Getting Started with TDSHT3

You can use this side of the quick reference card to get started with the Source Clock-Data Tests Select All test procedure. The other side contains a complete menu tree for the TDSHT3 HDMI Compliance Test Software.

NOTE. For additional procedures, refer to the TDSHT3 Quick Start User Manual. For complete operating instructions, refer to the online help.

TDSHT3 HDMI Compliance Test Software enables unprecedented efficiency by providing a comprehensive range of tests, including Jitter Tolerance. Start the application by using Analyze > HDMI Compliance Test Software(1.3) or App > HDMI Compliance Test Software(1.3).

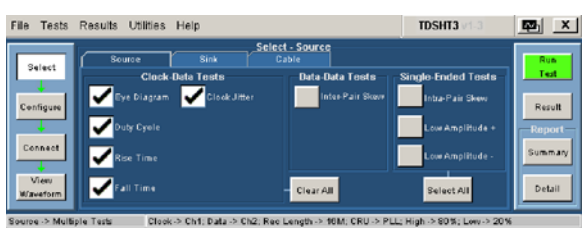
Source Clock-Data Tests Select All

This option enables you to run the Eye Diagram, Duty Cycle, Rise Time, Fall Time, and Clock Jitter simultaneously.

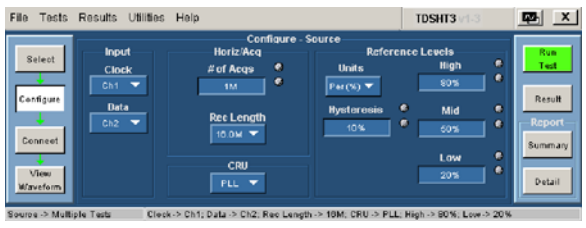
You will need one supported oscilloscope, two differential probes, one DC power supply 3.3 V, one EDID emulator, and one HDMI EFF-TPA-P fixture.

Follow these steps:

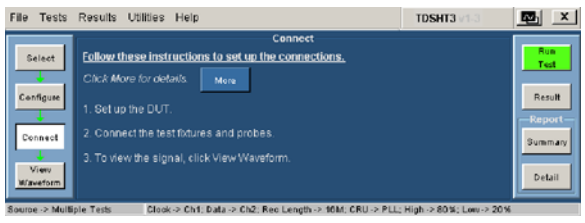
1. On the menu bar, click **Tests > Select > Source**.
2. In the clock-data tests pane, click **Select All**.



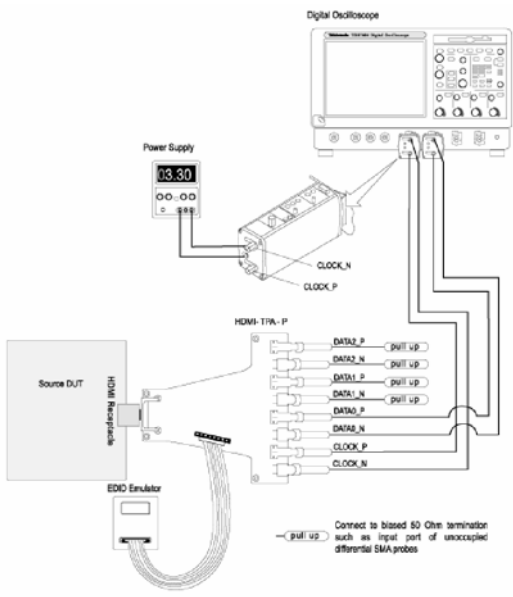
3. To change the configuration settings, click **Tests > Configure**. For most tests, you can use the factory default configuration. However, you can change the values by using the virtual keyboard or the general purpose knob on the oscilloscope front panel. You can also restore the factory defaults or save and recall your own configuration settings.



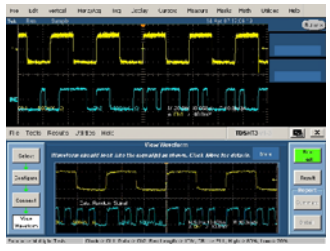
4. To connect the DUT, click **Tests > Connect**.



5. Make the connections as follows:

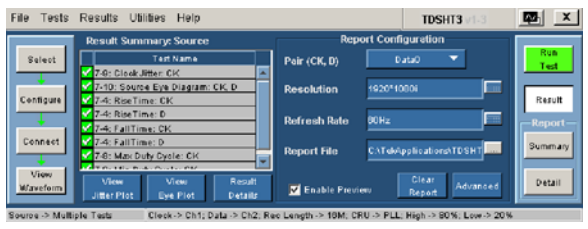


6. Ensure that your signal in the oscilloscope display is similar to the sample signal. Click **View Waveform** to display a sample of the expected signal. If the displays are not similar, go back and check your configuration and connections.

