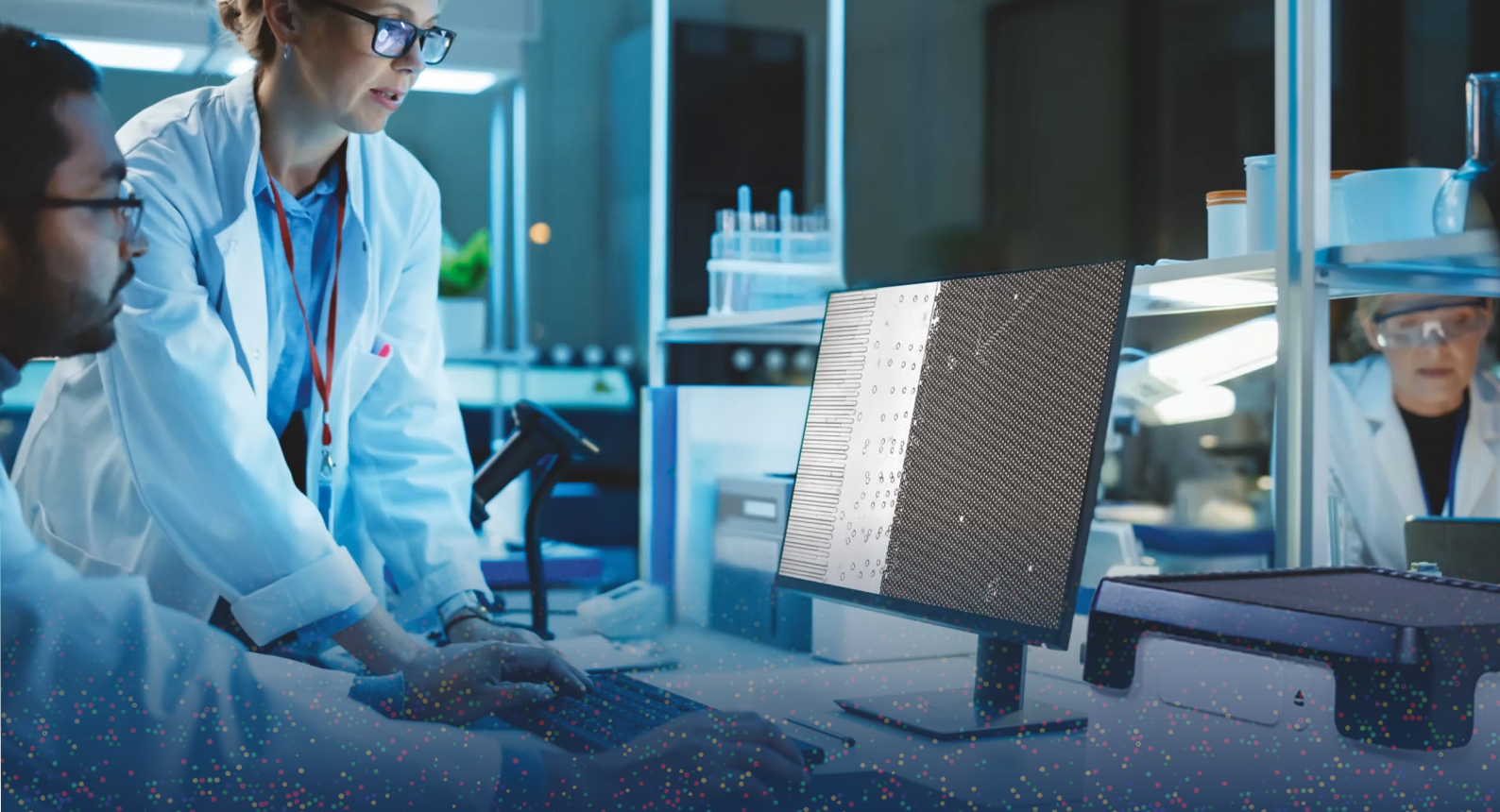

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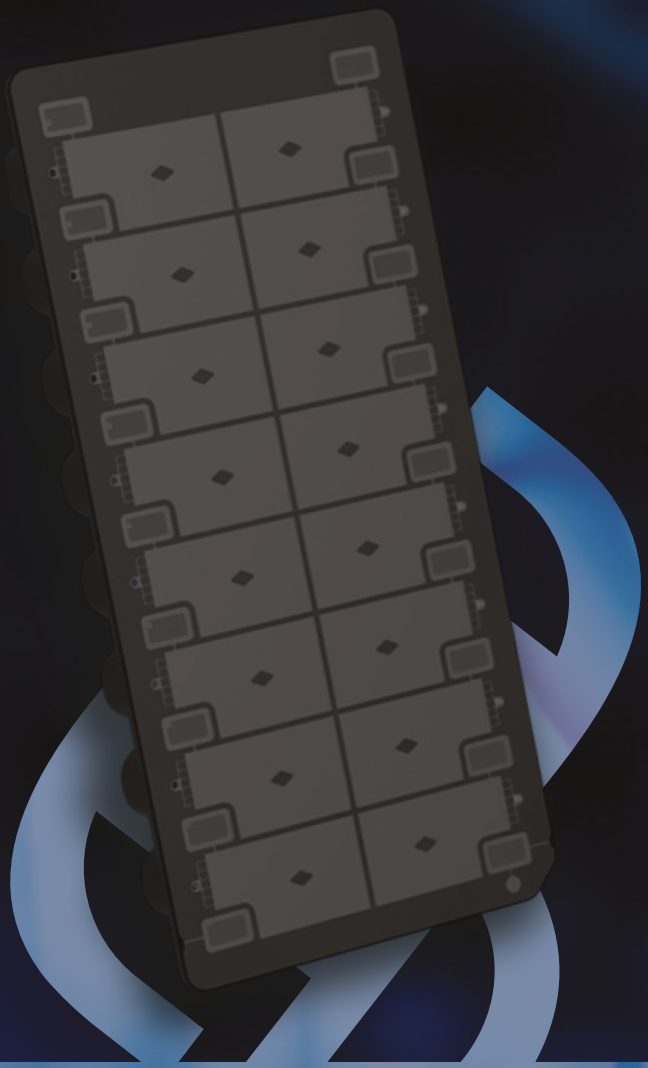
level
Discovering
new boundaries
進階生物科技股份有限公司
服務專線：0800-251302

# THE MULTIPLEX DIGITAL PCR COMPANY

## CRYSTAL DIGITAL PCR™

# CRYSTAL DIGITAL PCR™



**Stilla's Crystal Digital PCR™ technology for absolute quantification of nucleic acids is based on cutting-edge microfluidic technology that integrates the digital PCR process in a single consumable, reducing hands-on time and interaction, so you can simply insert your sample and walk away.**

The sample is partitioned using a network of microchannels into a large array of individual droplets, also called a droplet crystals. The individual droplets are partitioned into identical sizes — each its own reaction compartment — before PCR. PCR then amplifies the fluorescent target in the droplets. The result is the accurate and precise quantification of multiple targets in a single reaction, saving you both time and precious sample.

