

AriaMx Real-Time PCR System

DATA SHEET



Introduction

The AriaMx Real-Time PCR System is a fully integrated quantitative PCR amplification, detection, and data analysis system. We have invented a new, [more flexible format for precision qPCR optics](#).

The latest design combines a [state-of-the-art thermal cycler](#), an advanced optical system with LED excitation source, and data analysis software. Continuing the tradition of intuitive software, the instrument now has a touchscreen so plates and analytics can be started with the touch of a finger.

With [enhanced performance](#), the software provides results capturing RDML information required for publishing under the miQE guidelines. Simultaneously, the software is equipped to [export images and raw data in multiple formats](#), allowing results to be viewed in common programs.

Specifications Table

| Feature | Description |
|---|--|
| Excitation Source | 8 dye specific LEDs per optical module |
| Detection Sources | 8 silicon photo-detectors per optical module |
| Dyes (at launch) | SYBR/FAM 462.5 – 516.0nm Detectable C_t for 0.001ng/DNA per reaction ($R^2 > 0.980$) HEX 535.0 – 555.0nm Detectable C_t for 0.001ng/DNA per reaction ($R^2 > 0.980$) ROX 585.0 – 610.0nm Detectable C_t for 0.001ng/DNA per reaction ($R^2 > 0.980$) CY3 532.0 – 568.5nm Detectable C_t for 0.001ng/DNA per reaction ($R^2 > 0.980$) CY5 635.0- 665.0nm Detectable C_t for 0.001ng/DNA per reaction ($R^2 > 0.980$) 6 slots, swappable cartridges Custom cartridges, available upon request |
| Dye Selection | Excitation and emission |
| Reaction Volume | 10 μ l to 30 μ l |
| Chemistries Supported | SYBR, Probe, HRM |
| Thermal System | Six peltiers made from two ceramic plates with semi-conductor elements, 96 well |
| Thermal System Temperature Range | 25.0 – 99.9°C Heating: 6°C/sec Cooling: 3°C/sec Accuracy: $\pm 0.2^\circ\text{C}$ or better of target |
| Dynamic Range | 10 fold |
| Comparative Quantitation | 2x (Range 1.3x to 3x), 10x (Range 6.5x to 15x) |
| Multiplex | Difference in C_t between single-plex and multiplex assay wells is <0.7 |
| Sensitivity (FAM) | Discriminates between 2 fold populations ranging from 100k to 12 copies with 95% confidence |
| Uniformity | C_t St Dev (5s/10s) <0.20 , 5 colors, SYBR and T_m assays |
| Electrical Power (input) | 100-240VAC, 50/60Hz, 1100A |
| Operating Environment | 18-35°C (65-95°F), 85% non-condensing humidity 7500 feet, max altitude |
| Weight | 50 lbs. (23 kg) |
| Dimensions | 19.7" W x 18.1" D x 16.5" H (50cm x 46cm x 42cm) |
| Sample Containers | 0.2ml tubes, 96 well plates, strip tubes |
| Warranty | <ul style="list-style-type: none">• 2 year warranty is standard with the instrument• 5 year warranty and service packages available |
| Onboard Analytics | <ul style="list-style-type: none">• Thermal, physical, interactive (sensors) tests• Extended: 125 performance points tested in 30 minutes• Start-up: 59 performance points tested in ~1 minute• Optional bypass of both features |

For more firmware and software features, see next page.

Useful Tools and Web-Links

qPCR Decision Tree

Determine which qPCR reagents or enzymes best serve your needs.

Software Updates

Ensure your software is the most current version by visiting

www.agilent.com/genomics/ariamx/software

Specifications Table (con't)

| Feature | Description |
|--------------------------------|---|
| Services (upon request) | <ul style="list-style-type: none"> • Installation and familiarization • Standard and Enhanced Preventative Maintenance • Additional year warranty (+1 increments, up to 5 years coverage) • Return-to-Agilent Instrument Exchange Program • Thermal block verification |
| Operating System | Windows 7 |
| Run Modes | <ul style="list-style-type: none"> • Stand alone • PC connected • LAN connected: more than 20 instruments can be connected and monitored remotely • External devices/USB connected |

Ordering Information

| Category | Part # | Description | Quantity |
|--------------------------------|-------------|---|-------------------|
| Instrumentation | G8330A | Base Instrument | 1 |
| | G8830-64000 | AriaMx Real-Time PCR System 5 Fixed | 1 |
| | G8830-64010 | AriaMx Real-Time PCR System 4 Fixed | 1 |
| Plastics | 401490 | AriaMx 96 Well Plates, Skirted and Low Profile | 1 x 25/pack |
| | 401491 | AriaMx 96 Well Plates, Skirted and Rigid | 1 x 25/pack |
| | 060570-A | Agilent 96 Well Plates, Non-Skirted Low Profile | 1 x 25/pack |
| | 401492 | AriaMx Adhesive Plate Seals | 1 x 25/pack |
| | 401493 | AriaMx Low Profile Strip Tubes for PCR and qPCR Applications Without Caps | 8/strip x 120/box |
| | 401425 | Strip Caps for PCR and qPCR Applications | 8/strip x 120/box |
| Reagents and References | 5190-7708 | SYBR Reference Plate | 1/pack |
| | 5190-6701 | Brilliant HRM Ultra-Fast Reference Plate | 1 plate |
| | 5190-7827 | Brilliant HRM Ultra-Fast qPCR Master Mix | 4 ml |
| Optical Modules | G8830-67701 | FAM Cartridge Module | 1/pack |
| | G8830-67702 | ROX Cartridge Module | 1/pack |
| | G8830-67703 | HEX Cartridge Module | 1/pack |
| | G8830-67704 | CY3 Cartridge Module | 1/pack |
| | G8830-67705 | CY5 Cartridge Module | 1/pack |



FOR MORE INFORMATION

(800) 227-9770 | qpcr@agilent.com | www.agilent.com/genomics/ariamx

For a virtual demo, visit www.agilent.com/genomics/ariamx/videos

For a live demo, call your Agilent sales representative.

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