

**Yumizen**  
Solutions for Laboratories



**C1200 AL**

## Big lab automation in a small footprint

HORIBA, Ltd. has been providing analytical instrumentation for over 65 years, and is an expert in analysis and measurement technologies covering liquids, gas and solids.

The Yumizen C1200 AL is the next generation chemistry system designed to provide high efficiency, and accuracy, and optimal workflow capabilities for laboratories processing 2.0M+ tests annually.

With a throughput of 1200 tests/hour, dedicated port for STAT patient samples and a large test menu, the Yumizen C1200 system guarantees the enhanced flexibility and performance laboratories require for everyday use.



Compact footprint and enhanced usability

High speed and micro-volume technology for improved performance and cost efficiency

Robust performance with industry standard MTBSF of 2.5 days

## ACCURACY | EFFICIENCY | OPTIMAL WORKFLOW



### Sample Handling

- 84 positions for routine sample testing
- Micro-volume analysis; sample volume 1-25  $\mu\text{L}$
- Analyzes serum, plasma, whole blood and urine
- Refrigerated area for controls and calibrators



### Reagent Handling

- 45 refrigerated positions | 100 applications
- Program 3-reagent assays
- Micro-reagent pipetting: 5-300  $\mu\text{L}$
- Open channels for esoteric assays



### Reaction Tray and WUD Station

- 231 replaceable reaction wells
- Two mixers help to maximize throughput and reduce reagent carryover
- Oil bath provides high resolution for quality results, maintains reaction temperature, and eliminates bubbles, bacterial growth and water stains
- Seven-step wash process ensures thorough cleaning of reaction wells



### STAT Mode

- External access outside of sample carousel
- Easy loading and off-loading
- 10 pre-defined panels for samples without barcodes



### Autoloader

- Autoloader loading capacity: 65 samples
- 13 racks; 5 samples per rack
- 800 samples/hr
- Sample tube types: 5, 7 and 10 mL

## Technical Specifications

### General Description

Analysis Method Types	Spectrophotometry: colorimetric and turbidimetric assays
Indirect ISE	Na <sup>+</sup> , K <sup>+</sup> , Cl <sup>-</sup>
Throughput	1200 tests/hour
Automatic Maintenance	During start-up and shutdown

### Sample Handling

Sample Tray	84 samples, continuous loading
Sample Probe	Liquid level sensing, cap/shock and clot detections
Sample Identification	Integrated barcode reader
Sample Types	Serum, plasma, urine
Sample Collection Format	5, 7, 10 mL tubes and sample cups
ISE Sample Volume	22 µL (serum, urine)
Sample Volume	1 - 25 µL (0.1 µL increment)
Automatic Sample Dilution	1/2 to 1/300
Calibrator and Control Tray	61 refrigerated positions for calibrators and controls
STAT Sample Handling	Dedicated STAT position

### Reagent Handling

Reagent Tray	2 trays with 45 reagent positions each
Refrigeration	All reagents refrigerated at 2° - 8° C
Reagent Cartridge	20 (with adaptors), 40 or 70 mL
Dispensing System	2 reagents probes, 3-part reagent capability
Reagent Identification	Integrated barcode system
Reagent Volume	5 - 300 µL

### Reaction System

Reaction Tray	231 reusable cuvettes
Reaction Volume	80 - 430 µL
Reaction Temperature	37° C ± 0.5 with oil bath
Reaction Time	3, 4, 5, 10, 15 minutes
Extended Reaction Time	21 or 31 minutes
Photometer Reaction Cycle	13.5 seconds
Reagent/Sample Mixing	Rotation and repeat left-right movements by stirrers
Automatic Correction	Serum blank, cell blank, measurement point change

### Optical System

Light Source	Halogen lamp with cooling system (coolant circulation)
Measurement Principle	Endpoint, rate reaction, 2 point rate, immunoassay
Wavelengths	14 wavelengths (340 - 884 nm), mono- and bichromatic

### Physical Specifications

Analyzer Size	122 W x 85 D x 110.8 H cm / 48" W x 33" D x 43" H
Analyzer Weight	450 kg / 992 lbs
Ambient Temperature	18° - 30° C
Humidity	40% to 70% with no condensation
Power Source	2.6 kVA, 110 V or 220 V ± 10%, 50/60 Hz
Water Consumption	20 L/hour
Water Specifications	Conductivity < 1 µs/cm
Autoloader	77 W x 118 D x 101 H cm   46.5" W x 30.3" D x 39.8" H
Autoloader Weight	98 kg / 216 lbs