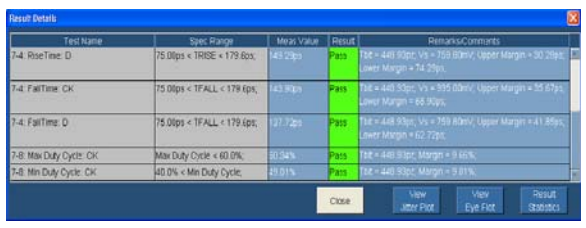


7. Click **Run Test** to perform the test. The TDSHT3 HDMI Compliance Test Software sets up the oscilloscope and the test runs displaying a progress indicator.

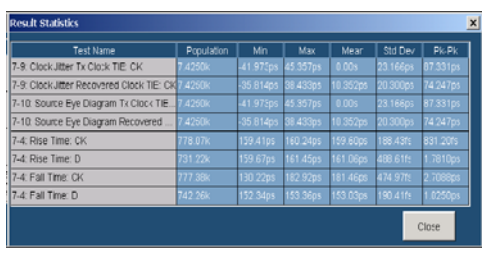
8. If you have run the tests successfully, the software makes **Result** available automatically and displays the eye diagram plot and the clock jitter plot. You can also view both the result summary of the test and the report configuration in the result pane.



9. In the result summary pane, click **Result Details** to display the results of the tests.



10. In the **Result Details** dialog box, click **Result Statistics** to display statistics based on the tests.



The software calculates statistics for each selected test, and logs the statistics on a cycle-by-cycle basis in a fairly large waveform. The standard statistics are for the Maximum, Minimum, Mean, Standard Deviation, and Population.

For up-to-date information on Tektronix oscilloscope solutions for HDMI Compliance Test Software, access the www.tektronix.com Web page.

TDSHT3 Ordering Information

This software supports the TDS6000B, TDS6000C, TDS7254/TDS7254B, TDS7404/TDS7404B, CSA7404/CSA7404B, TDS7704B, and DPO70000 series of oscilloscopes. Refer to the *Optional Applications Software on Windows-Based Oscilloscopes Installation Manual* for a list of specific models. The applications CD includes a PDF file of the online help.

To order along with oscilloscope:

- Opt. HT3 – HDMI Compliance Test Software

To order an upgrade for an existing oscilloscope:

- TDS6000B – Order TDS6BUP – Opt. HT3
- TDS7000/B – Order TDS7UP/7BUP – Opt. HT3
- CSA7000/B – Order TDS7UP/7BUP – Opt. HT3
- DPO70000 – Order DPO7UP – Opt. HT3

To order an upgrade from HDMI 1.2a to HDMI 1.3a compliance test software:

- TDS6000B – Order TDS6BUP – Opt. HT23
- TDS7000/B – Order TDS7UP/7BUP – Opt. HT23
- CSA7000/B – Order TDS7UP/7BUP – Opt. HT23
- DPO70000 – Order DPO7UP – Opt. HT23

***NOTE.** You will be provided with two TDSHT3 applications, one supporting CTS 1.2a specification, displayed as TDSHT3, and the other for CTS 1.3a specification, displayed as TDSHT3v1.3. Both applications can be loaded onto the oscilloscope, but you can run only one application at a time.*

Recommended Accessories

Oscilloscopes

- 16 M Record Length/Ch: Opt. 4 M or more (Eye Diagram and Jitter tests)

HDMI Pattern Sources

- Jitter Generation: AWG7102/AWG710/AWG710B/AFG3000 (minimum two channel AFG) for Sink tests
- Test Pattern Generation: DTG5274/DTG5334, DTGM30 (three required), and DTGM32 (one required for AFG3000/AWG710/AWG710B) for sink tests

TDR Tests

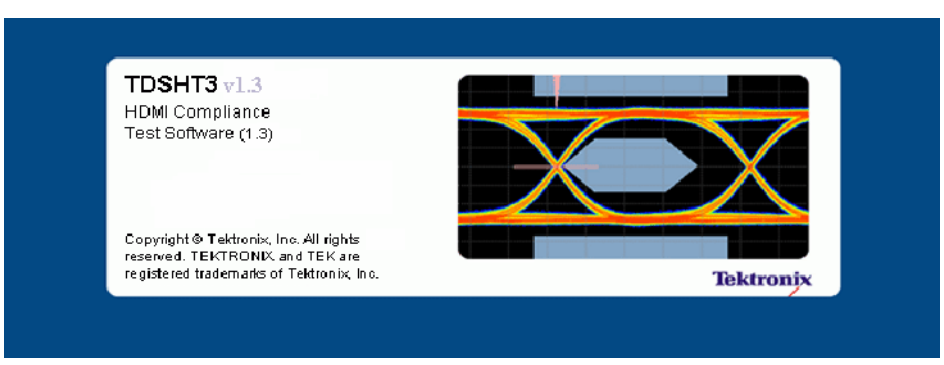
- Oscilloscope: TDS8200B/DSA8200 with 80E03 and 80E04 modules

Probes

- Differential Probes: P7313SMA for both single-ended and differential measurements. P7350SMA can be used for differential tests of limited resolutions.
- Active Probes: P7240 (two probes) for single ended measurements using old fixtures.
- Probe Positioner: PPM100 Flexible Arm Probe Positioner.

