

SCI Digital

***Fully Automated
Digital PCR System***

Reasons to choose SCI Digital

✓ Fully integrated and automated

4 in 1: sample loading, droplet generation, PCR amplification, and signal reading
True whole process automation eliminates manual errors

✓ Compact size, light weight

Bench space 0.2m², only 453mm wide, 50kg
Optimal for international transportation, installation, and maintenance

✓ High compatibility with market PCR Mix

Preset microchambers on chips, compatible with market PCR Mix
Facilitates fast and efficient assay development

✓ Highly stable micro-droplets

Solidified-oil physical isolation technology
Avoids droplets from rupture or fusion, effective droplet rate ≥95%

✓ High signal quality

Glass-based microfluidic chips
Uniform reactions, good light transmittance

✓ Farewell to sample pooling

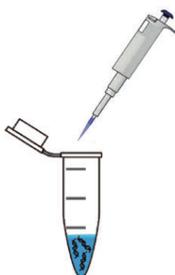
Minimum 1 sample/run
Superb flexibility minimizing consumable waste

✓ Featured functions

Upgradable with digital isothermal amplification function, and 2^N Exponential Ultra-Multiplex Technology
Comes with BioReporter automatic report generation function



Extremely Easy Workflow



dPCR Master Mix
12- or 8-tube strips,
single tubes



SCI Digital dPCR
Integration of automatic sample loading,
droplet generation, PCR Amplification,
and signal reading



Data Analysis
Raw droplet image, data tracking,
automatic report generation



SCI Digital

Product Specification

Throughput	1~12 Samples
Sample volume	25~30 μ L
Droplet number	> 20,000
Fluorescence channels	2/3/4/5 channels FAM, HEX, ROX, Cy5, Quasar705
Chip scanning time	Single channel: < 1 min/sample
Optical sensor	CMOS
Light source	LED
Size	W 453mm, D 512mm, H 497mm
OS interface	English, Chinese



Technical Specification

Sensitivity	0.01%
Dynamic range	5logs
Effective droplet ratio	\geq 95%
Droplet uniformity	> 99%
Droplet uniformity	\pm 10%

Droplet Generating Chip

Type L-20K	20,000 droplets
Type L-60K	60,000 droplets



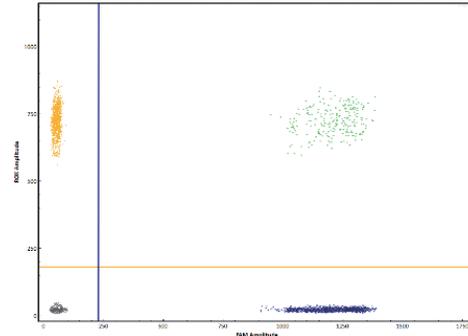
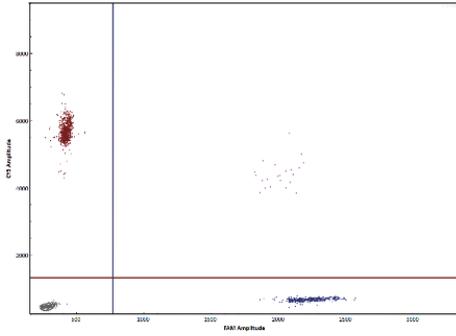
Digital PCR Universal Kits

Composite	Components
Reagents	PCR Mix (enzymes, buffer), oil phase A & B
Consumables	Chips, 12-tube strips & caps, pipette tips

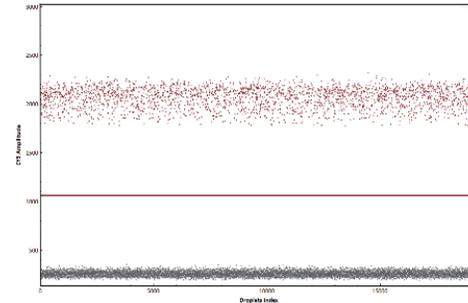
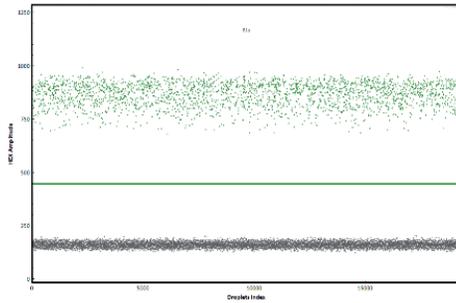


Performance

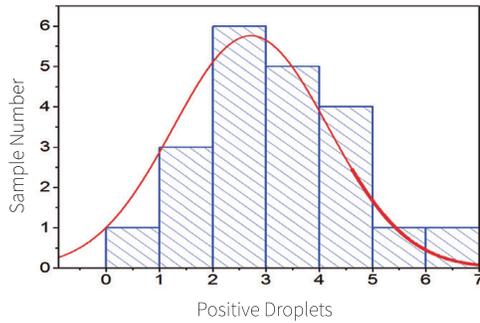
✓ The fluorescence channels are clearly distinguishable



