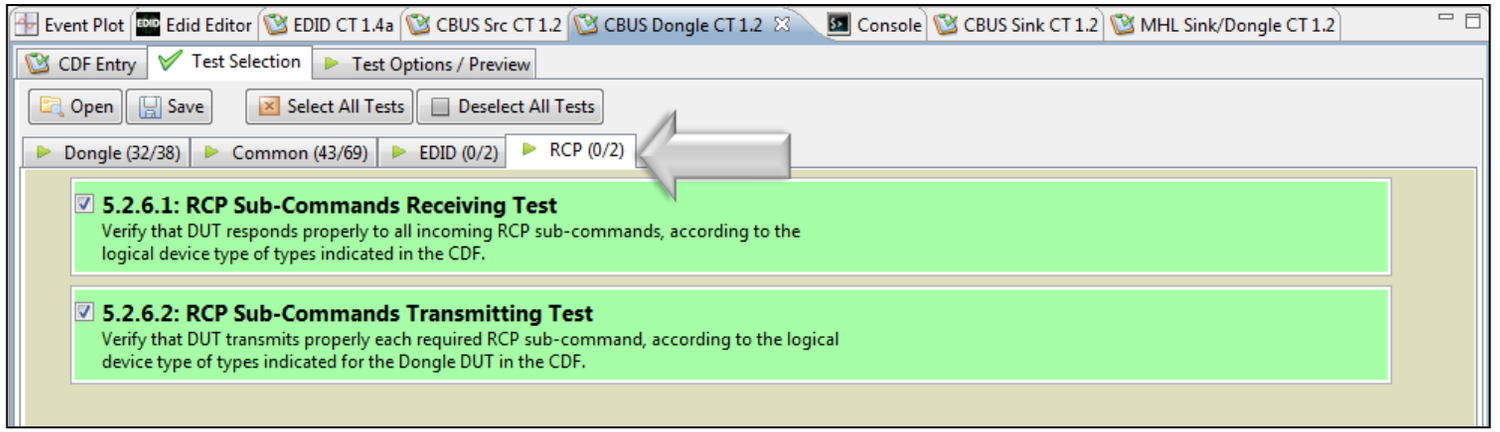
MHL CBUS Dongle Compliance – Test Selection



Test Selection:

- Select EDID Registers Tests.

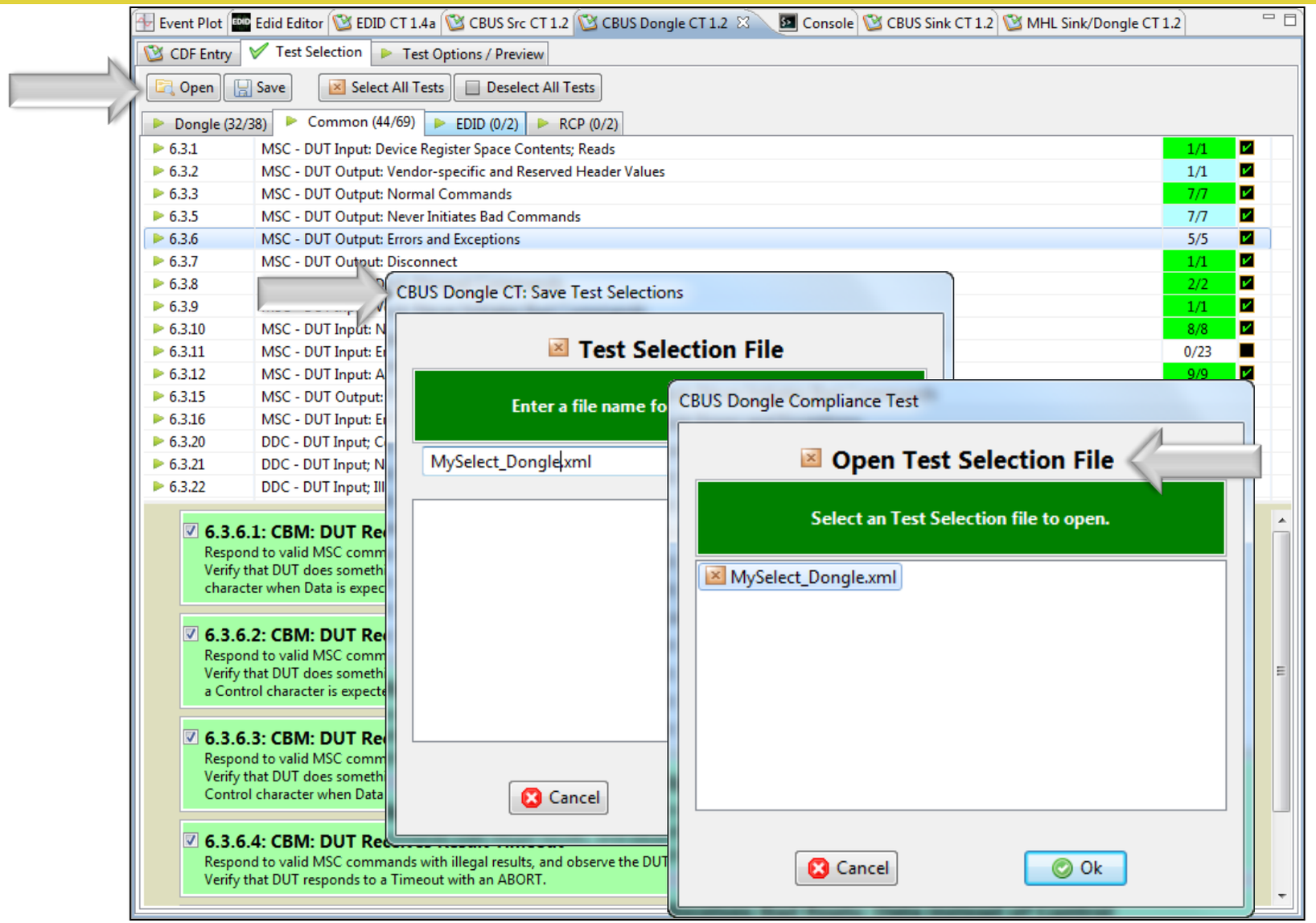
MHL CBUS Dongle Compliance – Test Selection



Test Selection:

- Select “RCP” Sub-commands.

