

Getting Started with TSDSVI

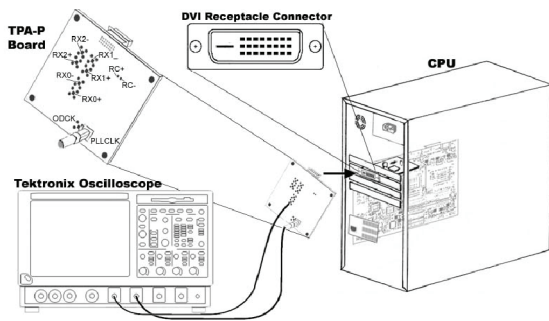
Side one of this Quick Reference Guide is designed to get you started making measurements with the DVI Compliance Test Solution (TSDSVI). Side two contains a complete menu tree for the TSDSVI software.

NOTE. For complete operating instructions and General Safety information, refer to the Online Help for the application.

The TSDSVI software application tests for compliance with DVI specifications. TSDSVI software is designed to meet the compliance test requirements of the DVI industry for physical layer measurements. Supported tests include Eye Diagram, Peak-to-Peak Jitter, Inter-Pair Skew, Intra-Pair Skew, and Rise and Fall Time. GPIB commands are available for automating the application to perform compliance testing.

Performing Transmitter Eye-diagram Test

1. Depending on the type of oscilloscope, select either File > Run Application > DVI Compliance Test Solution or select Analyze > DVI Compliance Test Solution from the oscilloscope menu bar.
2. Attach the TPA-P test fixture to the device under test. To calculate Tbit, connect the differential probe to Rx+ and Rx- (transmitter clock). For Eye measurements, connect another differential probe to Rx0+ and Rx0- (data pair).
3. Connect an SMA cable to the recovered clock (PLL Clock) output on the fixture.



4. Connect the differential probes and the SMA cable from the test fixture to your TDS oscilloscope.

For up-to-date information on Tektronix oscilloscope solutions for DVI testing, go to www.tektronix.com/dvi.

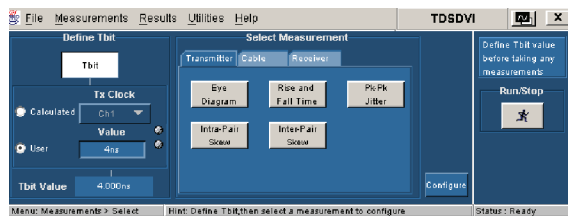
TSDSVI Ordering Information

This application supports TDS7704B, CSA7404B, TDS7404B, TDS7254B, CSA7404, TDS7404, TDS7254, TDS6604, TDS6404, TDS6604B, TDS6804B, TDS6124C, TDS6154C, DPO7354, DPO/DSA70000 series, and DPO/DSA70000B series oscilloscopes.

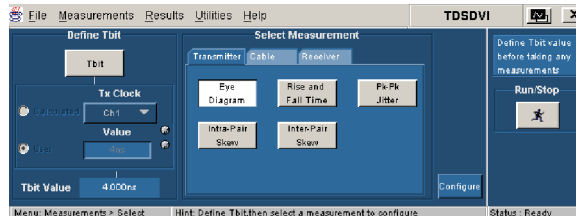
Order Option DVI (along with an oscilloscope).

Order TDS6/7UP, TDS7BUP, CSA7BUP, or CSA7UP, Option DVI (if ordered as an upgrade to an existing oscilloscope).

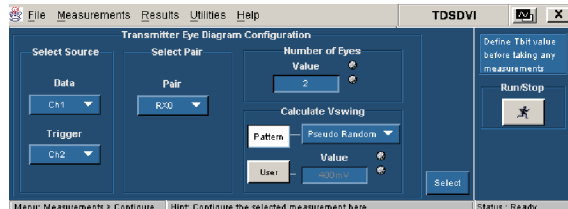
5. To calculate Tbit, select the Tbit button on the Define Tbit pane of the application.
6. Select the appropriate channel.
7. Press the “Running Man” icon to run the application. The Tbit value appears in the Value field.



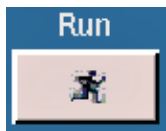
8. Select Measurement > Select > Transmitter > Eye Diagram. (Alternatively, in the Transmitter tab, select the Eye Diagram measurement.)



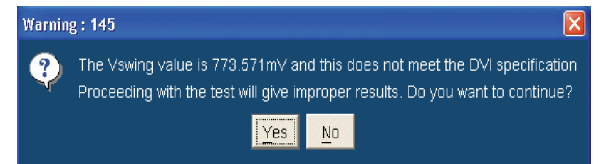
9. Press the configure button to configure the application.



