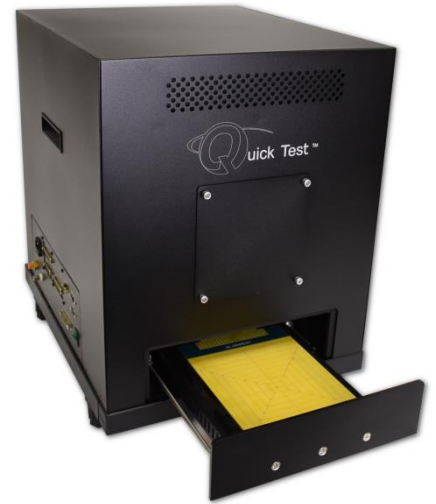


QuickTest II+

Cell Phone Display Measurement System

Rapid display optical measurements for cell phone displays, hand-held displays, and other small format LCD and OLED displays.

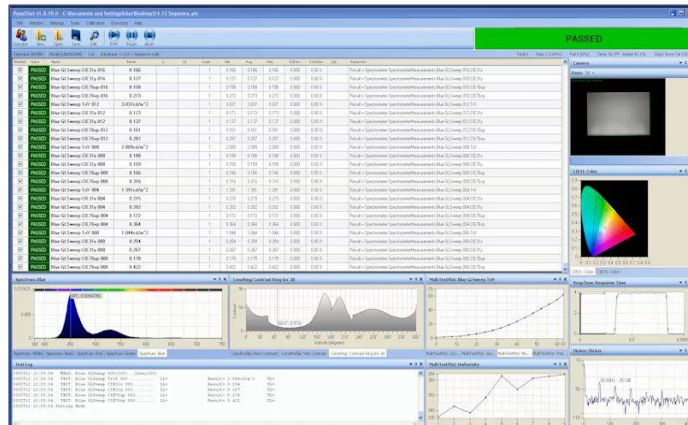


QuickTest II+ Display Measurement System

QuickTest™ is an automated test system for fast electro-optical characterization of cell 9" diagonal.

Easy to Use

QuickTest™ 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

QuickTest™ 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-100) 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)

Complete Measurement Solution

- 3 instruments included:
 - Spectrometer
 - CCD
 - Westar TRD-100A Temporal Response Detector
- Westar T-Drive SD-100 LCD Tester
- Industrial PC with QuickTest™ Software
- Light-safe enclosure
- Semi-automatic material handling system
- Optional test trays

Automated

The operator places a pre-loaded tray, containing the display, on QuickTest's sliding drawer. The drawer closes and places the display in a controlled lighting environment. The system energizes the display and performs the selected series of tests. The results are compared to stored test limits and the system indicates the pass/fail status of the display. The measurement results are then logged to a database. The drawer opens, the operator rapidly swaps trays, and the test process repeats.



QuickTest II+ Cell Phone Display Measurement

Test Capabilities	Specification
Center Screen	Luminance, Color, CIE Chromaticity Contrast Ratio, Gamma, CCT Color Gamut and %NTSC
Uniformity	Luminance Uniformity
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	1392,1040, 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 ¹	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)
Response Time Detector	Specification
Model	Westar TRD-100
Optics	Fiber optically coupled lens
Response Time / Repeatability	<50us / ±2%
Flicker Accuracy / Amplitude	±1 Hz / ±5%
Other	Visit www.westardisplaytechnologies.com for more product information
System	Specification
Outside Dimensions	19" (W) x 23" (D) x 28" (H)
Weight	approx. 30 kg
Power	115/220 VAC, 15A, 50-60Hz
Air	8CFM @ 90psi
Operating Temperature	20 to 30 C

Display Drive	Specification
LCD Tester	Westar T-Drive SD-100
Interfaces	RGB, CPU, 3-wire or 4-wire SPI, MIPI ² , 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
Material Handling	Specification
Type	Pneumatic sliding drawer
Display Fixture	Replaceable tray
System - Tray Interconnect	Pneumatic pogo pins
Max Signals (std. config)	106
Max Display Dimensions	9" diagonal (16:9)
Load / Unload Time	<2 sec
Options	Specification
Display Drive	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 XP or later
Monitor	22" LCD Flat Panel
Peripherals	Keyboard, Mouse
Software	Microsoft Office, Westar QuickTest
QuickTest 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 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

¹ Contact Westar for options ² Display Tooling Required

Contact Us to Get Started

Call or email 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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