Test Fixtures

- Plug type: EFF-HDMI-TPA-P, available from Efficere Technologies
- Receptacle type: EFF-HDMI-TPA-R, available from Efficere Technologies
- Receptacle type: HDMI TPA-R adapter set – 013-A012-50 (can be used for limited resolution)
- Plug type: HDMI TPA-P adapter set – 013-A013-50 (can be used for limited resolution)

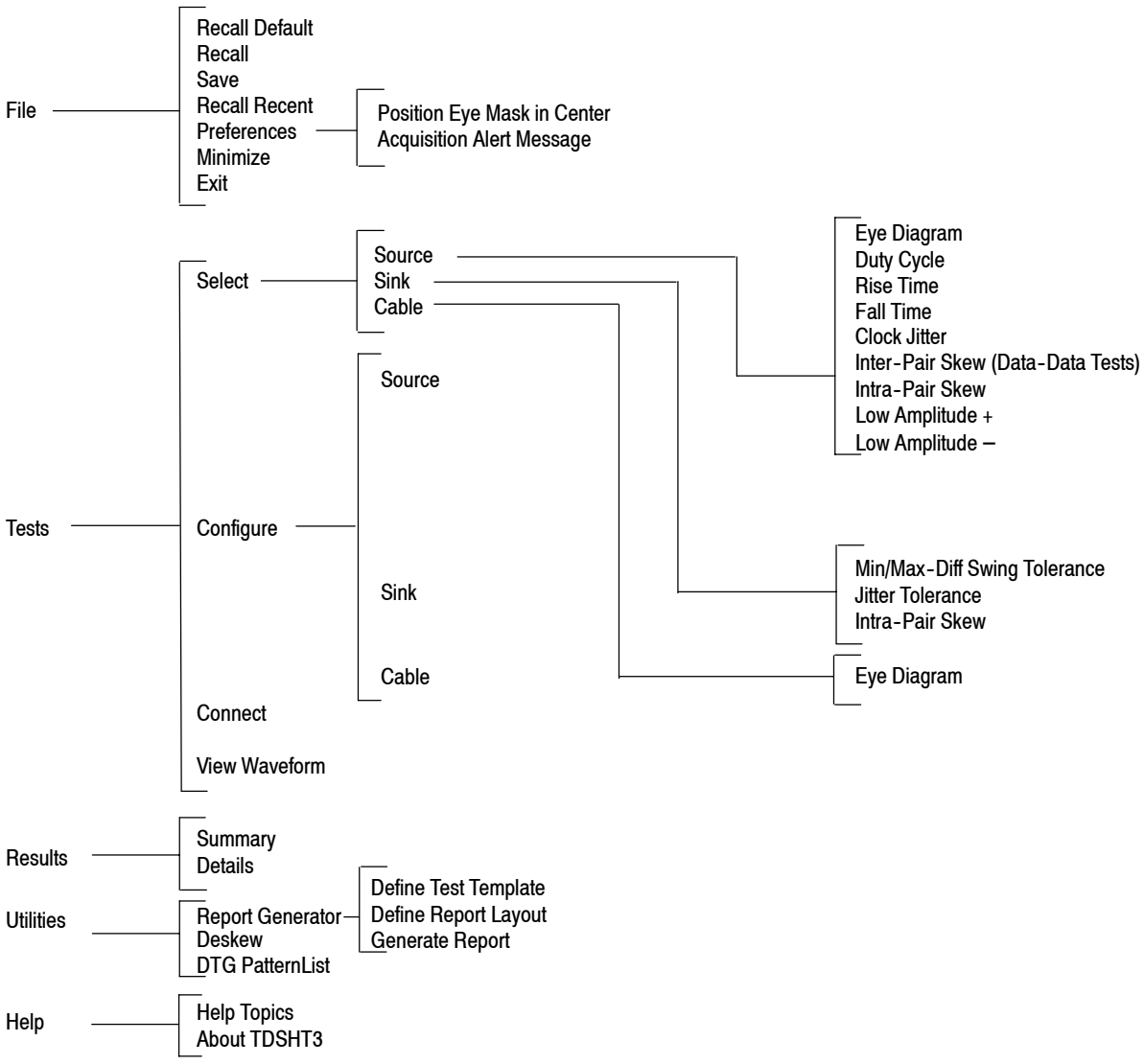


TDSHT3
HDMI Compliance Test Software
Reference Source Test

www.tektronix.com

071-1959-02

TDSHT3 Menu Tree



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