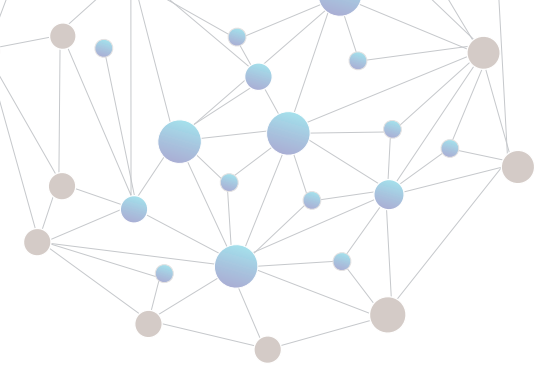# MAGLUMI® X3

Fully-auto Chemiluminescence Immunoassay (CLIA) System

New

Save Your Space Without Compromise

Powerful Performance and Compact Design
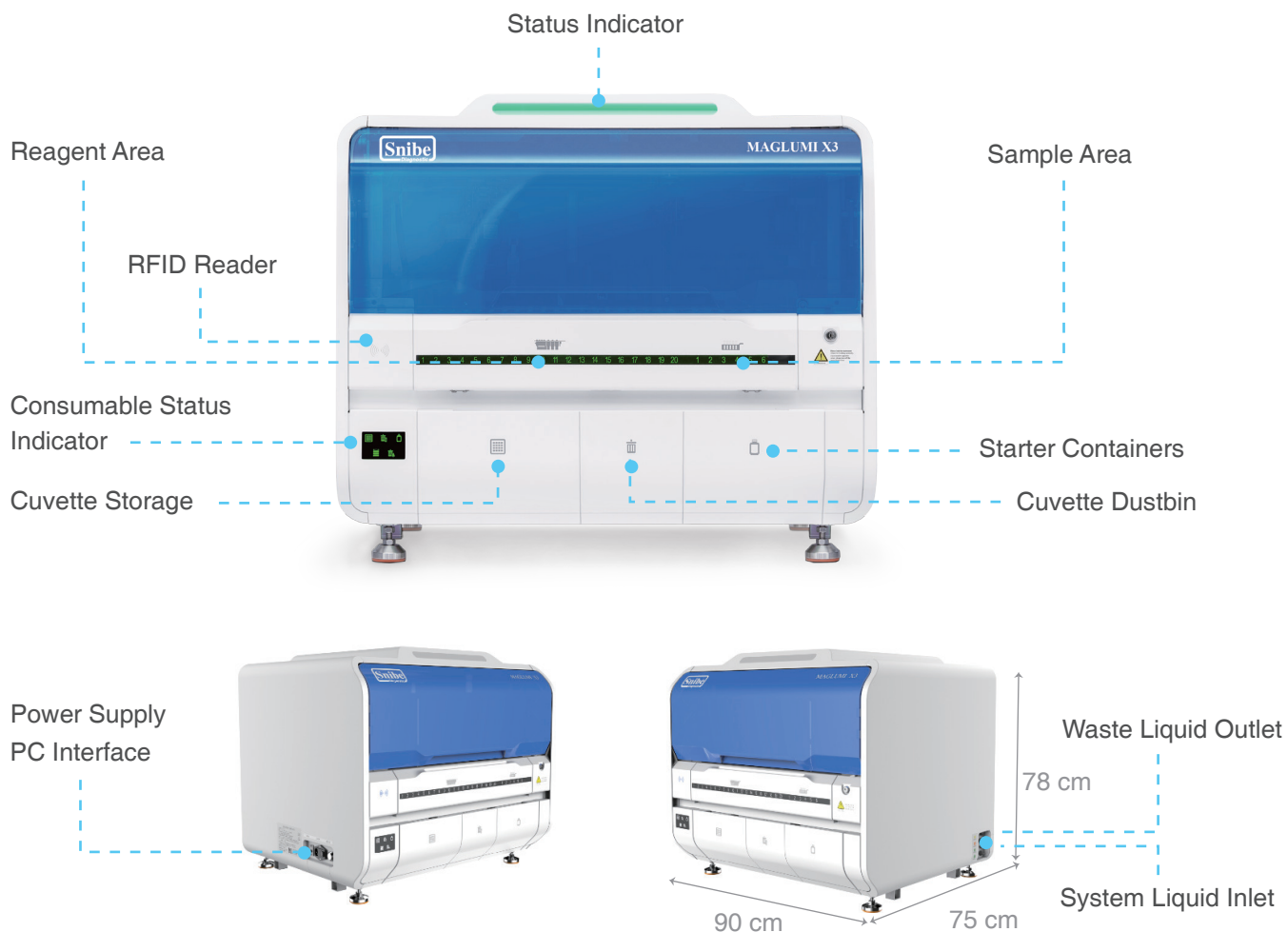Compatible with Small and Medium-sized Hospitals and Labs

MAGLUMI® X3

- Small but powerful, the throughput is up to 200 tests/hour, and throughput per unit area is 294 T/h/m².

