



Nio+

The next leap forward in digital PCR.

Automation-friendly.

Capacity of 768 chambers.

Continuous loading.

All-In-one.

7 colors.



Say hi to Nio+

When we set out to build our next digital PCR instrument, we aimed to create something truly unique. With the release of Nio+, we are confident that we have succeeded.

Nio+ is a versatile, all-in-one, fit-for-throughput, digital PCR instrument with unparalleled user-friendliness.

It is easy to use, fast and highly automated. It also features some of the best hardware and software we have built.

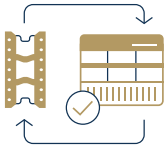
And we cannot wait to see what you will do with it.

The Stilla Technologies team



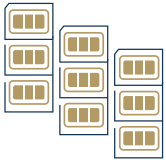
Core capabilities.

Processing hundreds of samples a day? Running highly multiplexed experiments? Doing both? Nio+ supports labs regardless of size, and has your use cases covered.



Automation-friendly.

Our Chip Plates work much like standard SBS plates. They hold 48 samples, are distanced at 9mm to suit your multichannel pipette, and work nicely with your existing Hamilton, Tecan, Open-trons or other similar liquid handling machinery.



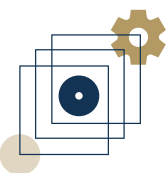
Capacity of 768 chambers.

In any 8 hour span of laboratory work, Nio+ offers a capacity of 768 chambers processed. With 2 thermocyclers and a smart Chip Plate queue built in, you could process over 768 chambers.



Continuous loading.

Laboratory work is not easy to schedule. Nio+ allows you to add Chip Plates whenever you want, whether the instrument is running an experiment or not. Your team can prepare experiments on the machine as it is running, or in serenity on any PC in the lab office.



All-In-one.

No messing around with oils, no transferring plates, no nothing. You add sample & mix to the Chip Plates, insert them and press play. Digital PCR in an all-in-one instrument. Measuring just 56cm by 67cm, the Nio+ fits in any lab.



7 colors.

Nio+ is the only 7-color instrument on the market, giving you easy access to 7 target capabilities. For even higher plexed assays, you can combine colors to achieve well over 20 targets in a single chamber; natively supported in our software.

Learn more on the following pages →

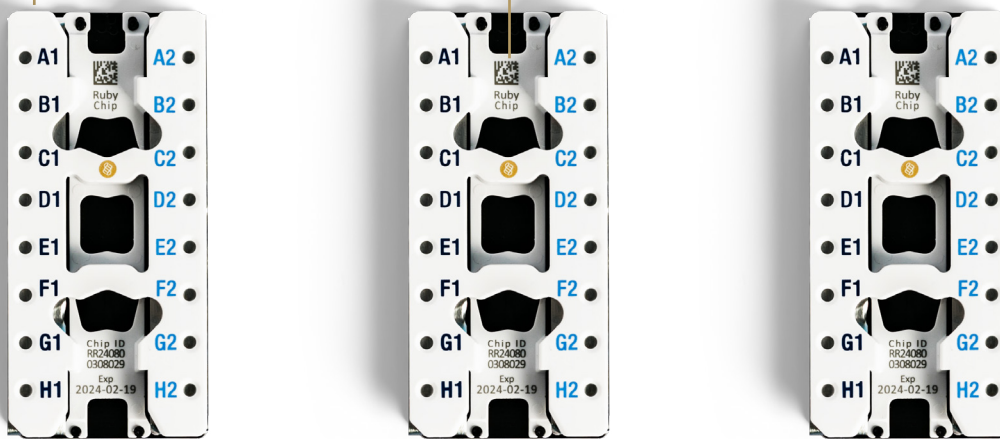
Microfluidics.

Automation-friendly.

The same dimensions as the lab consumables you already use, and compatible with your existing equipment. Our Ruby Chip is the most user-friendly microfluidics consumable we have built to date.

1-to-3 Ruby Chips go on our Chip Plates, which play nicely with our Ruby Chip Automated Liquid Handling Support Device.

