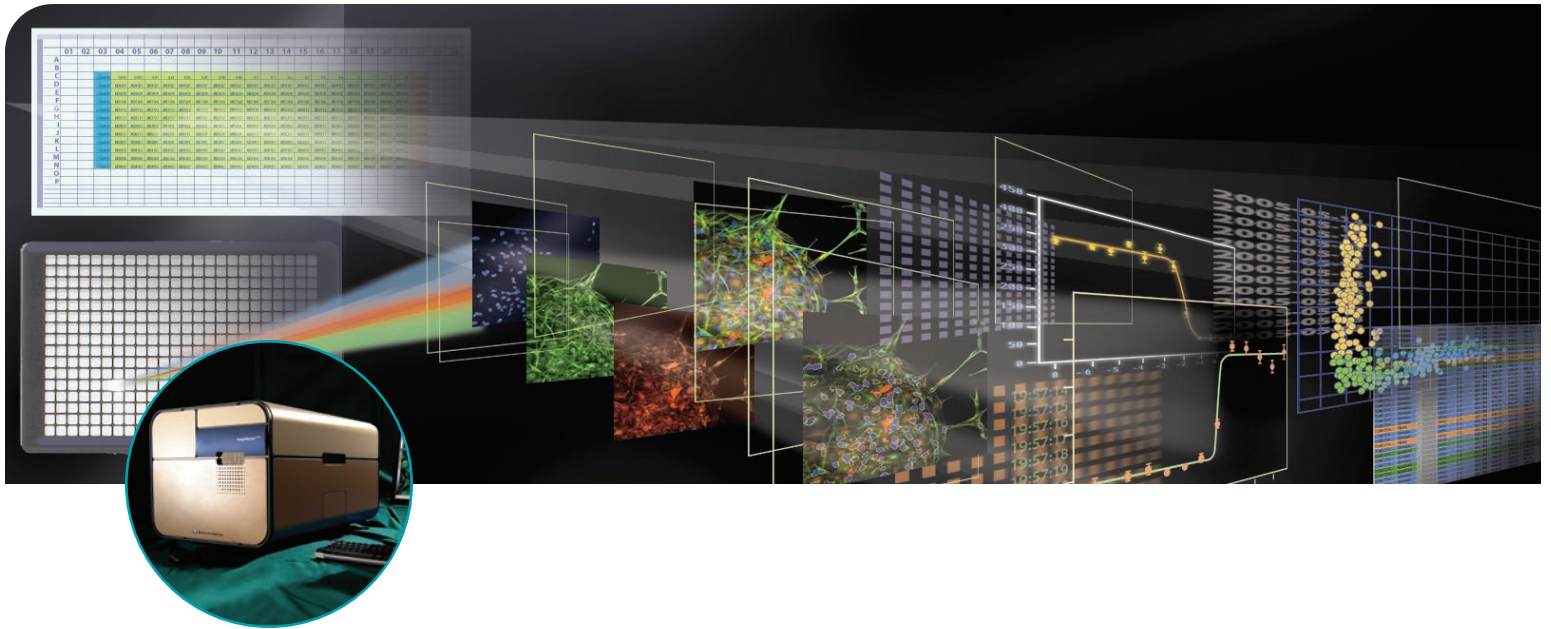


ImageXpress Ultra System

HIGH-THROUGHPUT POINT-SCANNING CONFOCAL IMAGING



→ TRUE POINT-SCANNING CONFOCAL SYSTEM

→ HIGH THROUGHPUT IMAGING

→ LASER-BASED ILLUMINATION FOR SEQUENTIAL OR SIMULTANEOUS SCANNING

→ DRIVEN BY METAPRESS SOFTWARE

The ImageXpress® Ultra Confocal High Content Screening System from Molecular Devices is a fully-integrated true point-scanning confocal system for automated acquisition and analysis of images for high throughput cell-based screening.

The system features four solid-state lasers providing up to 4 simultaneous excitation wavelengths (405, 488, 532, 635 nm), a galvanometer for X scanning and a stage for Y scanning. Users can configure variable scan size to optimize speed. The confocal microscope is designed for scanning standard multi-well plates or slides, for live cell or fixed samples.

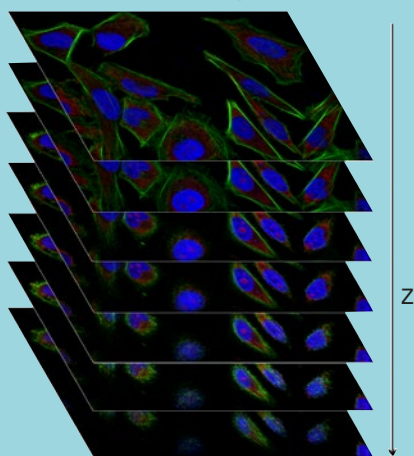
The ImageXpress Ultra HCS System provides a software-configurable detection pinhole diameter for screening or research mode. The system features a dedicated high-speed laser auto-focus to minimize sample bleaching. Its small footprint enables benchtop imaging, requiring minimal lab space.