- Compatible with all **MAGLUMI®** reagents, one of the broadest automated CLIA test menus in the world (166 parameters).

- The latest intelligent washing technology and bidirectional temperature control measurement guarantee accurate and reliable results. The comprehensive advanced design of **MAGLUMI® X3** ensures excellent performance.

- Single reaction cup can avoid light pollution and increase cuvette utilization, its integrated packaging can avoid the stuck of the cuvette and destroying the cuvette wall.

- Continuous loading of reagents/samples without waiting or interrupting tests.
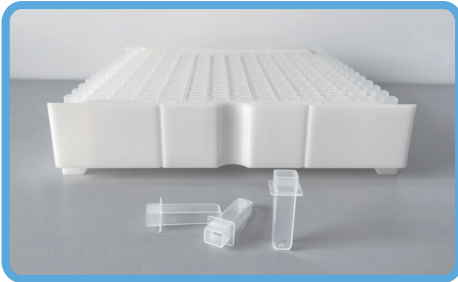
Functional Modules

Status Indicator

Reagent Area

Sample Area

RFID Reader

Consumable Status Indicator

Starter Containers

Cuvette Storage

Cuvette Dustbin

Power Supply
PC Interface

Waste Liquid Outlet

78 cm
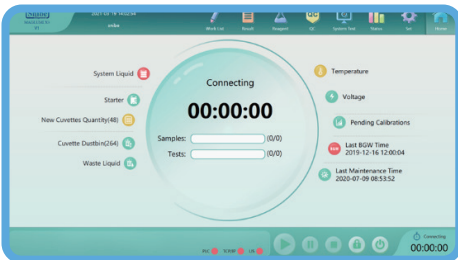
System Liquid Inlet

90 cm

75 cm

Reagent and Sample Loading

- 72 sample positions with barcode reader
- Sample in each position can be defined as STAT
- 20 reagent positions with RFID reader, 24h refrigerated with 10±3℃
- Reagents/samples continuous loading without waiting or interrupting tests
- Reagent and sample indicator light available, real-time status monitoring, no need to check on the computer monitor

Single Reaction Cup with Integrated Packaging

- Single reaction cup can avoid light pollution and increase the cuvette utilization
- Single reaction cup with integrated packaging can avoid the stuck of the cuvette and destroying the cuvette wall

Intelligent UI Interface

- New user-friendly UI interface (Support multi-language)
- Real-time display for monitoring each test procedure, reagent, and consumable quantities, it's convenient for the mangement
- Intelligent error recovery
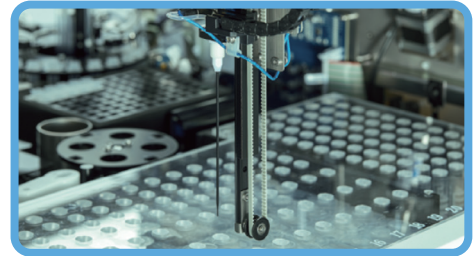
Convenient Management of Analyzer Status

- Intuitive indicator light of reagent, sample, and consumables, no need to focus on the monitor, the status can be known by looking at the analyzer from a distance

All Balanced and Strong

Accuracy Pipettor

- Single needle coated with TEFLON to avoid carryover
- Independent washing unit for the needle, with different washing modes depending on different assay
- Pipetting detection technologies include liquid level, clot, and crash detection can ensure accurate and normal pipetting
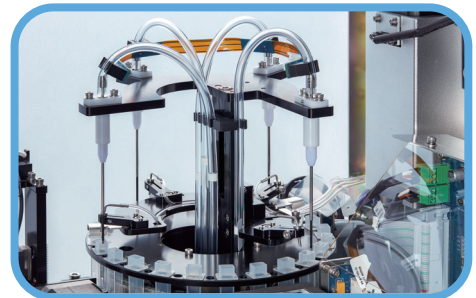
Accurate Incubation Technology