Chip & Chip Plate barcodes can be read by Nio+, to assign experiment files automatically.



Ruby chambers are much like regular wells and spaced at 9mm to be conveniently pipettable with multi-channel pipets.



Pierce chips confidently.

Manually pipetting? We have designed a simple tool that pierces the aluminium seal easily.



Chip? Plate? Chip Plate.

Holds 1 to 3 chips and allows for simplified handling. Much like a 96-well plate.

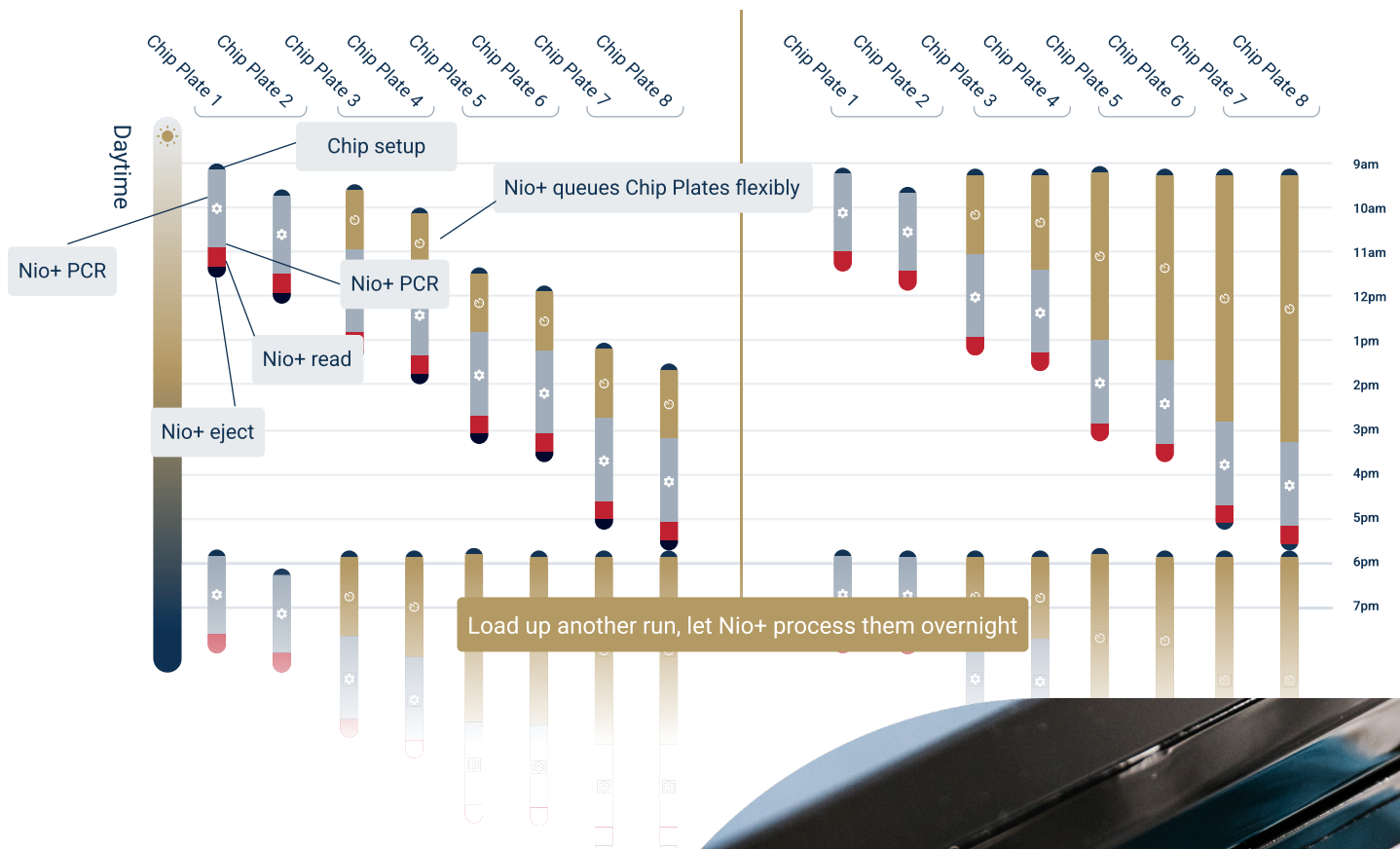
Volume for days.

