

# TESMI i200

AUTOMATED CHEMILUMINESCENCE IMMUNOASSAY SYSTEM



Maximize Your Lab's Efficiency

# TESMI i200

## INTELLIGENT

Easy operation, considerable consumable capacity for walk-away assurance

## ACCURATE

Highly suitable for thyroid function test, CV< 5%

## SCALABLE

Modular design, flexible configuration offering increased productivity

## COMPREHENSIVE

Thyroid, Cardiac, Tumor, Hormones, Inflammation, Diabetes, Bone metabolism...



**480** T / H

TESMI i200

## Module Additions



**TESMI i200 480 T / H**

Size: 1740mm×965mm×1360mm



**TESMI i200 \*2 960 T / H**

Size: 4490mm×1125mm×1360mm



**TESMI i200\*3 1440 T / H**

Size: 6235mm×1125mm×1360mm



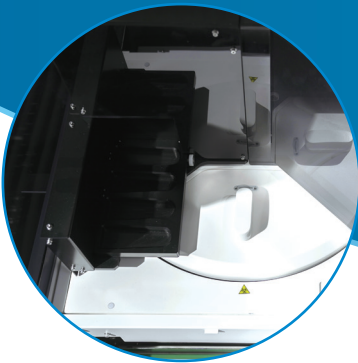
**TESMI i200\*4 1920 T / H**

Size: 7980mm×1125mm×1360mm

## Technical Specification

<b>Product name</b>	Fully automated chemiluminescence immunoanalyzer	<b>Testing principle</b>	Acridinium ester chemiluminescence
<b>Throughput</b>	480 tests/ hour/ module	<b>Reagent capacity</b>	25 slots per module
<b>Cuvette capacity</b>	2000 cuvettes per batch	<b>Sample capacity</b>	300-1080, with loop loading
<b>Cuvette loading</b>	Automatic loading	<b>Sample loading</b>	Continuous loading by sample tracks
<b>Model of operation</b>	Random, batch, STAT	<b>Sample dilution</b>	Automatic dilution
<b>Retest</b>	Automatic retest of abnormal samples available, based on the predefined rules	<b>Monitoring system</b>	Reagent residue detection, alarm for insufficient and expired reagents
<b>Magnetic separation</b>	4-phase magnetic separation	<b>Mixing unit</b>	Non-touch vortex mixing
<b>Reagent replacement</b>	Automatic replacement during operation	<b>Reserve reagent</b>	4 positions
<b>Walk-away tests</b>	More than 7200	<b>Configuration</b>	One up to four analytical modules

# Maximize Your Lab's Efficiency



## Reagent replacement without interruption to test

- Refrigerated reagent carousel featured 25 positions
- 4 additional reserve reagent slots, supporting non-stop test process when replacing reagents



## Intelligent retest of sample

- Predefine the retest rules flexibly, achieving intelligent retest of gray zone samples or abnormal samples

## Continuous loading of large volume sample

- Sample Administration Module and Sample Buffer Module together can load up to 1080 samples
- Optional Sample Buffer Module, available for flexible configuration

TESMI i200

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### Long walk-away time when consumables fully loaded

- Continuous loading of consumables and reserved reagents
- More than 7200 walk-away tests

### Free combination of multi-modules

- Available to combine with Tellgen TESMI F4000 to form ImmunDuo
- Available to link with Tellgen Modular Automation System

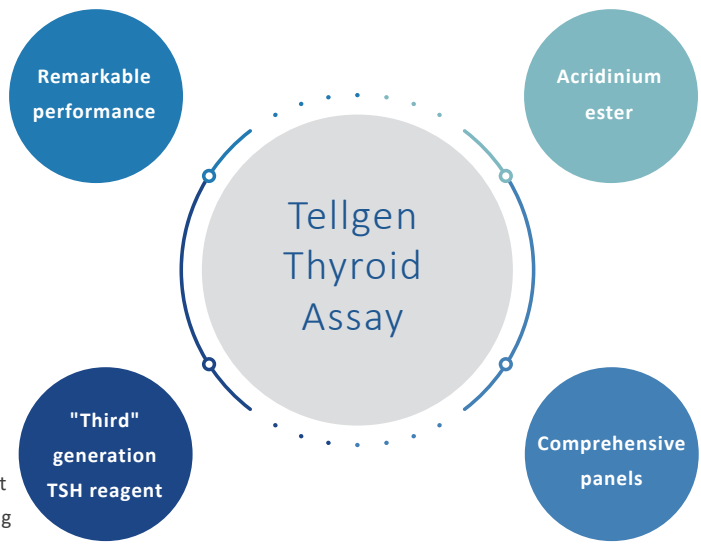
### Stereoscopic Sample Transfer Module

- Three-dimensional triple track design
- Independent STAT sample track available, random access

# Thyroid Markers Detection (acridinium ester chemiluminescence)

## Assay Features

High sensitivity and precision  
CV < 5%



AE is a small molecule. Its steric hindrance can be ignored, which is conducive to the effective pairing of antigen and antibody. And the conjugate is stable. Therefore, utilizing AE to detect small molecules such as thyroid hormones will be more stable and accurate.