- Single reaction cup with five-sided heating at 37℃, ensuring accurate, quick and uniform incubation
- Incubating 80 cuvettes simultaneously
- Non-contact mixing with different modes before incubation, ensuring sufficient reaction

High-Efficiency Washing Technology

- Magnetic separation washing with 4-step independent units and non-contact vortex mixing can reduce non-specific binding
- Different mixing modes depending on different assays, ensuring a sufficient washing to improve sensitivity

Stable and Accurate Measuring Chamber

- ABEI-label exclusive proprietary technology
- PMT with heating and cooling function, ensuring the detection precision
- Independent measuring room, avoiding light cross-contamination

Outstanding Technologies

Exclusive Intelligent Washing Technology

Magnetic separation washing and non-contact vortex mixing

Intelligent washing machine

Magnetic separation washing

Pumping waste liquid → Injecting wash liquid → Resuspension

Non-contact mixing
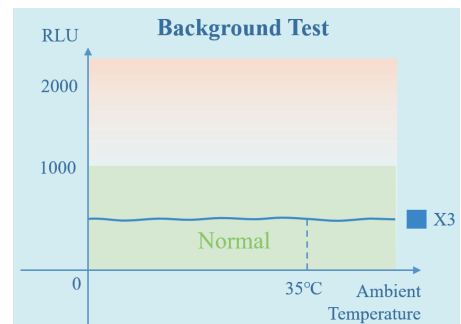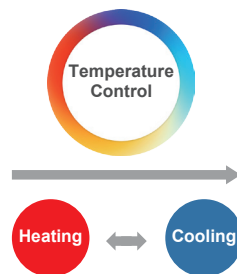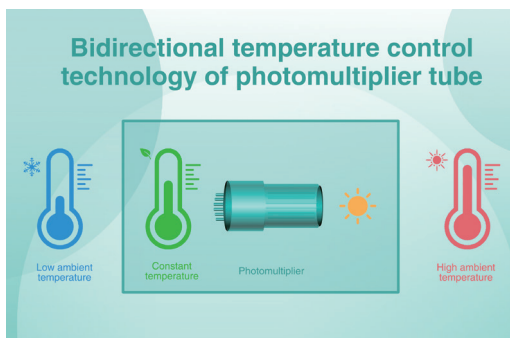
Non-contact vortex mixing units in the wash station, with different mixing modes depending on different assays, ensuring a sufficient washing to reduce the non-specific binding.

Exclusive intelligent washing technology can be understood as how the intelligent washing machine work. Different washing modes can be selected according to different clothes materials.

Stable and Accurate Measuring Chamber

Bidirectional temperature control technology of photomultiplier tube

Low ambient temperature · Constant temperature · Photomultiplier · High ambient temperature

Temperature Control

Heating ⇄ Cooling

Background Test

RLU

2000

1000

Normal

■ X3

0 · 35℃ · Ambient Temperature

Automatic temperature control in the measuring chamber can keep a stable background value, not affected by the ambient temperature, ensuring the accuracy of measurement results.

① One of the highest space efficiency CLIA analyzer combines one of the broadest automated CLIA test menu.

② The throughput is up to 200 tests/hour (Throughput per unit area is 294 T/h/m²). No worry about the lack of laboratory space.

③ **MAGLUMI®** reagent kits (166 parameters) and consumables are compatible with **MAGLUMI® X3**.

④ The comprehensive advanced design of **MAGLUMI® X3** ensures excellent performance.

⑤ Single reaction cup can avoid light pollution and increase cuvette utilization, its integrated packaging can avoid the stuck of the cuvette and destroying the cuvette wall.

⑥ Continuous loading of reagents/samples without waiting or interrupting tests.

⑦ Pipetting detection technologies include liquid level, clot, and crash detection can ensure accurate and normal pipetting.

⑧ The latest intelligent washing technology and bidirectional temperature control measurement guarantee accurate and reliable results.

⑨ Intelligent UI interface, user-friendly, easy, and convenient operation.

⑩ Intuitive indicator light make users no need to check reagents and consumables frequently.

