

AUTOMATED IMMUNOASSAY PLATFORM

Thunder Bolt[®]



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Available Configurations:

EIA or CLIA+EIA Combined

G^{GSD}**OLD STANDARD**
D I A G N O S T I C S



Simplify Your Laboratory Experience

Innovative Automation • Extensive Product Menu • Complete Support

GSD THUNDERBOLT® AUTOMATION PLATFORM

Benefits of ThunderBolt® Automation

Powerful

Fully-Automated – Load and walk away.

High Capacity – 192 sample capacity.

Flexible

Open Architecture – Program any EIA or CLIA protocol (CLIA requires CLIA+EIA configuration).

Adaptable – Up to 8 different protocols in a single batch.

Compact

Space Saving – Reclaim valuable space and process more in a 2' x 2' footprint.

Innovative

High Precision Micro-Syringe - Aspirate 1 µl with less than 3% CV.

Convection Incubator – Eliminate “Edge Effect” by evenly heating each well.

Orbital Shaker – No-spill design, up to 900 RPM.

Built-in Reader – Ultra-compact and fully-automated reader.

Intelligent Racks – Reduce errors with Positive Patient Identification.

On-Board Camera – Remote diagnostics for maximum uptime.



Intuitive, Open, Flexible Software

- Powerful test designer
- Custom report generator
- LIS compatible
- Bi-directional interface

TECHNICAL SPECIFICATIONS

Unique Options

Intelligent Racks	Automatic sample location management.
System Architecture	Open, fully customizable.
High Precision Micro-Syringe	Aspirate 1µl with less than 3% CV.
On-board Reader(s)	Spectrophotometer, or Spectrophotometer+Fluorescence Combo Reader.
Forced Convection Incubator	Evenly heats using forced air to eliminate "Edge Effect".
On-board Camera	Probe-mounted camera allows remote troubleshooting.
Sliding Sample Tray	Easy loading and unloading of samples.
Built-in Barcode Reader	Streamline loading and decrease sample tracking errors.
Orbital MTP Shaker	Better adherence to assay protocols, no splash.
Small Footprint	Fits on a 60cm deep standard laboratory bench.

Technical Specs

Sample Capacity	192 patient sample positions
Reagent Positions	16 custom reagent positions
Test Tube Size(s)	Standard 12, 13, 16 mm diameter, up to 100 mm tall (custom racks available)
MTP Positions	2 positions
Pre-dilution MTP Positions	1 position
Well-Tracking	Independent well tracking and timing
Wash bottles	2 external wash bottles
Probe/Needle	Single probe, dual needle
Dispense Volume	Up to 500 µl
Aspiration Volume	1 µl
Incubation Temperature	Up to 40 °C
Photometer Wavelengths	405, 450, 550, 570 and 620 nm wavelengths standard (Custom wavelengths available)
Orbital MTP Shaker	Amplitude: 1mm, Speed: Up to 900 RPM, Capacity: 2 MTP, Time: 0 to 2 hrs.
Power Supply	120-265V, 50-60Hz
Dimensions	W: 64 cm, D: 57 cm, H: 45 cm (W: 25.2 in, D: 22.5 in, H: 17.7 in)
CE Listed	Yes

Software Specs

Language	Multi-language support
Calculations	Point to point, linear regression, cubic spline, 4PL, 5 PL, Lin-Lin, Lin-Log, Log-Log representation
Architecture	Fully customizable
Report Designer	Fully open and highly configurable test designer
LIS Integration	Bi-directional, RS232, USB, TCP/IP
User Interface	MS Windows Graphical User Interface (Windows 7)



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