With a combination of powerful imaging, the flexibility to use up to 6 detection channels, and proprietary software for analysis, Crystal Digital PCR™ is designed to offer an unmatched level of confidence in digital PCR measurement.

## FEATURED PRODUCTS

### PREPARE

#### Sapphire chip

Up to 12 samples / run
Up to 28,000 droplets / sample
For high sensitivity applications

#### Opal chip

Up to 48 samples / run
Up to 20,000 droplets / sample
For flexible throughput

### AMPLIFY

#### Geode

Thermocycler for partitioning and amplification

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# naica® system > PREPARE | AMPLIFY | READ | ANALYZE

**The naica® system harnesses the key principles of digital PCR and is designed to provide a sensitive, fast, and easy-to-use solution.**

### Easy-to-use digital PCR solution
On-chip integrated workflow
Minimal hands-on time

### Flexible Digital PCR
Up to 6-color target multiplexing
From 12 to 48 samples / run

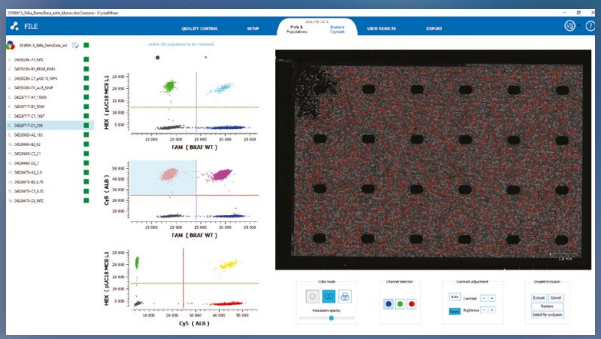
### Fast time to results
Prepare (10 min), Amplify (2 hrs), Read (<20 min), Analyze (5 min)

