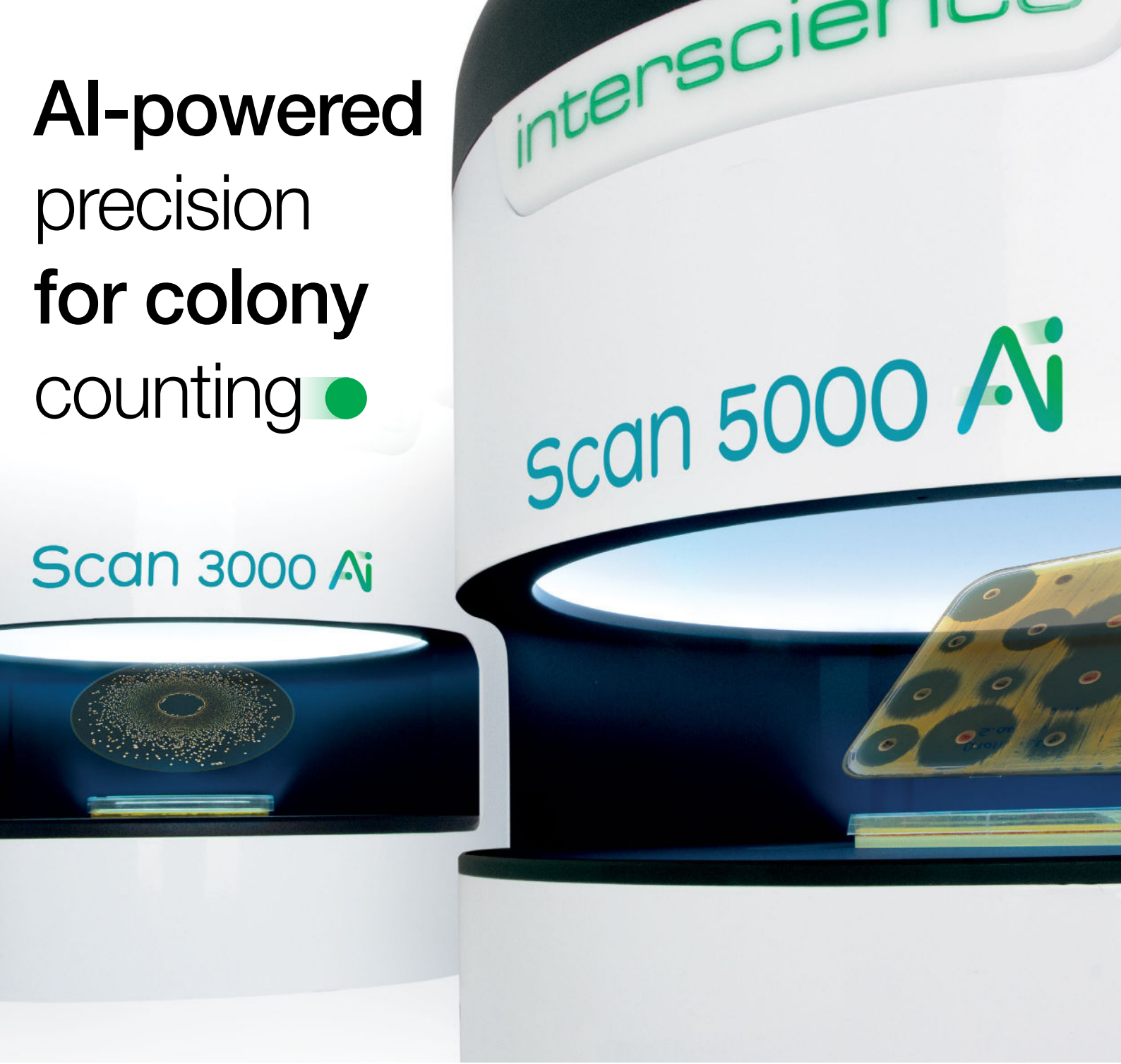
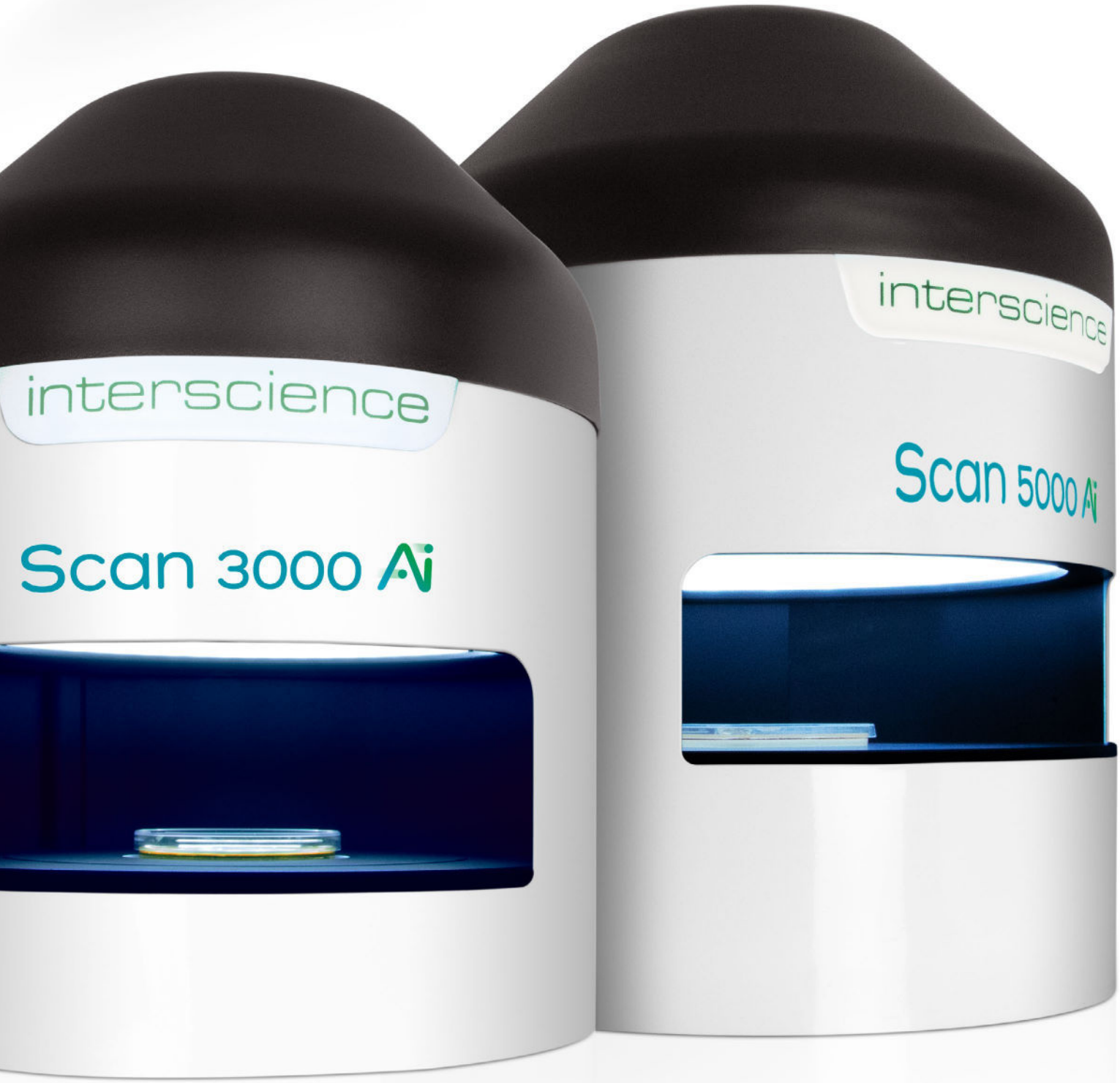
AI-powered precision **for colony** counting



