

IMAGE ACQUISITION & AUTOMATIC READING

Render perfect images

MacroScan II



Information brochure (2022)



Shape the future of automatic reading

INTRODUCTION



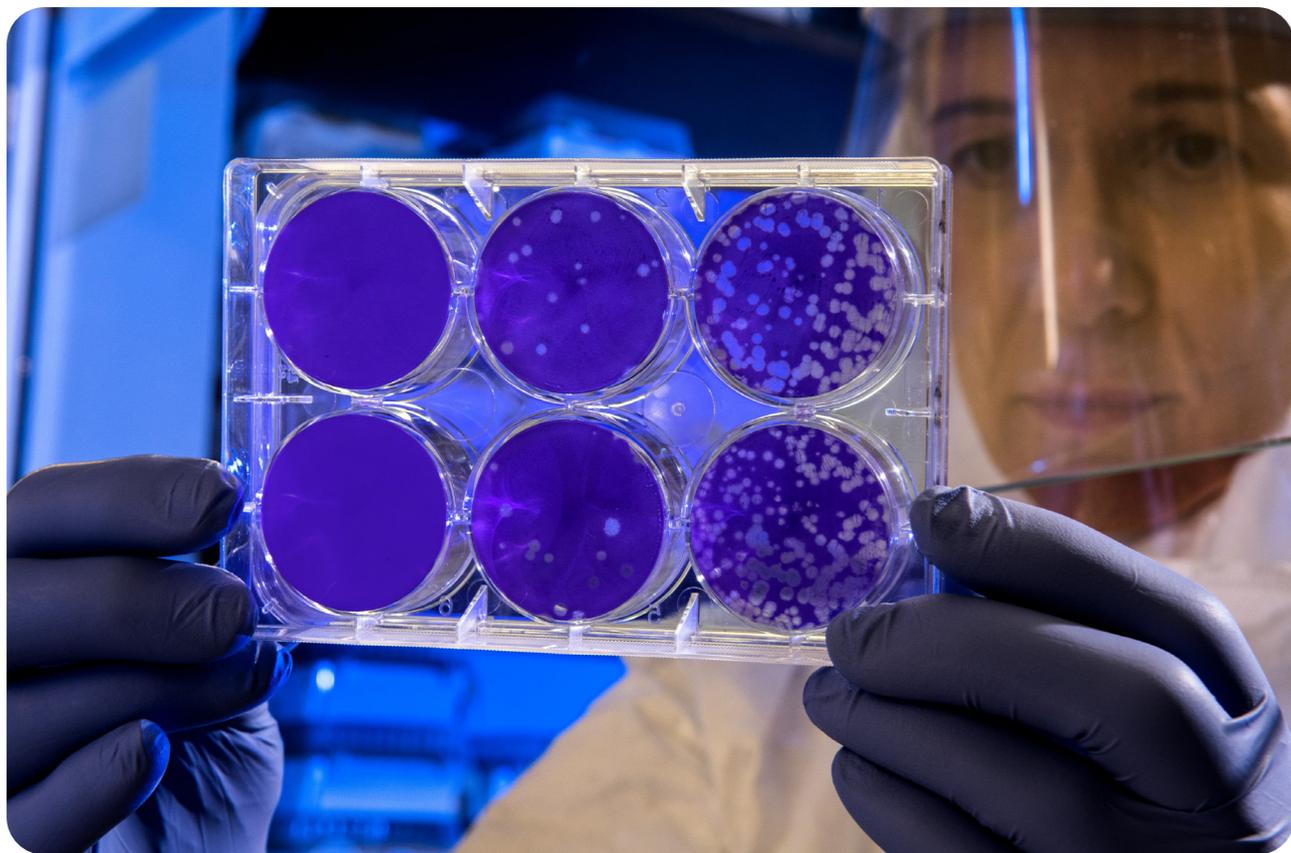
Imagine how much you would benefit from acquiring clear, reliable and highly detailed photos of your cell-based assays. Think of how much time would they save you. And how much more accurate your analyses would be.