## READ


## Prism6

High multiplexing capacity
3- or 6-color system configuration
Wide range of fluorophore compatibility

## ANALYZE



## Crystal Miner software

Intuitive software for visual inspection and analysis

# CRYSTAL DIGITAL PCR™

## PREPARE

10 mn

**Load the reaction mix into the wells of the chips.**

naica® PCR MIX reagents are developed for enhanced performance for Crystal Digital PCR™ on the naica® system

## AMPLIFY

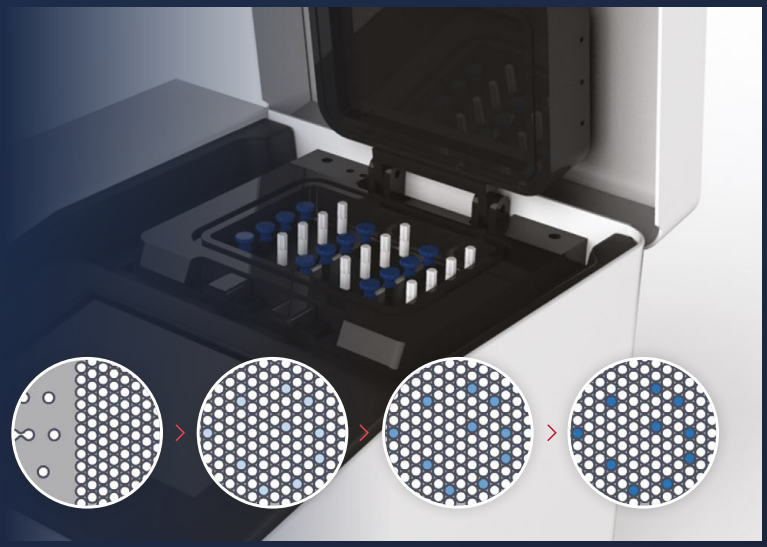
2 h

**Place the chips in the Geode.**

**Launch the Crystal Digital PCR™ program.**

Thousands of droplets are created from each sample

PCR amplification is performed immediately after the Droplet Crystal is generated