Scan Ai

Automatic AI colony counters
& inhibition zone readers

interscience



20 years colony counting expertise

- Wide range of colony counters: manual, semi-auto, auto, real-time
- Dedicated AI R&D team since 2019
- More than 5000 **Scan®** equipment used worldwide every day
- Database of 1 million annotated images

SCIENTIFIC
EQUIPMENT
MANUFACTURER

MADE IN FRANCE

A leap forward in counting performance

The **Scan® Ai** automatic colony counter automates and standardizes the counting of characteristic and non-characteristic colonies for microbiological analyses.

The power of Artificial Intelligence in the **Scan® Ai** automatic counter boosts Petri dish analysis with unrivalled speed and accuracy. **The resulting accuracy is 25% higher than that of a standard counter.**

Automatic colony counting in 1 second

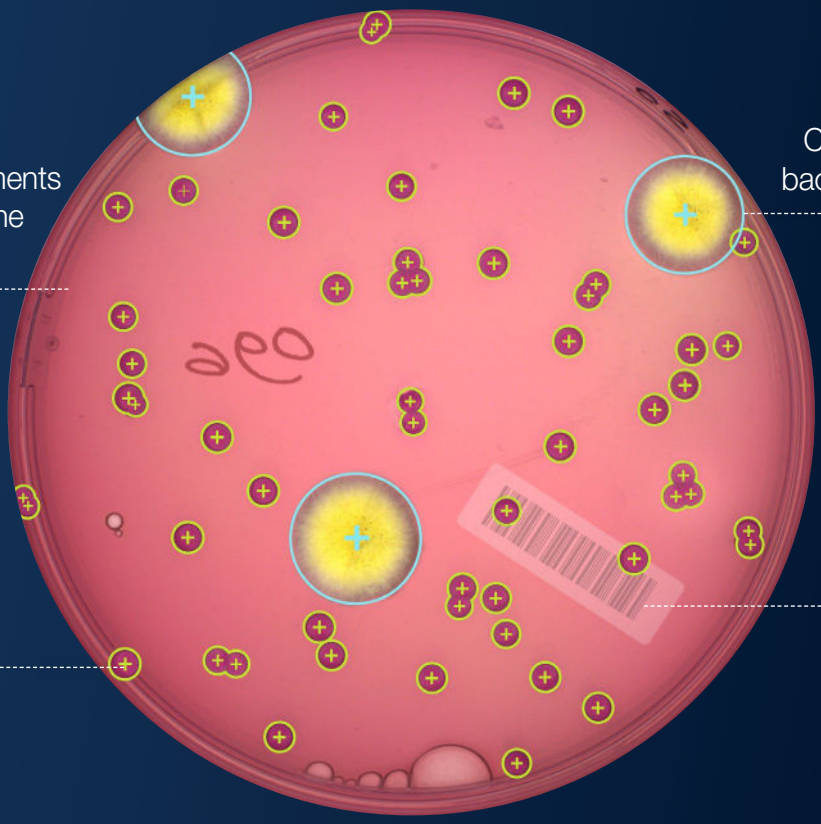
Consistent accuracy up to 98%

400 plates counted per hour

Traceability of results

Unrivaled precision with AI

Automatic counting ignores artifacts and counts on 100% of the plate. Artificial intelligence accurately detects and counts colonies, while distinguishing between different types of micro-organisms (bacteria, yeast, mold).



Counting improvements by AI based machine learning

Clear distinction between bacteria, yeasts and molds

Counting on 100% of the surface of the plate

Discrimination of artifacts (bubbles, marking, stickers…)

The combination of powerful software and an ultra-precise counter

Ultra HD optics

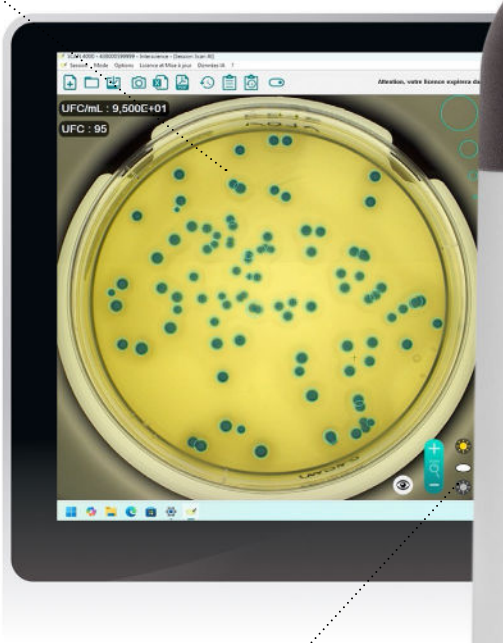
12.2 megapixel ultra HD camera(1)
x 69 digital zoom

Secure data

Works without an internet connection

Data security and confidentiality

Computer data stored locally



Data integrity

Bi-directional connection

Save and export results

Double electronic signature

Audit trail

IN ACCORDANCE WITH

ISO 7218 | AOAC 977.27 | 21 CFR Part 11

(1) Only valid on Scan® 5000 Ai, please refer to technical specifications.