We imagined all this too. Then we created a system to deliver it. We call it the **MacroScan II**.

The MacroScan II is designed for labs with relatively low to medium throughput. “An easy to use system to start-up, develop and learn more about your assays.” It can load and read one single plate at a time, varying from 6, 12, 24, 48, 96, 192 up to 384 wells.



Looking to raise your productivity?
Find out what the **MacroScan II RL**
and the **ScanLab II CC** offer you.



PRODUCT HIGHLIGHTS

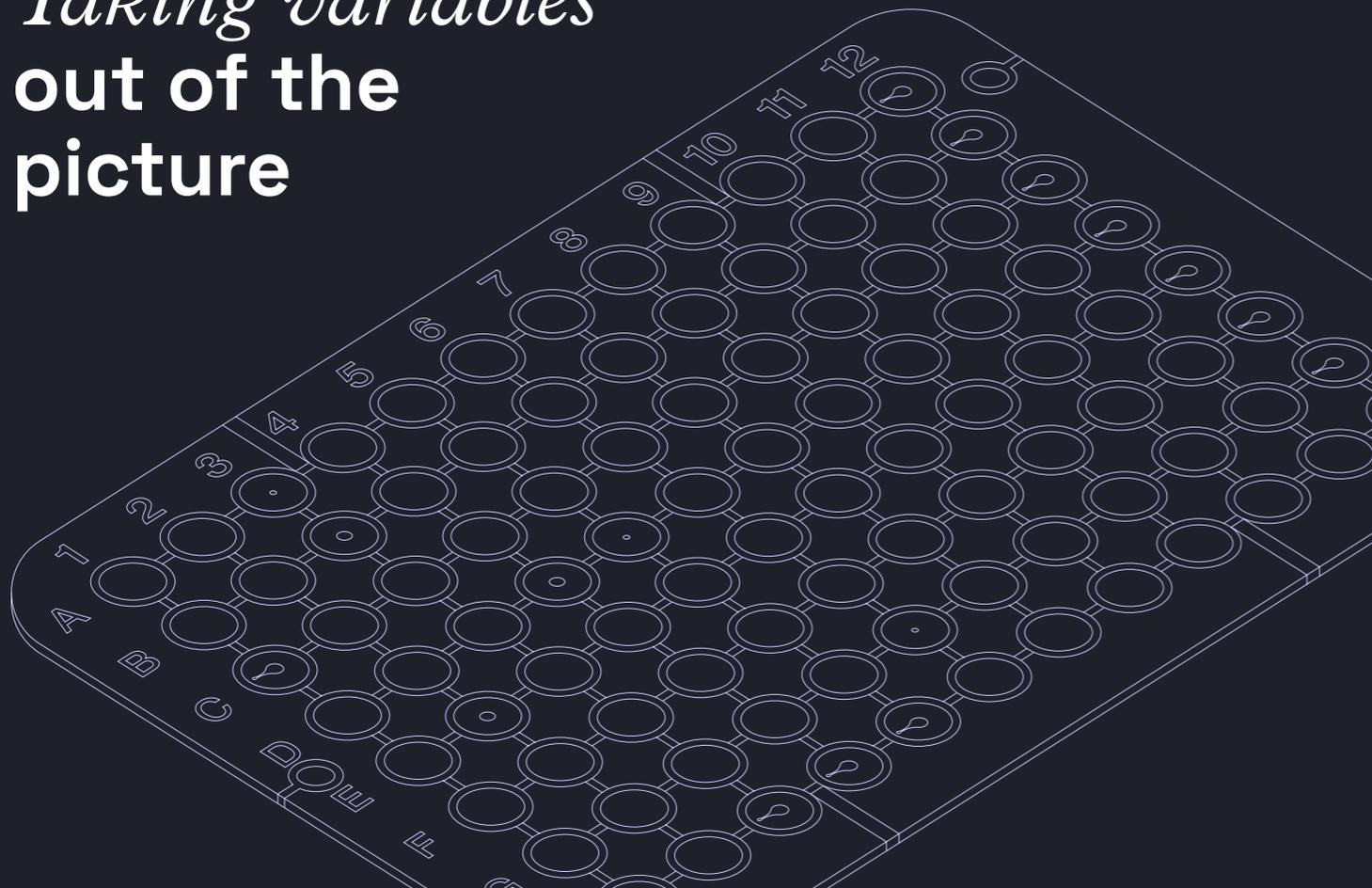
The MacroScan II series is designed to perform **Automatic Reading** of all common cell-based assays, all functional assays and all lab assays.