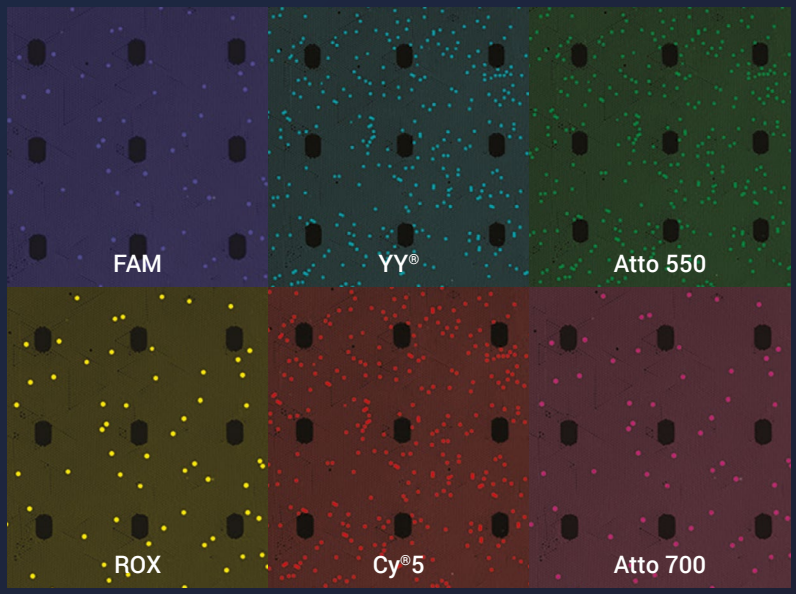


## READ

<20 m

**Transfer the chips to the Prism6.***

Droplet crystals are imaged using up to 6 fluorescent channels




* 20 minutes for two detection channels — may vary if more channels are utilized

# OVERVIEW

## ANALYZE

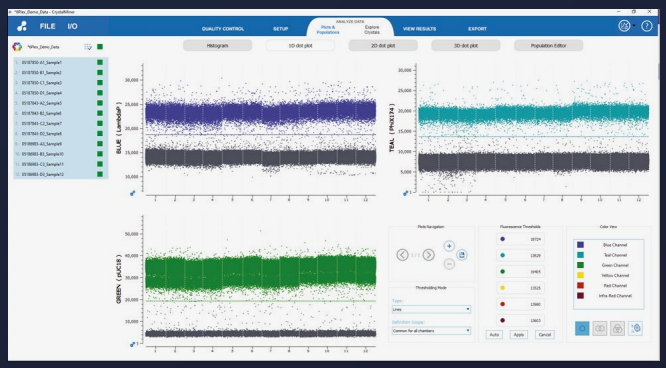
5 mn

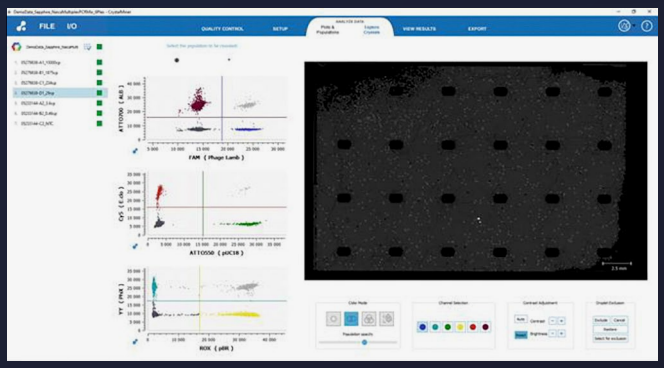
**Measure the concentrations of targeted nucleic acids with Crystal Miner software.**

Intuitive tool for visual inspection and analysis of Crystal Digital PCR™ experiments

Automatic quality control for experiment performance

Automatic identification of positive and negative droplets for all fluorescence channels



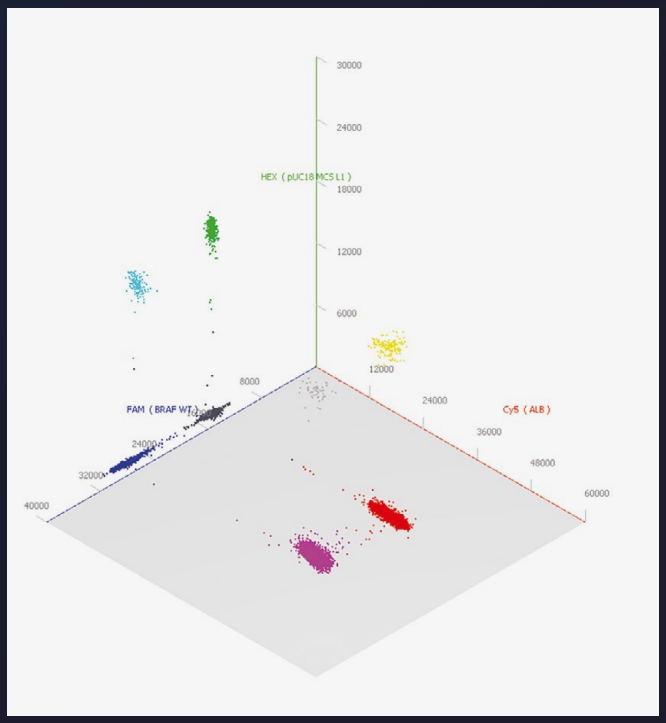


**01 EXPLORE**
**Explore data** using 1D, 2D, or 3D dot plots

**02 INSPECT**
**Inspect droplet crystals** and zoom in for quality control (droplet fluorescence versus spatial position in the crystal)

