applied precision
A GE Healthcare Company

ImageWoRx™

Multi-Format Imaging System

In pharma, drug discovery and diagnostics, the ability to run large numbers of parallel experiments is important – to have that data accurate and repeatable is essential. The ImageWoRx multi-format reader is a high-resolution microtiter plate and slide imaging system. Optimized detection optics, white light illumination and a linear CCD create a system that provides the highest quality images available along with enhanced accuracy and repeatability. With features including fast image acquisition, imaging up to 4 fluorescent colors per well, single slide adapter, integrated autofocus and a high signal-to-noise ratio, ImageWoRx delivers!

Laboratory Automation

ImageWoRx can be easily integrated into a streamlined lab automation system. With robot-ready capabilites and an integrated hardware/software design, imaging microtiter plates becomes a simple, automated process. Intuitive controls allows you to quickly set up a single plate scan or a complete series of scans and have all your data stored for later analysis and review.

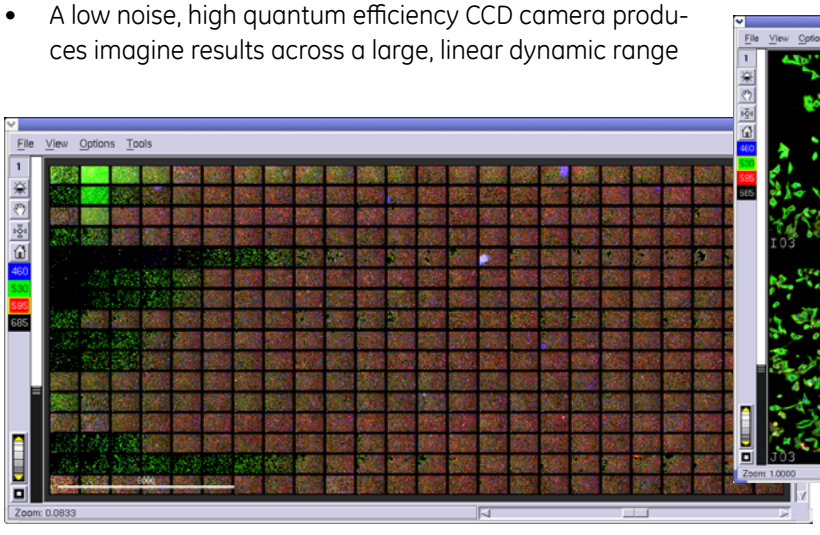
Quantitative, High-Resolution Data

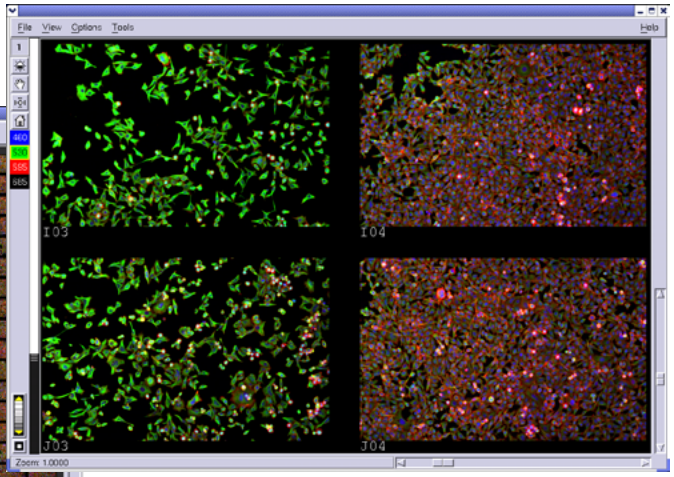
Based on Applied Precision's proprietary imaging platform, you can be assured of high-quality, reproducible data.

- Two imaging configurations are available:
  - 20x objective with max pixel resolution of 0.37 microns
  - 10x objective with max pixel resolution of 0.74 microns
- High signal-to-noise ratio image acquisition hardware that has been fully integrated and tuned to maximize sensitivity
- A low noise, high quantum efficiency CCD camera produces imagine results across a large, linear dynamic range

Image Acquisition

- Fast acquisition time of ~5 minutes for a 96-well plate at full resolution (with autofocus and two fluorescence channels per well)
- Wavelength flexibility from UV (EX 350 nm) to near-IR (EM 750 nm)
- Rapid filter switching for up to 4 filter sets
- Available camera binning modes of 1 x 1 up to 6 x 6 for scaleable resolutions
- Large field-of-view: 0.75mm x 0.75mm (20x)
  1.5mm x 1.5mm (10x)
- Fast, image-based autofocus





Scanner Module

- User selectable scan region up to 4.25” x 2.875” (108 mm x 71 mm)
- Max. pixel resolution: 0.37 micron (20x) or 0.74 micron (10x)
- Dynamic range > 3 orders of magnitude
- Signal-to-Noise ratio > 3200:1 (well depth / read noise)

Wavelength Capability

- Cy3/Cy5 and Alexa™ 350/Alexa 488 (standard)
- Supports alternate fluorescent dyes; channel dependent
- Excitation: 350 - 700 nm
- Emission: 400 - 750 nm
- White light source

Detector

- 12-bit cooled CCD
- High quantum efficiency, low noise
- Peak QE = 55% (@ 650 nm)
- Large dynamic range

Plate Handling

- 20x system requires black-wall microplates such as:
  - Aurora Biotechnologies 384-well microplate (#32411); or
  - Corning Costar 384-well microplate (#07-200-655)
- 10x system recommended black-wall microplate:
  - Corning Costar 96-well microplate (#07-200-588)
- Robot compatible

Image Output

- Single-channel grayscale 16-bit TIFF
- Multi-channel proprietary format (up to 64-bits with 4 channels, 16-bits per channel)

Additional Features

- One-year warranty: parts & labor
- Installation and on-site training

Connectivity

- Image file transfer via ethernet
- USB ports

Operating Environment

- Ambient Temperature: 65°-77°F (18°-25°C)
- Relative Humidity: less than or equal to 60%

Power Requirements

- System Power: 90 to 250 Volts, 50 - 60Hz with auto switching power supply
- Power Consumption: less than 900W

Scanner Size and Weight

- 16” W x 23” H x 24” D
  (40.6cm W x 58.4cm H x 61cm D)
- 100 lbs (45.4 kg)

Regulatory Certification

- Available upon request

System Configuration (sample)

Embedded Workstation

- Intel® Core2 Quad
- Linux, CentOS 5.5
- 3 GB RAM
- 1.5 TB SATA hard disc 3.0 GB/sec
- Gigabit ethernet

Monitor

- 24” Flat Panel Monitor
- 1920 x 1280 display

Channels

- Four channels; filters included:
  Cy3/Cy5 and Alexa 350/Alexa 488

Specifications are subject to change without notice.

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