AI colony counting

- 1000 colonies in 1 second
- Up to 98% counting accuracy
- AI learning from annotated images

Inhibition zone reader

- Up to 16 antibiotics on a plate in 2 to 4 s[1]
- Measurement accuracy: ± 0.1 mm[1]
- Results categorized RIS

Reflection- and shadow-free lighting

Diffusing White LED Dome lighting highlights colonies on the surface, pour plates and around the edges of the plate

Wide reading range

Round Petri dishes from ø 55 to 150 mm[1]
120 mm square Petri dishes[1]
Compatible with multiple growth medias

Sturdy

Robust frame in 304L stainless steel
Impact-resistant glass

3-year parts and labor warranty
(after registration)

INTEGRATED DATABASE

EUCAST European Committee on Antimicrobial Susceptibility Testing
European Society of Clinical Microbiology and Infectious Diseases
SFM
Clinical and Laboratory Standards Institute

25% greater accuracy than standard counters

Total count accuracy

73%

Classic counter

95%

Scan Ai

TBX positive colonies accuracy

73%

Classic counter

95%

Scan Ai

MRS accuracy

70%

Classic counter

95%

Scan Ai

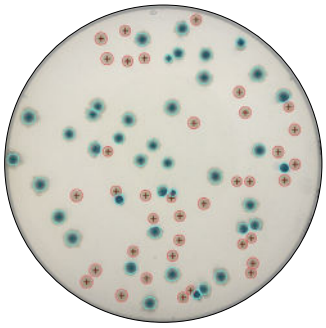
VRBL accuracy

57%

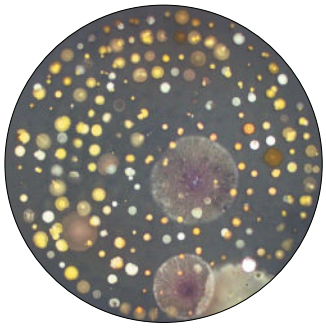
Classic counter

89%

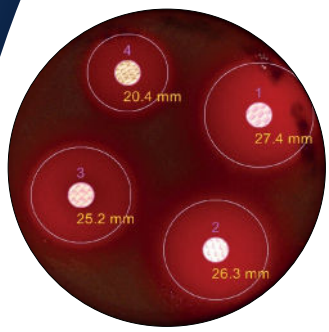