Custom self-aligning optics ensure optimal sensitivity and resolution of the images. Up to five main beamsplitters and three sets of filter cubes allow flexible and rapid configuration of the system. Up to four software-configurable objectives can be used on an independent slider, which features a unique design that prevents objectives from crashing, a common problem with traditional microscopes.

ImageXpress Ultra is powered by MetaXpress® High Content Image Acquisition and Analysis Software, a complete software solution for screening acquisition, image storage and analysis. MetaXpress Software enables users to select a standard image analysis routine or develop custom protocols to fit researchers' specific needs.

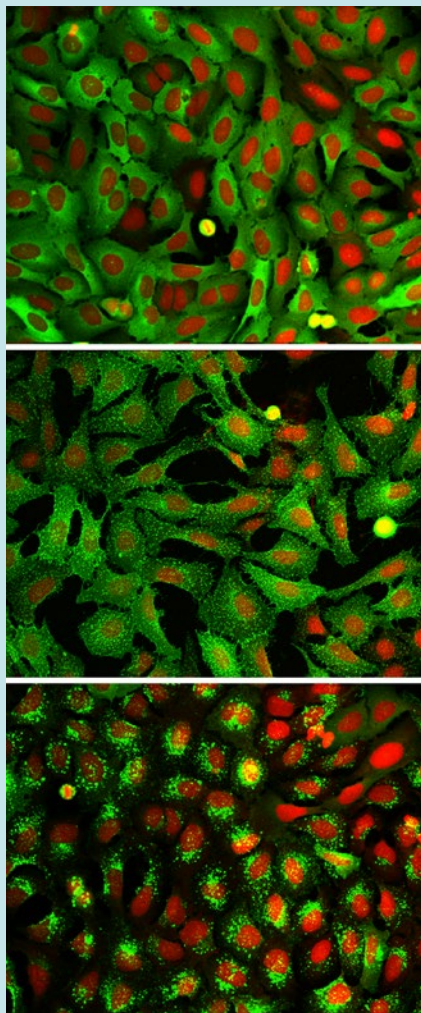
For increased throughput, the ImageXpress Ultra System can be integrated with robotics. The system has an automated door for robotic microplate-loading access.

Powerful Z-Series Acquisition



Molecular Probes HeLa cells in 96 well Greiner glass plate imaged on the ImageXpress Ultra with 60x 1.4NA oil objective. Nuclei stained with DAPI (blue), actin staining with phalloidin-Alexa488 (green) and mitochondria stained with MitoTracker Red (red).

Speed and Resolution



The ImageXpress Ultra System features a high-speed laser auto-focus that allows for the acquisition of more than four 384-well assay plates per hour. The fully automated X-Y sample stage and Z focus provide better than 100 nm resolution. Above: the Transfluor® Cell-Based GPCR Assay is imaged on the ImageXpress Ultra system. Top: control, middle: pits, bottom: vesicles. Red: nuclei stained with DRAQ5, green: GFP-beta-arrestin.

ANALYSIS MODULES FOR METAXPRESS

Optional analysis application modules are available and do not require specialized microscopy or image analysis knowledge. Results are generated without the need for programming. The modules provide dedicated dialog boxes, improved segmentation and field-by-field and cell-by-cell data logging.

DATABASE FUNCTIONALITY

MetaXpress Software is seamlessly integrated with the MDCStore™ Enterprise-Level Database for data management and image storage, automatically linking analysis results to original images, segmentation overlays and annotations. The fully scalable database has an open architecture, allowing integration with existing corporate databases.

SYSTEM SPECIFICATIONS

- ImageXpress Ultra automated point-scanning confocal imaging system
- MetaXpress Software with integrated MDCStore database
- Computer workstation for instrument control

FEATURES

- Up to 4 solid-state lasers for simultaneous or sequential scanning
- User-selectable self-aligning main beamsplitters
- Dedicated high-speed laser auto-focus to minimize sample bleaching
- 4-position automated objective changer
- Up to 3 user-selectable filter sets
- Z-focus with better than 100 nm resolution
- Software-configurable detection pinhole diameter

OPTIONS

- Up to 4 objectives (4x-100x supported)
- Filter cubes configured for specific dye excitation and emission
- Automated plate loading
- MetaXpress Software offline analysis packages
- Analysis application modules for MetaXpress Software
- AcuityXpress Cellular Informatics Software

ORDERING INFORMATION

ImageXpress Ultra Confocal High Content Screening System with MetaXpress Software and Integrated Database

Part Number: IMAGEXPRESS ULTRA

AcuityXpress™ High Content Informatics Software
Part Number: 9500-0113

MetaXpress Offline Analysis Package with Integrated MDCStore Database

Part Number: 9500-0100

Individual application modules for MetaXpress can be purchased separately. For more information, please visit our web site.

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www.moleculardevices.com

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Specifications subject to change without notice.

