URIT Since 1984
Global Diagnostics Supplier

PLUVIA diagnostics



US-1680

AI-Libre Urinalysis Analyzer

World First AI-Libre Urinalysis Analyzer

- 300 T/H for chemistry analysis
- 120 T/H for sediment analysis
- 120 T/H for both chemistry and sediment analysis

Compact, all in one design

AI technology (CNN, deep learning)

Real strip image display

Innovated formed element video replay

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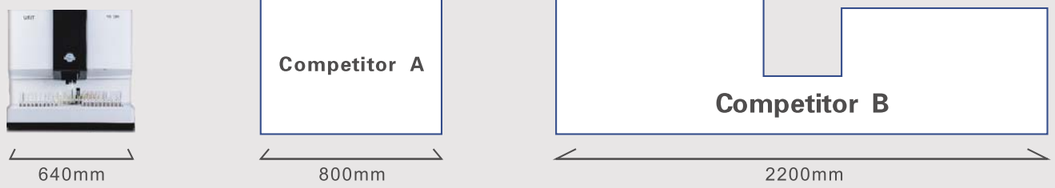
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AI–Libre Urinalysis Analyzer



Smallest All–in–one Urinalysis Analyzer

■ 640mm by length only ■ Save valuable laboratory space



All in One

- Chemistry, sediment and physical analysis in one analyzer US–1680
- One aspiration, complete results
- Robust yet compact

Less is More

- Routine consumption: sheath liquid and strip only
- Minimum sample volume 1.5~2.0mL
  - Chemistry analysis: 1.5mL
  - Sediment analysis: 2.0mL
  - Both analysis: 2.0mL

New Highlights 2020

- Piercing tube function to prevent the infection of COVID–19 sample aerosol
- New physical parameters: conductivity and osmolality

Good and Better

- Optional extension pre–storing and reclaiming tray to extend the sample capacity to 260
- Optional refractometer to provide more pretreatment for higher workload lab
- Optional ST module to utilize sample pretreatment for higher workload lab

Smart and Smarter

- DIY print template modification software integrated
- Intelligent abnormal sample flag
- Bi–directional LIS to follow LIS order to test chemistry, sediment or both flexibly
- Automatic QC function

Throughput	120~300 T/H ・300 T/H for chemistry analysis ・120 T/H for sediment analysis ・120 T/H for both chemistry and sediment analysis
Sample	・Nature urine ・Body fluid (optional): Cerebrospinal fluid/ Hydrothorax and ascite/ Vaginal secretions
Minimum Sample Volume	1.5mL for chemistry analysis; 2mL for sediment/ both chemistry and sediment analysis
Sample Position	Stand–alone: 60; With expanding tray: 260; With ST module: 200
Display & OS	22–inch screen, Windows 10
Results Storage	⩾400,000
Communication	LAN, USB, RS–232, PS/2, VGA
Working Temperature	5~40℃
Power Supply	100V–240V~, 50/60Hz
Dimension	640 mm(L) x 705 mm(W) x 618 mm(H)
Weight	82.5 kg



US–1680 Chemistry Analysis Part

Advanced CIS Imaging System

- High accuracy and high efficiency
- Real strip image display
- 5 wavelengths detection guarantees precise and confident results

Physical Module

- Redesigned SG module to compensate temperature influence
- Improve test accuracy of urine specific gravity, turbidity and color

14 Items Strips

- 14 test items including VitC, CR, MA and CA
- Microalbumin–to–Creatinine Ratio (ACR)/ Protein–to–Creatinine Ratio (PCR) helps to screen early kidney disease
- Compensation pad can eliminate urine color interference

High Speed

- 300 T/H for chemistry analysis only
- 120 T/H for both chemistry and sediment analysis

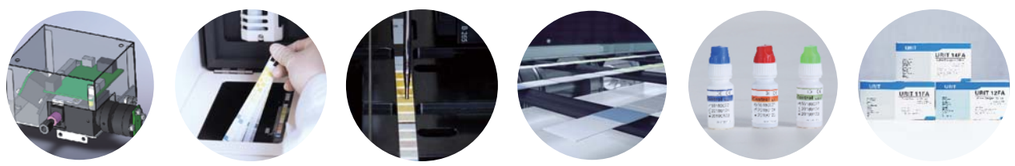
Bar code Scanning Function

- High rate bar code scanning identification
- Shift test mode by scanning bar code through bi–directional LIS

Liquid Level Sensing

- Liquid level sensing function to reduce the contact area between sample probe and urine
- Minimize the cross contamination interface

Principle	CIS color detecting system, 5 wavelengths colorimetry method, refraction method
Parameters	*Strip parameters*: ・11FA: LEU, KET, NIT, URO, BIL, PRO, GLU, SG, BLD, pH, VitC ・12FA: LEU, KET, NIT, URO, BIL, PRO, GLU, SG, BLD, pH, MA, CRE ・14FA: LEU, KET, NIT, URO, BIL, PRO, GLU, SG, BLD, pH, VitC, MA, CRE, CA *System parameters:* ACR/ PCR(12FA, 14FA) *Physical parameters:* Color, Turbidity, SG, Osmolality, Conductivity
Strips	11FA, 12FA, 14FA
Strip Cabin Capacity	500





US–1680

Sediment Analysis Part

Urine Sediment Analysis

- Flowcell digital imaging automatic identification
- 2000 frames image capture
- High speed data acquisition card

High Speed & Reliability

- 120 T/H constant speed for sediment analysis
- To be fast but never compromising on high resolution pictures and reliable results

High Resolution Pictures

- Innovated formed element video replay for each sample
- 400 times magnified image
- Guarantee the recognition accuracy rate

AI Technology

- Deep learning system
- Multi–layer neural network (CNN), more intelligent
- Expanded learning and migration learning technology, more compatible

Consolidation of Urine Work Area

- New generation report interface
- Full report covers physical examination results, dry chemistry results, formed element results, RBC phase information and real strip image

Principle	AI recognition technology, flat sheath flow technology, digital imaging technology
Parameters	**Urine formed elements** RBC, G1, COIN, GHOST, WBC, PAGOCYTE, WBCC, HYA, PAT, WAXY, CELLULAR, SQEP, NSE, TREP, REN, CAOX, CAOxm, CAOxd, URIC, UNCX, STRUVITE, AMORF, COCCI, BACCILI, YST, CANDIDA, MUCS, SPRM and more are coming soon... **RBC phase detection** MCV, RDW, abnormal RBC ratio Integrate urine dry chemistry results
***Body fluid (optional)**	Cerebrospinal fluid (CSF) / Hydrothorax and ascite/ Vaginal secretions RBC, WBC, EC, BACT, etc.
Video replay	Yes
Pictures for each sample	2000
Lens	40X
Report Unit	xx/μL, xx/HPF, xx/LPF, plus system

