



**Atellica Portfolio**

# Technical Specifications



Healthcare systems are continually asked to do more: more testing volume, more staffing challenges, more administrative burden.

## **The Atellica Portfolio was designed with one goal in mind: less.**

Less hands-on work. Less complexity. Less administrative burden. Less waste. Less frustration.

With the Atellica Portfolio of clinical chemistry, immunoassay, and integrated systems, we provide the best-fit solution for your diagnostic laboratory enterprise. Select from hundreds of configurations, including automation and informatics connectivity, and over 200 high-quality assays delivering standardized results, workflow, reagents, and consumables across your lab or network.

The Atellica Portfolio offers innovative compact automation for smaller labs and total lab automation for large labs. The Sample Handler is engineered for hands-off QC and calibration management and rules-based repeat and reflex testing. The easy-to-use interface simplifies workflow, training, and lab accreditation.

With human-centered engineering that automates routine tasks, you can free your staff from manual work so they can focus on human work. When your staff has less of what they don't need, they're free to do more of the tasks that truly bolster an organization: connecting patients with the care they need.

# Atellica Portfolio

Our family of clinical laboratory analyzers, designed to support your specific needs.



Atellica CI Analyzer  
Atellica Rack Handler



Atellica CI Analyzer  
Atellica Sample Handler Prime  
Atellica Decapper  
Atellica Sealer



Connection to FlexLab X  
Atellica CH 930 Analyzer  
Atellica IM 1600 Analyzer  
Atellica Sample Handler Prime  
Atellica Sample Handler Connect



Atellica CH 930 Analyzer  
Atellica IM 1600 Analyzer  
Atellica Sample Handler Prime



Atellica CH 930 Analyzer  
Atellica IM 1600 Analyzer  
Atellica Sample Handler Prime  
Atellica Decapper  
Atellica Sealer



Atellica CH 930 Analyzer  
Atellica IM 1600 Analyzer (2)  
Atellica Sample Handler Prime



Atellica CH 930 Analyzer (2)  
Atellica IM 1600 Analyzer (2)  
Atellica Sample Handler Prime  
Atellica Sample Handler Additional



Atellica CH 930 Analyzer (4)  
Atellica IM 1600 Analyzer (3)  
Atellica Sample Handler Prime  
Atellica Sample Handler Additional

**300+**  
configurations

## ► What is Atellica Integrated Automation?

Atellica Integrated Automation consolidates revolutionary sample management technology, intelligent software, and informatics to provide workflow efficiency and reduction of biohazard exposure by offering the flexibility to add Sample Handler, Decapper, and Sealer modules to an Atellica Solution or Atellica CI Analyzer.

# Atellica IM 1300 and 1600 Analyzers

[siemens-healthineers.com/atellicsolution](http://siemens-healthineers.com/atellicsolution)

The Atellica IM Analyzers are engineered for high productivity in a small footprint. Powered by proven acridinium ester (AE) technology, these immunoassay analyzers feature built-in temperature control for precision, hands-off quality control (QC) when connected to the Atellica Sample Handler, workflow efficiency to reduce operator intervention, and a broad and expanding menu across disease states.



## Product Specifications

<b>Description</b>	Immunoassay analyzer with chemiluminescence testing methodology using advanced acridinium ester technology
<b>Test Throughput</b>	Atellica IM 1300 Analyzer: up to 220 tests per hour Atellica IM 1600 Analyzer: up to 440 tests per hour
<b>Walkaway Time</b>	Atellica IM 1300 Analyzer: up to 7.5 hours; Atellica IM 1600 Analyzer: up to 5 hours

## Sample Handling

<b>Validated Sample Types</b>	Serum, plasma, amniotic fluid, urine, whole blood (assay dependent)
<b>Sample Integrity Control</b>	Liquid-level sensing, clot detection, bubble detection, short-sample detection. Hemolysis, icterus, and lipemia checks applied when connected to the Atellica CH 930 Analyzer
<b>Auto-repeat</b>	Automatic repeat testing from the original sample
<b>Sample Dilution</b>	Assay dependent; can be auto diluted and repeated when results exceed linearity
<b>Auto-reflex Testing</b>	Can perform additional tests based on results of first test or test combination
<b>Sample Carryover Prevention</b>	Disposable sample tips eliminate sample carryover
<b>Sample Volume per Test</b>	10 to 100 µL of sample (assay dependent)

## Reaction Area

<b>Reaction Cuvettes</b>	Total of 160 cuvette positions: 89 positions in the outer ring and 71 in the inner ring
<b>Reaction Temperature</b>	37°C ±0.3°C
<b>Reaction Detection</b>	Photomultiplier tube (PMT)
<b>Assay Reaction Formats</b>	Sandwich, competitive, and antibody-capture formats
<b>Assay Times</b>	10–54 minutes, assay dependent
<b>Assay Technology</b>	Chemiluminescence testing methodology using advanced acridinium ester technology