MAGLUMI® X3 Reagent and Consumables

1

Reagente Kit

2

Reaction Module

3

Starter 1+2

4

Light Check

5

Wash Concentrate

6

System Tubing Cleaning Solution

Broad CLIA Test Menu with 166 Assays

Thyroid

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

Hepatic Fibrosis

HA
PIIIP N-P
C IV
Laminin
Cholyglycine

TORCH

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

EBV

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

Inflammation Monitoring

hs-CRP
PCT (Procalcitonin)
IL-6 (Interleukin 6)
SAA(Serum Amyloid A)

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

Hypertension

Direct Renin
Aldosterone
Angiotensin I
Angiotensin II
Cortisol
ACTH

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-Cardiolipin IgG
*Anti-Cardiolipin IgM
*Anti-MPO

Immunoglobulin

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

Infectious Disease

HBsAg
Anti-HBs
HBeAg
Anti-HBe
Anti-HBc
Anti-HCV
Syphilis
Anti-HAV
HAV 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
*Anti-HBc IgM

Drug Monitoring

Digoxin
CSA (Cyclosporine A)
FK 506 (Tacrolimus)

Kidney Function

β_2-MG
Albumin
*NGAL

Cardiac

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

Metabolism

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

Prenatal Screening

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

Anemia

Vitamin B12
Ferritin
Folate (FA)
*RBC Folate
*EPO

Glyco Metabolism

C-Peptide
Insulin
GAD 65
Anti-IA2
ICA
IAA (Anti Insulin)
Proinsulin

Bone Metabolism

Calcitonin
Osteocalcin
25-OH Vitamin D
Intact PTH
*β-CrossLaps (β-CTx)
*total P1NP

* Available soon

MAGLUMI® X3
Fully Automatic Chemiluminescence Immunoassay (CLIA) System

Technical Specifications

Chemiluminescence Principle

- Direct chemiluminescence
- Magnetic microbeads separation, fast and efficient
- Key technology of ABEI-label and magnetic microbead separating enhances stability and sensitivity of **MAGLUMI®** reagents

Main Features

- Throughput: up to 200 tests/hour
- Space occupied<0.68m², throughput of per unit area>294T/h/m²
- 24 hours ready to use

Reagent Loading

- 20 reagent positions on board with continuous loading
- 24-hour refrigerated, constant 10°C±3°C in reagent area
- RFID reading all information of reagent
- Indicator light available, real-time status monitoring

Sample Loading

- Up to 72 sample positions
- Continuous loading, STAT available
- Indicator light available, real-time status monitoring
- Barcode recognition: Barcode reader available
- Types of sample tube: micro sample cup, blood collection tube, plastic test tube
- Sample editing mode:Lis connection, barcode recognition, manual editing

Reagent Features

- **MAGLUMI®** reagent kits are compatible with all **MAGLUMI®** analyzers
- Calibrators and internal controls included
- 10 points master curve, 2-points re-calibration
- RFID tag storing all informations of reagents
- Storage temperature 2°C-8°C

Reaction System

- Single reaction cup with five-sided heating at 37.0°C (±0.3°C) incubation, ensuring accurate, quick and uniform incubation
- Incubating 80 cuvettes simultaneously
- Non-contact mixing with different modes before incubation, ensuring sufficient reaction

Sampling System

- Titanium needle for crushproof
- Teflon coated for carry-over prevention
- Liquid level detection, clot detection, prevent bubble interference, collision detection, wash automatically

Consumable System

- Single cup design, continuous loading
- Starters: 230mL of Starter 1 and Starter 2
- System liquid: Up to load 10L at one time
- Indicator light monitors real-time consumable quantity

Washer

- 4-step washing technology
- Intelligent magnetic field design ensure excellent separation
- Three independent non-contact magnetic microbeads vortex cleaning technology
- Resuspension washing mode efficiently reduces non-specific binding and improves sensitivity
- Independent washing unit for waste liquid needle can completely wash without residue

Measuring Chamber

- High-sensitivity and low-noise photomultiplier tube (PMT)
- Heating and cooling bidirectional temperature control function included
- Original light pollution isolation technology prevents light pollution and ensures accurate and reliable results

Software System

- Friendly software UI design, humanized instrument operation procedure
- Real-time status display for each test procedure
- Self-recovery function make sure the analyzer running smoothly without unnecessary manual intervention
- Bidirectional **Snibelis™** connection by TCP/IP and COM Port
- Supporting **SnibeLinker™** remote diagnosis system

Dimensions & Weight

- Dimensions: 78 (h) × 90 (w) × 75 (d) cm
- Weight: 127 kg