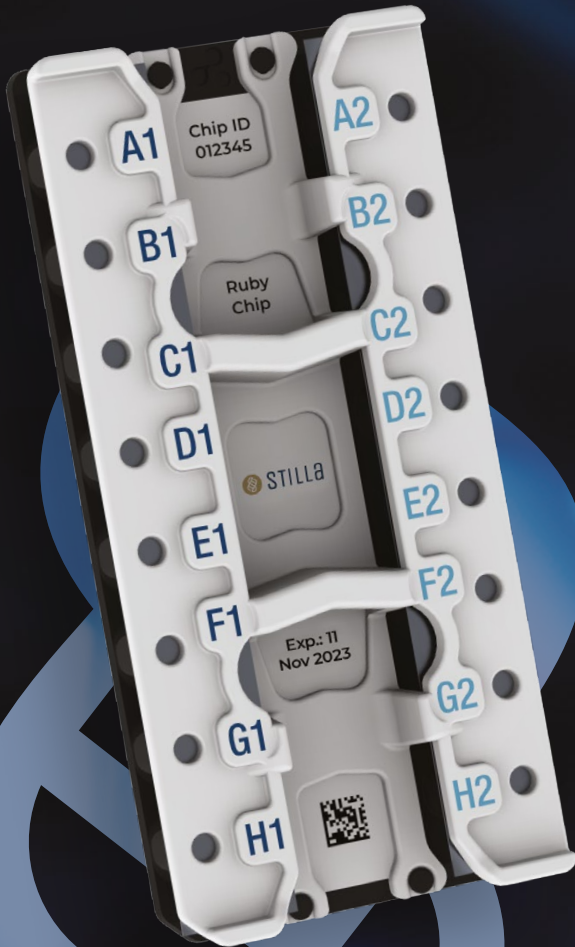


THE MULTIPLEX DIGITAL PCR COMPANY

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 droplet crystals. The individual droplets are partitioned into identical sizes – each its own reaction compartment – before PCR. PCR then amplifies the targets 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 nucleic acid detection.

naica® system

PREPARE

Sapphire Chip

Up to 12 samples / run
Up to 30,000 droplets / sample
For high sensitivity applications



Ruby Chip

Up to 48 samples / run
Up to 17,000 droplets / sample
For flexible throughput

AMPLIFY



Geode

Thermocycler for partitioning and amplification

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 multiplexing
From 12 to 48 samples / run



Fast time to results

Prepare (10 min), Amplify (2 hrs), Read (20 min*),
Analyze (5 min*)

* Depending on the number of samples analyzed and the number of channels used

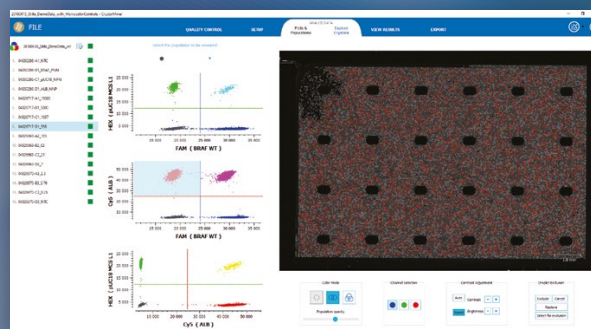
READ



Prism3 / 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

OVERVIEW

PREPARE



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

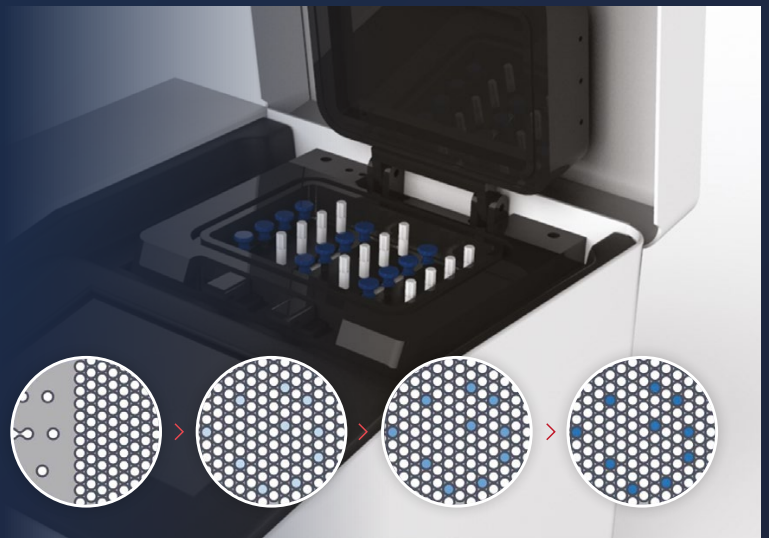


Place the chips in the Geode.

