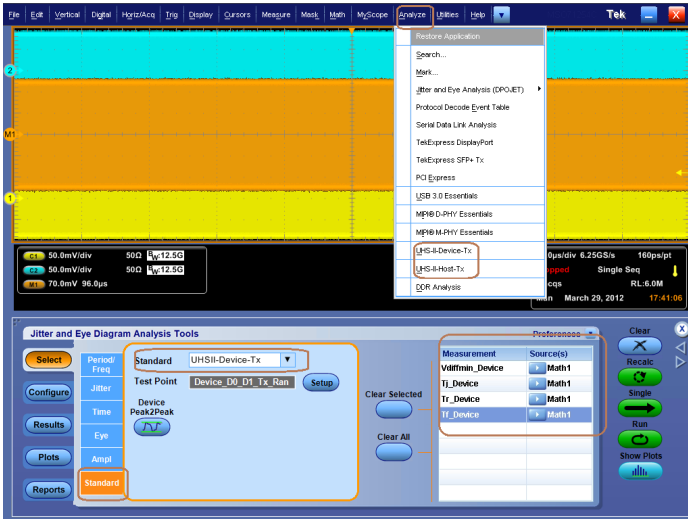


UHS-II-Host-Tx and UHS-II-Device-Tx Measurements

Option UHS2 Data Sheet



Option UHS2 can be launched from the Analyze menu and provides UHS-II-Host and UHS-II-Device Transmitter measurements.

Features & Benefits

- The Tektronix UHS2 DPOJET Option provides Design and Validation Engineers an Easy and Fast Way to Debug UHS-II Designs and Perform Compliance Testing on their Devices which Further Helps Reduce Testing Time and Complexity
- The UHS2 Debug Software Tests are based on the SD Version 4.0 Specifications
- Execution Speed for Host and Device Transmitter Tests Minimizes Compliance Test Time as well as Complexity and Possibility of Human Error
- UHS2 provides Validation and Design Engineers the Ability to Run Tests on Stored Waveforms
- UHS2 covers both Informative and Normative Measurements for Host Devices
- Compliance Testing becomes Very Important with the Next-generation SDXC Memory Card Specification which Supports Increased Bus Interface Speeds up to 1.56 GB per Second or Higher and Dramatically Improves Consumer Experiences by Increasing Storage Capacity to 2 TB
- Detailed Test Reports with Margin and Statistical Information Aid Analysis
- Provides Engineers with a Tektronix Floating License Installation Option
- If Device Under Test is Not Available, Design Engineers can be Provided with AWG-based Patterns which will Simulate the DUT

Comprehensive Test Coverage

UHS2 software can be installed and run on Tektronix DPO/DSA/M50 oscilloscopes with bandwidth greater than equal to 6 GHz. Design engineers can always install UHS2 on their existing Tektronix oscilloscopes. UHS2 Debug Software Tests are based on the SD (Secure Digital) Version 4.0 Specifications, a set of industry standards which promote Secure Digital technology and products.

Option UHS2 includes the Following UHS-II-Host-Tx Measurements:

Host Tx – Normative (TP2)

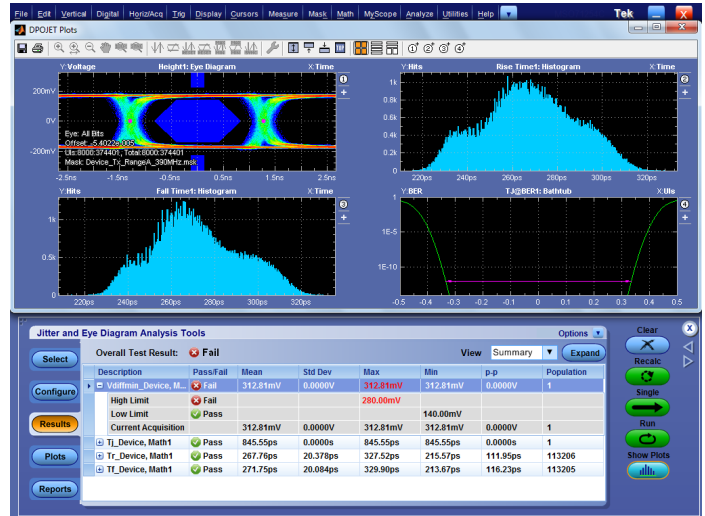
- D0-D1 Tx Range A Measurements (390 Mb/s and 780 Mb/s)
- D0-D1 Tx Range B Measurements (780 Mb/s and 1.56 Gb/s)
- D0-D1 Common Mode Range A Measurements (390 Mb/s and 780 Mb/s)
- D0-D1 Common Mode Range B Measurements (780 Mb/s and 1.56 Gb/s)
- D0-D1 EIDL Range A Measurements (390 Mb/s and 780 Mb/s)
- D0-D1 EIDL Range B Measurements (780 Mb/s and 1.56 Gb/s)
- D0-D1 Skew Measurements Range A (390 Mb/s and 780 Mb/s)
- D0-D1 Skew Measurements Range B (780 Mb/s and 1.56 Gb/s)
- RCLK Range A Measurements (26 MHz)
- RCLK Range B Measurements (52 MHz)

Host Tx – Informative (TP1)