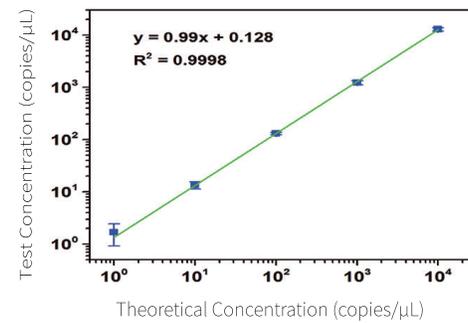
✓ High signal-to-noise ratio and good signal repeatability



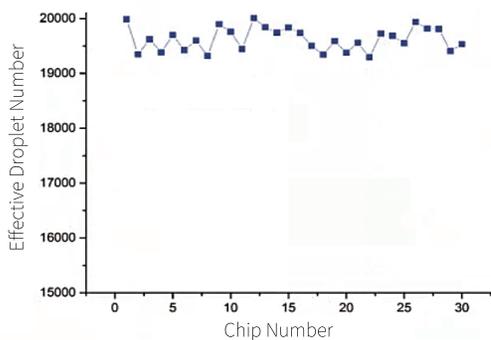
✓ Sensitivity



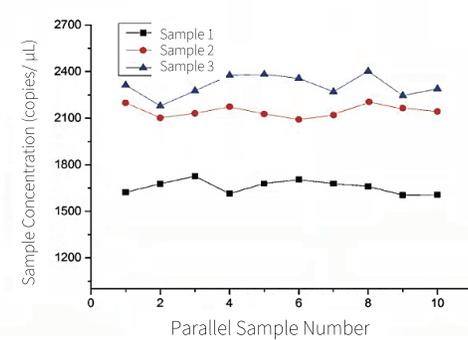
✓ Accuracy and linear range



✓ Effective droplets



✓ Repeatability, CV



Multiple models to choose from

Model	Fluorescence Channels	Features
SCI T200	FAM/HEX	For basic research. Excellent cost-effectiveness. Upgradeable channels.
SCI T300	FAM/HEX/ROX	For most research. High cost-effectiveness. Upgradeable channels.
SCI T400	FAM/HEX/ROX/Cy5	For broad research. Ultra-Multiplex compatible. Upgradeable channels.
SCI T500	FAM/HEX/ROX/Cy5/Quasar705	Multiplex and Ultra-Multiplex capabilities.

Applications



Liquid Biopsy

- Rare mutation detection
- Copy number variations
- Methylation screening
- MRD
- Drug resistance monitor



Infectious Diseases

- Multiplex respiratory test
- Multiplex *V. vulnificus* test
- Multiplex sepsis test
- Pathogen genotyping



Reproductive Genetics

- Trisomy 21 detection
- SMA detection
- RhD- blood type detection
- Deafness gene detection



Biopharmaceuticals

- AAV titer quantification
- QC for stem cells, Car-T cells, NK cells, etc.
- Gene editing quantification and QC
- Host cell residual DNA detection
- RNA vaccine gene variation quantification



Reference Materials

- Nucleic acid reference material quantification
- Enterprise reference material quantification
- Sequencing library quantification
- Nucleic acid QC material quantification



Environment

- Water microorganisms
- Livestock pathogens
- Geothermal archaea



Agriculture

- Molecular breeding
- Crop pathogen control
- Aquaculture pathogen
- Animal disease prevention



Food Safety/Inspection

- Transgenic crops/foods
- Imported & exported food pathogens
- Animal-derived food detection
- Residual microorganism tracing

Credentials



Leading life science and molecular diagnostics into digital era

Shanghai Turtle Technology Co., Ltd.

Turtle Technology is dedicated to leading life sciences and molecular diagnostics into digital era. We have been granted the National Gene Testing Technology Application Demonstration Center and the nation's first Digital PCR Metrological Evaluation Certificate. We have introduced series of digital PCR systems, achieving full-chain technology innovations of genetic testing instruments, chip consumables, Ultra-Multiplex technology, and ultra-high specificity polymerase for molecular diagnostics.

Product Type	Model	Features
Digital PCR Systems	 SCI Digital PRO	<ul style="list-style-type: none">◆ 4 in 1, fully automated & integrated◆ 6+1 fluorescence channels◆ 24 sample parallel processing◆ Dual independent PCR thermal modules◆ Ultra-Multiplex, Digital Isothermal, Immuno-PCR◆ CE certified
	 SCI Digital	<ul style="list-style-type: none">◆ 4 in 1, mini, fully automated & integrated◆ 2/3/4/5 fluorescence channels◆ NMPA registered◆ CE certified
	 BioRuler	<ul style="list-style-type: none">◆ 4 in 1, mini, fully automated & integrated◆ Designed for accurate quantification◆ Upgradable to 2/3/4/5 fluorescence channels◆ Highly cost-effective: CNY 149,000
Taq DNA Polymerase	 SNUPP Polymerase	<ul style="list-style-type: none">◆ Ultra-High Specificity◆ Precisely identifies single-base mismatch◆ Probe, electrophoresis, and dye methods◆ Suitable for conventional PCR, qPCR, and dPCR

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