MHL CBUS Dongle Compliance – Test Selection

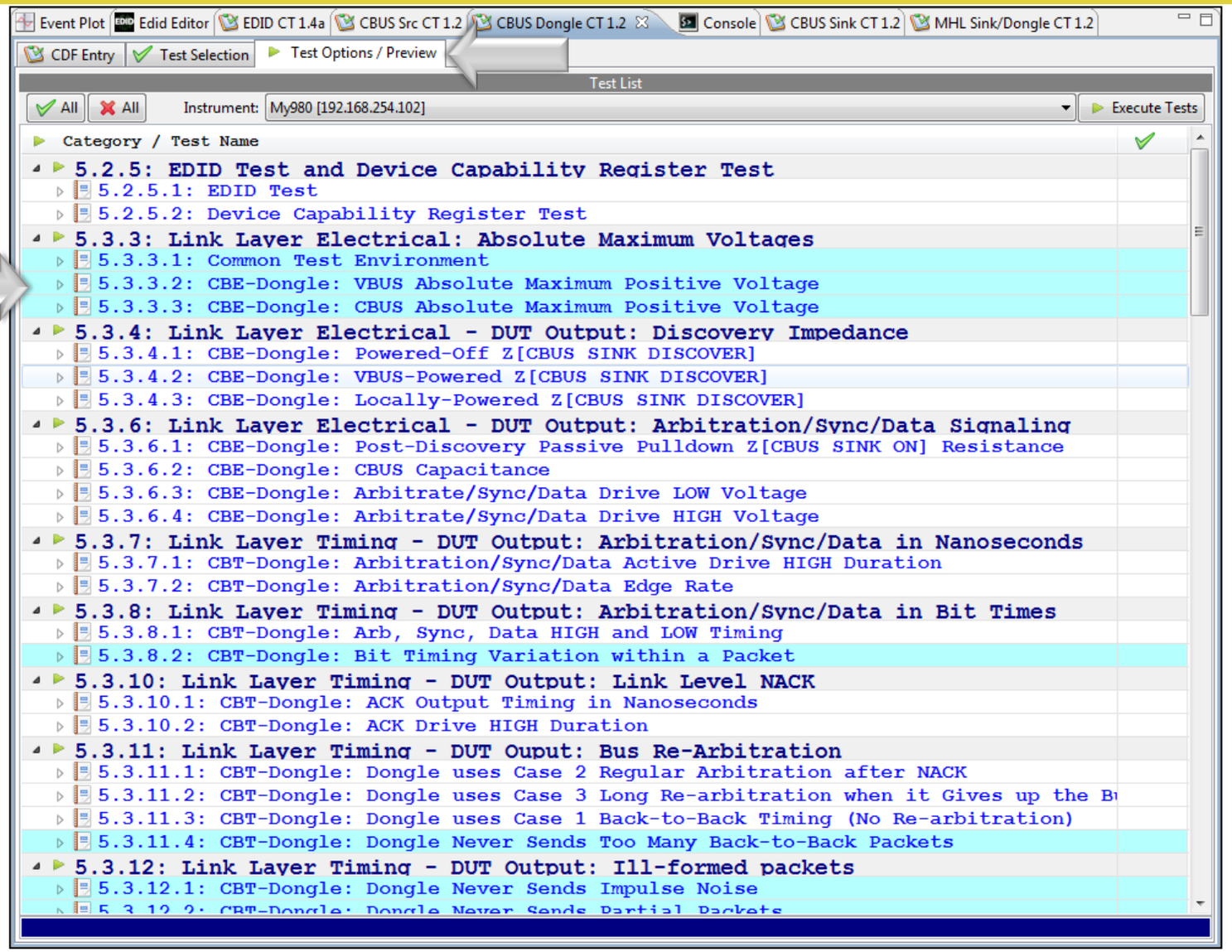


Test Selection:

- Save and reuse Test Select definitions.
- Saves time of re-entering specific tests.

Reviewing the CBUS Dongle Compliance Tests

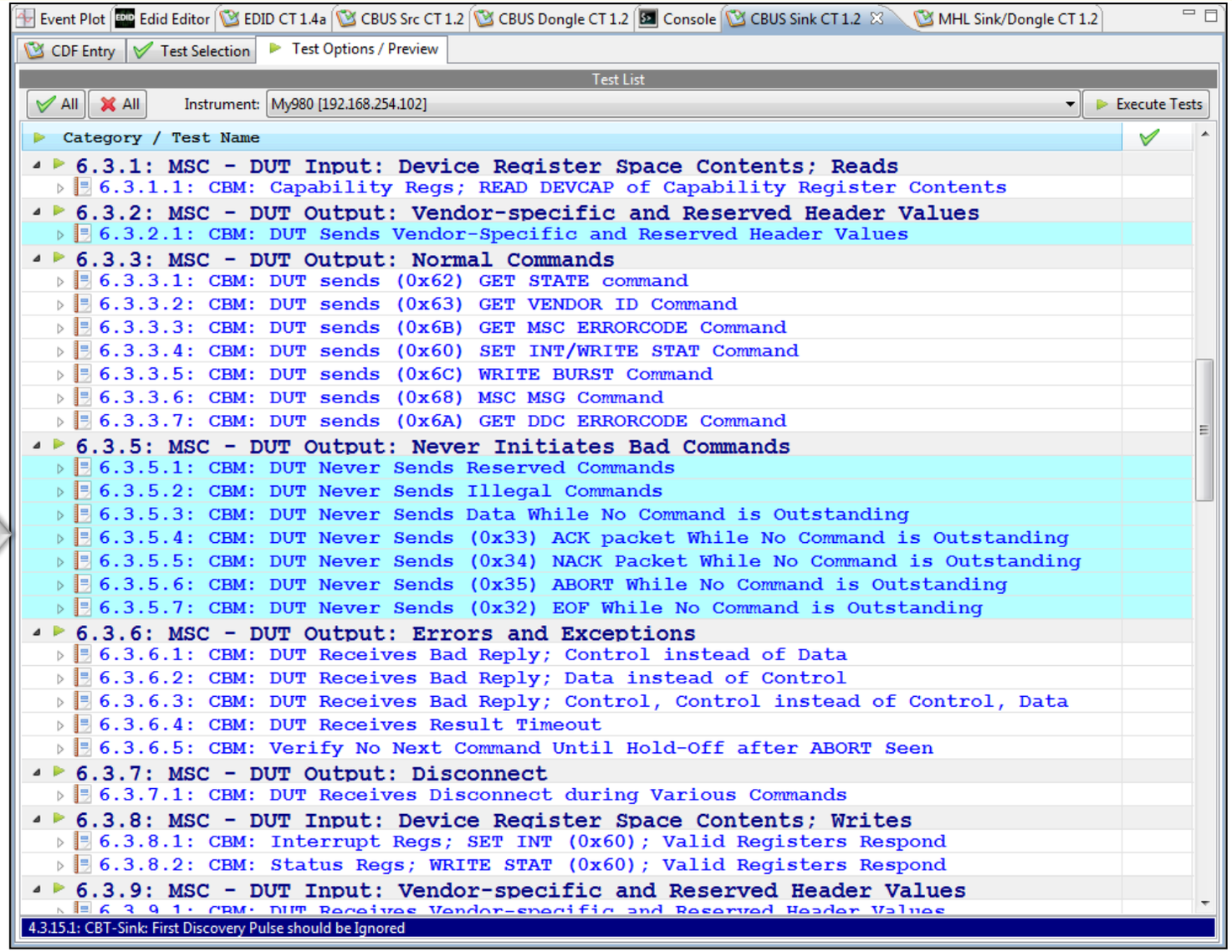
MHL CBUS Dongle Compliance – Review Test Selections



Test Options / Preview:

- Review list of tests by Section.
- Example: Section 5.3.x.
- Tests highlighted in blue are tests that are run in the background mode.

