



# Data Sheet

## ■ Affymetrix GeneChip® Array Station

Scientific experiments are increasingly larger scale, of higher complexity, on shorter timelines, and constrained by both budget and personnel. These new challenges make it more difficult to rapidly achieve high-quality, meaningful results. In order to make these types of studies both practical and successful, higher productivity and standardization are needed. Higher productivity enables you to efficiently complete large projects within your resource constraints. Standardization is critical in ensuring data reproducibility and consistency, especially for studies involving multiple investigators, laboratories, or sites.

Affymetrix has developed the GeneChip® Array Station to effectively address these needs, delivering a complete, flexible solution for increased productivity and standardization. The system automates target preparation and processing of GeneChip® microarrays in a standard 96-well format. Proven GeneChip arrays, optimized assays and reagents, flexible instrumentation, and an open software architecture together provide you with an integrated system that delivers the most accurate and reproducible data possible.

### Flexible and Scalable System

Designed with multiple capabilities, this system also provides scalable and flexible options for meeting both your current and future research requirements. The GeneChip® Array Station has been designed and optimized for use with the current GeneChip system. The automated target preparation method produces hybridization cocktail that is ready to load into cartridge arrays. As such, it can be easily and conveniently added to your existing workflow.

The Array Station also scales with your needs to process increased volumes of samples by enabling you to use GeneChip HT array plates. HT array plates offer proven GeneChip brand arrays in a standard 96-well format, enabling you to analyze up to 96 distinct samples at one time. The Array

Station performs both target preparation and array processing for HT array plates. This provides you with options to gradually increase throughput as required and efficiently manage operations.

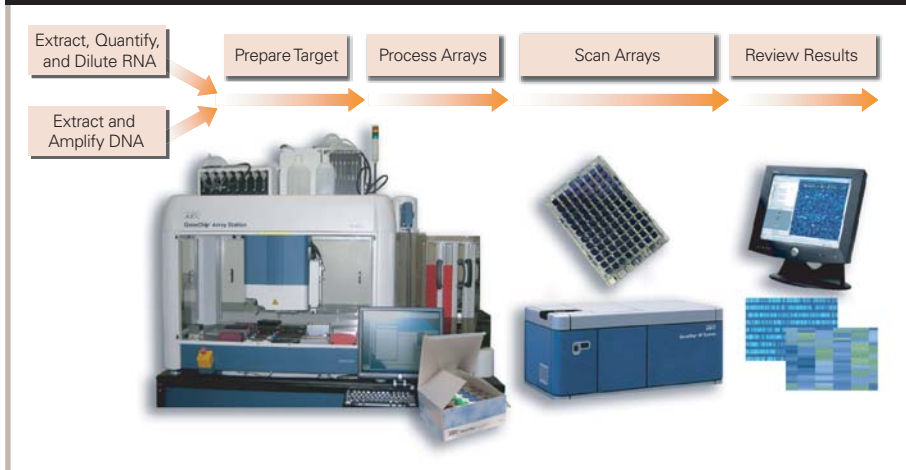
### Increased Productivity

This automation system enables you to increase the size of your projects without requiring an increase in the size of the technical staff. The same staff can accomplish more because the hands-on time required to run the study is significantly reduced. For example, the system enables, on average, one person to prepare target for four times as many samples than would be possible when manually performing the same process. This provides flexibility in staffing and the ability to focus technical expertise on other critical aspects of the project.

**Figure 1.** The GeneChip® Array Station has been designed and optimized for use with your current GeneChip system. The automated target preparation method produces hybridization cocktail that is ready to load into cartridge arrays.



**Figure 2.** The GeneChip® Array Station scales with your needs to process increased volumes of samples by enabling you to use GeneChip® HT array plates.



Today's investment also provides you with access to future capabilities that are developed for the Array Station to enable new assays and arrays. These methods are tested and validated by Affymetrix, providing you confidence in the results and quality you can trust. In contrast to alternative automation solutions, this saves you the effort and cost of developing and validating new methods each time a new assay or array type is available.

### Technical Expertise

The Array Station is supported by Affymetrix, providing you with the peace of mind that comes with knowing our technical experts will ensure that you are enabled to successfully run your studies. You also have the convenience of a single point of contact for the full system: arrays, reagents, software, and instrumentation.

### Standardization

Different laboratories often have slightly different methods and procedures. For more complex studies that involve multiple investigators or sites, this introduces an additional source of variability. The use of automation ensures the same method is applied to each set of samples, thereby minimizing this variation. This increases data quality and consistency ensuring that biological changes of interest are detected.

The use of a standard 96-well format also simplifies integration with upfront sample preparation processes. Run parameters and array plate barcodes are tracked for incorporation in your laboratory information management system (LIMS).

### High-value Investment

With the increase in scope and scale of experiments has come higher costs and increased budget constraints. The Array Station was co-developed with Caliper Life Sciences combining automation and GeneChip technology expertise to create the optimal solution to address these challenges. The system executes steps that are cumbersome to perform manually while

leaving simple tasks, such as reloading of consumables, as operator tasks. This minimizes hardware costs while maximizing productivity and data quality.

### Specifications

Primary Array Station Hardware Components	<ul style="list-style-type: none"> <li>• Caliper SciClone 3000 (includes ALH high volume head, Z8 multi-channel dispense head, and 96-well disposable tip array)</li> <li>• Accessory gripper with Z8</li> <li>• Assay engine Twister® II</li> <li>• Automation capable thermocycling unit</li> <li>• Custom Array Station table</li> <li>• Barcode reader (1D)</li> <li>• Bulk dispensing pump module</li> </ul>
Customer-supplied Equipment	<ul style="list-style-type: none"> <li>• Spectrophotometer (model recommendations provided in site preparation guide)</li> <li>• Incubator (required for HT array plates only)</li> <li>• Server hardware (required for HT array plates only)</li> </ul>
Dimensions	76"(W) x 30"(D) x 92"(H) 194 cm x 76 cm x 234 cm *Please note the instrument control workstation adds approximately 20" (51cm) to the depth.
Weight	Approximately 1100 pounds (500 Kg)
Warranty	One year limited coverage
Site Requirements	<ul style="list-style-type: none"> <li>• Power: 50/60 HZ, 120/240 V, 10 Amps</li> <li>• Compressed air: 70-80 psi</li> </ul> Details are provided in a comprehensive site preparation guide.

**NOTES:**

## Ordering Information

### GeneChip® Array Station

**00-0162** *GeneChip® Array Station,  
North America*

**00-0235** *GeneChip® Array Station,  
International*

### To Order

#### North America

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#### Europe

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#### Japan

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