

PanelTest

Mobile Display Measurement System

Rapid display optical measurements for cell phone, tablet, and laptop sized LCD or OLED displays.

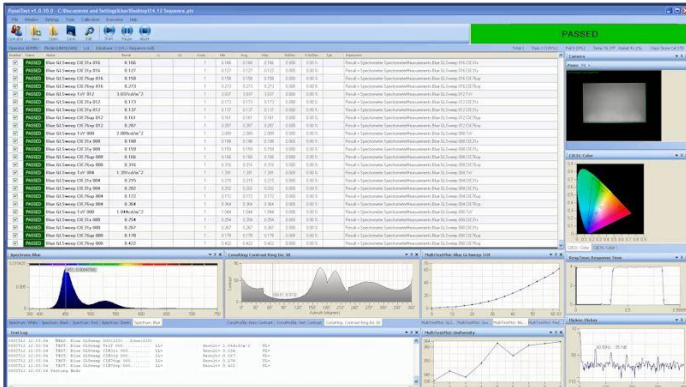


PanelTest Display Measurement System

PanelTest™ is an automated test system for electro-optical characterization of mobile displays up to 17".

Easy to Use

PanelTest™ verifies critical optical performance parameters of the display in an easy to use automated fashion. The graphical user interface allows the operator to select a pre-defined test configuration, start, and stop the test.



Accurate

PanelTest™ employs three sensors, each optimized for specific measurement tasks. A high sensitivity spectrometer with a cooled back-thinned CCD provides the highest measurement accuracy throughout the color gamut for luminance, contrast and color measurements. A CCD camera provides rapid uniformity measurements. Westar's proven Temporal Response Detector (TRD-200) uses a PMT to provide accurate flicker and response time measurement.

Flexible

The test engineer is able to edit the test configuration through a password protected interface. The test engineer can skip selected test steps, set pass/fail limits, create new test steps, and change test parameters. He can also create new test reports in MS Excel.

Features

Key Measurements

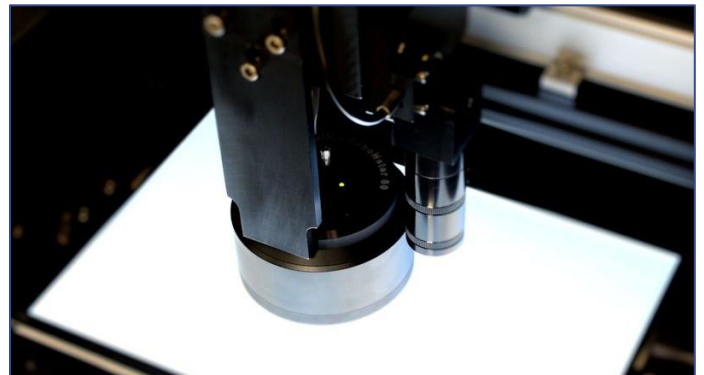
- Brightness
- Contrast
- Color
- Uniformity
- Cross-talk
- Color Gamut
- Flicker
- Response time
- Gamma
- Custom test
- Voltage and Current (optional)
- Viewing Angle (optional)

Complete Measurement Solution

- 3 instruments included:
 - Spectrometer
 - CCD
 - Westar TRD-200 Temporal Response Detector
- Westar T-Drive SD-100 LCD Tester
- Industrial PC with PanelTest™ Software
- Light-safe enclosure
- Optional viewing angle imager, power supplies, and much more

Versatile display fixturing

Display fixturing is flexible as well. Notebook style display panels can be connected via cables, while small format displays can be connected to test trays and driven via the optional probe fixture.