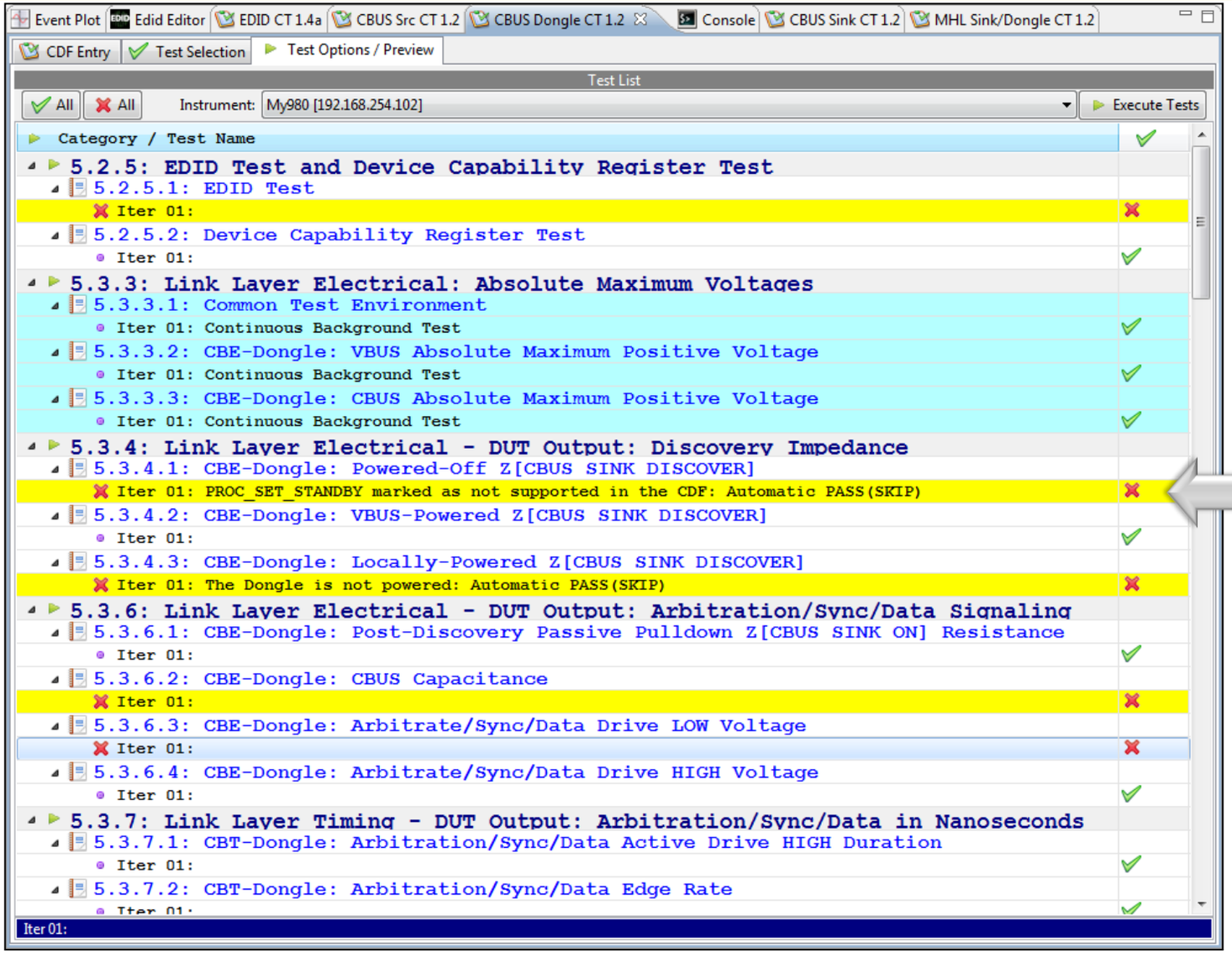
MHL CBUS Dongle Compliance – Review Test Selections



Test Options / Preview:

- Review list of tests by Section.
- Example: Section 6.3.x.

MHL CBUS Dongle Compliance – Review Test Selections

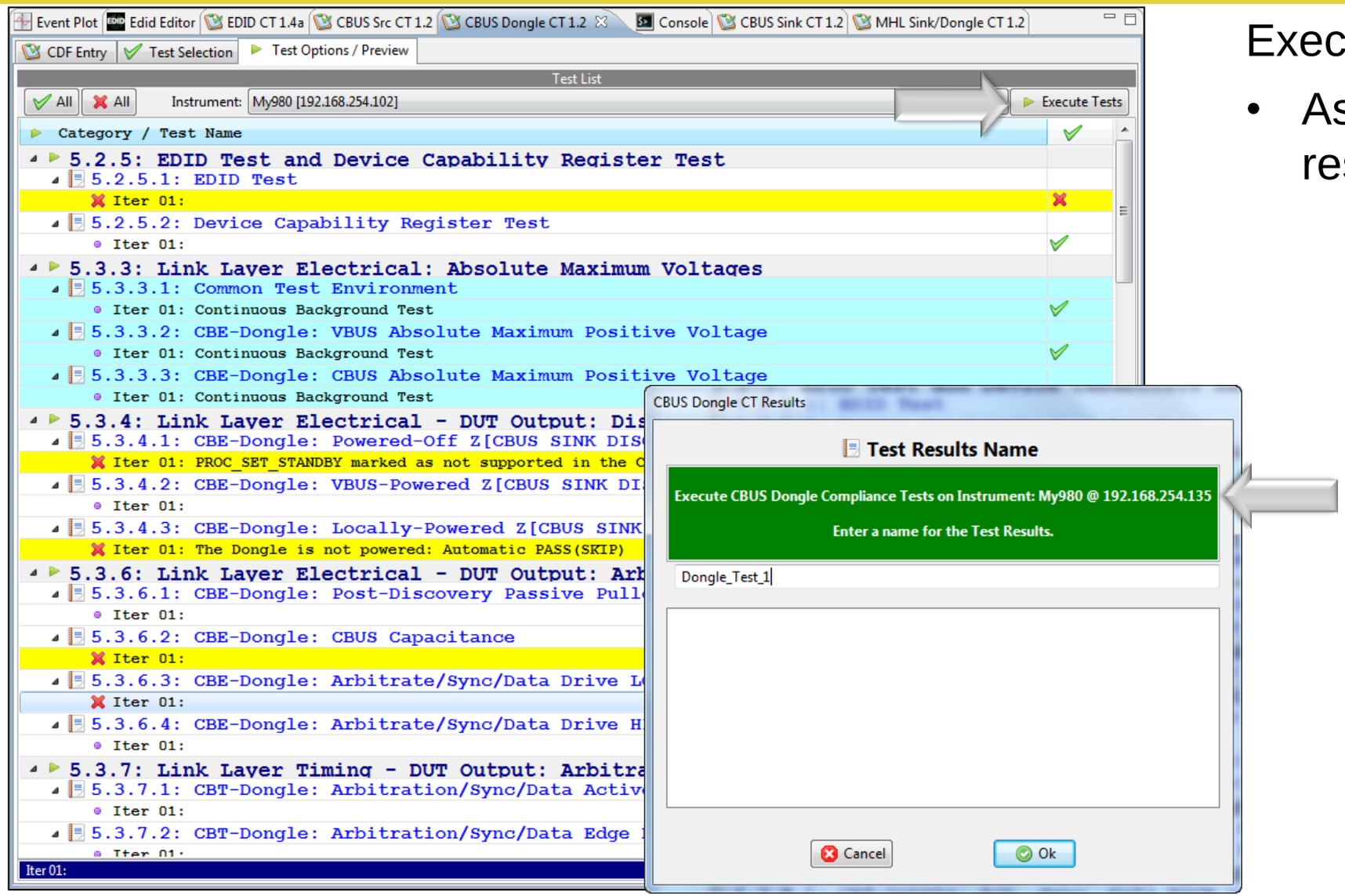


Test Options / Preview:

- Optionally, skip certain tests (red X).

