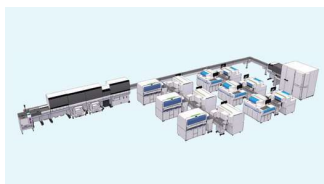Total Laboratory Automation Solutions

SATLARS™-TCA

Product Features

◤ HIGH THROUGHPUT

- Immunoassay module is compatible with super-high throughput CLIA analyzer--**MAGLUMI® X8** (up to 600 T/H/unit)
- Biochemistry module can connect to high-speed analyzer --**Biossays® C8** (up to 1600 T/H/unit)
- Centrifuge module throughput: up to 400 tubes/hour/unit
- Cold Storage Module: each storage unit with capacity of 14,800 tubes
- Decapper module throughput: up to 600 tubes/hour/unit
- Recapper module throughput: up to 500 tubes/hour/unit
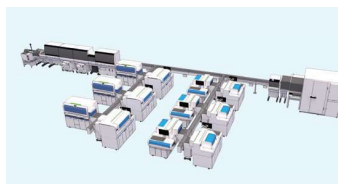
◤ FLEXIBLE LAYOUT AND COMBINATION

- 4 models support customization according to your laboratories
- Each module is optional in accordance with your requirements
- Adapt to a variety of laboratory venues with high flexibility (can go through walls and bend)
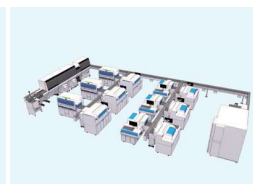

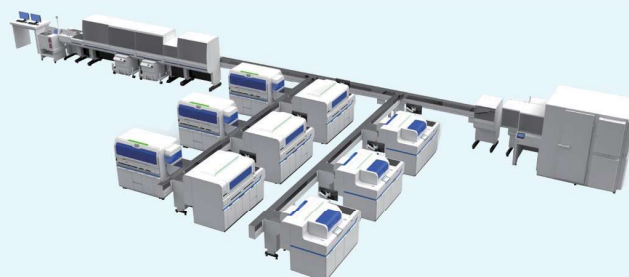**F Model**   **I Model**   **T Model**   **U Model**

◤ FULLY AUTOMATION SOLUTION

- Sample assembly line including blood collection, analysis, and storage, saving time and manpower
- Automatic sample classification according to types of tests or colors of tube caps, easing operation burden
- Automatically check the measurement reports to reduce human error

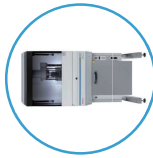Automatic Blood Collection System

samples

◤ HIGH SCALABILITY

- Easy addition of new or exiting modules like centrifuge, decapper or other analytical modules for more functionality
- Compatible with fully-automatic analyzers by other mainstream manufactures including Abbott, Roche, etc

Cold Storage Module

Recapper Module
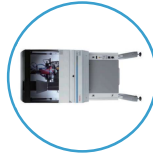
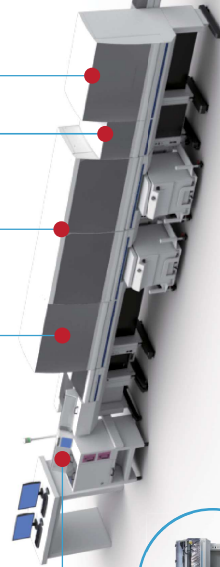Conveyors

