# **Getting Started with TDSUSB2**

You can use this side of the Quick Reference to start taking measurements with the USB2.0 Compliance Test Package (TDSUSB2). The other side contains a complete menu tree for TDSUSB2 software.

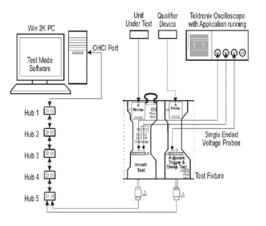
NOTE. For complete operating instructions and General Safety information, refer to the Online Help for the application.

The package includes an application (Universal Serial Bus measurements software) and an optional USB2.0 comprehensive compliance test fixture.

The design of the package helps you to test if USB2.0 devices meet the compliance test requirements of the USB2.0 industry for physical layer measurements. The package supports these tests: Signal Quality, Inrush current test, Droop test, Chirp and Receiver sensitivity testing, Suspend, Resume, Reset from High Speed, Reset from Suspend, and Packet Parameter tests.

## Performing Signal Quality Test

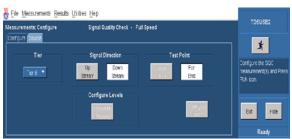
- Select File > Run Application > in the oscilloscope menu bar. Then select TDSUSB2.0 Test Package, App > USB2.0 Test Package, or Analyze > USB2.0 Test Package.
- 2. Connect the device under test (DUT) to the Device SQ section of the test fixture.



**3.** Select Measurement > Select and choose a test for the appropriate signal speed (Low, Full or High speed).



**4.** Select Measurement > Configure and set up the application in the Configure and Source tabs.



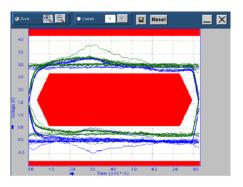
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Configure Source	Live/Ref		*
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5. Push the "Running Man" button to start taking measurements.



The application displays results as a summary and as an eye diagram as shown below.

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Eye Diagram Test Signal Rate	PASS PASS	EOP Width Crossover Voltage	PASS PASS	Eye Diagran Wavetomi Plot	Press the Result Status Buttons for détails of that test
Paired JK Jitter Paired KJ Jitter Consecutive Jitter	PASS PASS PASS	Rising Edge Rate Falling Edge Rate	PASS PASS	Overal Result	Ext. Hide Ready



6. Select Results > Details to view the results in a statistical format.

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Results: Details Sign						TDSUSB2	
	Measurement	Vin	Max	Mean	St	Eye Diagram	×
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		•			2	PASS	- Hoc
							Ready

### **Generating a Compliance Report**

To produce a compliance test report, select Utilities > Report Generator.

For up-to-date information on Tektronix oscilloscope solutions for USB2.0 compliance testing, access the **www.tektronix.com/Measurement/scopes/** Web page.

### **TDSUSB2** Ordering Information

Refer to the *Optional Applications Software on Windows-Based Oscilloscopes Installation Manual* for a list of supported oscilloscope models. The applications CD includes a PDF file of the installation manual.

If you order Option USB with a new oscilloscope:

 USB 2.0 Universal Serial Bus Measurements Software is installed and enabled

To order for an existing Windows-based oscilloscope:

- Order the CSA7UP Option USB (software only)
- Order the CSA7BUP Option USB (software only)
- Order the TDS5UP Option USB (software only)
- Order the TDS5BUP Option USB (software only)
- Order the TDS6UP Option USB (software only)
- Order the TDS6BUP Option USB (software only)
- Order the TDS7UP Option USB (software only)
- Order the TDS7BUP Option USB (software only)
- Order the DPO7UP Option USB (software only)

### If you order TDSUSBF

USB 2.0 Compliance Test Fixture only

#### **Recommended Accessories**

- TDSUSBF USB2.0 Compliance Test Fixture
- DTG5000 series with the M21 module
- DG2040 Data Generator\*
- AWG610 Arbitrary Waveform Generator\*
- TDS8000 series oscilloscope with an 80E04 Time Domain Reflectometer (TDR) Sampling Module
- P6248 Differential Probe
- **TCP202 or TCP0030** Current Probe
- P6245, TAP1500 or P6243 Single-Ended Probes
- \* DG2040 and AWG610 are discontinued.

NOTE. To test High Speed USB2.0 devices, you can use this application with DPO7254, DPO/DSA70404, DPO/DSA70604, DPO/DSA70804, DPO/DSA72004, DPO/DSA71604, DPO/DSA71254, TDS6404, TDS6804B, TDS6604/B, TDS6804B, TDS6124C, TDS6154C,

TDSUSB2 Universal Serial Bus Package Reference

TDS7404/B, CSA7404/B, TDS7704B, and TDS7254/B oscilloscopes.



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