Running the CBUS Dongle Compliance Test

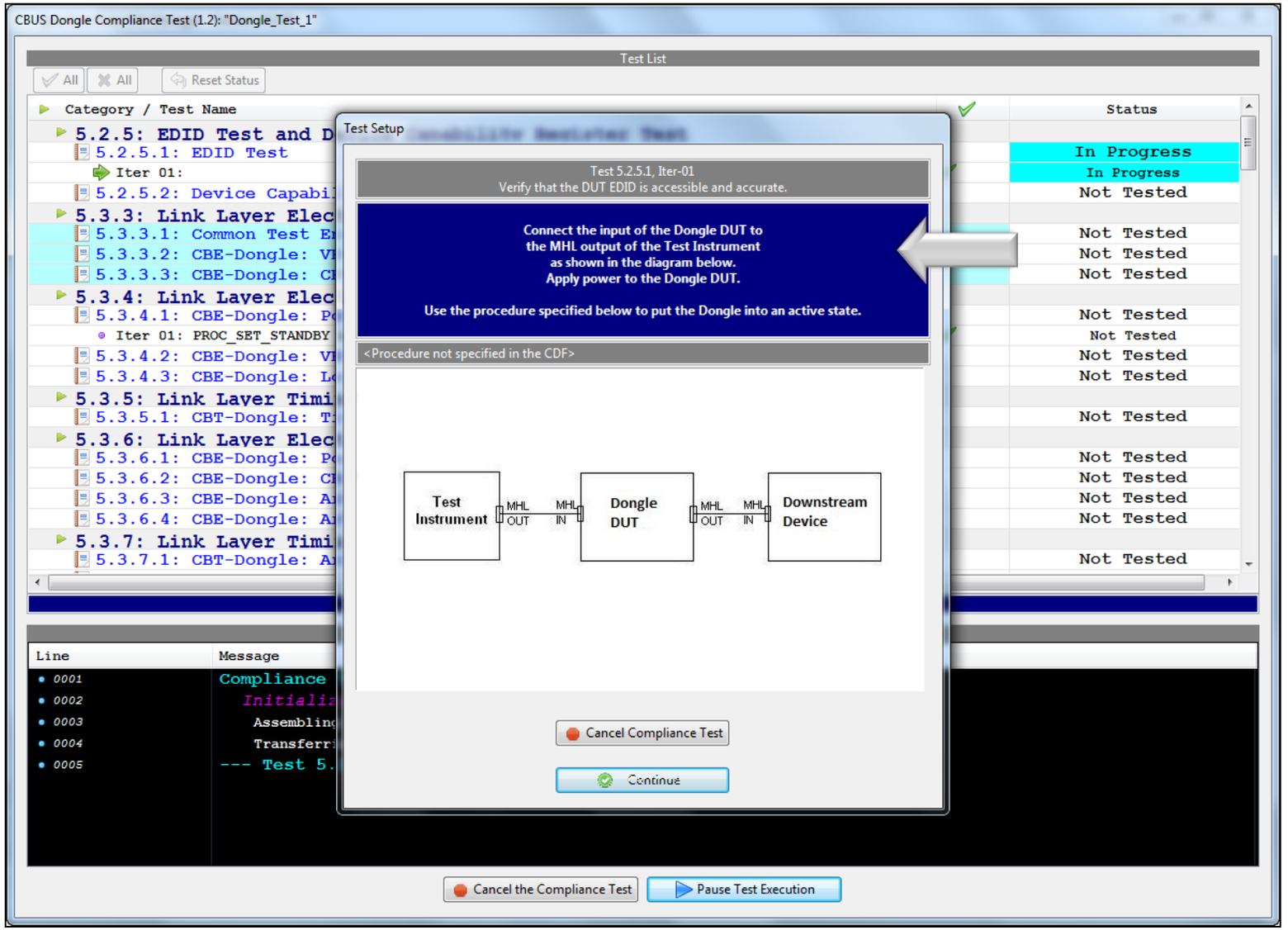
MHL CBUS Dongle Compliance – Running the Tests



Executing tests:

- Assign name to test results file.

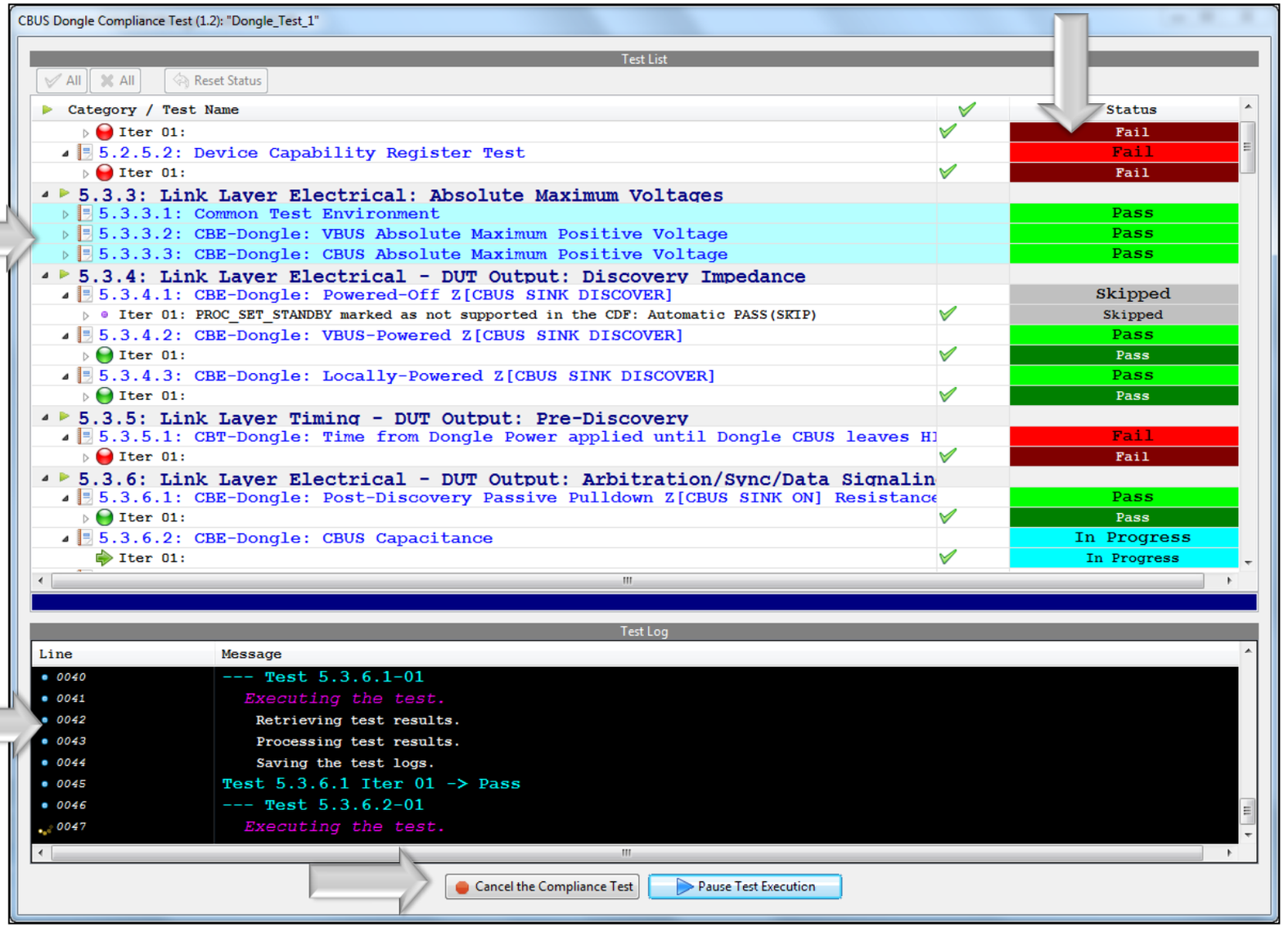
MHL CBUS Dongle Compliance – Running the Tests



Executing the tests:

- Example: Section 5.3.4.x.
- Instructions provided on test setup configuration.

