

AVE-772

Fully Automated Integrated Urine Analyzer

Specifications

- Throughput
Chemistry 240T/H Microscopy 50-120T/H Chem+Micro 50-120T/H
- Min. sample volume: 3ml
- Sample preparation: Native sample
- Built-in barcode reader: Yes
- Counting Chamber: 3 channels
- Detection rate: $\geq 98\%$ for sample at concentration of 5 cells/ μl
- Accuracy: -For chemistry measurement, comparing to reference solution, results are within tolerance of one level or no false positive and negative;
-For microscopy measurement, $\geq 95\%$
- Repeatability: -For chemistry measurement, $\text{CV} \leq 1\%$;
-For microscopy measurement, $\text{CV} \leq 7\%$
- Carryover: At concentration of 4600-5400 cells/ μl , ≤ 1 cell/ μl ;
At concentration of 9200-10800 cells/ μl , ≤ 2 cells/ μl
- Verification: Full-view field images + segmented images
- Report: Comprehensive results with images and diagrams
- Sampler: Loading capacity of 60 samples
- Strip tank capacity: 200 strips
- STAT: Available
- Data interface: Bidirectional
- LIS/HIS connection: Available
- Computer: External
- Results storage: $\geq 200,000$ results
- Dimensions: 825mm \times 647.5mm \times 514mm
- Weight: 75kg



Product and Consumables:

Product Name	Specifications	Art. No.
Fully Automated Integrated Urine Analyzer	AVE-772	77201
Urine test strips	AVE-11AH	01107
Calibrator For Urine Formed Elements Analyzer	10mL*28	21006
Chemistry QC (Negative + Positive)	10ml * 8	
Reagent Kit:		
Cleanser I	500mL	13001
Cleanser II	40mL	14008
Buffer	40mL	12004

Matrix Labs Diagnostics Pvt. Ltd.,

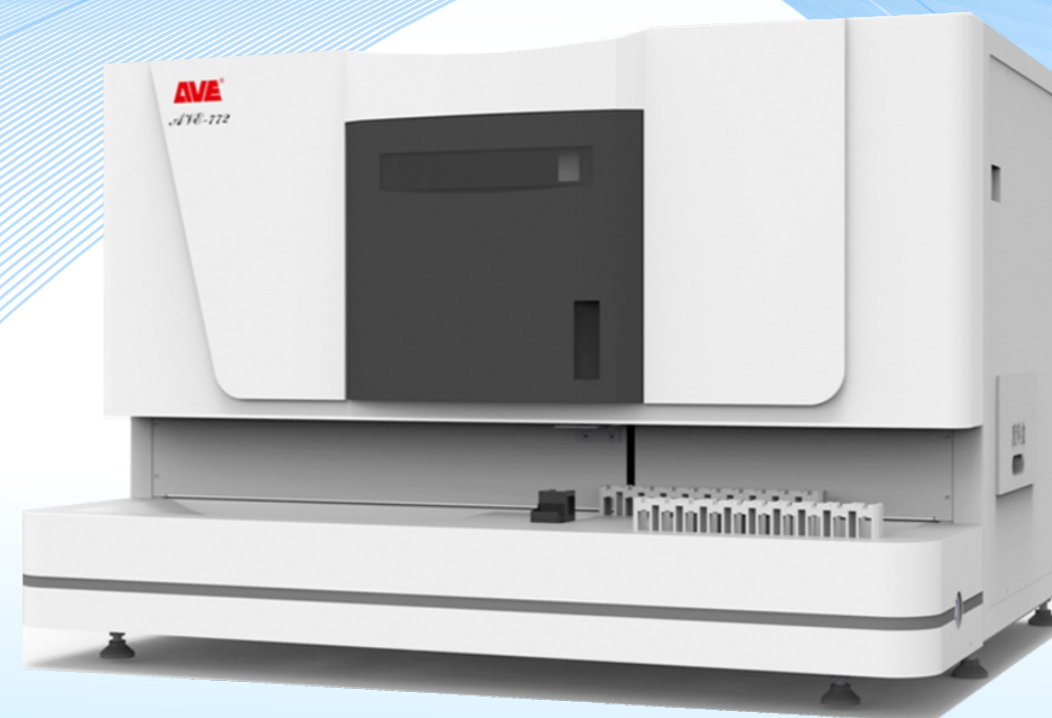
"Matrix Towers" 3rd Floor, S.No-114/13A, 13B, 12B, 12A2,
Ponnamman Kovil Street, Noombal,
Chennai-600077, India.
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Fully Automated Integrated Urine Analyzer

"Touching Human Lives Through Innovation"



Measuring Principle

Physical Measurement

- Color & Turbidity :- LED Based photoelectric method
- Specific Gravity :- Detection by refractometer method
- Conductivity :- Measured by electrode method

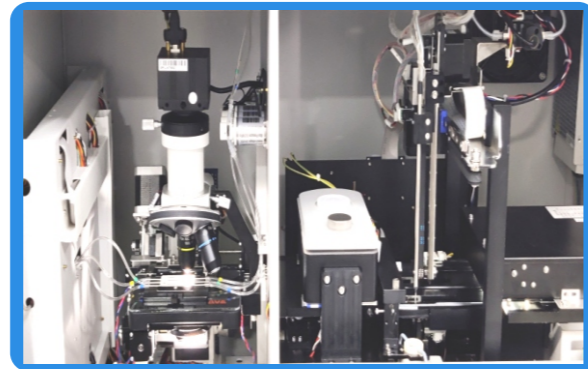
Chemistry Measurement

- Reflectance + CCD(Couple charged device) image capture technology
- Patent strip feeding device.
- Innovative sample sprinkling technology to avoid undetection.
- Test results traceable with images.