Run your assays based on colorimetry, luminescence or fluorescence in no time.

- ✓ PRNT and MicroPRNT assays
- ✓ Seroneutralisation assays
- ✓ Titration assays
- ✓ ELISPOT
- ✓ Opsonophagocytic assays
- ✓ Serum bactericidal assays

 [Book your free demonstration at microtechnix.com](https://www.microtechnix.com)

Taking variables out of the picture



6

PRODUCT HIGHLIGHTS

The optics

The most accurate results come from the most accurate images. Every product in the MacroScan II series uses a ZEISS Axio Zoom® V16 equipped with an AxioCam highresolution camera that is completely digitally controlled. It takes high-definition images of your assays, perfect for raising the accuracy of your counts and ensuring every detail in every well is identifiable.



Quality imaging

High resolution image in true color provided by ZEISS AxioCam® to analyze ultimate details of your samples.



Consistency

Calibration parameters work with any MicroTechniX hardware.



Reproducibility

With less than 5% variation it delivers in reproducibility.

7

RGB calibration

The MacroScan II series also uses mean red, blue and green density values to ensure perfect calibration. These parameters add to the accuracy of your images. Whether they're preset or customized, they are stored in a file that you—or colleagues anywhere in the world—can call up when it's time to validate your images or run further assays.

Consistency

These RGB calibration parameters are not just valid for your system, nor are they just for the MacroScan II series. RGB calibration offers you consistency across multiple systems. Assay validation has never been so easy.



Capture plate-images without compromises

The MacroScan II is an automatic reader based on a high-end lens with color camera that can capture the complete plate in one go without losing information.

PRODUCT HIGHLIGHTS

PRODUCT HIGHLIGHTS

Automated microscopy

Light, exposure time, image resolution and image size, compactness, bulkiness and hundreds of other variables influence the image you create. That's why the MacroScan II series records all the parameters under which an image was taken. The parameters in the digital file tell your MacroScan II system exactly how to recreate the same conditions, eliminating variables. Every aspect of the MacroScan II camera is either fixed or mechanically controlled, so you benefit from pinpoint accuracy in all your assays.

- ✓ **Carl Zeiss Zoom microscope AxioZoom®.V16 is integrated in the MacroScan II**



Teach & Read

The MacroScan II series uses Teach & Read software to perform automated reading of your images. How does it work? With amazing simplicity. You simply need to click on agents of interest. One click qualifies them as positive. Another click makes them negative again. As you click on each agent, the software updates as many as 40 different parameters, ranging from size to contrast levels and of course, the contours of an agent. It then identifies other agents in the image that fit these criteria, keeping count so you don't have to.

