

Technical Specifications

Atellica CI 1900 Analyzer

The Atellica® CI 1900* integrated chemistry and immunoassay analyzer is designed to meet the needs of smaller labs.

siemens-healthineers.com/ci1900







^{*}Not available for sale in the U.S. Under FDA review.

Technical Specifications

Description	Integrated Chemistry and Immunoassay analyzer. Chemistry and Immunoassay technologies sharing	
	no major components, to help maximize test throughput while minimizing laboratory footprint.	
Test Throughput	Up to 1120 tests per hour (up to 600 Photometrics, 400 IMTs, 120 Immunoassays)	
User Interface	Integrated software with intelligent monitoring of supplies, consumable, and common laboratory tasks from the home screen dashboard. The User Interface features onboard tools to assist with laboratory accreditation, simplifies training to optimize the user experience with guided workflows, lab evaluation suite and customizable dashboard.	
Walkaway Time	2 hours	
Sample Handling		
Validated Sample Types	Serum, plasma, amniotic fluid, urine, whole blood (assay-specific), CSF and other	
Sample Integrity Control	Liquid-level sensing, clot/clog detection, bubble detection, short-sample detection; hemolysis, icterus, and lipemia	
Auto-repeat	Automatic repeat testing from the original and diluted sample	
Sample Dilution	Assay-dependent; can be auto-diluted and repeated when results extend linearity	
Auto-reflex Testing	Configurable, additional tests based on results of first test or test mix	
Sample Carryover Prevention	Chemistry uses Precision Wash System Immunoassay uses disposable sample tips for the elimination of carryover	
Sample Volume per Test	2–100 μL of sample (varies by assay)	
Reaction Area		
Reaction Cuvettes	CH dilution cuvettes (64 reusable cuvettes, 4 segments at 16 cuvettes each) CH reaction ring segments (CC = 130 reusable cuvettes, 10 segments, 13 cuvettes) IM incubation ring holds 56 Cuvettes	
Reaction Temperature	CH: 37°C ±0.3°C, IM: 37 ±0.4°C	
Chemistry Reaction Detection	Reaction Area: Photometer, LED light source with 11 fixed wavelengths (340, 410, 451, 478, 505, 545, 571, 596, 658, 694, 805 nm). Linearity: 0–3.0 AU, Resolution: 0.0001 AU	
Chemistry Assay Calculations	Endpoint (EPA), rate reaction (RRA), 2-point rate (2PA), sample blank correction	
Immunoassay Reaction Detection	IM: Photomutiplier Tube	
Immunoassay Reaction Formats	IM: Sandwich, competitive, and antibody-capture/antigen-bridge formats	
Assay Times	Chemistry and Immunoassay: 1–54 minutes assay dependent	
Assay Technology	CH: Integrated Multisensor Technology (IMT, electrolytes), photometric, and turbidimetric IM: Chemiluminescence testing methodology using advanced Acridinium Ester technology	
Reagent Handling		
Reagent Compartments	CH: One Tray (70 positions), refrigerated, temperature controlled compartment 4–12°C IM: 20 primary, 20 ancillary reagent positions with refrigeration and humidity control, continuous and automatic mixing to maintain particle suspension, temperature controlled compartments 4–10°	
Reagent Packs	CH: 50 mL dual-well reagent containers (2 x 25 mL each); 95–2100 tests per pack IM: ReadyPack® cartridge: 50–200 tests per pack	
Reagent Integrity Control	Reagent pack barcode identification: Automatic pack/well tracking, notification of inventory, calibra and control validity, onboard stability, low and expired reagents, detection of reagent bubbles.	
Onboard Stability	CH: Up to 6 months (assay dependent) IM: Up to 3 months (assay dependent)	
Dispensing System	CH: One Probe with liquid-level sensing and crash detection IM: One Probe with liquid-level sensing and crash detection	
Barcode-labeled Packs	Yes	
Average Reagent Volume	10–100 μL per test, assay-dependent	
Open Channels	CH only: Available, configurable to assay specifications with ability to copy Atellica CH assays and configure per laboratory needs.	
Integrated Multisensor Techni	ology (IMT) for Na+, K+, Cl- (This section is only applicable to CH)	
Assay Time	18 seconds	
Sample Volume	25 µL produces three results	
Sample Dilution	Automatic 1:10, and automatic monitoring for bias with every patient result	
Calibration	Automatic calibration	
Priming	Automatic priming cycle	

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Cal	lib	ration	UC

Auto-calibration	Automatic calibration orders generated by Test Definition for CH and IM assays.	
Calibration Review	Graphical display of calibration curves for a minimum of 20 different reagent lots and 20 reagent packs for each assay with autovalidation.	
Auto-QC	Automatic QC orders generated by Test Definition for CH and IM Assays. Quality control testing can be automatically ordered by day, time, panel, test count, control material and with calibration orders.	
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 125,000 control results can be stored; autovalidation, archivable to removable media.	
QC/Calibration Material	QC and calibration materials are tracked in the software by Te Definition and sequence number. Includes onboard stability and interval expiration.	
Laboratory Evaluations	Patent Pending assay evaluation suite. Provides onboard support for Precision testing, automatic and manual measuring interval verification studies, QC parallel and Reagent lot-to-lot testing.	
Maintenance		
Daily	Hands-on: <5 minutes; Automated: ≤30–45 minutes.	
Weekly	Hands-on: <4 minutes; Automated: up to 75 minutes.	
Monthly	Hands-on: <5 minutes	
As Needed	Refer to Online Help for additional periodic maintenance	
Maintenance Logs	Operators Log, Maintenance Log, LIS Log, and Audit Trail Logs monitor activities via the software. Monthly approvals, stored on the system, printable, exportable and formatted for inspections.	
General Specifications		
Power Requirements	Voltage: 200–240 VAC, Current Rating: 30 A, Frequency Rating: 50/60 Hz 5.0 m power cord with an IEC 60309 (6H) 30A/250V 2P+E plug (OUS) or NEMA L6-30 plug (US) Customer Must provide: IEC 60309 (6H) 30A/250V 2P+E receptacle IEC 60309 (6H) 30A/250V 2P+E receptacle required	
Power Consumption	Idle: 100 Watt, Running: 1530 Watt	
Water Input Requirements	2.0–4.5 L/min at temp of 10–30° C. <33 L/h	
Water Quality Requirements	Special Reagent Water. Bacterial (≤50 CFU/mL), Total Organic Carbon (≤500 ppb)	
Maximum Water Consumption	Up to 18.7 L/hour	
Drain Requirements	76.2 mm (3 inches) drain is recommended to handle minimum of 100 L/hour (1.7 L/min)	
Dimensions [†]	(H) 1600 mm, (W) 2034 mm, (D) 934 mm = $<1.9 \text{ m}^2$	
Weight	760 kg (1675.5 lbs)	
Compliance	Complies with international environmental, health, and safety standards, including CE and RoHS.	
Noise Emission	Compliant with NC-43 noise control specification. Average sound pressure of <65 dBA, 1m away from analyzer.	
Processing Heat Output	Idle: 4450 BTU/hr, Running: 5210 BTU/hr	
Ambient Temperature	18–30° C (64–86° F)	
Ambient Humidity	20–80 % non-condensing	
Altitude	Up to 2000 meters	
Floor Load-bearing Requirement	374.6 kg/meter squared, seismic anchoring available	
Overvoltage Classification	Category II	
Pollution Classification	Degree 2	
Removable Media	USB	
†Dimensions with Rack Handler.		

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†Dimensions with Rack Handler.

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