Fully Automated Random Access Chemistry Analyser!
Sapphire 800® is a powerful and intelligent Chemistry Analyser recently launched by Audit Diagnostics. The higher throughput of 800 tests/hour is designed for medium to high workload medical laboratories. Its State of the Art hardware and software provides the ideal diagnostic solution for Clinical Chemistry, Immunoassay, Drug of Abuse (DOA), Therapeutic Drug Monitoring (TDM), demands of the modern laboratory.
**Intelligent Technology**

### HIGH SPEED
- High speed throughput up to 800 tests/hour
- Fast pipetting and stirring because of 2 reagent probes and stirrers

### WIDE RANGE SUPPORT
- 115 sample positions including 50 samples, 20 Stats, 34 Calibrators and 8 QC's and 3 Detergents
- 90 reagent positions support R1 - R4, 20ml and 70ml bottles
- 88 parameters maximum plus 3 ISE on board
- 150 µl minimum reaction volume
- 12 wavelengths support full Audit test menu

### PREMIUM ACCURACY AND QUALITY
- Accuracy to 1 µl sampling, allow minimum 2 µl sampling volume
- Nano technology treating on sample, reagent probes and stirrers largely reduce carryover
- Clot detection ensures safe pipetting
- Realtime QC and statics ensure test performance
- Enhanced reliable to work with Audit dedicated reagents
- 12 wavelengths support full Audit test menu

### ADVANCED TEMPERATURE CONTROL
- 17 calibrator positions store under refrigerated chamber
- 90 reagent positions are all under 5 - 15°C
- Recycling water heating provide constant temperature to reaction cuvettes
- PID thermostat technology ensure 37± 0.1°C reaction temperature
- Cuvettes are washed with warm water

### FLEXIBLE USERS INTERFACE
- Windows based software
- Multi-functional monitoring operation process and reaction curves
- Easy data management and large storage space
- Realtime online help system
- Password protect authorized user
**TECHNICAL SPECIFICATIONS**

**SYSTEM GENERAL**

- **System Type**: Fully automated, discrete, random access, patient prioritized, clinical chemistry analyzer
- **Throughput**: 800 tests/hour, fixed 400 tests/hour for photometric test
- **Assay Item**: Maximum 88 photometric tests plus 3 ISE
- **Water Consumption**: 25lt/hour
- **Analytical Method**: End point, end point 2, 2 point rate, twin assay

**SAMPLE HANDLING**

- **Sample Tray**: 115 positions including stat, calibrator and control positions
- **Sample volume (µl)**: 2 - 35µl (adjustable in 0.1µl step)
- **Reagent Bottles**: 70ml, 20ml
- **Reagent Cooling**: 5 - 15°C, 24 hours standby cooling
- **Reagent Probe**: Temperature controlled, level detection, clot detection and obstacle detection

**REAGENT HANDLING**

- **Reagent tray**: 2 x 45 positions with cooling
- **Reagent volume (µl)**: 150 - 450µl
- **Photometry Optics**: Grating photometry mono/bi-chromatic measurement, 12 wavelengths: 340, 380, 405, 450, 480, 505, 546, 570, 600, 660, 700, 750nm
- **Absorbance Range**: 0 - 3.3 ABS
- **Light Source**: Halogen lamp (20W/12V), long life over 2000 hours
- **Optical Path**: 6mm
- **Washing Unit**: 7 stops 11 steps automatic warm water laundry unit
- **Stirrer**: 2 separated stirrers

**USER INTERFACE**

- **Display Resolution**: 1024 x 768
- **Software**: Based on Windows XP or higher
- **Auxiliary Data**: Non limit
- **Interface**: RS-232 C port for Bi-directional communication
- **Run monitor**: Operation status on screen
- **Reaction Curve**: Review whole reaction process
- **Printer**: External
- **Calibration**: Linear (one, two and multi-point), factor and non linear multi point
- **Control**: Levy-Jennings, daily and monthly QC statistics
- **Power Supply**: 220 ± 22 V AC (or 110 ± 3 V AC optional), 2000 VA, 50 ± 1 Hz
- **Environmental**: 15 - 30, 10 - 90% Rel. Hum.
- **Dimensions**: 1060(W) x 790(D) x 1150(H)mm
- **Weight**: 330kg

**ORDERING INFORMATION**

- **CAT No. ADS800 Sapphire 800 Automated Clinical Chemistry Analyzer, W/O PC**
- **CAT No. ADS800/ISE Sapphire 800 Automated Clinical Chemistry Analyzer, with ISE, W/O PC**

**TEST MENU**

**Clinical Chemistry**

- ACE
- ACP
- AL8
- ALC
- ALP
- ALT
- AM
- AMY
- AMY-P
- AST
- AST-M
- CA
- CHE
- CHO
- CHOLEST
- CK
- CKMB
- CL
- CO2
- CRE
- E
- D-BIL
- FE
- FRA
- FRUC
- GLU
- Hba1c
- HDL
- HLD
- HiCRP
- IP
- LDH
- LDL
- LP(a)
- MG
- TP
- T-BIL
- TG
- UA
- UREA
- µ-TG
- ZN

**DOA**

- Amphetamines
- Barbituates
- Benzodiazepine
- Cannabinoid
- Cocaine
- Catamine
- Ethyl Alcohol Metabolites
- Methadone
- Methaqualone
- Opiates
- Phenacyclidine
- Propoxphene
- THC

**Electrolytes**

- Cl
- K
- Na

**Immuno-Assay**

- ApoA-1
- ApoA-1 I
- ApoB
- ASO
- B2-M
- C3
- C4
- CRP
- Fer
- Ig-A
- Ig-G
- Ig-M
- LP(a)
- MA
- T
- RF

**TDM**

- CR2
- DIG
- FMA
- PB
- PHT
- E

**Under Development**

- CEA
- D-Dimer
- Myoglobin
- PSA
- Troponin
INTELLIGENT TECHNOLOGY FEATURES:

- Fully Automated Random Access Chemistry Analyser.
- 800 Tests/hour
- Constant Throughput
- Clinical Chemistry Tubridimetric ISE DOA TDM
- Barcoded Reagents
- Sample Barcode Reader
- Auto Rerun, Auto Dilution
- Up to 4 Reagent Analysis Types
- 11 Step Cuvette washing with warm water
- Level Detection, Clot Detection, Collision Detection Probes
- Minimum Reaction Volume 150 µl
- Windows XP Operating Software
- Reaction Monitoring and Curve Reviewing
- Serum Checking Function Removing Interference Hemolysis Lipid, Jaundice
- 15 µl Sample Urine for ISE
- Individual Probes for R1, R2 & Sample
- 2 Separate Stirrers
- 115 Sample Positions
- Refrigerated Calibrator Positions
- Up to 90 Refrigerated Reagent Positions
- Up to 15 Minutes Incubation