Scan Ai



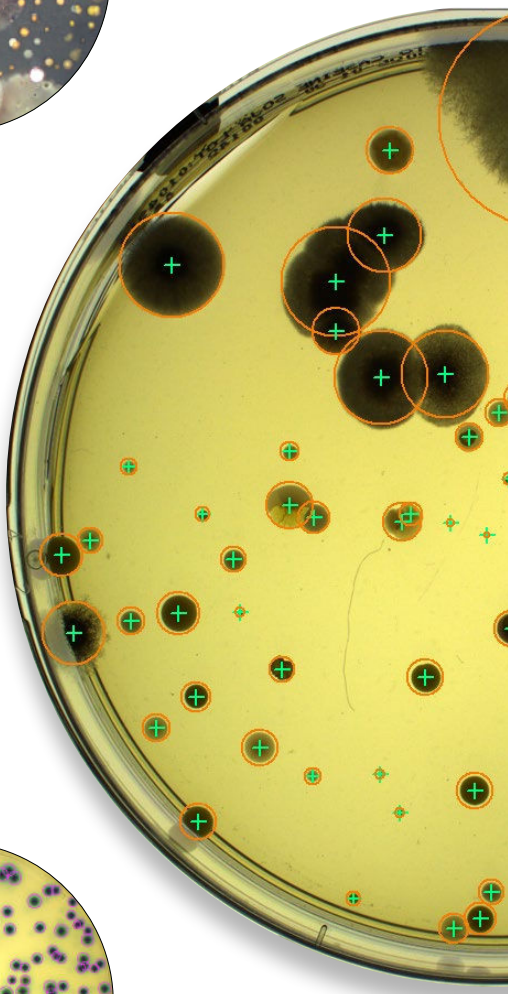
TBX

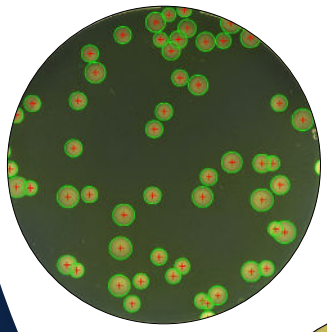


Air analysis on TSA

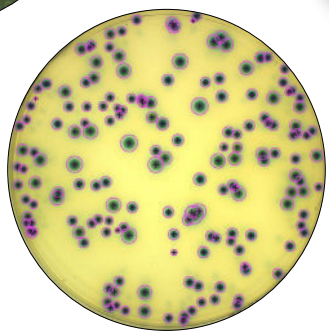


Discs on blood agar

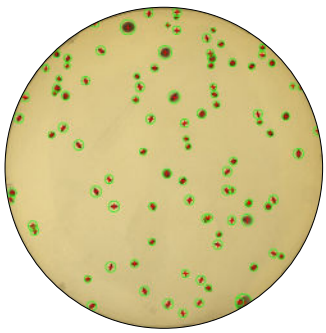




TSA



Rhapsody



MRS

Applications

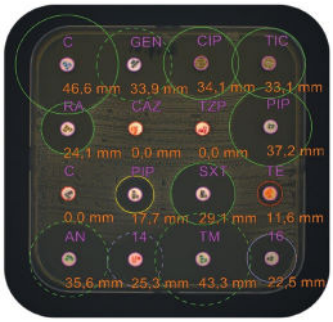
Artificial intelligence allows **Scan® Ai** to count a wide range of media, techniques and applications and different culture media for **QC**. The equipment can count Spiral® plates and Petrifilm™ with high precision and repeatability. Interpretation of chromogenic media is also available.

Integrated AI analysis of a wide range of different environments, techniques and growing media with accuracy and repeatability, including filtration membranes for liquid samples and **EM** contact plates. AI classification of different colony types, including bacteria, yeasts and molds, is also available.

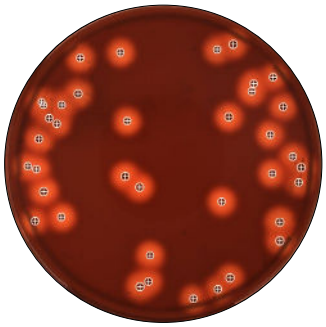
Scan® Ai reads round plates with up to 12 antibiotic discs and square plates with up to 16 discs(1)

(1) Valid on the Scan® 5000 Ai model

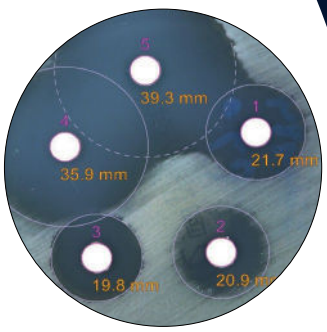
Comprehensive performance of pre-trained models



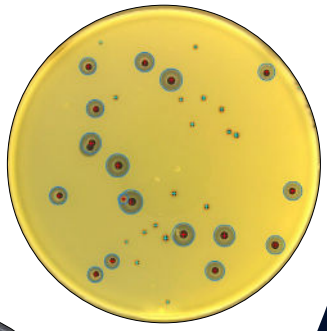
Square Petri dishes 120 mm[1]