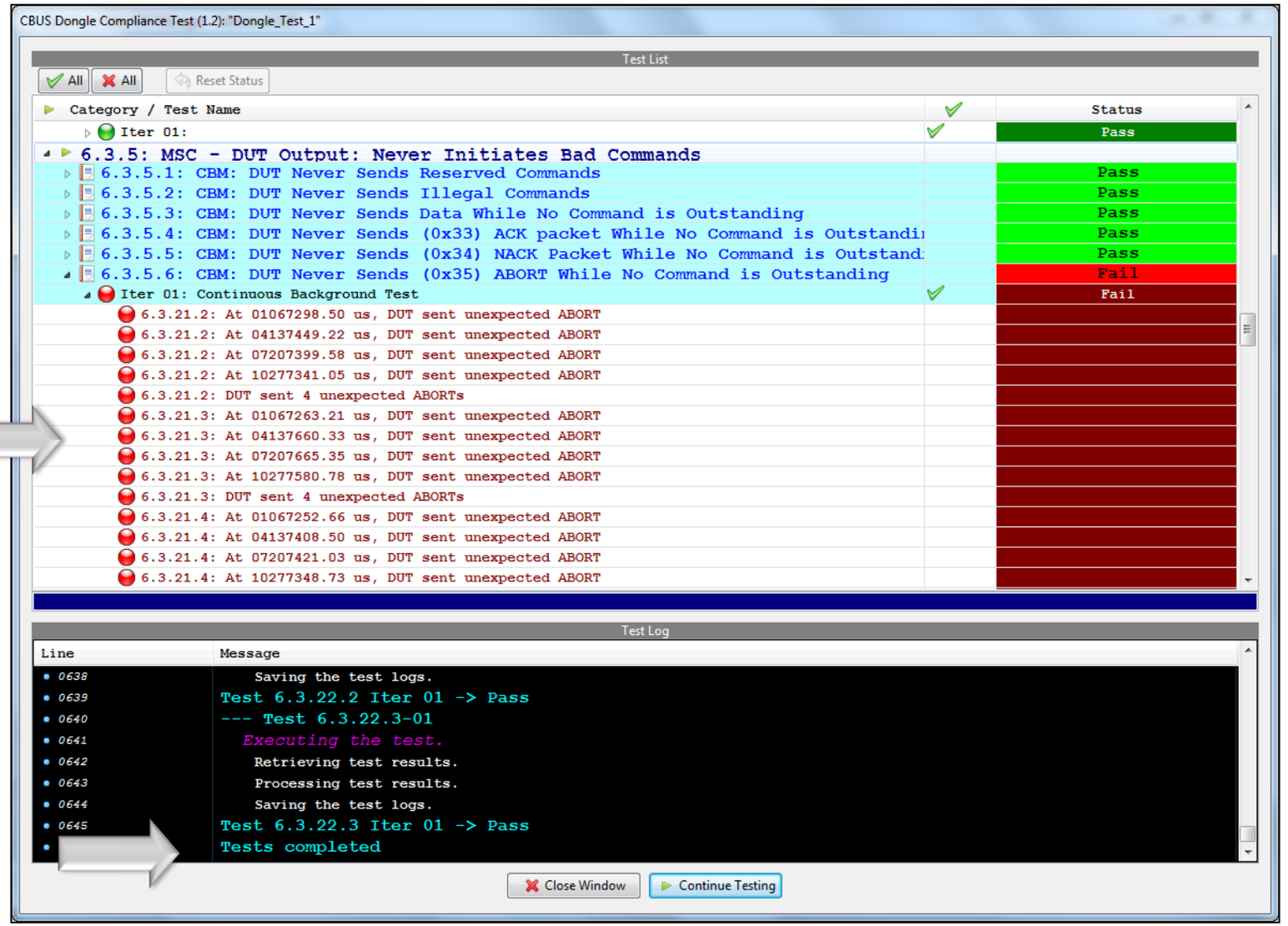
MHL CBUS Dongle Compliance – Running the Tests



Executing the tests:

- Tests highlighted in blue are tests that are run in background mode. Example: Section 5.3.3.x.
- Pass/Fail results provided under status.
- Detailed Test Log on lower panel.
- Cancel or Pause test at any time.

MHL CBUS Dongle Compliance – Running the Tests

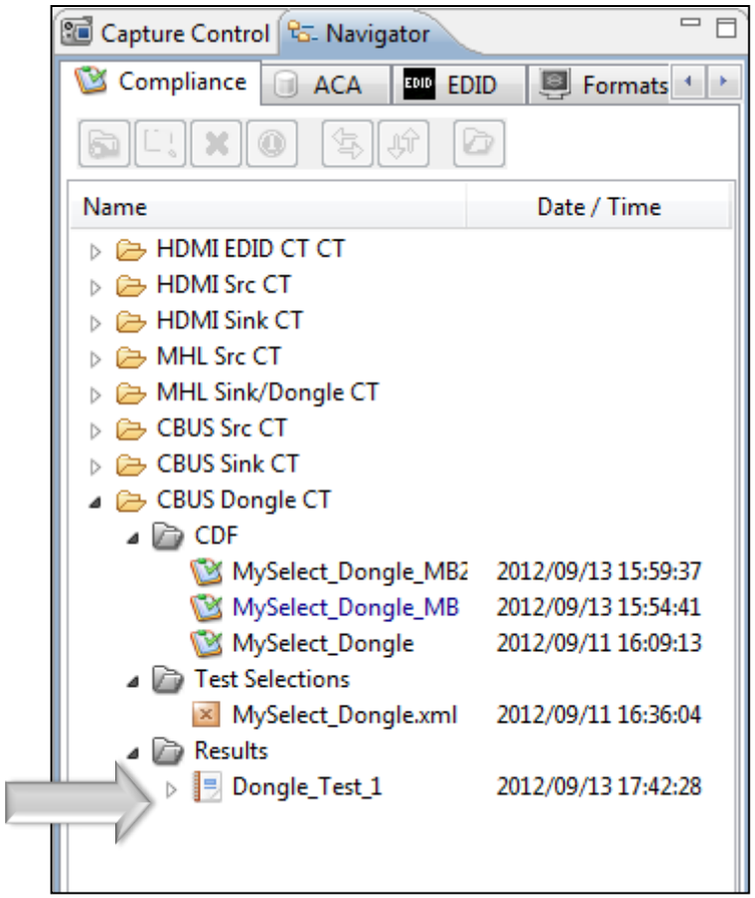


Executing the tests:

- Pass/Fail results provided under status.
- Details provided for failurs. Example: Section 6.3.5.6.
- Test Complete message provided.