**03 VISUALIZE**
**Get results** target nucleic acid concentrations

**04 ACCESS**
**Access raw data** and export all experiment details and results

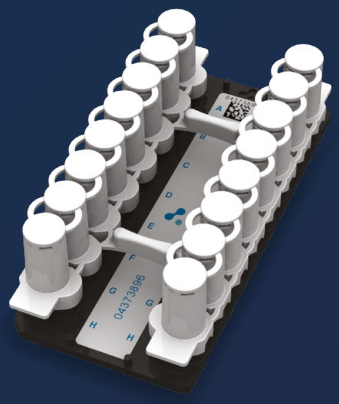


# CRYSTAL DIGITAL PCR™

## Sapphire chip

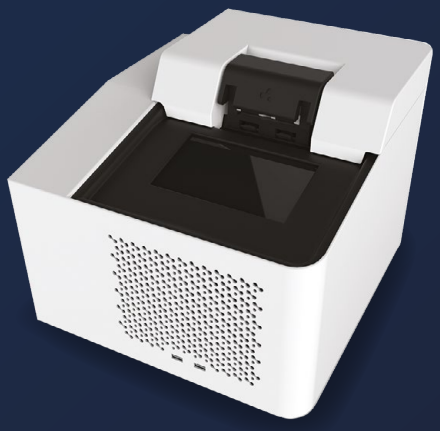
| | |
|---|---|
| Capacity | 4 samples / chip |
| Number of chips per box | 12 |
| Input volume | 25 µL / sample |
| Number of droplets per sample | Up to 28000 droplets |
| Dynamic range of detection (95%) | ~ 5 logs |

## Opal chip



| | |
|---|---|
| Capacity | 16 samples / chip |
| Number of chips per box | 12 |
| Input volume | 7 µL / sample |
| Number of droplets per sample | Up to 20,000 |
| Dynamic range of detection (95%) | ~ 5 logs |

## Geode



| | |
|---|---|
| Capacity with Sapphire chip | • Up to 12 samples (3 chips) / run<br>• Up to 36 samples / 8h shift (3 runs) |
| Capacity with Opal chip | • Up to 48 samples (3 chips) / run<br>• Up to 144 samples / 8h shift (3 runs) |
| Footprint (WxDxH) | 35 x 37 x 29 cm |
| Power supply | 100-240 V~ // 50 Hz // 750W |

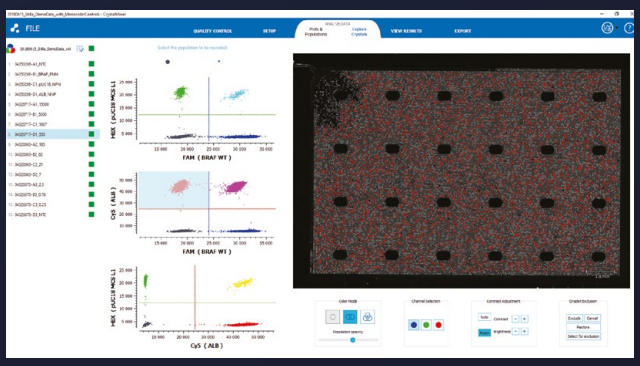
# SPECIFICATIONS

## Prism6


| | |
|---|---|
| Capacity | Up to 3 chips / run |
| Scan time | Less than 20 min* |
| Compatible fluorophores with 3-color configuration** | FAM, Atto550, Cy®5... |
| Compatible fluorophores with 6-color configuration** | FAM, YY®, Atto550, ROX, Cy®5, Atto700 |
| Power Supply | 110-240 V / 400W |
| Footprint | 50 x 60x 36cm |

*Dependent upon number of samples and specific dPCR assay design
**Equivalent fluorophores can be used within the same wavelengths range

## Crystal Miner software



| | |
|---|---|
| License & updates fees | Free |
| File format | .ncx (naica crystal experiment)<br>.ncr (naica crystal result) |
| Data visualization | Droplet crystal imaging; 1D, 2D, 3D plots |
| File size | 60 MB / well (.ncx)<br>10 MB / well (.ncr) |
| Export format | .csv / .xlsx / .png / .yaml |
| Threshold | Automatic and manual |
| Compenstion matrix | Automatic and manual |
| Pooling | Manual |

# CRYSTAL DIGITAL PCR™

## A RANGE OF APPLICATIONS

Experience the flexibility of the naica® system for a wide range of key nucleic acid detection and quantification applications.

Oncology

Hematology

Food & GMO Testing

Environmental Testing


Assay Development & QC

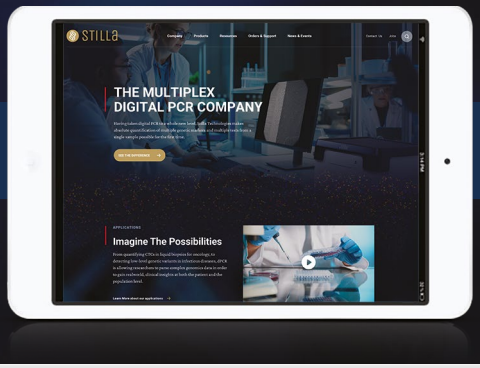
Infectious Diseases

Cell & Gene Therapy

Gene Editing & Epigenetics

Neurobiology

Liquid Biopsy

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