- D0-D1 Tx TP1 Range A Measurements (390 Mb/s and 780 Mb/s)
- D0-D1 Tx TP1 Range B Measurements (780 Mb/s and 1.56 Gb/s)
- D0-D1 Common Mode Range A Measurements (390 Mb/s and 780 Mb/s)
- D0-D1 Common Mode Range B Measurements (780 Mb/s and 1.56 Gb/s)
- D0-D1 EIDL Range A Measurements (390 Mb/s and 780 Mb/s)
- D0-D1 EIDL Range B Measurements (780 Mb/s and 1.56 Gb/s)
- D0-D1 Skew Measurements Range A (390 Mb/s and 780 Mb/s)
- D0-D1 Skew Measurements Range B (780 Mb/s and 1.56 Gb/s)

Host RCLK Tx – Informative (TP1)

- RCLK Frequency and Data Rate Measurement
- Differential Voltage ($\pm V_{diffmin}$) Measurement
- Rise/Fall Time (T_r/T_f) Measurement
- Total Jitter (T_j) Measurement
- Duty Cycle (T_{ckh}) Measurement
- Common Mode Voltage (V_{cm}) Measurement
- SSC Modulation Frequency Measurement
- SSC Peak Deviation Measurement



Plots and results.

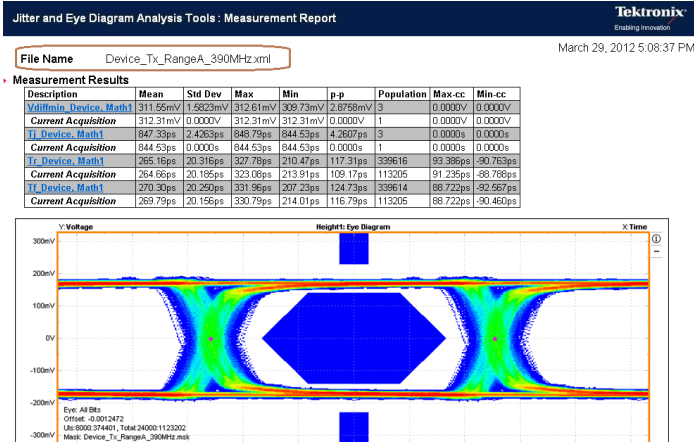
Option UHS2 includes the Following UHS-II-Device-Tx Measurements:

Device Tx – Normative (TP2)

- D0-D1 Tx Range A Measurements (390 Mb/s and 780 Mb/s)
- D0-D1 Tx Range B Measurements (780 Mb/s and 1.56 Gb/s)
- D0-D1 Common Mode Range A Measurements (390 Mb/s and 780 Mb/s)
- D0-D1 Common Mode Range B Measurements (780 Mb/s and 1.56 Gb/s)
- D0-D1 EIDL Range A Measurements (390 Mb/s and 780 Mb/s)
- D0-D1 EIDL Range B Measurements (780 Mb/s and 1.56 Gb/s)
- D0-D1 Skew Measurements Range A (390 Mb/s and 780 Mb/s)
- D0-D1 Skew Measurements Range B (780 Mb/s and 1.56 Gb/s)

Plots and Results

The DPOJET Plot feature can further help characterize UHS-II devices. The Result section helps design engineers to look at the test results quickly and clearly. The Report section includes details of each test including Limits, Measured Value, Pass/Fail Results, etc.



Detailed reporting feature.

Detailed Reporting Feature

The UHS2 application generates thorough HTML reports that capture the performance, status, and test results of your device. It also captures screenshots of the measurements for future reference. Engineers have the option to store the report under a different name and at a different location. Report generation tools also provide features such as Auto Incrementing, Inserting User Comments, Listing Complete Configuration Details, etc.

Ordering Information

UHS2*1, 2 SDA UHS-II DPOJET Essentials

*1 Free trials are not available for Option UHS2.

*2 Probe and fixture support will be added later. Right now end-users can connect SMA cables to their Device Under Test to capture the signals or use stored waveforms loaded on the reference channel of the scope.

To Order Along with Oscilloscope

Oscilloscope	Option
DPO/DSA/MSO70000	Order UHS2

To Upgrade an Existing Oscilloscope

Oscilloscope	Option
DPO/DSA/MSO70000	Order DPO-UP UHS2
	Order DPOFL-UHS2 (Floating License)
	Order DPOFT-UHS2 (Floating Trial)

Recommended Oscilloscopes

DPO/DSA/MSO70000 oscilloscopes with ≥6 GHz bandwidth

Contact Tektronix:

- ASEAN / Australasia** (65) 6356 3900
- Austria** 00800 2255 4835*
- Balkans, Israel, South Africa and other ISE Countries** +41 52 675 3777
- Belgium** 00800 2255 4835*
- Brazil** +55 (11) 3759 7627
- Canada** 1 800 833 9200
- Central East Europe and the Baltics** +41 52 675 3777
- Central Europe & Greece** +41 52 675 3777
- Denmark** +45 80 88 1401
- Finland** +41 52 675 3777
- France** 00800 2255 4835*
- Germany** 00800 2255 4835*
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- Switzerland** 00800 2255 4835*
- Taiwan** 886 (2) 2722 9622
- United Kingdom & Ireland** 00800 2255 4835*
- USA** 1 800 833 9200

* European toll-free number. If not accessible, call: +41 52 675 3777

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For Further Information. Tektronix maintains a comprehensive, constantly expanding collection of application notes, technical briefs and other resources to help engineers working on the cutting edge of technology. Please visit www.tektronix.com



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