Microscopy Measurement

- Machine Vision Technology (Automated Morphologic Microscopy) Through Artificial Intelligent Reporting
- Made strictly according to ISLH Recommended Reference Procedure for the Enumeration of Particles in Urine.
- Uncentrifuged urine samples at cut-off concentration level of 3-5 cells/ μ l are detectable.
- Precise morphological analysis of RBC helps to determine the source of hematuria.
- Standardized and confirmatory report with both images and diagrams available. Pop ups indicate on-screen verification with no need to redo the measurement.
- Self-learning function continuously improves the recognition accuracy.
- CFDA approved quality controls of two levels available.

Inbuilt Automated Microscope



Detected Parameters

- Chemistry Measurements: 11&14 parameters available.
- Microscopy Measurements : RBC & sub-classification, WBC, Epithelial cells, Crystal sub-classification, Casts sub-classification, Mucus, Yeast, Bacteria, Sperm, Etc.

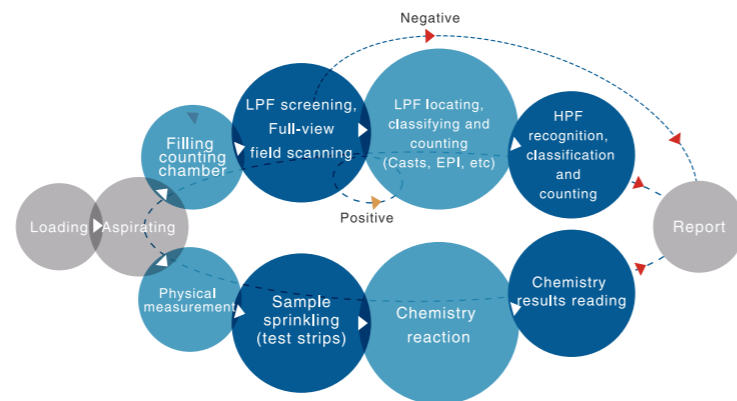
Further sub-classification is available with manual on-screen verification.

- Physical Measurements: color, turbidity, specific gravity and conductivity.

Advantages

- Microscopy fine adjustment for clear cells available in on-screen verification
- Unique design with both Chemistry and Microscopy measurements integrated, which makes both measurements done by sampling once.
- Measurement Modes Optional: chemistry, microscopy, or chemistry+microscopy.

Working Procedure



LIS Images Transferable Report Format

Urine Chemistry				Urine Test Strip			
Item	Result	Unit	Ref.	Item	Result	Unit	Ref.
BIL	-	mmol/l	Neq	BIL	Color	Pale red	
PRO	-	g/l	Neq	PRO	Turbid	Transparent	
UBG	-	umol/l	Norm	UBG	SG	1.005	1.010-1.030
GLU	-	mmol/l	Neq	GLU	LEU	2+	cell/ul
KET	-	mmol/l	Neq	KET	ASC	-	mmol/l
BLD	2+	cell/ul	Neq	BLD	PMc	Color : Pale red	
NIT	-	umol/l	Neq	NIT	Morphol.	Turbid : Transparent	
Ph	5.0		5.0-7.5	Ph	Normal RBC(%)	96.12	(%)
SG	1.005		1.010-1.030	SG	Abnr RBC(%)	3.88	(%)
LEU	2+	cell/ul	Neq	LEU			
ASC	-	mmol/l	neq	ASC			

Urine Analysis Report				
Item	Urine Formed Element	Result	Unit	Ref.
RBC		5-10	/HPF	0-1
WBC		2-3	/HPF	0-1
Crystal		5-10	/HPF	0-1
Cast		5-15	/LPF	0-1
Epithelium		5-15	/LPF	0-1
Normal RBC		5-10	/HPF	0-1
Abnr RBC		1-2	/HPF	0-1
Mucus		0	/LPF	0-1
Uric Acid Crystal		2-3	/HPF	0-1
Magnesium Phosphate Crystal		0	/HPF	0-1
Amorphous Crystal		0	/HPF	0-1
Calcium Oxalate Crystal		2-3	/HPF	0-1
Cystine Crystal		3-5	/HPF	0-1
Granular Cast		0-3	/LPF	0-1
Hyaline Cast		0-2	/LPF	0-1
Waxy Cast		0	/LPF	0-1
Squamous Cell		0-2	/LPF	0-1
SREC		0	/LPF	0-1
Acanthocyte		0	/HPF	0-1
Crenated Erythrocyte		5-10	/HPF	0-1
Yeast		5-10	/HPF	0-1
Bacteria		2-3	/HPF	0-1

PMC	Color : Yellow Turbid : Transparant Conduct : 25.88 Osmatic pressure 937.77	Morphol .	Normal RBC (%) : Abnr RBC (%) :