## Reagent Handling

<b>Reagent Compartments</b>	42 primary and 35 ancillary reagent positions with refrigeration in a single refrigerated tray at 4–8°C and humidity control. Continuous and automatic mixing to maintain particle suspension
<b>Assays Onboard</b>	Up to 42
<b>Reagent Packs</b>	ReadyPack cartridge: 50 to 200 tests per pack
<b>Reagent Integrity Control</b>	Reagent pack barcode identification; automatic tracking and notification of inventory, calibration and control validity, onboard stability, low and expired reagents, detection of reagent bubbles
<b>Onboard Stability</b>	4–90 days, assay dependent
<b>Reagent Inventory Management</b>	Automatic tracking and notification of remaining tests, onboard stability and expiration, calibration, and storage conditions for each pack
<b>Dispensing System</b>	Three probes with liquid-level sensing
<b>Barcode-labeled Packs</b>	Yes

Calibration/QC	
Calibration Review	Graphical display of calibration curves from a minimum of 20 different reagent lots and 20 reagent packs for each assay
Calibration Interval	Up to 90 days, tracked by software, assay dependent
Auto-QC	Automatic, user-defined, assay-specific quality control (when connected to Atellica Sample Handler)
Quality Control Review	Advanced QC package with graphical display of QC in real time, including patient moving averages, Levey-Jennings plots, Westgard rules, RiliBÄK rules; up to 65,000 control results can be stored; archivable to removable media
QC Material	QC material is auto-loaded, tracked, and stored in a 60-position covered and refrigerated compartment and automatically deployed to analyzers when QC is scheduled (when connected to Atellica Sample Handler)
Maintenance	
Daily*	Manual: None, Automated: ≤33 minutes
Weekly	Manual: 10–15 minutes, Automated: ≤42 minutes
Monthly	Manual: 10–15 minutes
As Needed	Refer to Online Help for additional periodic maintenance
Maintenance Logs	Automated onboard scheduling, notification, and reporting
General Specifications	
Power Requirements	Requires a 4.4 kVA (U.S.)/3.7 kVA (EU) power source; single-phase, 2-pole, 3-wire configuration; with Class III grounding. Will support incoming AC voltage from a nominal line voltage range of 200 to 240 VAC, 50/60 Hz. Main supply voltage fluctuations are not to exceed ±10 percent of the nominal voltage.
Power Consumption	2.9 kilowatts/hour (maximum)
Water Input Requirements	Incoming pressure of 5–30 psi at a temperature of 10–30°C
Water Quality Requirements	Special reagent-grade water Resistivity: ≥10 MΩ-cm Bacteria: ≤50 CFU/mL Total organic carbon (TOC): ≤500 ppb A 0.22 micron filter is required at the output stage of the laboratory water purification system before the input to the water supply for each analyzer
Maximum Water Consumption	Atellica IM 1300 Analyzer: 3.5 liters/hour Atellica IM 1600 Analyzer: 6 liters/hour
Drain Requirements	Minimum of 15 liters (3.96 gallons) per hour per analyzer
Dimensions	1500 (h) x 1453 (w) x 1167 (d) mm; 59.1 (h) x 57.2 (w) x 45.9 (d) inches Recommend a 610 mm/2 foot service envelope around system
Weight	594.7 kg (1308 lb)
Compliance	Complies with international environmental, health, safety, and sustainability standards, including CE and RoHS.
Noise Emission	Average sound pressure level: 65 dBA
Processing Heat Output	4507 BTU/hour
Ambient Operating Temperature	18–30°C (64–86°F)
Ambient Operating Humidity	20–80% noncondensing
Operating Altitude	0–2000 m (6561 feet)
Floor Load Bearing Requirement	351 kg/m <sup>2</sup>
Overvoltage Classification	Category II
Pollution Classification	Degree 2
Removable Media	USB

\*Daily maintenance is not required on the same scheduled day the analyzer performs weekly maintenance.

# Atellica Direct Load

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The Atellica Direct Load seamlessly manages patient samples, calibrators, and QC for a single Atellica CH 930 Analyzer, Atellica IM 1300 Analyzer, or Atellica IM 1600 Analyzer.



