In addition to fluorophore flexibility, the GenePix Professional 4200A scanner expands overall sample compatibility with user-adjustable focus offset and laser power settings. Adjustable focus offset allows proper imaging of slides with either a raised surface, as with membrane-coated glass, or a recessed surface, as in embedded arrays. The ability to adjust laser power in 1% increments provides fine control in imaging intensely bright samples or limiting laser exposure to unstable samples. To ensure constant signal output at each pixel, laser power is dynamically monitored and small fluctuations, inherent to all lasers, are automatically corrected.

### EXPANDED SAMPLE COMPATIBILITY

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### ULTIMATE FLUOROPHORE FLEXIBILITY AND SAMPLE COMPATIBILITY

The top-of-the-line GenePix Professional 4200A scanner from Molecular Devices offers maximum flexibility and automation. Configurations include a laser with up to four excitation-wavelengths and sixteen emission-wavelength filters, allowing detection of a wide variety of fluorophores. Coupled with GenePix Pro microarray image analysis software and Acuity microarray informatics software, the GenePix system provides a powerful, flexible and easy-to-use solution for the acquisition and analysis of data from all types of arrays, including nucleic acids, proteins, tissues, and cells.

For walk-away ease-of-use, the GenePix Professional can be upgraded to the 36-slide capacity GenePix Autoloader 4200AL.

### HOUSES UP TO FOUR LASERS

### 16-POSITION EMISSION FILTER WHEEL

### UPGRADABLE FOR INCREASED THROUGHPUT

### FULLY-INTEGRATED WITH GENEPIX PRO IMAGE ANALYSIS SOFTWARE

### OUTSTANDING FLUOROPHORE FLEXIBILITY

Up to four internal lasers can be installed in the GenePix Professional 4200A scanner, for compatibility with a wide range of fluorophores. An easy-to-access sixteen-position filter wheel allows users to add additional emission filters as desired, enhancing the flexibility of the system (Figure 1). Laser upgrades can be added at any time.

### HIGH-RESOLUTION ACQUISITION, AUTOMATED PMT BALANCING

The GenePix Professional 4200A acquires data at user-selectable resolutions between 5 and 100 microns, allowing optimization of image resolution and file size for each experiment. In addition, the GenePix Professional 4200A is capable of automatically choosing photomultiplier gain values, for fast and easy optimization of signal intensity and channel balance.
The GenePix Professional 4200A houses a 16-position, user-accessible emission filter wheel. A standard emission filter is included with the purchase of each laser. Additional filters are available for purchase.

**Non-confocal optical design**

The non-confocal optics of the GenePix Professional 4200A are designed specifically for microarray imaging. Confocal technology was originally developed for imaging thin sections of a thick sample for subsequent 3-D reconstruction as with tissue samples. (See Figure 2.) However, most of the background signal on a microarray slide is produced by non-specific hybridization, which is in the same plane of focus as the arrayed sample, and not reduced by confocal imaging. In addition, most microarray slides are not held to tight flatness specifications. A confocal imaging system with a very narrow depth of field may actually fluctuate in and out of the optimal plane of focus as the surface of the slide varies. GenePix scanners are designed to collect as much light as possible from the array surface, while rejecting stray light from other sources.

**Unparalleled signal-to-noise performance**

The GenePix Professional 4200A combines industry-leading low noise digitization technology with an ultra-sensitive photomultiplier (PMT) detector for five- to ten-times higher signal-to-noise ratios than white-light CCD systems.

**Integrated hardware and software**

The GenePix Professional 4200A microarray scanner and GenePix Pro microarray analysis software have been designed to work together as a complete integrated platform. (See Figure 3.) The seamless communication between scanner and software ensures unmatched efficiency for data acquisition and analysis, as well as for real-time scanner performance monitoring. Optional Acuity microarray informatics software completes the package, offering database storage, clustering algorithms, advanced statistics and visualizations.

**General specifications**

- **Dimensions (in.):** 16.9 (W) x 13.4 (H) x 25.6 (D)
- **Dimensions (cm):** 43 (W) x 34 (H) x 65 (D)
- **Power supply:** 110/220V universal
- **Weight:** 103 lbs. (47 kg)
- **Computer requirements available on our web site at http://www.moleculardevices.com/pages/software/gn_genepix_pro.html**

**Ordering information**

- GenePix Professional 4200A Microarray Scanner
- GenePix Professional 4200A
- GenePix Pro image analysis software
- Acuity microarray informatics software (optional)

**Sales offices**

- North America +1-800-635-5577
- UK +44-118-944-8000
- Germany +49-89-9605-880

Check our web site for a current listing of our worldwide distributors.

[www.moleculardevices.com](http://www.moleculardevices.com)

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Specifications subject to change without notice.