

USB2.0 Compliance Solution

Automated Efficient Solutions for USB Compliance Measurement Challenges



USB (Universal Serial Bus) enables peripheral devices such as portable disk drives, printers and digital cameras to be connected to a PC using a universal interface socket. USB obsoletes the older serial and parallel ports technologies. The USB Standard is maintained by the USB Implementers Forum, www.usb.org.

Complete Physical Layer and Compliance Test Software Compliant with USB-IF Tests for USB 2.0

TDSUSB2 provides pre-defined oscilloscope setups for USB compliance testing.

Comprehensive Set of Tests Fixtures and Probing Options

Conduct Signal Quality tests, Inrush Current check, Drop and Droop test, Receiver Sensitivity and Impedance measurements with the TDSUSBF USB Test Fixture.

Real-Time Oscilloscope for Fast, Accurate Signal Acquisition

DPO7000 & DPO/DSA7000B Series real-time oscilloscope with >2.5 GHz (High Speed) or >350 MHz (Low-speed/ Full-speed) for quick accurate validation

Sampling Oscilloscope for USB Cable Characterization

DSA8200 Series sampling oscilloscope for fast/accurate TDR results for USB Impedance Measurements.

Signal Generators for USB Receiver Sensitivity Tests

AWG5002/AWG7122B deliver signals that include the worst-case jitter and noise to stress USB receivers.

Recommended Equipment

	Signal Quality	Receiver Sensitivity	Chirp Timing	Cable Test
Instruments				
DPO7254 or higher	1	1	1	
DSA8200 Sampling Oscilloscope				1
80E04 TDR Module				1
AWG5000B/AWG7000B Series Arbitrary Waveform Generators or DTG5334, DTG5274 or DTG5078 Data Generator with a DTGM21 Output Module		1		
PC with USBET Test Mode Software, Software available at usb.org	1	1	1	
Test Fixture				
TDSUSBF Test Fixture	1	1	1	
Application Software				
TDSUSB2 Compliance Test Software	1	1	1	
Probes				
P6243/P6248/P6330/TDP1500/TDP3500 Differential Probe	1	1		
TAP1500 or P6245 Active Single-Ended Probe	3			
TCP0030 or TCP202 Current Probe				

USB2 Tests

Signal Quality	High Speed Tests	Inrush Current Check	Droop Test
1. Eye Diagram	1. Receiver Sensitivity	1. Data-sufficiency readout	1. Volts readout
2. Jitter (JK, KJ, and consecutive)	2. Chirp	2. Coulombs and capacitance listed across inrush regions	
3. Cross over voltage range	3. Reset		
4. Signal Rate	4. Resume		
5. End of packet width	5. Suspend		
6. Rising edge rate	6. Packet parameter		
7. Falling edge rate	7. Monotonicity Test		

www.tektronix.com/usb

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