PanelTest Mobile Display Measurement System

Motion Base	Specification
X Axis Range (Left – Right)	~20" (~50 cm)
Y Axis Range (Front –Back)	~12" (~30 cm)
X, Y Accuracy / Precision	±0.01" (0.25 mm) / ±0.006" (0.15 mm)
Display Under Test (DUT)	Specification
Maximum Width / Height	16" (40.6 cm) / 11" (27.9 cm)
Maximum Diagonal	17" (43.2 cm)
Maximum Thickness ³	1" (2.54 cm)
Fixturing	Standard Universal Fixture (SUF)
Test Capabilities	Specification
Center Screen	Luminance, Color, Contrast Ratio, Gamma, CIE Chromaticity, Color Gamut and %NTSC, CCT
Uniformity	Luminance Uniformity Color Uniformity Contrast Ratio Uniformity
Viewing Angle ¹	Luminance vs. Viewing Angle Contrast vs. Viewing Angle Color vs. Viewing Angle
Temporal	Gray Level Response Time, Flicker
Other	Shadowing (Cross-Talk), Image Retention, Warm-Up time
Custom Tests	Yes, Contact Westar
CCD	Specification
Optics	Wide Field of View Lens
Resolution	1392x1040, 12-bit
Uniformity Accuracy	±5%
Uniformity Repeatability	±2%
Instrument Location	Fixed, direct view display active area
Spectrometer	Specification
Detector Type	Back thinned CCD Array TE cooled (-10C)
Optics	Fiber optically coupled lens
Measurement Spot Size ²	3.5 mm
Spectral Range	380 – 750 nm
Spectral Resolution	<4nm FWHM
Luminance Range	0.05 ~ 1000 cd/m ²
Luminance Accuracy	±3% (illuminant A)
Luminance Repeatability	±0.5% (>1 cd/m ²)
Color Accuracy	±0.003 u'v' (illuminant A)
Color Repeatability	±0.001 u'v' (>1 cd/m ²)
Instrument Location	Moves along single linear axis, dual axis optional
Response Time Detector	Specification
Model	Westar TRD-200
Optics	Fiber optically coupled lens
Response Time / Repeatability	<50us / ±2%
Flicker Accuracy / Amplitude	±1 Hz / ±5%
Instrument Location	Moves along single linear axis, dual axis optional
Other	Visit www.westardisplaytechnologies.com for more product information

¹ Viewing Angle Imager Required ² Contact Westar for options

Viewing Angle Imager ¹	Specification
Viewing Angle Range	±80°
Resolution	1°
Luminance Accuracy	±4% (illuminant A)
Instrument Location	Moves along single linear axis, dual axis optional
Display Drive	Specification
LCD Tester	Westar T-Drive SD-100
Interfaces	RGB, CPU, 3-wire or 4-wire SPI, MIPI, MDDI, and other interfaces
LED Backlight Drive	Common anode, Common cathode, Series
Power Supplies	3, programmable
Other	Visit www.westardisplaytechnologies.com for more product information
Options	Specification
Instruments	Viewing Angle Imager
Display Drive	Westar T-Drive II, Probe Fixture to accept QuickTest display trays, display tooling
Software	NI TestStand
Sequences	Custom and Standard test sequences
System Controller PC	Specification
Processor / Motherboard	Contact Westar for Specs
Operating System	Microsoft Windows 7
Monitor	22" LCD Flat Panel
Peripherals	Keyboard, Mouse
Software	Microsoft Office, Westar PanelTest
PanelTest Software	Specification
Test execution control	Start, pause, abort
Test status	Pass / fail
Test parameter file	Test settings, pass/fail limits, display drive
Reports	User configurable in Microsoft Excel
Test History Log	Parameter, test time, measured value
Test Statistics	CPK, min, max, avg, std dev.
Access Levels	Operator / test engineer
Database Interface	ODBC compliant
System	Specification
Outside Dimensions	140cm (W) x 100cm (D) x 200 cm (H)
Weight	approx. 250 Lbs. (115 Kg)
Power	115/120 VAC, 15A, 50-60Hz
System Support & Warranty	Specification
Installation and Training	On-site system set-up, Up to two (2) days on-site training
Warranty and Support	1 Year Limited Warranty, 1 Year Tech support

Contact Us to Get Started

Call us for additional product information and pricing. We will work with you one-on-one to deliver a measurement system that meets your unique requirements!

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