Aliquoter & Labeler Module

Decapper Module

Centrifuge Module
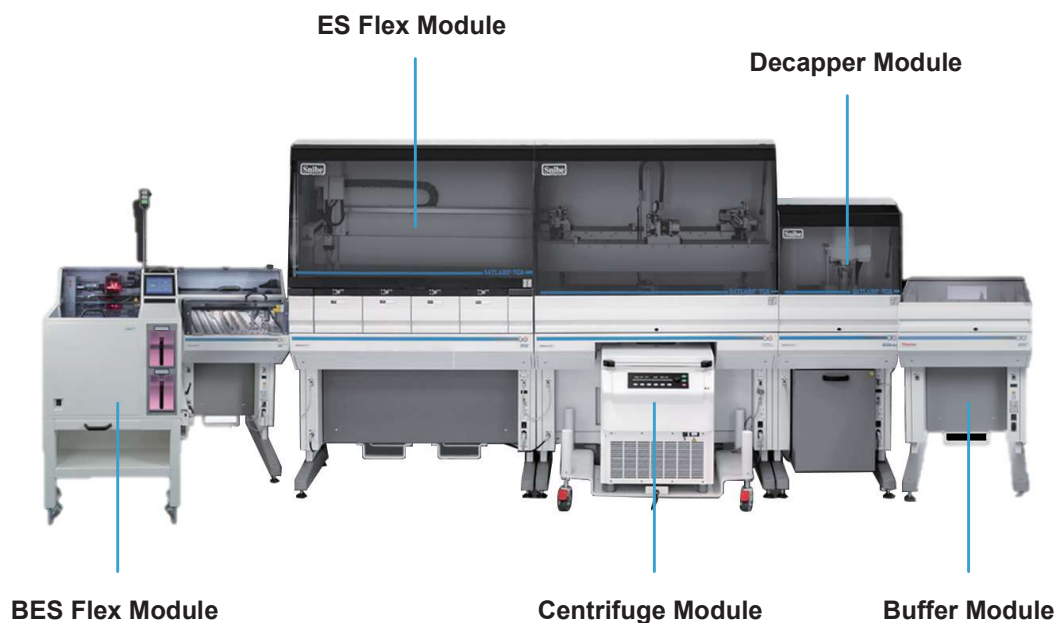
ES Flex Module

BES Flex module

Automatic Biochemistry Analyzer
--Biossays® C8

Fully-auto CLIA Analyzer
--MAGLUMI® X8

Fully-auto CLIA Analyzer
--MAGLUMI® X6

Pre-Analytical Module

ES Flex Module

Decapper Module

BES Flex Module

Centrifuge Module

Buffer Module

◼ BES Flex Module

- Throughput: up to 750 tubes/hour
- Connect automatic blood collection system to realize remote sampling
- Capable of bulk loading or connecting to automatic sample loading system, to save manpower and simplify the process
- Sample classification according to the colors of caps, the sizes of tubes, etc.
- Can work independently from the system

◼ ES Flex Module

- Up to 600 tubes/hour (combined input/output throughput)
- Tube capacity: up to 800 tubes/unit
- Various sample tubes and racks available
- Flexible assignment of sample entry and exit racks
- 4 user-defined sample drawers and racks
- Accurately position the location of recycled sample to facilitate searching for review

Pre-Analytical Module

◗ Centrifuge Module

- Throughput: up to 400 tubes/hour
- Capable to work independently from the system
- Fully-automated loading, balancing and unloading of the centrifuge racks
- Several user definable parameters: timing, acceleration, deceleration and temperature (-20 ℃ to +40 ℃)
- Expandable centrifuge modules to shorten sample processing time
- Sufficient centrifugal force (up to 4300 g) to meet different test needs

◗ Decapper Module

- Throughput: 600 tubes/hour
- Handling error tubes, such as broken or stuck caps
- Automatic alarm for cap disposal (capacity: 2500 caps)
- Automatic removal of screw and plastic caps
- Smart identification of the existence of cap and height & diameter of sample tubes
- Rotary opening cover, smooth and effective process to avoid aerosol splash

◗ Buffer Module

- Storage area for empty carriers or for samples waiting for validation
- Tube capacity: 170 tubes/unit
- Effectively control the number of samples on the track at peak times to avoid track crowding
- Temporary parking of samples to wait for the result acceptance and re-routing

Analysis Module

◤ Immunoassay module is compatible with MAGLUMI® X Series

Excellent CLIA analyzers with advanced core technology--X-TECH

450 T/H

600 T/H

MAGLUMI® X6

MAGLUMI® X8

- Patented pipetting technology with disposable Tips ensures accurate and precise results and no cross-contamination
- Single cup design for each test with at least five-sided (X8 is 360°) incubation heating at 37±0.3℃, makes accurate, quick and uniform incubation
- Intelligent washing function with different mixing modes depending on different assays reduces the non-specific binding
- Super sensitive and stable measuring chamber with bidirectional temperature control technology ensures the accuracy of results

◤ Biochemistry module is adapted to Biossays® C8

Unlimited choice for biochemistry

1600T/H   300T/H(ISE)

- The minimum volume of reaction liquid is 80 μL
- Precise and convenient pipetting technology assures dispense accuracy
- Intelligent stirring needle with hydrophobic plating to avoid cross-contamination to the greatest extent
- High quality optical system with stable light intensity and low fluctuation

◤ Open-ended Third Party Platform Module

- Open architecture to connect the third-party analyzers from different manufacturers including Abbott, Roche and other mainstreams