Capacity of 768 chambers.

Nio+ supports a high-throughput capacity of 768 chambers processed per 8-hour workday. Below are examples of how that capacity can be reached, and the flexibility of Nio+.

Load & prepare continuously:

Load in bulk and walk away:



Collaborate with the team

Multiple technicians can prepare experiment files right at their desk while others operate the Nio+.

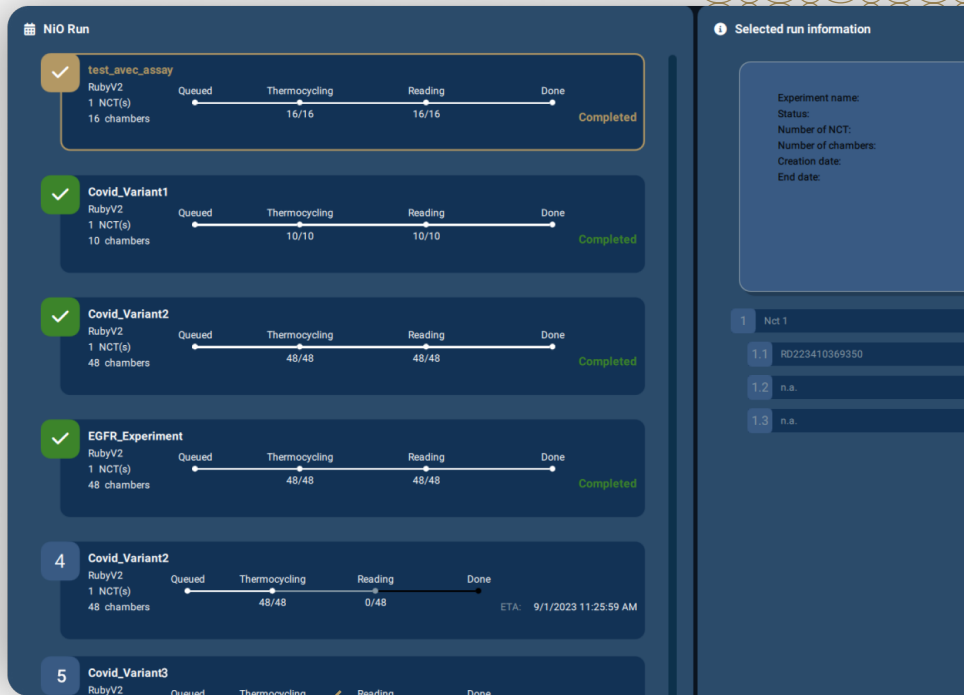
On Chip plate insertion, Nio Reader will scan the barcodes and automatically associated any created experiment files.



Ready, when you are.

Continuous loading.

Nio+ is the only digital PCR instrument that works like labs work: with the capacity to handle samples incoming at changing intervals. Anytime you are ready, for up to 8 Chip Plates, Nio+ assumes the tempo your lab operates at.



Nio Reader simply queues up the plates and automatically starts up the next run once the reading of the prior chip starts.

Experiment files can be set up for up to eight Chip Plates at once, or one at a time. Nio Reader automatically associates the experiment file you prepared.

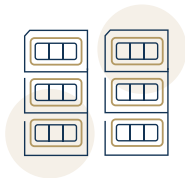
Files can be prepared on Nio+, or in total serenity on your desktop computer.



Packs a bunch.

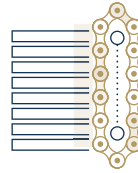
All-In-one.