The National Academy of Clinical Biochemistry(NACB) recommends a functional sensitivity(FS) of  $\leq 0.02$  mIU/L as the most important performance criterion for selecting TSH methods. The Tellgen's TSH FS is 0.01 mIU/L which fully meets the standard.

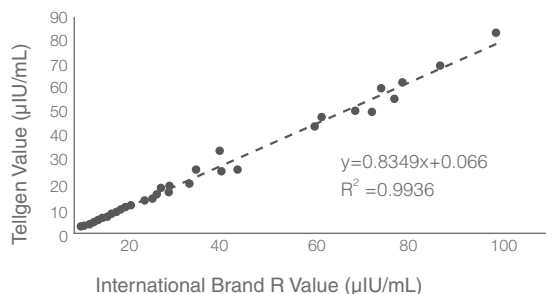
TSH, TT4, FT4, TT3, FT3, TPOAb, TgAb, Tg, TRAb\*, T-Uptake\*, TBG\*

## Performance Data

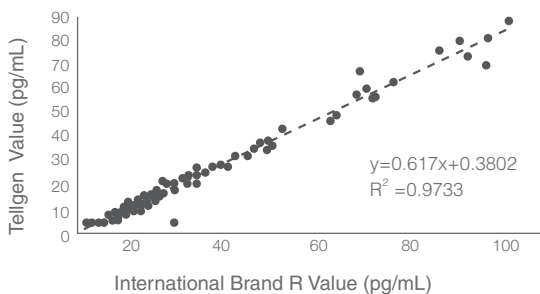
Analyte (unit)	Intra-batch Imprecision		Inter-batch Imprecision (CV)	
	low-concentration sample (CV)	high-concentration sample (CV)	low-concentration sample (CV)	high-concentration sample (CV)
TSH (μIU/mL)	1.2%	1.07%	2.32%	2.24%
TT3 (ng/mL)	2.06%	2.12%	2.36%	2.47%
TT4 (μg/dL)	2.17%	2.05%	2.89%	2.63%
FT3 (pg/mL)	1.86%	1.94%	3.09%	2.88%
FT4 (ng/dL)	1.77%	1.91%	2.62%	2.41%

## Clinical Correlation

Clinical correlation study of TSH in Tertiary Level A Hospital



Clinical correlation study of FT3 in Tertiary Level A Hospital



## Test Menu

### Cardiac and Inflammatory Markers (9 Assays)

hs-cTnI	H-FABP	sST2
CK-MB	NT-ProBNP	IL-6
MYO	D-Dimer	PCT

### Tumor Markers (22 Assays)

AFP	PGI	fPSA
CEA	PGII	tPSA
NSE	Gastrin-17	HE4
ProGRP	CA72-4	Ferritin
SCCA	CA24-2	PIVKA-II*
CYFRA21-1	CA50	HER2*
CA125	CA19-9	
CA153	free- $\beta$ -hCG	

### Thyroid (11 Assays)

FT4	TSH	TRAb*
TT4	TPO Ab	T-Uptake*
FT3	TgAb	TBG*
TT3	TG	

### Hormone (8 Assays)

AMH	PRL	E2
FSH	Progesterone	$\beta$ -hCG
LH	Testosterone	

### Infectious Disease (8 Assays)

HBsAg*	HBeAg*	HCV Ab*
HBsAb*	HBcAb*	HIV Ag/Ab*
HBeAg*	TP Ab*	

### Bone Metabolism (6 Assays)

25-OH VD	Intact PTH	Osteocalcin
Calcitonin	P1NP*	$\beta$ -CTX*

### Diabetes (2 Assays)

Insulin
C-Peptide

### Anemia (2 Assays)

Folate*
B12*

### Hypertension (5 Assays)

Aldosterone ALD*	Renin*	ACTH*
Cortisol*	Ang II*	

\* In development

## Tellgen Corporation

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