Post Analytical Module

Recapper Module

- Throughput: 500 tubes/hour
- Special caps for different types of sample tube with different diameters
- Continuous caps loading with 2000 cap capacity
- Automatic capping to reduce biohazardous exposure
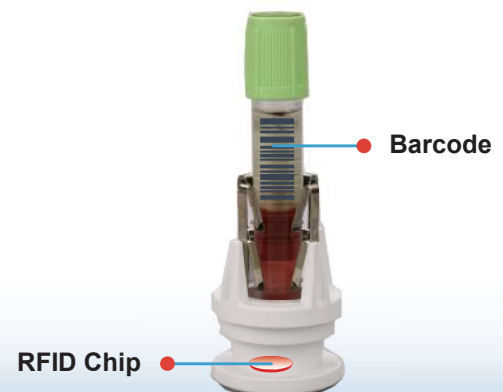
Cold Storage Module

- Storage capacity: up to 14,800 tubes/unit
- Loading throughput: up to 700 tubes/hour
- Refrigerated storage system with programmable storage profiles
- Sample automatically retrieved back to the track for re-testing or discharged according to the programmable timing
- Four different programmable storage profiles according to the test
- Automatic discharge function

Sample Carrier

- Single sample carrier with RFID chip minimizes the number of code sweeps, reducing error rate caused by multiple sweeps
- Barcode connected to LIS to get the information of testing assays
- Monitoring sample's position in real-time
- Run the shortest route to save testing time

Barcode

RFID Chip

COMPREHENSIVE TEST MENU

Compatible with **MAGLUMI®** X series analyzers (X6 and X8) and **Biossays®** C8, with one of the broadest test menu, including more than 200 immunoassay parameters and 74 biochemistry assays

Immunoassay menu:

Thyroid
TSH (3rd Generation)
T4
T3
FT4
FT3
Tg (Thyroglobulin)
TGA (Anti-Tg)
Anti-TPO
TRAb
TMA
Rev T3
T-Uptake

Hypertension
Direct Renin
Aldosterone
Angiotensin I
Angiotensin II
Cortisol
ACTH

Inflammation Monitoring
CRP
PCT (Procalcitonin)
IL-6 (Interleukin 6)
SAA (Serum Amyloid A)
*TNF-α

Bone Metabolism
Calcitonin
Osteocalcin
25-OH Vitamin D
Intact PTH
β-CTx
total P1NP

Coagulation Markers
D-Dimer
TAT
TM
PIC
tPAIC

Anemia
Vitamin B12
Ferritin
Folate (FA)
EPO
RBC Folate

Fertility
FSH
LH
HCG/β-HCG
PRL (Prolactin)
Estradiol
Testosterone
free Testosterone
DHEA-S
Progesterone
free Estriol
17-OH Progesterone
AMH
SHBG
Androstenedione
PlGF
sFlt-1

TORCH
Toxo IgG
Toxo IgM
Rubella IgG
Rubella IgM
CMV IgG
CMV IgM
HSV-1/2 IgG
HSV-1/2 IgM
HSV-1 IgG
HSV-2 IgG
*HSV-2 IgM
*HSV-1 IgM
*Toxo IgG Avidity
*CMV IgG Avidity

Glyco Metabolism
C-Peptide
Insulin
GAD 65
Anti-IA2
ICA
IAA (Anti Insulin)
Proinsulin
*Glucagon
*ZnT8

Metabolism
Pepsinogen I
Pepsinogen II
Gastrin-17
GH (hGH)
IGF-I
IGFBP-3

Infectious Disease
HBsAg
Anti-HBs
HBeAg
Anti-HBe
Anti-HBc
Anti-HBc IgM
Anti-HCV
Syphilis
Anti-HAV
HAV IgM
*HEV IgG
*HEV IgM
HIV Ab/Ag Combi
Chagas
HTLV I+II
H.pylori IgG
H.pylori IgA
H.pylori IgM
2019-nCoV IgG
2019-nCoV IgM
SARS-CoV-2 S-RBD IgG
SARS-CoV-2 Neutralizing Antibody
SARS-CoV-2 Ag
Monkeypox Virus Ag
Dengue Virus IgG
Dengue Virus NS1
*Dengue Virus IgM
Chlamydia Pneumoniae IgG
Chlamydia Pneumoniae IgM
Mycoplasma Pneumoniae IgG
Mycoplasma Pneumoniae IgM

EBV
EBV EA IgG
EBV EA IgA
EBV VCA IgG
EBV VCA IgM
EBV VCA IgA
EBV NA IgG
EBV NA IgA

Hepatic Fibrosis
HA
PIIIP N-P
C IV
Laminin
Cholyglycine
GP73

Immunoglobulins
IgM
IgA
IgE
IgG

Tumor Markers
AFP
CEA
Total PSA
f-PSA
CA 125
CA 15-3
CA 19-9
PAP
CA 50
CYFRA 21-1
CA 242
CA 72-4
NSE
S-100
SCCA
TPA-snibe
ProGRP
HE4
HER-2
PIVKA-II