Nio+ is the smallest all-in-one digital PCR instrument at its capacity. With a footprint of just 56cm by 67cm, it fits in even the smallest lab.



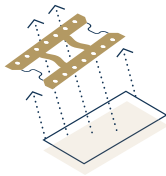
Dual thermocyclers.

Nio+ has dual thermocyclers that can operate independently.



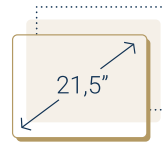
Automated plate queue.

Insert & forget. Nio+ queues your plates. Even if both thermocyclers are running.



7 color reader.

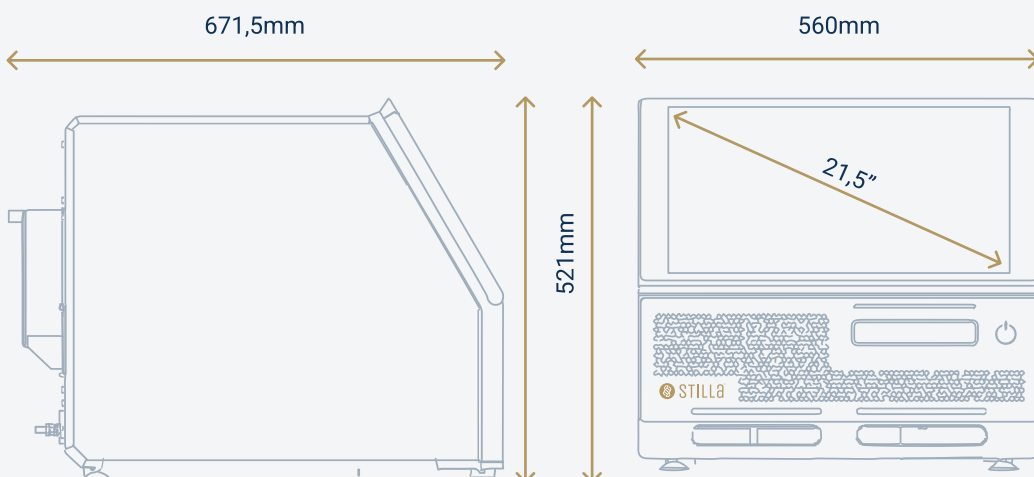
The reader is built right into Nio+, and automatically reads your chips.



21,5 inch touch display.

Set up your experiments on the machine, or on any Windows computer.

Specifications



Color, full.

7 colors.

Nio+ is the only instrument that allows for the reading of 7 colors. State of the art imaging system, with support for the colors and dyes you use today:

| LED | Excitation wavelengths [nm] | Emission wavelengths [nm] |
|---------------------------|-----------------------------|---------------------------|
| Blue | 430-510 | 504-524 |
| Blue | 490-550 | 519-561 |
| Green | 521-569 | 553-597 |
| Yellow | 555-605 | 580-660 |
| Red | 616-652 | 640-700 |
| Infra-Red | 620-720 | 685-775 |
| Long-Shift Red NEW | 480-560 | 640-700 |

Quantify 4x more targets in a single assay using color combination

In simple color multiplexing, a target is detected using a single fluorophore in a single channel. In color combination multiplexing, a target is detected using two separate fluorophores detected in 2 different channels. Such a strategy allows the development of assays to detect and individually quantify much more targets using Nio+. Thanks to a population editor based on fluorescence co-localization criteria, our software seamlessly integrates the analysis of color combination assays. A 16-target example:


| Targets | FAM | YY® | Atto550 | ROX | Cy®5 | Cy®5.5 | DY-521-XL |
|---------|-----|-----|---------|-----|------|--------|-----------|
| T1 | | | | | | | ✓ |
| T2 | ✓ | ✓ | | | | | |
| T3 | ✓ | | ✓ | | | | |
| T4 | ✓ | | | ✓ | | | |
| T5 | ✓ | | | | ✓ | | |
| T6 | ✓ | | | | | ✓ | |
| T7 | | ✓ | ✓ | | | | |
| T8 | | ✓ | | ✓ | | | |
| T9 | | ✓ | | | ✓ | | |
| T10 | | ✓ | | | | ✓ | |
| T11 | | | ✓ | ✓ | | | |
| T12 | | | ✓ | | ✓ | | |
| T13 | | | ✓ | | | ✓ | |
| T14 | | | | ✓ | ✓ | | |
| T15 | | | | ✓ | | ✓ | |
| T16 | | | | | ✓ | ✓ | |



Instrument that gets you started.

