Full-Motion System

Fully Integrated motion systems for automated image-based analysis

ImageXpert offers machine vision-based measurement systems for 2D and 3D inspection. ImageXpert also offers modular measurement systems designed to suit the requirements of your image quality or inspection application.



ImageXpert: Measurement Report POSITIVE DOT SQ 6 Run 6 Fail Pic/Process/Graphics/Report/Total 0/11/98/120/229 msec Status Value Measurement Name # of dots 12.000 Avg Area 0.069 StDev Area 0.010 Gray Avg 54.877 Gray StDev 1.298 Ava Axis Ratio 0.846 StDev Axis Ratio 0.077 Avg Roundness StDev Roundness 0.099

FEATURES AND BENEFITS

Full-Motion is an automated analysis system with multiple cameras and laser triangulation for height profiling and 3D inspection

- A high level of automation that supports high throughput inspection
- Uses one or more cameras for image capture and analysis of many features from edge sharpness to dimension
- Add a laser module for non-contact height measurement and 3D profiling of printing on opaque, translucent, and transparent materials

Measurements can include:

- Line Width
- Edge Raggedness
- Dot Quality
- Registration
- Dimension
- and many others!





ImageXpert Benefits Include:

- Fully integrated system
- Automated, objective, and quantitative analysis
- Optimize cameras and lighting for your application
- Custom configurations are available
- Support for other instrumentation

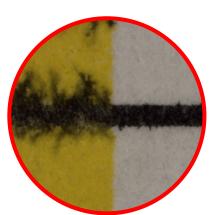


Built to endure the rigors of a high throughput production environment while providing the flexibility needed in R&D, ImageXpert systems offer a variety of hardware options to address the needs of different applications.

The Full-Motion system uses one or more cameras for image capture and analysis of many features from line quality and dot quality to dimension.

A laser module can be added to the motion system for non-contact height measurement and 3D profiling of printing on opaque, translucent, and transparent materials. Other equipment, such as an X-Rite spectrodensitometer or a gloss meter, can be added for expanded measurement capabilities.

The powerful image analysis software at the core of all ImageXpert systems was designed for both interactive and automated used.



System Configuration	
Motion Travel	Multiple Stage Configurations Available with +/- 5 degree rotary stage for skew correction
Encoder Resolution	1 micron
Repeatability	+/- 1 micron
Accuracy	+/- 18 microns per 25.4 mm for an 18" X 18" stage
Positioning	ImageXpert image analysis software
2D Cameras	Black and white, and 3CCD color firewire cameras. Other formats are available
1D Cameras (Linescan)	1-8K elements, black/white and color
Optical Resolution	Up to 0.5 microns per pixel (dependent on needs of application)
Illumination Optics	LED ring light, UV fiber optic, backlight (dependent on needs of application)
Laser Module for 3D Analysis	0.05 micron height resolution, 30 micron spot size; can be used to measure transparent, translucent, and opaque materials
Analytical software	ImageXpert image analysis software
Software Interface	Graphical user interface, menu driven, point and click
Saves Images	Automatically
E-Stop	Standard
Enclosure	Available
Dimensions, Weight	4' X 4' X 5'; 600 lbs