Cardiac
CK-MB
Troponin I
Myoglobin
hs-cTnI
hs-CRP
H-FABP
NT-proBNP
BNP
D-Dimer
Lp-PLA2
MPO
HCY

Prenatal Screening
AFP (Prenatal Screening)
free β-HCG
PAPP-A
free Estriol

Drug Monitoring
Digoxin
CSA (Cyclosporine A)
FK 506 (Tacrolimus)

Veterinary testing
*cTSH
*cTT4
*vFT4

Autoimmune
Anti-CCP
Anti-dsDNA IgG
ANA Screen
ENA Screen
Anti-Sm IgG
Anti-Rib-P IgG
Anti-Scl-70 IgG
Anti-Centromeres IgG
Anti-Jo-1 IgG
Anti-M2-3E IgG
Anti-Histones IgG
Anti-nRNP/Sm IgG
Anti-SS-B IgG
Anti-SS-A IgG
TGA (Anti-Tg)
Anti-TPO
TRAb
TMA
ICA
IAA (Anti Insulin)
GAD 65
Anti-IA2
Anti-tTG IgA
Anti-tTG IgG
*DGP IgA
*DGP IgG
*ZnT8
Anti-MPO IgG
*Anti-PR3 IgG
*Anti-GBM IgG
*Anti-Cardiolipin IgG
*Anti-Cardiolipin IgM
*Anti-Cardiolipin IgA
*Anti-Cardiolipin screen
*β2-Glycoprotein I IgG
*β2-Glycoprotein I IgM
*β2-Glycoprotein I IgA
*β2-Glycoprotein I screen

Kidney Function
$β_2$-MG
Albumin
*NGAL

Biochemistry menu:

Cardiac
CK
CK-MB
α-HBDH
LDH
*D-Dimer
*LDH1
*ACE
*IMA
*MYO

Diabetes
GLU
LAC
HbA1c
*GSP
*D3-HB
*GA

Hepatic
TBA
ALT (SGPT)
AST (SGOT)
ALP
GGT
TBIL
DBIL
TP
ALB
*Ammonia
*PA
*CHE
*AFU
*5´-NT
*Haptoglobin
*ADA

Lipids
HDL-C
LDL-C
TC
TG
ApoE
ApoA1
ApoB
Lp(a)
Hcy
*NEFA

Inorganic Ion
Ca
P (phos)
Mg

Renal
Cr (CREA)
Uric Acid
Urea
Cys-C
α1-MG
β2-MG
mALB
*Urine/CSF Protein
*RBP
*NAG

ISE
Na+
K+
Cl-
iCa^{2+}
pH

Immune
IgM
IgA
IgG
*C3
*C4

Anemia
Transferrin
Fe (Iron)
*UIBC
*G6PD
*Ferritin

Inflammation
CRP (Full Range)

Rheumatism
ASO
RF

Pancreatic
α-AMY
LIP

* Available soon

AVAILABLE THIRD-PARTY ANALYTIC CONNECTIONS

- **ABBOTT**

  ARCHITECT i2000SR
  ARCHITECT c8000/16000

- **BECKMAN COULTER**

  UniCel DxI 800

  AU-680 DTS

- **ROCHE**

  Cobas 8000
  Cobas pro
  Cobas 8100 Automation (Cobas p 512 / p 612)

- **SIEMENS**

  ADVIA Centaur XP

- **ORTHO CLINICAL DIAGNOSTICS**

  VITROS 3600 /4600/5600
  VITROS XT3400 / XT7600
  VITROS 5,1 FS/5,1 FS AT

- **THERMO FISHER SCIENTIFIC**

  Phadia Immunocap 1000

- **SYSMEX**

  HST
  XN-9000

- **WERFEN IL**

  ACL Top 700/750

- **TOSOH**

  AIA 1800/2000LA
  AIA CL1200/CL2400
  Tosoh G8/G11

- **DIASYS**

  Biomajesty JCA-BM6010/C

- **STAGO**

  STA-R Evolution
  STA R Max, Max², Max³

- **DIASORIN**

  Liaison XL

* Please consult with your local Snibe representative whether the above third-party analyzer interfaces are available in your region. The non-Snibe vendor would need to be in agreement to allow connecting with SATLAS™-TCA system. Consult third-party manufacturers and/or vendors for the above analyzer technical requirements.

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