

TrueTest™



Applications

- FPD production final test and quality assurance
- FPD subassembly testing and quality control throughout the supply chain
- FPD component testing and quality control

Benefits

- Line-to-line and location-to-location consistency
- Reduced production costs and product returns
- Fits anywhere in the production sequence because of the comprehensive library of tests
- Easy to use operator interface to simplify production line application
- Enables detailed, quantitative process monitoring and quality control

Automated Visual Inspection Application Software for FPD Quality Testing and Defect Detection

TrueTest™ Automated Visual Inspection system is a complete turnkey solution for comprehensive and highly accurate production testing for flat panel displays (FPDs). Extensive test definition capabilities and high-speed operation insure accurate, comprehensive, and repeatable results, while increasing production throughput and decreasing costs for display manufacturers.

The TrueTest application software automates the entire test sequence, including the display of test patterns on the device under test, imaging them with a ProMetric® Imaging Colorimeter, and then analyzing and presenting the measurement results relative to user defined pass / fail criteria.

TrueTest simplifies test set-up with sophisticated software auto-alignment for the display under test and automated Moiré removal. This eliminates the need for precise display positioning during testing and increases the accuracy and repeatability of the tests.

TrueTest supports multiple software application modules that allow testing of display brightness, brightness uniformity, color, color uniformity and gamma. TrueTest also detects and identifies display point and line defects, Mura defects (blemishes), and quantifies individual Mura and overall display performance on a JND (Just Noticeable Difference) scale. TrueTest also allows integration of user-defined and generated tests.

TrueTest is highly flexible for use in any production environment. It can be operated in both Administrator and Operator modes to control changes to test parameters and criteria. TrueTest can be controlled via an API or serial command interface for integration with other production systems.

TrueTest can be used with any Radiant Vision Systems ProMetric Imaging Colorimeter or Photometer, so multiple options are available to achieve the pixel resolution, dynamic range, and cost required for any application.



Key Features

- User controlled test sequences and pass/fail criteria
- Comprehensive library of test algorithms
- Software alignment and Moiré removal built in
- Integrated report generator
- High-speed operation through simultaneous image capture and analysis
- Operator interface for simple and secure operation by production workers
- Works with all ProMetric Imaging Colorimeters and Photometers, including the new Y Series.
- Windows 8 compatible, 32 or 64 bit (64-bit required for Y Series Photometers)
- Automatic export of image, with analysis overlay, to disk
- **NOW in 1.5:** Supports faster measurement speed and High Dynamic Range mode in the new Y2 Photometer and the I-Plus Colorimeters

Specifications*

TrueTest Application Software

- A comprehensive set of predefined tests
- A flexible framework that allows you to apply a single test or sequence of test as needed, quickly and efficiently
- A pass / fail report with as much detail as you need

Five Main Components

- Test library
- Test sequencer
- Test manager (user-defined test parameters and pass/fail settings)
- Test execution, automated
- Report generator

Test Library

Provided with TrueTest, covers standard quality tests and defect detection, including:

- Uniformity
- Gradient
- Line Defects
- Particle Defects
- Pixel Defects
- ANSI Brightness
- ANSI Color Uniformity
- Checkerboard Contrast
- Chromaticity
- Distortion
- Focus Uniformity
- Compare Points of Interest
- Points of Interest
- Color Edge Mura
- Color Mura
- Diagonal Pattern Mura
- Polarizer Deformation
- Spot Pattern Mura

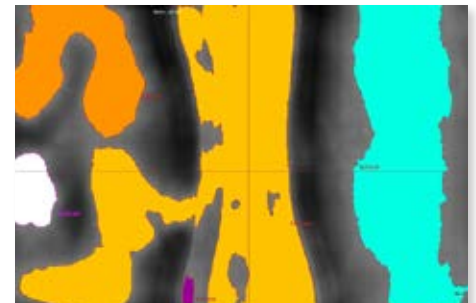
Optional Test Library* *Available with TrueMURA License Code:

- Black Mura
- Blob Analysis
- Butterfly Mura
- Corner Light
- Diagonal Line Mura
- Edge Mura
- LED Mura
- Line Mura
- Random Mura
- Spot Mura
- TrueMURATest

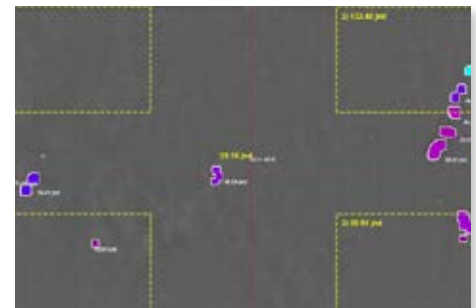
Support

TrueTest is supported worldwide by Radiant Vision Systems global technical support team and our distributor network.

* Specifications subject to change without notice



Polarizer Deformation Analysis



Black Mura Analysis

TrueTest 1.5 System Recommendations

- Windows® 7 or 8
- 2.0 GHz or faster processor
- 8GB or greater RAM
- Dual-monitor video output
- Ethernet 100/1000 port, or USB 2.0 or 3.0 compatible port