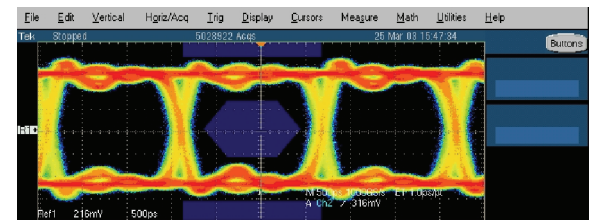
10. Press the “Running Man” icon to run the application.



While running the application, if the following message appears then the calculated Vswing value (in pattern mode) is not within the specification limits (800 mV to 1.2 V for differential signals). Clicking Yes to continue, fails the test and generates invalid results. Clicking No cancels the test and no results are made available.



The detailed results and the eye diagram appear as shown below.



Parameter	Value	Parameter (Contd.)	Value (Contd.)
Tbit	1.538ns	Undershoot	198.720mV
Acquisition Number	6028922	Vopen	861.200mV
Vswing	1.071V	Hopen	1.300ns
Worst Tbit	1.550ns	Hit Counts	0
Overshoot	138.240mV		

11. Select Utilities > Report Generator from the TSDSVI menu to generate a compliance test report.

Recommended Accessories

P7350, P7330, P6330 - Differential probes

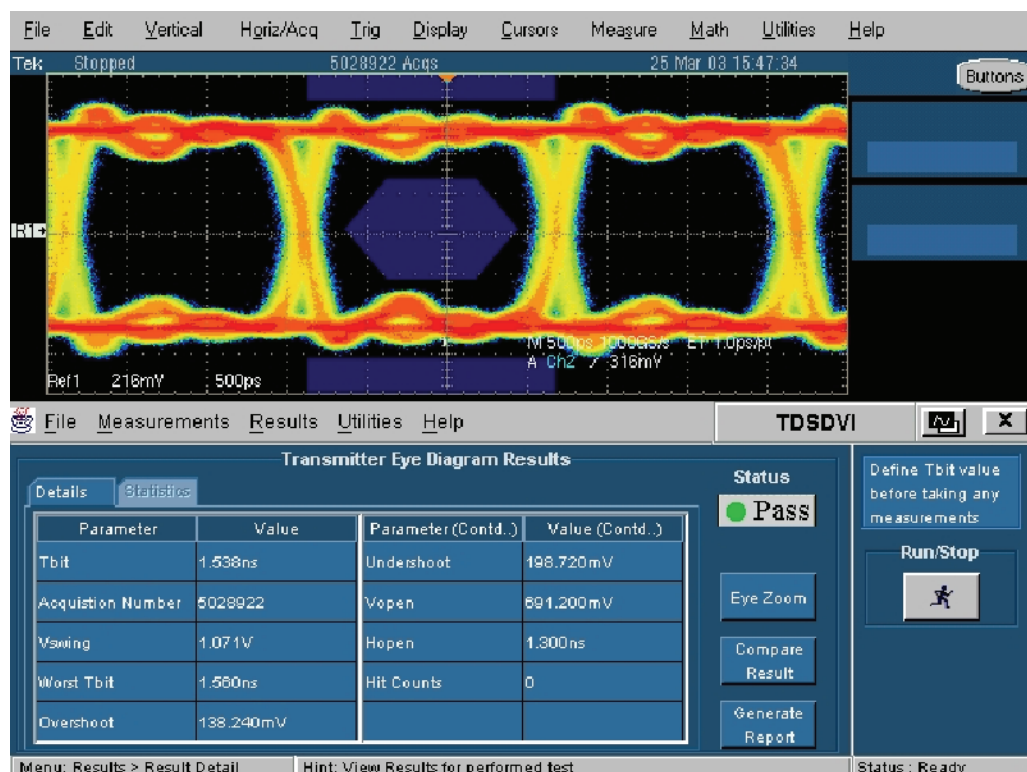
P7240, P6249 - Single-ended probes

AWG510, AWG520, AWG610, AWG710, AWG5000/AWG7000 series - Arbitrary waveform generator

DG2020A - Data generator

TDS8000/ 80E04 - Time domain reflectometer

DPOJET/TDSJIT3 - Jitter analysis package



TSDSVI DVI Compliance Test Solution Reference

www.tektronix.com



077-0145-01

TDSdVI Menu Tree