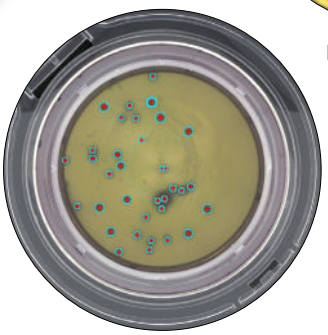
Blood agar



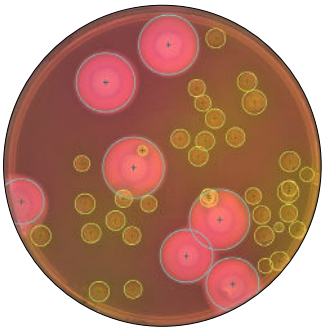
Discs on agar



BAIRD PARKER



MILLIFLEX™ OASIS™



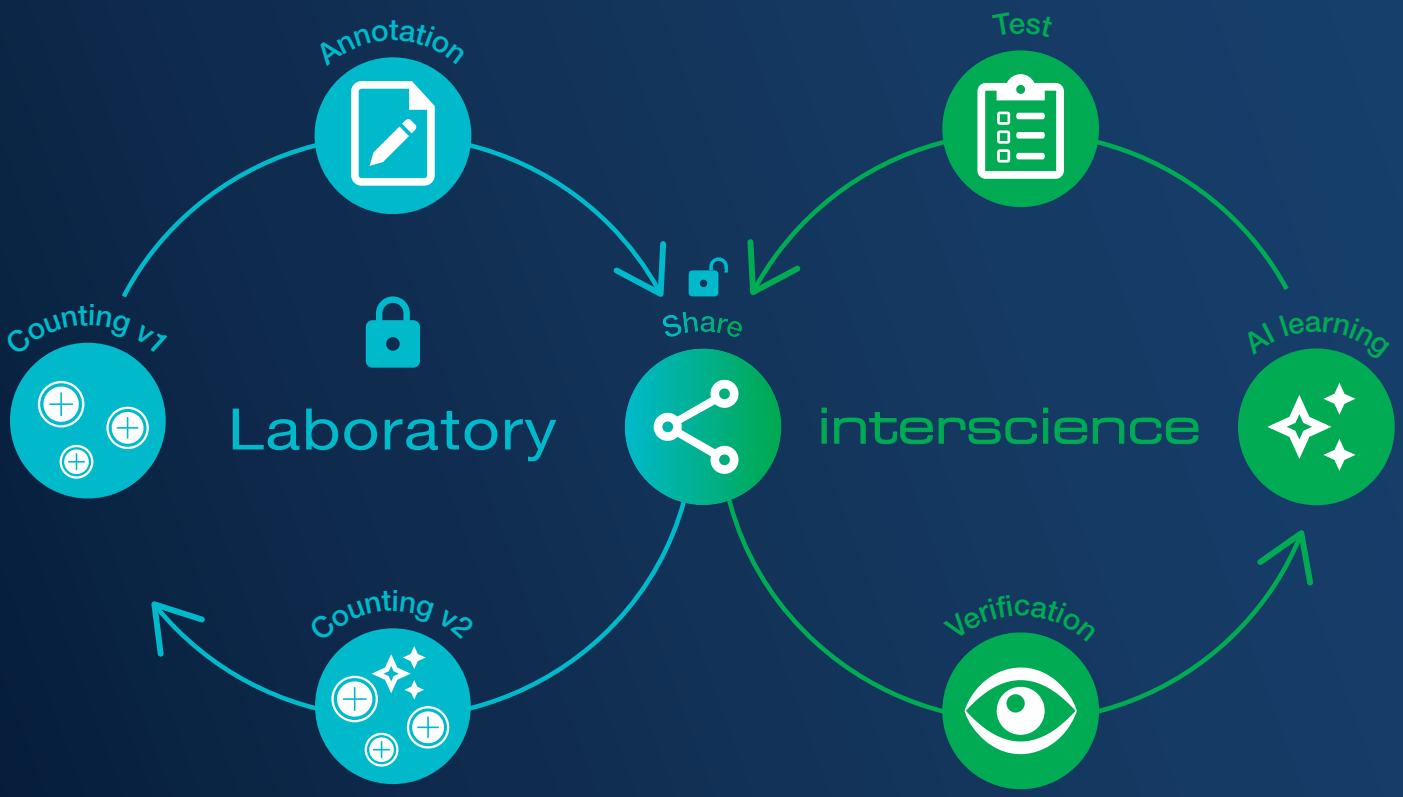
Mossel

The AI of **Scan® Ai** automatic counter **has been trained on over a million dishes and annotated images from a wide range of industries.**
We have integrated counting models on a large range of existing culture media:

Total count (PCA/TSA)
Coliforms
Enterobacteriaceae (VRBL/VRBG)
Escherichia Coli (TBX)
Lactobacilles (MRS)
Staphylococci (BAIRD-PARKER, BAIRD-PARKER RPF)
Mossel
Symphony
Yeasts / molds
GVPC
Compass Bacillus Cereus
Rhapsody
SDA
PDA
Blood Agar
MILLIFLEX™ OASIS™ (TSA, SDA, R2A).

Scan® Ai reads round Petri dishes up to 150 mm in diameter, and square 120 mm[1] plates.
It offers a wide choice of media and plates for greater flexibility:
Surface/ Pour / Mass / Spiral® / Circle
Petrifilm™, CompactDry™ chromogenic media,
MC-Media Pads™, Easy Plate™
Filtration membranes
MILLIFLEX™ OASIS™, Contact plates,
ATB on 120 mm square plates
ATB on blood agar

Performance and safety with locked AI



Continuous improvements in AI performance

Using artificial intelligence (AI) learning to count with convolutional neural networks (CNN) is transforming the field of colony counting.

When you choose **Scan® Ai**, you benefit from **high-performance, scalable automatic colony counting at the cutting edge of AI technology.**

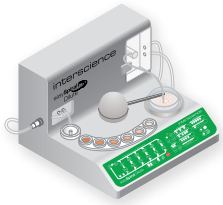
Enhanced safety with locked AI

The **Scan® Ai** system works autonomously, **without the need for an Internet connection.**

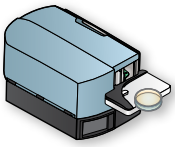
With locked Artificial Intelligence, **data is stored locally** for an even higher level of security. Local storage offers total control over information, keeping your data secure.