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

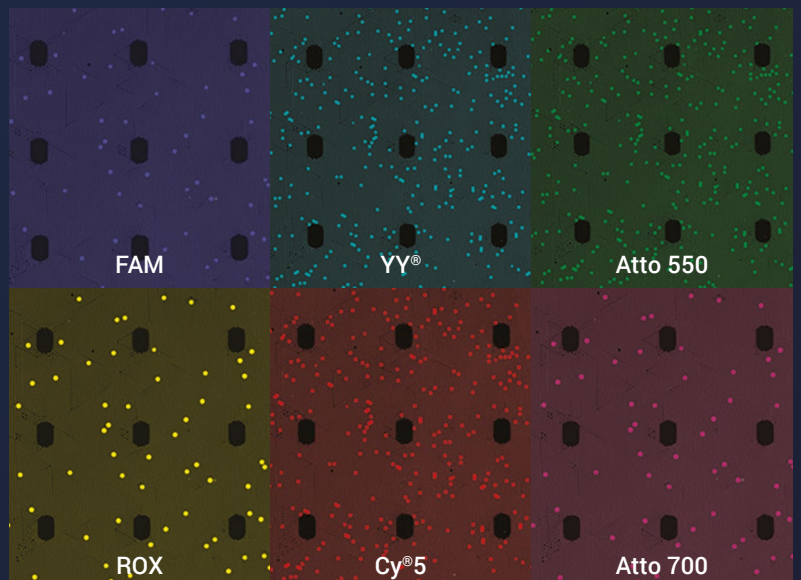


READ



Transfer the chips to the Prism3 or Prism6.

Droplet crystals are imaged using up to 6 fluorescent channels



ANALYZE

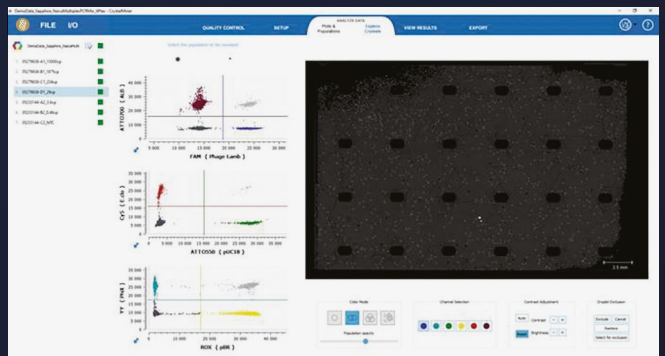
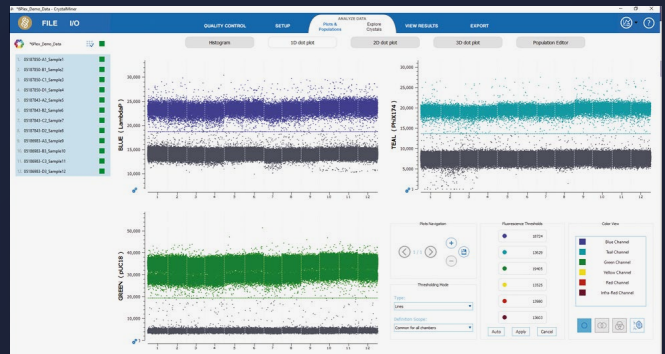


Measure the concentrations of targeted nucleic acids with Crystal Miner software.

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

Analyze data using 1D, 2D, or 3D dot plots

02
INSPECT

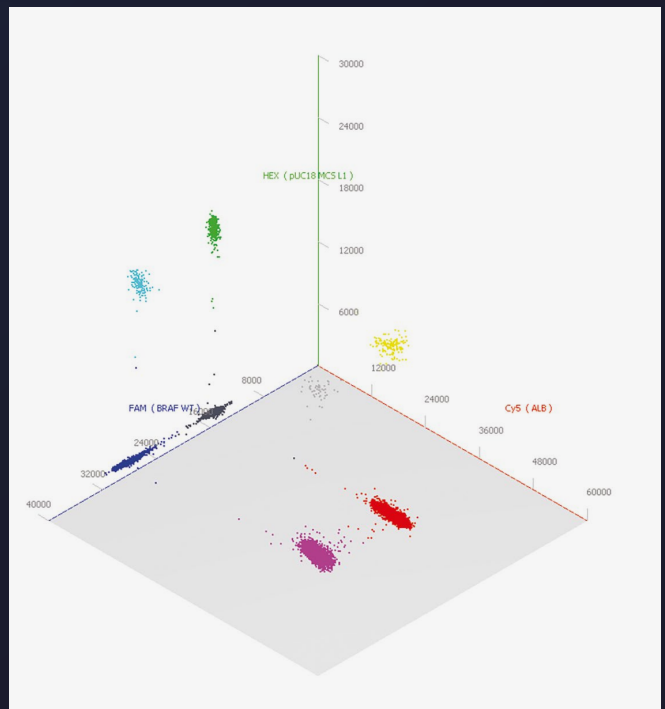
Inspect Droplet Crystals and link any dot on the dot plates to its corresponding droplet in the Droplet Crystal