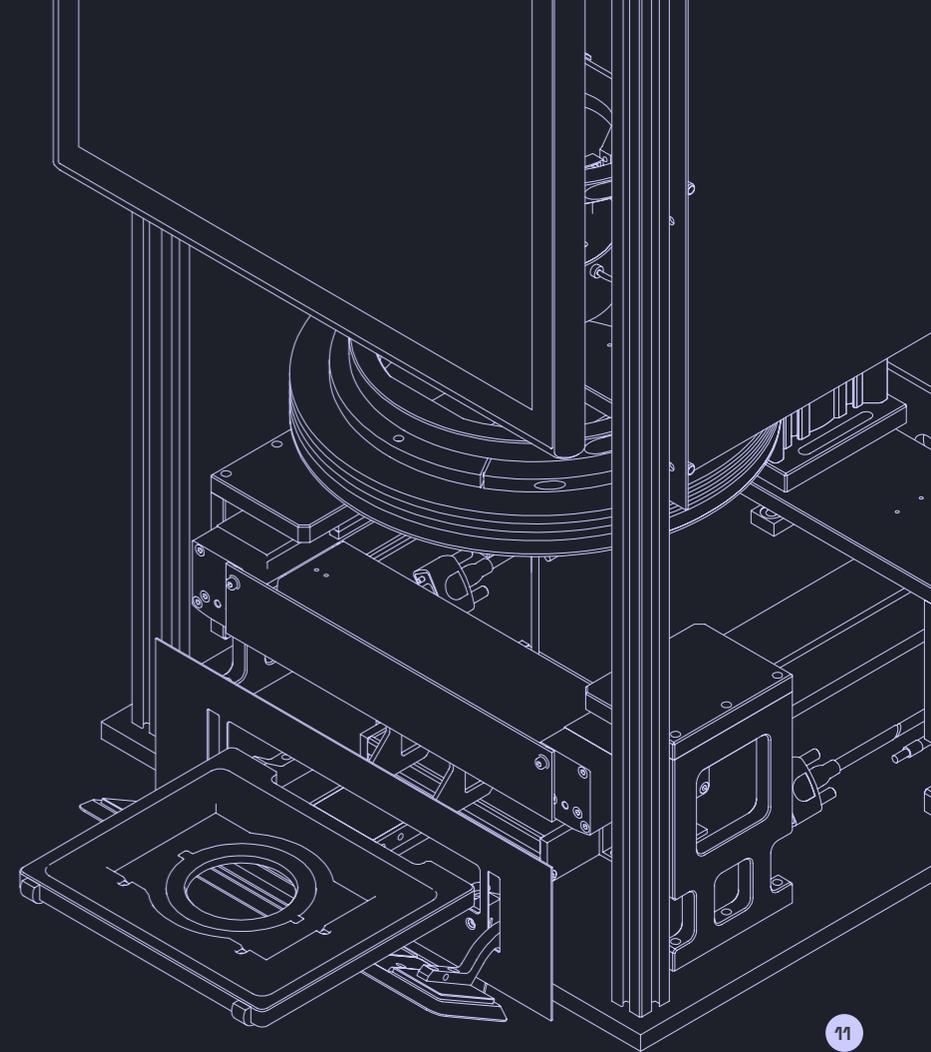


Ultimate validation

Saving these parameters means you're able to retrieve the file at a later date. This allows you to run the same assay, with the exact same parameters, on other images. And not just in your lab. The saved file is easily sent to any lab, anywhere in the world. A great way to ensure consistency. And the fastest, easiest and most accurate assay validation you've ever seen.

PRODUCT HIGHLIGHTS

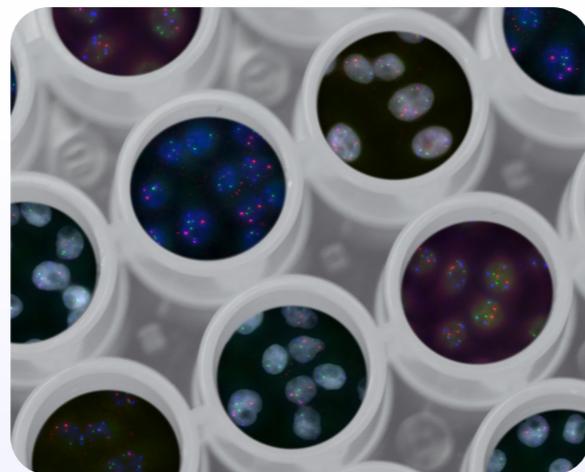
Simple and *robust* *engineering*



Optimized image acquisition

Once the image is acquired the application will process the image and present the counting, or any other parameters of interest to a spreadsheet format that can be exported and read by most LIMS systems.

