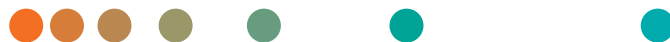




Technical Specifications

Dimension EXL with LM Integrated Chemistry System



Chemistry and immunoassay integration on the Dimension® EXL™ with LM Integrated System allows simultaneous processing to improve workflow.

- Simplify lab operations with an onboard capacity of 91 assays chosen from our comprehensive menu of chemistry and immunoassays.
- Improve workflow efficiency with the ability to load any tube, any place, any time, and only 5 minutes of scheduled maintenance per day.
- Gain better outcomes with fast assay times for critical results, such as High-Sensitivity Troponin I in only 10 minutes and electrolytes in <1 minute.



siemens-healthineers.com

Technical Specifications

Product Specifications

System Description	Random-access clinical chemistry and immunoassay system with LOCI® chemiluminescence technology
Test Throughput	Up to 440 photometric tests, 187 IMT tests, and 167 immunoassay tests per hour
Assay Time (from Aspiration to Result)	IMT (Na, K, Cl) <1 min; BMP (Na, K, Cl, CO ₂ , GLU, BUN, CREA) 4 min; TNIH 10 min; HCG 14 min
Assays Onboard	91, including 3 QuikLYTE® IMT

Sample Handling

Validated Sample Types	Serum, plasma, urine, cerebrospinal fluid, whole blood (varies by assay)
Sample Tubes	5 mL, 7 mL, 10 mL tubes; 1.5 mL sample cups; 1 mL small sample containers; pediatric tubes
Sample Bar Codes	Code 39; Code 128; Codabar (USS); Interleaved 2 of 5 with or without check digit, 12 digits maximum
Sample Wheel	60 sample positions in six 10-tube segments; positive sample identification
STAT Handling	No dedicated positions; STAT samples are processed with priority
Sample Integrity Control	Liquid-level sensing; clot, bubble and short-sample detection and management; hemolysis, icterus, and lipemia checks
Auto-repeat	Automatic repeat testing from the original sample
Sample Volume per Test	2–60 µL (varies by assay)
Sample Dilution	Automatic dilution: 1:1.5 up to 1:200
Auto-reflex Testing	Will automatically perform additional tests based on results of first test
Sample Carryover Prevention	Automated wash protocols and single-use cuvettes help minimize carryover

Reaction Area

Reaction Cuvettes	Onboard capacity of 12,000 formed cuvettes
Reaction Bath	Air; incubation temperature 37°C
Path Length	0.5 cm ±0.0125 cm
Photometer	Optical filter wheel provides wavelengths of 293, 340, 383, 405, 452, 510, 540, 577, 600, and 700 nm
Light Source	Standard tungsten halogen lamp, operation at 6.5A (6.8v)
Reaction Times	1–32 minutes (varies by assay)
Automatic Correction	Serum blank, cell blank, reagent blank, measurement point change, autodilution
Assay Technologies	LOCI, heterogeneous immunoassay, PETINIA and ACMIA, photometry, potentiometry (IMT), turbidimetry, and Emit®
Assay Result Calculations	Endpoint, rate, multipoint

Reagent Handling

Reagent Compartment	2 trays, 44 positions each, refrigerated between 2–8°C (36–47°F); one tray on the Reagent Management System (RMS)
Dispensing System	3 probes with liquid-level sensing
Reagent Cartridges	Flex® Reagent Cartridges, bar-coded, 15 to 360 tests/Flex (varies by assay)
Average Total Reaction Volume	350–500 µL per test (varies by assay)
Reagent Integrity Control	Bar-code reagent identification; automatic inventory tracking and flagging; calibration and control validity tracking and flagging; reagent onboard tracking of tests remaining, lot number, onboard stability, and expiration date
Onboard Stability	Up to 42 days (varies by assay)
Test Capacity Onboard	25,200 tests average; 33,300 tests maximum

Open-system Capability

Channels	110 assay channels; includes 15 open channels for user-defined applications
-----------------	---

Integrated Multisensor Technology (IMT) for Na⁺, K⁺, Cl⁻

QuikLYTE IMT	Indirect simultaneous measurement of Na ⁺ , K ⁺ , Cl ⁻
Sample Volume	40 µL for all three tests
Automated Operation	Automatic priming cycle, no user calibration, automatic urine dilution 1:10
Cartridge Expected Use Life	1000 samples or 5 days, whichever comes first