03
VISUALIZE

Obtain targeted nucleic acids concentrations

04
ACCESS

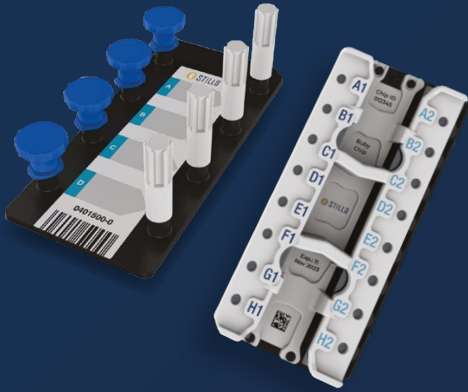
Access raw data and export all experiment details and results



* Depending on the number of samples analyzed and the number of channels used

SPECIFICATIONS

Crystal Digital PCR™ Consumables



	Sapphire Chip	Ruby Chip
Capacity	4 samples / chip	16 samples / chip
Number of chips per box	12	12
Input volume	25 µL / sample	5 µL / sample
Number of droplets per sample	Up to 30,000 droplets*	Up to 17,000 droplets
Dynamic range of detection (95%)	~ 5 logs	~ 5 logs

*Depending on the PCR mix used

Crystal Digital PCR™ Reagents



naica® multiplex PCR MIX (TaqMan® compatible)

Available in both 5X and 10X concentrations

For use with probe-based chemistries



naica® PCR MIX (EvaGreen® compatible)

Available in both 5X and 10X concentrations

For use with intercalating dye chemistries

Geode



Capacity with Sapphire Chip

- Up to 12 samples (3 chips) / run
- Up to 36 samples / 8h shift (3 runs)

Capacity with Ruby Chip

- Up to 48 samples (3 chips) / run
- Up to 144 samples / 8h shift (3 runs)

Footprint (WxDxH)

35 x 37 x 29 cm

Power supply

100-240 V~ // 50 Hz // 750W

Prism3



Capacity	Up to 3 chips / run
Scan time	< 20 min per run / 3 Sapphire Chips* < 60 min per run / 3 Ruby Chips*
Compatible fluorophores	FAM, Cy [®] 3, HEX, Cy [®] 5
Power Supply	AC input 100-240 V / 400W, 50/60 Hz, 150W
Footprint	44 x 34 x 21 cm

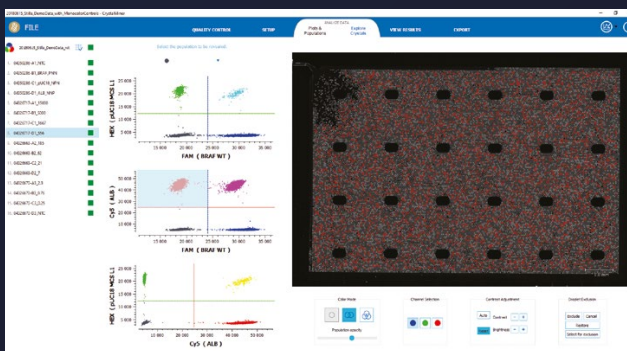
Prism6



Capacity	Up to 3 chips / run
Scan time	< 45 min per run / 3 Sapphire Chips* < 80 min per run / 3 Ruby Chips*
Compatible fluorophores	FAM, YY [®] , Atto550, ROX, Cy [®] 5, Atto700
Power Supply	110-240 V / 400W
Footprint	50 x 60 x 36 cm

*Depending on the number of channels scanned

Crystal Miner software



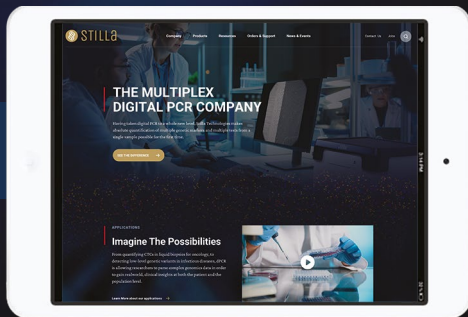
License & updates fees	Free
File format	.ncx (naica crystal experiment) .ncr (naica crystal result)
Data visualization	Droplet crystal imaging; 1D, 2D, 3D plots
File size	Sapphire Chip: 12 / 249 MB* Ruby Chip: 5 / 19 MB*
Export format	.csv / .xlsx / .png / .yaml
Threshold	Automatic and manual
Compenstion matrix	Automatic and manual
Pooling	Manual

*Max .ncr file size for 3-color / 6-color experiment

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.



To discover more
www.stillatechnologies.com



MKT-00130

For Research Use Only. Not for use in diagnostic procedures.