Reagents, accessories & kits to keep you going.

Nio+ comes with everything you need to get started. From PCR mix to kits.



naica® PCR MIX (EvaGreen® compatible)

Available in both 5X and 10X concentrations.

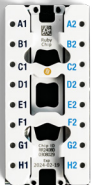


naica® PCR MIX (TaqMan® compatible)

Available in both 5X and 10X concentrations. For use with probe-based chemistries.

Ruby Chip

16 samples per chip, 12 chips in a box.
5µl of input / chamber, with up to 17000+ droplets. Dynamic range of detection (95%) ~ 5 logs.



Your cell and gene therapy assays

Validate your cell/ gene therapy's viral vector integrity and build out your QC assays with our team.

Oncology assays

Allowing researchers to detect and quantify nucleic acids with ready-to-use, pre-designed assays for fully-validated target panels.

EGFR 6-color Crystal Digital PCR™ Kit, Atila Biosystems Cancer Multiplex Mutation Screening Assay Line across (EGFR, KRAS, NRAS, TP53, HER2, APC, PIK3CA, BRAF, RET/MET, lung cancer mutations & colorectal cancer mutations.



Software that works with you.

Nio Reader software

Configure multiple experiments right from your desk or directly on the Nio+.

The screenshot displays the STILla Nio Reader software interface. It features a sidebar on the left with navigation options: PROTOCOLS (New, Open), ASSAYS (New, Open), EXPERIMENTS (New, Open), and RUNS (Plan & Start, Status, View). The main workspace is titled 'Nio+ runs' and shows a list of experiments with progress indicators (Queued, Thermocycling, Reading, Done) and their authors. Below this is a 'Selected job information' panel showing details for a specific experiment, including author, creation date, scan date, and status. On the right, there are buttons for 'View Results', 'Get Results', 'Cancel Run', and 'Set high priority'. At the bottom right, there are buttons for 'Unload All NCT', 'Unload Selected NCT', 'Cancel NCT', and 'Cancel Chip'.

Nio Analyzer software

Visualise data across dimensions, automated or manual thresholding and export your data.

The screenshot displays the Nio Analyzer software interface. It features a top navigation bar with tabs: FILE I/O, QUALITY CONTROL, SETUP, ANALYZE DATA (Plots & Populations, Explore Crystals), VIEW RESULTS, and EXPORT. The main workspace shows a 2D dot plot with a histogram on the left and a 3D dot plot on the right. The 2D plot has axes ranging from 5,000 to 40,000. The 3D plot has axes ranging from 10,000 to 70,000. Below the plots are control panels for 'Plots Navigation', 'Fluorescence Thresholds', 'Color View', and 'Thresholding Mode'. The 'Fluorescence Thresholds' panel shows values for different channels: Blue Channel (18111), Teal Channel (16660), Green Channel (18874), Yellow Channel (13015), Red Channel (12952), and Infra-Red Channel (9353). The 'Color View' panel shows a legend for the channels.

Get started with digital PCR.

Get in contact with our **experts.**

Getting started with digital PCR or want to expand your lab's capabilities? Our application and R&D teams are ready to get you set up. With a range of training services, co-development and more, we will ensure your digital PCR experiments are a success.

Visit www.stillatechnologies.com



About us

Stilla Technologies is the digital PCR workflow company transforming quantitative genomic data into insights across cancer and liquid biopsy studies, cell and gene therapies, infectious disease detection, and food and environmental testing.