Calibration/QC

Validated Calibration Interval	Up to 90 days, tracked by software
Auto-calibration	Assay-specific time interval or with new reagent lot
Auto-QC	User-defined time interval
Calibration Review	Graphical display of calibration curves
QC Review	Graphical display of QC plot (histogram or Levey-Jennings) with Westgard rules; real-time QC; QCC PowerPak™ efficiency package

User Interface/Data Management

Monitor	17-inch touchscreen with adjustable height
Operating System	LINUX, 1 GB RAM
System Documentation	Operator Manual, Quick Guide, and Online Help
Data Storage	120,000 patient tests (20 MB); 120,000 QC results (20 MB); 9000 calibrations (5 years, 18 MB)
System Auto-check	User-defined time of day
Host Interface	RS-232C bidirectional
Host Query	System requests work order or batch of work orders from host
Remote Access and Service	Dimension Remote Services and Smart Remote Services via 1000BASE-T Ethernet port

General Specifications

Power Requirements System	100 VAC at 50/60 Hz, 13.5 amps max; 115 VAC at 60 Hz, 11 amps max; 230 VAC at 50 Hz, 5.5 amps max; 1.9 kW max power consumption
Power Requirements RMS	100 VAC at 50/60 Hz, 5.5 amps max; 115 VAC at 60 Hz, 4 amps max; 230 VAC at 50 Hz, 2.4 amps max; 0.55 kW max power consumption
Water Specifications*	<ul style="list-style-type: none">• Pressurized water source for instrument feed <3.8 bar (<55 psi)• Instrument feed water system must maintain stable DO₂ content between 5 and 8 ppm†• Temperature: <35°C (<95°F)• Resistivity: >10 megaohm-cm• Bacterial content: <10 colony-forming units/mL• System feed water line must not exceed 3 m (12 feet)
Water System	<ul style="list-style-type: none">• Instrument may be supplied with a water purifier that provides instrument feed water• If an alternative water system is used, water must adhere to Siemens Healthineers water specifications
Maximum Water Consumption	5.0 L/hr (1.32 gal/hr)
Minimum Drain Requirements	5.0 L/hr (1.32 gal/hr)
Dimensions	208 cm W x 124 cm H x 104 cm D (82 in. W x 49 in. H x 41 in. D) including LOCI module
Weight	496 kg (1095 lb)
Compliance	Complies with international environmental, health, and safety standards, including CE and RoHS
Noise Emission	<75 dB at 1 m while operating
Average Heat Output	1551 W/hr (5293 BTU/hr)
Operating Temperature Range	18–30°C (64–86°F)
Ambient Humidity	20–80% (noncondensing)
Operating Altitude	Maximum 2000 m (6562 feet)
Pollution Classification	Degree 2
Removable Media	USB

*Meets the definition of CLSI Clinical Laboratory Reagent Water (Clinical Laboratory Standards Institute, C3-A4, Vol. 26, No. 22).

†Not applicable to CLSI Clinical Laboratory Reagent Water (CLRW), but required for proper instrument performance.

At Siemens Healthineers, our purpose is to enable healthcare providers to increase value by empowering them on their journey toward expanding precision medicine, transforming care delivery, and improving patient experience, all made possible by digitalizing healthcare.

An estimated 5 million patients globally benefit every day from our innovative technologies and services in the areas of diagnostic and therapeutic imaging, laboratory diagnostics, and molecular medicine, as well as digital health and enterprise services.

We are a leading medical technology company with over 120 years of experience and 18,000 patents globally. Through the dedication of more than 50,000 colleagues in 75 countries, we will continue to innovate and shape the future of healthcare.

Dimension, Emit, EXL, Flex, LOCI, PowerPak, QuikLYTE, and all associated marks are trademarks of Siemens Healthcare Diagnostics Inc., or its affiliates. All other trademarks and brands are the property of their respective owners.

Product availability may vary from country to country and is subject to varying regulatory requirements. Please contact your local representative for availability.

Siemens Healthineers Headquarters

Siemens Healthcare GmbH
Henkestr. 127
91052 Erlangen, Germany
Phone: +49 9131 84-0
siemens-healthineers.com

Local Contact Information

Siemens Healthcare Diagnostics Inc.
Laboratory Diagnostics
511 Benedict Avenue
Tarrytown, NY 10591-5005
USA
Phone: +1 914-631-8000