## Product Specifications

<b>Description</b>	Sample-handling component for a single Atellica Solution immunoassay or clinical chemistry analyzer, providing input/output of patient samples, calibrators, and QC
<b>Configurations</b>	Provides sample handling for a single Atellica Solution

## Sample Handling

<b>Sample Throughput</b>	Up to 250 tubes per hour
<b>Sample Capacity</b>	60 samples using 10 six-position racks
<b>Primary-tube Sampling</b>	Yes, for validated container types including tubes and tube-top sample cups
<b>Supported Tube Types</b>	12 x 75 to 16 x 100 (list of validated containers available upon request)

## User Interface/Data Management

<b>Monitor</b>	22-inch touchscreen monitor
<b>Operating System</b>	Microsoft Windows Embedded Standard
<b>System Documentation</b>	Operator's Guide, Quick Guide, and Online Help
<b>Data Storage</b>	Up to 1 million results: 500,000 active and 500,000 historical; can archive to removable media; system archives data to removable media as backup
<b>Host Interface</b>	TCP/IP bidirectional—Ethernet
<b>Host Query</b>	TCP/IP—ASTM, IHE LAW-certified HL7 interface; system requests work order or batch of work orders
<b>Remote Access and Service</b>	Smart Remote Services via 1000BASE-T Ethernet port

## Maintenance

<b>Daily</b>	Manual: None Automated: <3 minutes
<b>Weekly</b>	None
<b>Monthly</b>	Manual: <5 minutes
<b>Database Maintenance</b>	Runs automatically in background
<b>Maintenance Logs</b>	Schedule and monitor routine maintenance activities

## General Specifications

<b>Power Requirements</b>	Provided by analyzer: 220–240 VAC ±10%, 50/60 Hz
<b>Water Requirements</b>	None
<b>Drain Requirements</b>	NA
<b>Dimensions</b>	Without monitor: 1360 (h) x 425 (w) x 1100 (d) mm; 53.5 (h) x 16.7 (w) x 43.3 (d) inches Recommend a 610 mm/2 foot service envelope around system.
<b>Weight</b>	141.7 kg (312 lb)
<b>Compliance</b>	Complies with international environmental, health, safety, and sustainability standards, including CE and RoHS.
<b>Noise Emission</b>	Average sound pressure level (when connected to Atellica Immunoassay Analyzer): 65 dBA Average sound pressure level (when connected to Atellica Chemistry Analyzer): 50 dBA
<b>Processing Heat Output</b>	1024 BTU/hour
<b>Ambient Operating Temperature</b>	18–30°C (64–86°F)
<b>Ambient Operating Humidity</b>	20–80% noncondensing
<b>Operating Altitude</b>	0–2000 m (6562 feet)
<b>Floor Load Bearing Requirement</b>	254 kg/m <sup>2</sup>
<b>Overvoltage Classification</b>	Category II
<b>Pollution Classification</b>	NA
<b>Removable Media</b>	USB

# Atellica Solution

[siemens-healthineers.com/atellicasolution](https://siemens-healthineers.com/atellicasolution)

Seamlessly integrating immunoassay and clinical chemistry analyzers with next-level sample management, automation, and AI-powered workflow—Atellica Solution is where intelligence and innovation merge so you can focus on driving better outcomes.

**Over 300 configurations are available to provide a tailored solution for each laboratory.**



Atellica Solution with Sample Handler Configuration Possibilities	
Modules	Number of Possible Module Connections Up to 7 Analyzers per System, Maximum of 10 connections*
Atellica Sample Handler Prime (SHP)	1 per system
Atellica Sample Handler Connect (SHC)	1 for connection to Aptio Automation and FlexLab X
Atellica Sample Handler Additional (SHA)	1 optional when not connected to automation
Atellica CH 930 Analyzer (c)	up to 6
Atellica IM 1300 Analyzer (i) Atellica IM 1600 Analyzer (l)	up to 4
Atellica Integrated Automation Decapper (D)	up to 3: one between SHP and first analyzer, one or two between analyzers or at the end
Atellica Integrated Automation Sealer (S)	1 installed left of SHP†
Right Turn (RT)*	up to 2
Left Turn (LT)*	up to 2

\*Turns do not count in the 10 connections, maximum two turns per system

†Sealer not available in configurations with SHC or SHA

At Siemens Healthineers, we pioneer breakthroughs in healthcare. For everyone. Everywhere. Sustainably. As a leader in medical technology, we want to advance a world in which breakthroughs in healthcare create new possibilities with a minimal impact on our planet. By consistently bringing innovations to the market, we enable healthcare professionals to innovate personalized care, achieve operational excellence, and transform the system of care.

Our portfolio, spanning in vitro and in vivo diagnostics to image-guided therapy and cancer care, is crucial for clinical decision-making and treatment pathways. With the unique combination of our strengths in patient twinning,\* precision therapy, as well as digital, data, and artificial intelligence (AI), we are well positioned to take on the greatest challenges in healthcare. We will continue to build on these strengths to help overcome the world's most threatening diseases, enable efficient operations, and expand access to care.

We are a team of more than 72,000 Healthineers in over 70 countries passionately pushing the boundaries of what is possible in healthcare to help improve the lives of people around the world.

*\*Personalization of diagnosis, therapy selection and monitoring, aftercare, and managing health.*

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