Viewing the CBUS Dongle Compliance Test Results

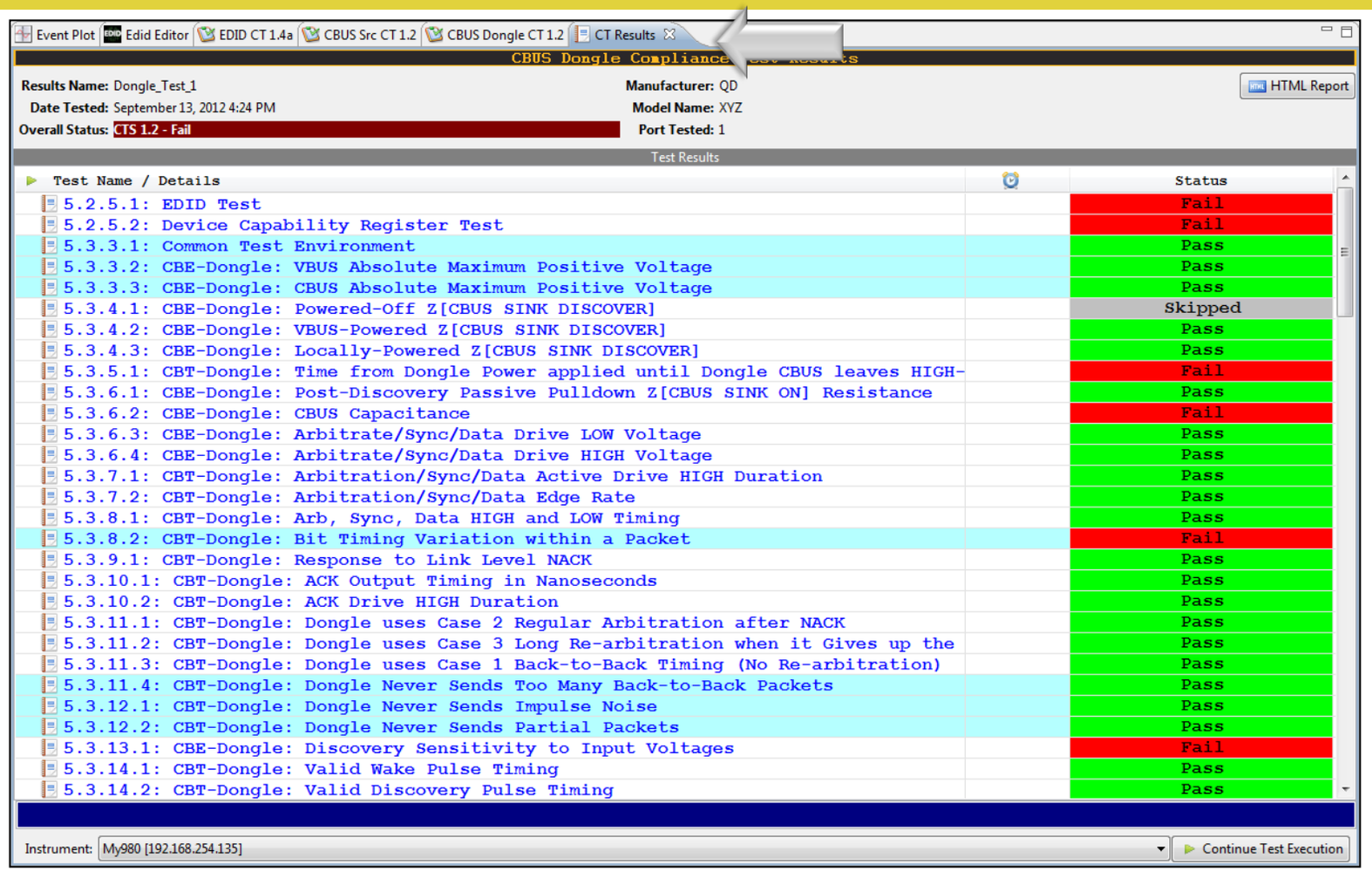
MHL CBUS Dongle Compliance – Viewing Test Results



Reviewing Test Results:

- Test results accessible in Navigator view.

MHL CBUS Dongle Compliance – Viewing Test Results

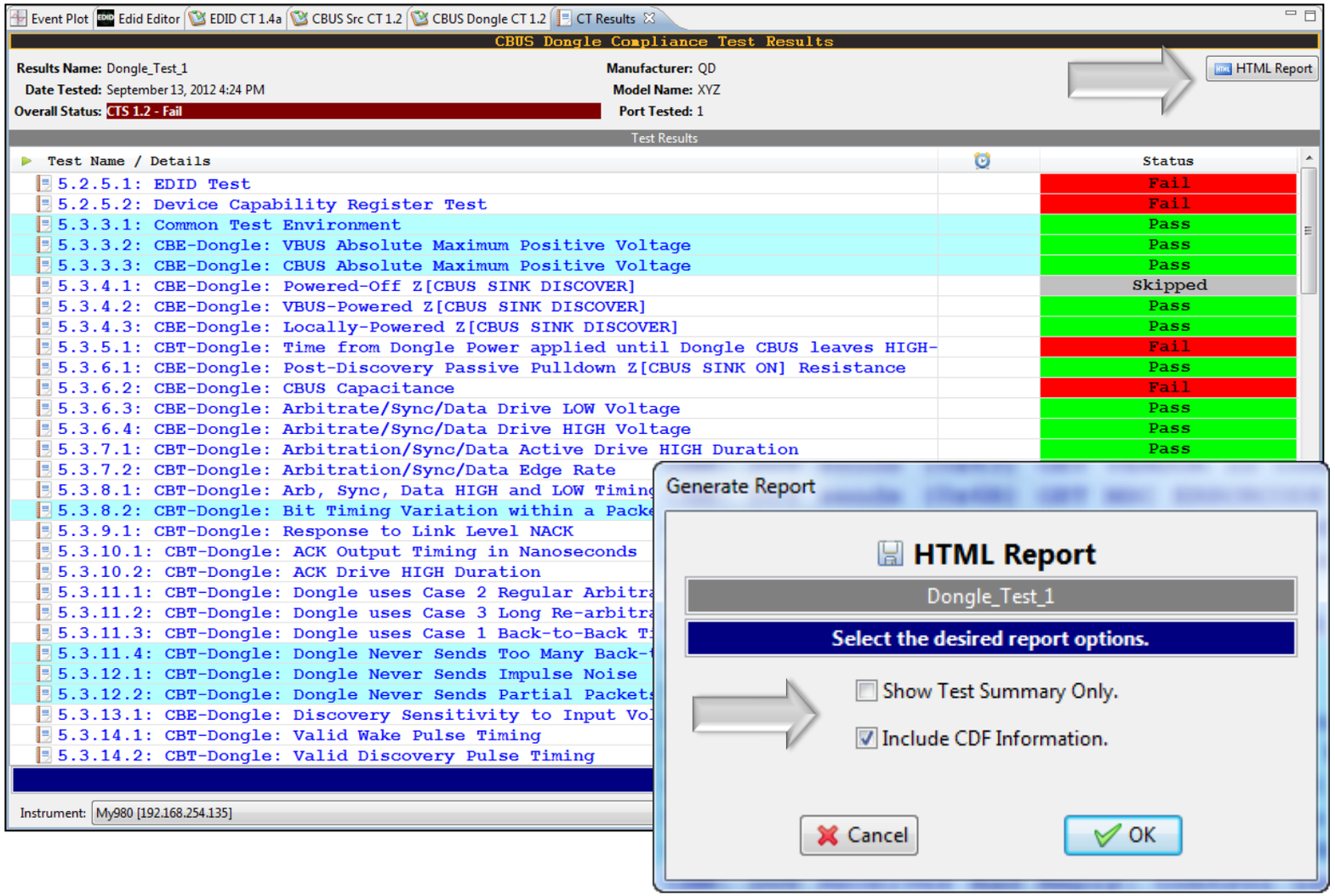


Reviewing Test Results:

- Test Results tab appears in may panel.

