

GeneAtlas™ Personal Microarray System

Discover how easy microarrays can be



Benefits of the GeneAtlas System:

- **Affordable** – a price never before seen for a commercial microarray system
- **Easy to use** – self-installable, self-trainable, and easy to use in every step, from target preparation through pathway analysis
- **Efficient** – post-target preparation hands-on time of less than 16 minutes
- **Compact** – requires just 3 feet of bench space

Introduction

The GeneAtlas System is designed for the life scientist who wants a whole-genome view of complex biological questions, but has been held back by budget or the complexity of microarray systems.

It's a complete personal solution for processing Affymetrix® Arrays, applying statistical models, and building and analyzing biological pathways.

With an easy-to-use workflow and affordable price, the GeneAtlas System makes microarray technology accessible to every life science researcher.

New array format

The GeneAtlas System utilizes new Affymetrix® Array Strips, which are based on the array plates used with the GeneTitan® System. Array strips provide comprehensive coverage of the transcribed human, mouse, or rat genomes in a convenient configuration that enables you to interrogate four distinct samples per strip.

Like array plates, the GeneAtlas System's array strips eliminate the cumbersome and sometimes unreliable use of gaskets, which are used on competitive systems for separating samples in a multi-sample format array.

With array strips, you'll be able to simplify parallel sample processing, increasing productivity and efficiency while leveraging the industry's most widely cited expression array designs.





Hybridization station

The hybridization station provides incubation for array strips to support low- and medium-throughput studies. The hybridization station delivers a temperature uniformity of $\pm 1^\circ\text{C}$ from the set point, which ensures optimal performance.

Fluidics station

The simple yet elegant design of the fluidics station moves the arrays to the liquids, rather than moving liquids to the arrays. This novel approach virtually eliminates user maintenance for a highly robust system.

Setup is simple. Simply pipet the wash and stain reagents into the appropriate micro-wells, place the trays on the deck of the fluidics station, and press start. The entire setup process takes approximately five minutes.

Imaging station

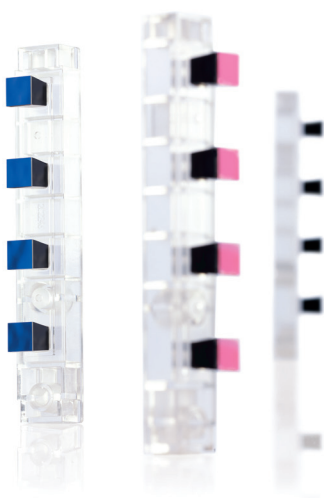
A high-intensity LED excitation source and fast illumination optics deliver efficient, uniform illumination to the array, optimizing exposure time to minimize photo-bleaching effects.

The imaging station, with custom-designed optics, CCD camera, and stable excitation source, not only captures images with ideal clarity to deliver highly precise analyses, but also delivers uniform and reproducible data to support standardization of microarray information within and across studies and labs.

Data analysis

The GeneAtlas System comes with one-year licenses for statistical and pathway analysis packages that were designed with the biologist in mind.

Affymetrix has worked with Partek and Ariadne to design an integrated, easy-to-use solution that takes your samples from array images through biological pathway analysis.



Ordering information

Description	Part number	
GeneAtlas™ System Includes: <ul style="list-style-type: none"> ▪ Fluidics station ▪ Imaging station ▪ Hybridization station ▪ External barcode reader ▪ Computer workstation and monitor ▪ GeneAtlas Instrument Control Software ▪ Installation kit 	Academic 115V	00-0394
	Academic 230V	00-0393
	Industrial 115V	00-0375
	Industrial 230V	00-0392
Regional Power Cord Kits		
North America	00-0383	
Italy	00-0384	
Australia	00-0385	
UK	00-0386	
Europe (Shuko)	00-0387	
Japan	00-0388	
Switzerland	00-0389	
Denmark	00-0390	
India	00-0391	
Included at no charge for academic customers (excludes India)		
<ul style="list-style-type: none"> ▪ Partek Express, Affymetrix Edition ▪ Ariadne Pathway Explore, Affymetrix Edition 		

Specifications

	Hybridization station	Fluidics station	Imaging station
Temperature range	Ambient +5° to 150°C	Ambient +5° to 60°C	N/A
Temperature resolution	0.1°C	0.1°C	N/A
Temperature uniformity	±0.2°C	0.1°C	N/A
Temperature accuracy	±0.3°C	±0.1°C	N/A
Excitation wavelength	N/A	N/A	530 nm
Autofocus wavelength	N/A	N/A	590 nm
Resolution	N/A	N/A	1 µm
Sensitivity	N/A	N/A	0.1 fluors/µm ²
Array strip capacity	4	1/run	1/run
Run time/strip	16 hr	2 hr	30 min
Digital resolution	N/A	N/A	12 bits
File format	N/A	N/A	DAT
Width	7.9" (200 mm)	18.9" (480 mm)	8.3" (211 mm)
Depth	11.3" (286 mm)	17.2" (437mm)	17.2" (437 mm)
Height	5.5" (140 mm)	13.7" (348 mm)	13.7" (348 mm)

Specifications (continued)

	Hybridization station	Fluidics station	Imaging station
Noise	<56 dB	<56 dB	<56 dB
Weight	5.7 kg	12 kg	11 kg
Power supply voltage	120–230V (±10%)	100–240V (±10%)	100–240V (±10%)
Voltage current	1.41A maximum	1.50A maximum	1.00A maximum
Line frequency	50–60 Hz	<56 dB	<56 dB

*Unique feature

Computer workstation specifications*

Base unit	Dell OptiPlex 760
Processor	Intel® Core™ 2 Duo Processor E8400 (3.0 GHz, 6M cache, 1333 FSB)
Memory	2 GB
Keyboard	USB keyboard
Hard drive	250 GB
Operating system	Microsoft® Windows® XP Professional with SP3
Mouse	USB two-button optical mouse with scroll
CD-ROM or DVD-ROM drive	8X DVD+/RW
Bundled software	Microsoft® Office Small Business Edition
IEEE 1394 card	Onboard
Monitor	Dell 19-inch flat panel monitor
Barcode scanner	Handheld

*Workstation specifications are for representative purposes and are subject to change

Work environment

Clearance	6 in (15.24 cm) in rear
Temperature	59°F–86°F (15°C–30°C)
Relative humidity	10–90%
Pollution degree	2 environment
Altitude	<2,000m
Warranty	1 year parts and labor
Electrical supply	Provide voltage, frequency, or power rating per unit label. Circuit breaker.
Main supply voltage fluctuation	Not to exceed ±10% of the nominal supply voltage
Site preparation	Refer to the site prep guide
Array strip processing	2 array strips per day

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