- **Update according to your technical and standards constraints**
- **Keep control of your analyses Existing qualifications are retained**
- **Evolve neural models with the analytical and matrix ecosystem**
- **Software updates and AI models are available at your convenience**

Traceability and data integrity

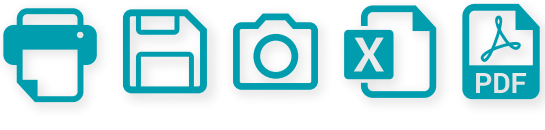


easy**Spiral**
Automatic diluter and plater



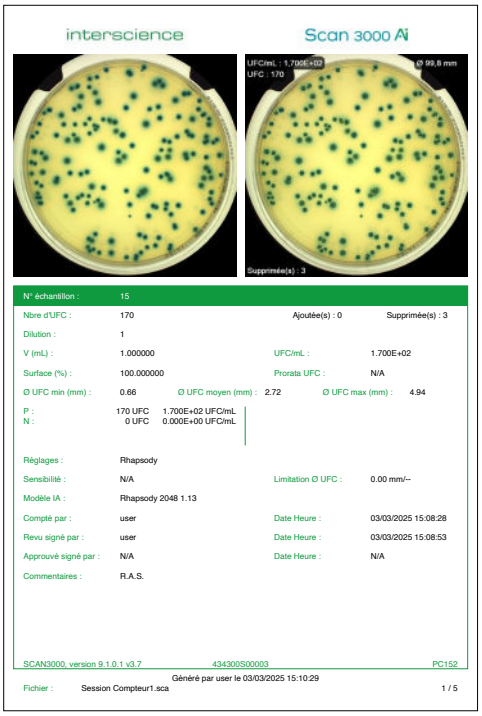
data**Link**
Petri dishes labelling

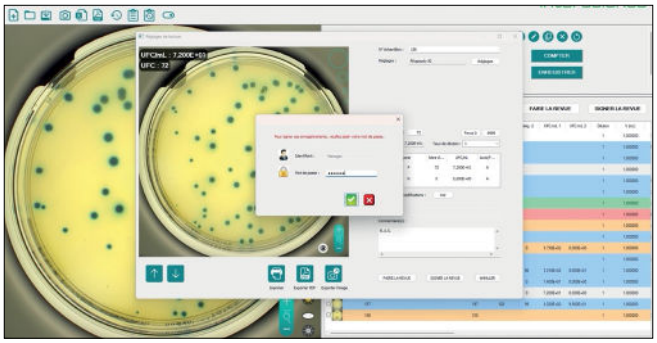
Scan® Ai receives and returns information from the LIMS and/or data**Link**™ and digitizes the count. **All your analysis data is traceable and auditable.**



Save and export results

Validation of results





Results are validated by double electronic signature. Thanks to account management, you have multi-level access to validate results.

This solution ensures data reliability and security **in compliance with FDA guidelines, 21 CFR Part 11 and GMP (Good Manufacturing Practices) Annex 11.**

data**Link**™, all your data on one plate

With data**Link™**, traceability is guaranteed.

Set the label parameters which will be integrated on the sticker on the side of the plate.

Scan® Ai range

Scan® 3000 Ai

Automatic AI colony counter
& inhibition zone reader

Artificial intelligence

Ref. 434 300

Scan® 5000 Ai

Automatic AI colony counter
& inhibition zone reader

Artificial Intelligence for large Petri dishes

Ref. 434 500

WEIGHTS AND DIMENSIONS	Scan® 3000 Ai	Scan® 5000 Ai
Dimensions (w x d x h)	32 x 32 x 44 cm	46.4 x 46.4 x 63.1 cm
Net weight	11.5 kg	25.15 kg
Box dimensions (w x d x h)	60 x 50 x 55 cm	80 x 60 x 63 cm
Gross weight	17.5 kg	32.50 kg

Supplied with 1 x 15 V power cord, 1 x USB cable, 3 validation plates, 1 x user manual, 1 x certificate of conformity / warranty card

Certified product WEEE 2002/96/EC · RoHS 2002/95/EC · MADE IN FRANCE · CE · UK CA

Products manufactured for INTERSCIENCE
by Interlab, an ISO 9001-certified company

Accessories

Optical cleaner wipes

Optical cleaner and 50 wipes

Ref. 435 702

Barcode reader

Barcode reader (1D / 2D)

Ref. 522 000

IQOQ Services

In an environment where equipment precision and reliability are paramount, our application team is committed to providing you with **rigorous, customized qualification services.**

Our offers include a complete range of services, installation and initial commissioning to maintain the optimum performance of your equipment.