Viewing the CBUS Dongle Compliance Test Report

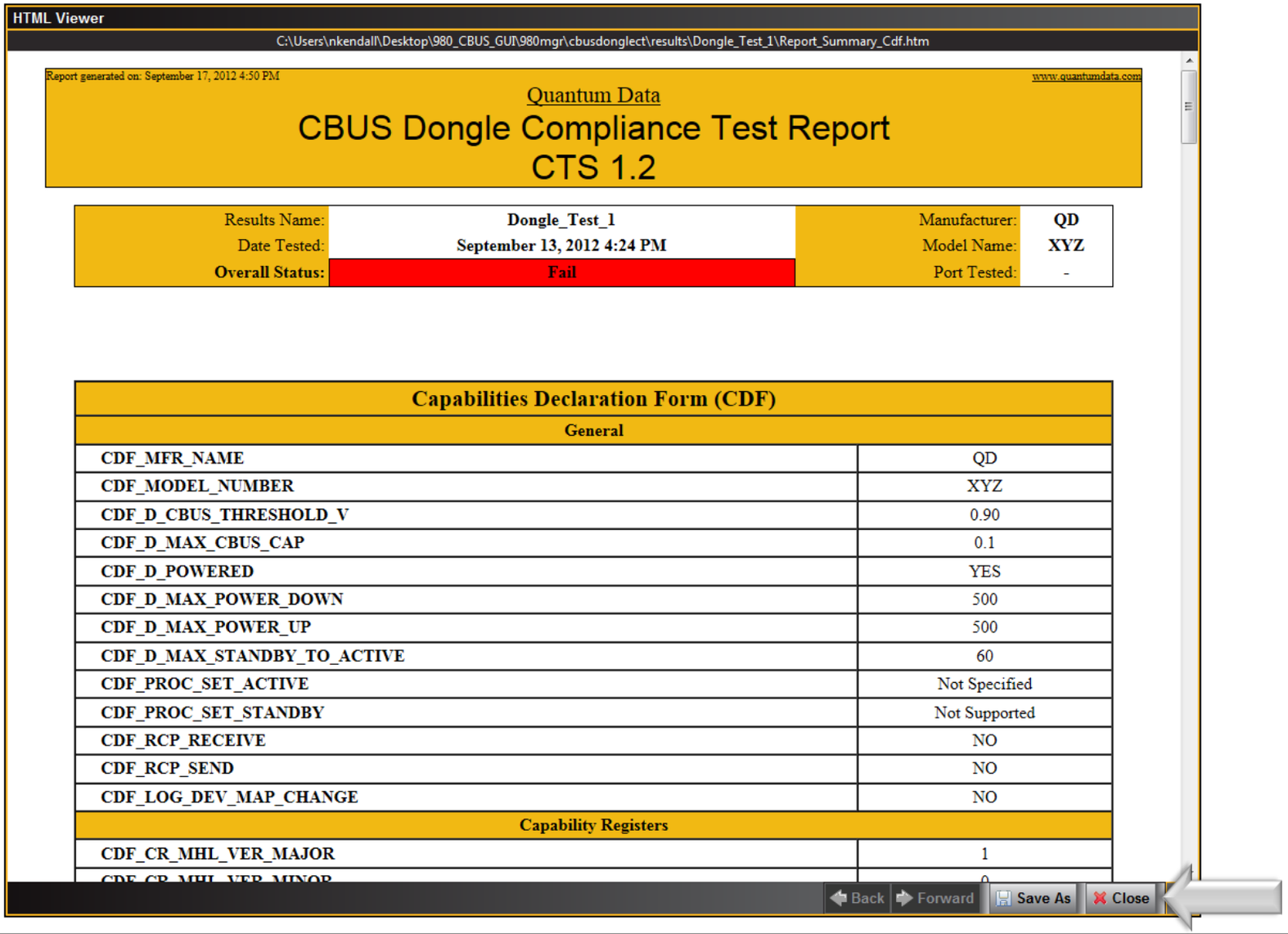
MHL CBUS Dongle Compliance – View HTML Test Report



Reviewing Test Report:

- Test Report accessible from Test Results tab.
- Indicate if you wish to view report including CDF.

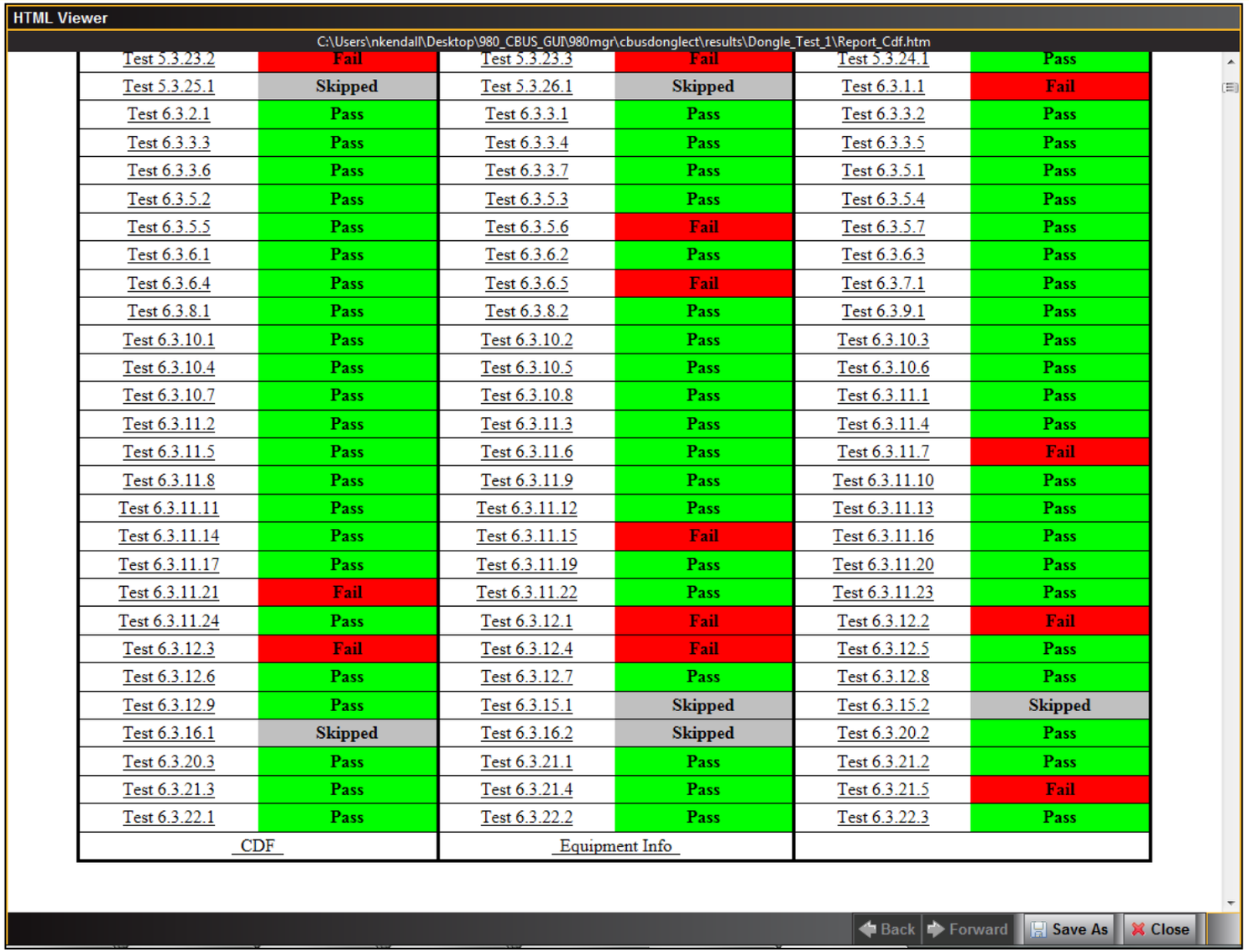
MHL CBUS Dongle Compliance – View HTML Test Report



Review HTML test report:

- View Capabilities Declaration Form (CDF).
- Save report for later viewing and dissemination to colleagues.