- ✓ Readable by most LIMS systems



Simplified loading

The motorized drawer with an adaptable plate holder was designed to handle different types of samples, such as SRD plates, Petri dishes, 96 well plates and more.

- ✓ Adaptable plate holder
- ✓ Motorized drawer

PRODUCT HIGHLIGHTS

TECHNICAL SPECIFICATIONS

Sample capacity	1 sample (This can be increased with extra sample-plate stackers; see MacroScan II RL.)
Templates	<ul style="list-style-type: none">✓ 1 image per sample✓ Well-by-well acquisition of 6-, 12-, 24-, 48-, 96-, 192- and 384-well plates.
Camera	3 or 5 Megapixel Zeiss AxioCam® camera (model 503 or 506)
Microscope	Carl Zeiss Zoom microscope AxioZoom®.V16
Measurements (W x D x H)	526 x 498 x 810 mm
Mass (without options)	50 kg
Type of plates accepted	<ul style="list-style-type: none">✓ SBS plates✓ Petri Dishes✓ Glass plates✓ Customized plate
Interface	19" inch touch screen (IP65)
Data export	.csv, .xls, .pdf, .mp4 video, .jpeg, .png, .bmp, .tiff and Zeiss ZVI
Optional equipment to increase capacity	External robot loader Orbitor® from Thermofisher (see also MacroScan II RL.)
Accessories available	Barcode readers, incubators, stackers, robot integration, etc.
Operating system	Windows 10
Software	Icarus, Teach & Read
Warranty	1 year warranty
Voltage and frequency	100-240Vac~/50-60Hz
Compliance	21 CFR Part 11

MacroScan II RL (Robotic Loading)

How long does it take you to swap plates? And how much time do you spend creating an image of a new plate? Do you have other important tasks to do? So it's time to free it up! The MacroScan II RL incorporates all the benefits of the MacroScan II. However, it also has robotic loading for up to eighty plates to ensure your hands and your agenda are free.

The MacroScan II RL works with plates with 6, 12, 24, 48, 96, 192 and up to 384 well plates. It will automatically load and photograph each plate in sequential order. It will then use the Teach & Read software to analyse the resultant image and perform counting. And these results? They're incorporated into whatever file or report type you request.



ScanLab II+ CC

The ScanLab II CC is designed to help you increase your productivity. The system is designed for high throughput; you're able to queue as many as 189 plates. The system is also fitted with a climate control chamber. This allows you to set the optimal temperature, humidity and other conditions, making it perfect for cell-based assays.



Product range

1 MacroScan II

- ✓ Manual loading
- ✓ 1 microplate



16



2 MacroScan II RL

- ✓ Automatic loading
- ✓ Up to 80 microplates

3 ScanLab II+ CC

- ✓ Climate Control (10-37°C)
- ✓ Automatic loading
- ✓ Random access up to 189 microplates



LOADING
CAPACITY

17

Our *mission*

At MicroTechniX, we are committed to providing innovative, user-friendly solutions that make life easier in your lab. Through our high-end components, we ensure a consistent level of quality and reliability that raises standards right across the industry.

The logo for Microtechnix, featuring the word "Micro" in orange and "technix" in black, with a stylized orange "x" that has a curved tail.

Our *vision*

At MicroTechniX, we see a future in which the accuracy of lab results is heightened by automated image acquisition systems and intuitive applications. We believe that the greater accuracy, speed and reliability will raise standards, in the life sciences, and in numerous applications in the engineering and manufacturing industries. It will contribute to a general progression and development in scientific methods and protocols.

Let's build it *together*

We develop our products through co-creation. If your solution doesn't exist yet, we can build it together.

www.microtechnix.com

Contact us

ADDRESS

Anthonis de Jonghestraat 14 A
9100 Sint-Niklaas

GENERAL CONTACT

info@microtechnix.com
+32 3 646 41 45

DEPARTMENTS

sales@microtechnix.com
accountant@microtechnix.com

Micro**technix**