We understand the importance of each step in the process, and ensure that **each piece of equipment is qualified according to precise, validated protocols.**

Technical specifications

	Scan® 3000 Ai	Scan® 5000 Ai
OVERVIEW		
Reference	**434 300**	**434 500**
Painted stainless steel shell	✓	✓
LIMS/SIL connection	✓	✓
USB connection	✓	✓
Available with dataLink™/dataLink™ pro traceability system	✓	✓
Counting on pour, surface, Spiral® and circle plated Petri dishes	✓	✓
Counting on chromogenic dishes	✓	✓
Counting on Petrifilm™, Compact Dry™, MC-Media Pads™, Easy Plate™, filtration membranes	✓	✓
Automatic counting	✓	✓
Inhibition zone reading	✓	✓
Counting on 100% of the Petri dish	✓	✓
AI-powered colony counting	✓	✓
Automatic detection of Petri dishes	-	✓
Counting on Petri dishes up to 150 mm	-	✓
COUNTING		
Counting	Automatic with manual control (adding/removing colonies)	
Automatic separation of clustered colonies	✓	✓
Creation of polygonal exclusion zones	✓	✓
Classification of bacteria, yeasts and molds	✓	✓
Counting time	Up to 1000 colonies per second	
Minimal size of colony	0.03 mm	
INHIBITION ZONE READING		
Antibiotic disc detection	Automatic with possibility to manually add or remove	
Automatic detection of antibiogram support	Disks (several brands simultaneously), wells, peni-cylinder (steel, plastic)	
Display resolution	± 0.1 mm	
Inhibition zone measurement accuracy	± 0.2 mm	± 0.1 mm
Number of antibiotic paper disks	Up to 7 antibiotics on a Ø 90 mm Petri dish	Up to 16 antibiotics on 120 mm square dish
Reading time	7 inhibition zone reading between 1 to 3 s	16 inhibition zone reading between 2 to 4 s max.
Interpretation system	CA-SFM Human health / EUCAST / CA-SFM Veterinary / CLSI (Clinical, Laboratory Standards Institute) / Customizable list	
SPECIFICATIONS		
Color camera	Ultra HD CMOS	
Lens	HD Japanese lens	
Zoom	x 69	
Resolution (megapixels)	5	12.2
White LED Lighting technology	White LED Dome indirect lighting	
LED Lighting system	Automatic with 7 combinations, top and/or bottom light, white or black background	
Petri dish size	Ø 55 mm - Ø 90 mm	Ø 55 mm to 150 mm round Petri dishes and 120 mm square Petri dishes
Color detection	4 colors on the same dish + 2 colors to exclude	
Languages	English, French, Japanese, Chinese, Russian, Spanish, German	
Voltage - Frequencies	100-240 V~ 50/60 Hz	
Warranty	3-year (after recording the warranty online)	
Spare parts availability	10 years	
In compliance with	21 CFR Part 11, ISO 7218 and AOAC 977.27	
TRACEABILITY		
USB Data export	Recountable session, Excel™, PDF report, jpg, png and bmp images	
Data security	Modified data traceability in conformity with 21 CFR part 11	
Results/traceability	Image / sample number / comments / date / time / antibiotic name / bacterial name / measured diameter / result categorized according to standards / minimum and maximum critical diameter	
PC MINIMUM REQUIREMENTS		
Operating sytem	Windows™ 10 or 11 (or higher)	
Processor	Intel i7, 2.8 GHz or higher (i9 or xeon gold)	
Graphic card	Nvidia RTX 3060 or 4050 or higher (Nvidia brand only)	
RAM	Minimum 16 GB required for use of Scan	
Equipments	Free USB 3.0 port	
Screen	1920 x 1080 pixels or higher	

Plate & **Count** system®

The winning team from sample to result

Plate & **Count** system® enables **automatic dilution, plating and counting of colonies.**
It's the perfect solution for the efficiency and traceability requirements of microbiological analysis.

- **75% savings in time and consumables guaranteed**
- **Traceability of results**
- **High-tech, made in France**

For more information on Plate & Count system, please refer to the brochure.

Your sales contact

interscience

PARIS
Phone: +33 (0)1 34 62 62 61 - Email: info@interscience.com

FRANCFORT
Phone: +49 611 7238 7770 - Email: sales.germany@interscience.com

BOSTON
Phone: +1 781 937 0007 - Email: sales.usa@intersciencelab.com

SHANGHAI
Phone: +86 (0)21-64739390 - Email: sales.china@interscience.cn

SINGAPOUR
Phone: +65 6977 7232 - E-mail: sales.asia@interscience.com

TOKYO
Phone: +81 3 6712 9715 - Email: sales.japan@interscience.com

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