MHL CBUS Dongle Compliance – Review Test Selections

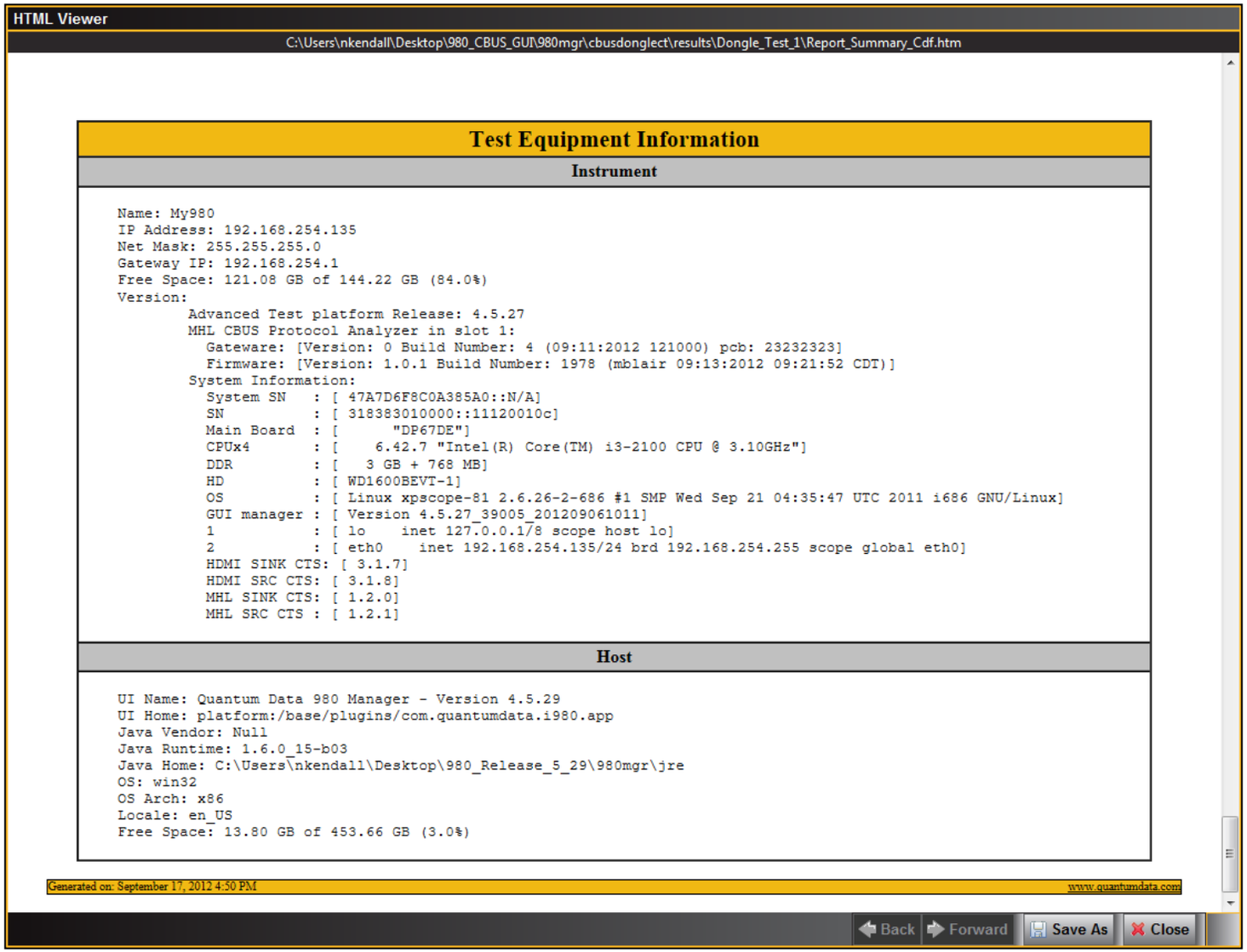


Test 5.3.23.2	Fail	Test 5.3.23.3	Fail	Test 5.3.24.1	Pass
Test 5.3.25.1	Skipped	Test 5.3.26.1	Skipped	Test 6.3.1.1	Fail
Test 6.3.2.1	Pass	Test 6.3.3.1	Pass	Test 6.3.3.2	Pass
Test 6.3.3.3	Pass	Test 6.3.3.4	Pass	Test 6.3.3.5	Pass
Test 6.3.3.6	Pass	Test 6.3.3.7	Pass	Test 6.3.5.1	Pass
Test 6.3.5.2	Pass	Test 6.3.5.3	Pass	Test 6.3.5.4	Pass
Test 6.3.5.5	Pass	Test 6.3.5.6	Fail	Test 6.3.5.7	Pass
Test 6.3.6.1	Pass	Test 6.3.6.2	Pass	Test 6.3.6.3	Pass
Test 6.3.6.4	Pass	Test 6.3.6.5	Fail	Test 6.3.7.1	Pass
Test 6.3.8.1	Pass	Test 6.3.8.2	Pass	Test 6.3.9.1	Pass
Test 6.3.10.1	Pass	Test 6.3.10.2	Pass	Test 6.3.10.3	Pass
Test 6.3.10.4	Pass	Test 6.3.10.5	Pass	Test 6.3.10.6	Pass
Test 6.3.10.7	Pass	Test 6.3.10.8	Pass	Test 6.3.11.1	Pass
Test 6.3.11.2	Pass	Test 6.3.11.3	Pass	Test 6.3.11.4	Pass
Test 6.3.11.5	Pass	Test 6.3.11.6	Pass	Test 6.3.11.7	Fail
Test 6.3.11.8	Pass	Test 6.3.11.9	Pass	Test 6.3.11.10	Pass
Test 6.3.11.11	Pass	Test 6.3.11.12	Pass	Test 6.3.11.13	Pass
Test 6.3.11.14	Pass	Test 6.3.11.15	Fail	Test 6.3.11.16	Pass
Test 6.3.11.17	Pass	Test 6.3.11.19	Pass	Test 6.3.11.20	Pass
Test 6.3.11.21	Fail	Test 6.3.11.22	Pass	Test 6.3.11.23	Pass
Test 6.3.11.24	Pass	Test 6.3.12.1	Fail	Test 6.3.12.2	Fail
Test 6.3.12.3	Fail	Test 6.3.12.4	Fail	Test 6.3.12.5	Pass
Test 6.3.12.6	Pass	Test 6.3.12.7	Pass	Test 6.3.12.8	Pass
Test 6.3.12.9	Pass	Test 6.3.15.1	Skipped	Test 6.3.15.2	Skipped
Test 6.3.16.1	Skipped	Test 6.3.16.2	Skipped	Test 6.3.20.2	Pass
Test 6.3.20.3	Pass	Test 6.3.21.1	Pass	Test 6.3.21.2	Pass
Test 6.3.21.3	Pass	Test 6.3.21.4	Pass	Test 6.3.21.5	Fail
Test 6.3.22.1	Pass	Test 6.3.22.2	Pass	Test 6.3.22.3	Pass
CDF		Equipment Info			

Review HTML test report:

- View Pass/Fail results.

MHL CBUS Dongle Compliance – Review Test Selections



Review HTML test report:

- View Test Equipment information.

MHL CBUS Log Plots – Dongle Tests
Refer to Source Section

The Quantum Data 980 MHL CBUS Compliance Module…

… your solution for testing MHL source, sink, dongle devices for CBUS compliance.