



Infinite® F50 – Reliable. Validated. Compact.

New state-of-the-art 8-channel absorbance reader with latest LED technology



Infinite F50 – Innovative design with top price-performance ratio

The Infinite F50 is Tecan's next-generation, state-of-the-art 8-channel absorbance microplate reader that provides not only accurate, reproducible and fast measurements but sets a new standard in compact, innovative design. With its easy-to-use control and data analysis software, the Infinite F50 is ideal for a variety of ELISA applications.

Reliable and validated hardware and software in an outstandingly compact footprint

Maintenance-free

The Infinite F50 uses the latest LED technology to replace the traditional halogen lamp light source, providing longer maintenance-free life, lower energy consumption and compact dimensions. LEDs typically last 10 times longer than halogen lamps at the same efficiency, making inconvenient lamp changes and waiting for the lamp to warm up a thing of the past.

Proven reliability

Reliability of the Infinite F50 is proven by Tecan's unique quality tests resulting in a Mean Time to First Failure (MTTF) value of >100,000 plates, typically corresponding to several years of successful operation.

Warranty

The 24-month warranty period for the Infinite F50 underlines the quality of Tecan's detection instruments that is demonstrated by the installed base of more than 20,000 Tecan microplate readers worldwide.

Validated

Both the Infinite F50 absorbance reader and Magellan™ software have been designed, tested, verified and validated according to ISO 13485:2003 quality system standards. Together with the optional Magellan Tracker software, the system meets the 98/79/EC IVD directive for in vitro diagnostic products and the FDA regulation 21 CFR Part 11, ensuring technical compliance and integrity of generated data.

Compact

The innovative, state-of-the-art engineering enables unprecedented compactness, reflected in a footprint of about four microplates. This reader can easily fit into any laboratory, saving valuable bench space.

Comprehensive and powerful data analysis

The Infinite F50 comes complete with Magellan – Tecan's established reader control and data analysis software – allowing quick and easy measurements, comprehensive data reduction and excellent data presentation on cost-effective netbooks, as well as on laptops or standard PCs.

Powerful

- full qualitative and quantitative EIA analysis
- all major curve fittings (eg. point-to-point, linear and non-linear regression, polynomial, logit-log, four- and five-parameter fits)
- comprehensive QC function (such as plate-to-plate QC for trending of standards and controls displayed in a Levy-Jennings graph)
- a range of data import and export options (Excel®, ASCII, ASTM)
- a range of kinetic data reduction features (such as mean and max slope, enzyme kinetics, etc.)**

Easy access

- wizard-based user interface guides you through the software step-by-step
- available in eight languages (Chinese, English, French, German, Italian, Portuguese, Russian and Spanish)
- example files for qualitative and quantitative ELISA assays and learning tutorials

Compliant

Magellan Tracker software provides electronic signatures, records and multilevel user management to offer full functionality to meet FDA's Title 21 CFR Part 11 and 98/79/EC IVD-D, allowing diagnostic applications in clinical laboratories and other regulated environments. The Infinite F50 is also compliant with the Restriction of Hazardous Substances (RoHS) and the Waste Electrical and Electronic Equipment (WEEE) directives.

Essential quality control with the MultiCheck™ package

The MultiCheck package for the Infinite F50 offers a fast and easy way to verify and document the performance of your microplate reader. It provides a system check appropriate for installation qualification (IQ) and operational qualification (OQ), which is essential to ensure reliable, valid measurement data and reader functionality over time.

Convenient LIS option

The hand-held barcode scanner (LIS option) is a time-saving and convenient option that allows reading of barcodes from sample IDs or plate IDs with automatic transfer into Magellan software and data export to the appropriate Laboratory Information System (LIS).







Infinite F50 features and benefits

- 8-channel absorbance reader for fast measurements
- long-life LED for maintenance-free operation
- outstanding reliability proven by MTTF benchmark value
- endpoint, kinetic and multi-label measurements for a variety of applications
- · shaking with variable time and speed
- Magellan software for powerful and validated data analysis
- learning tutorials, example files and eight different languages for getting started easily
- 98/79/EC IVD-D and FDA 21 CFR Part 11 for regulated environments

Netbook not included

Infinite F50 – Typical performance values

Detection mode	General specifications	
Photodetector silicon photodiodes Plate type 96-well microplates (including strip-well microplates) Measurement thomels 8 Measurement trange 0 − 4 OD Resolution 0.0001 OD Wavelength range 400 − 750 nm Wavelength selection up to 8 filters on wheel standard filters 405, 450, 492 and 620 nm*** Accuracy at 450 / 492 nm (0.00 − 2.000 OD 2.000 − 3.000 OD ≤ (0.5 % + 0.010 OD) typical Precision / Reproducibility at 450 / 492 nm (0.00 − 2.000 OD 2.000 − 3.000 OD ≤ (0.5 % + 0.005 OD) 2.000 − 3.000 OD ≤ (1.0 % + 0.005 OD) Linearity (0.000 − 2.000 OD) 2.000 − 3.000 OD ≤ 1.0 % 2.000 − 3.000 OD ≤ 1.5 % Shaking linear shaking in 4 different modes Computer interface USB 1.1 / 2.0 Dimensions height: 13.4 cm (5.28 in) width: 34.7 cm (13.66 in) depth: 18.9 cm (7.44 in) Weight < 3 kg	Detection mode	absorbance
Plate type 96-well microplates (including strip-well microplates) Measurement modes endpoint, kinetic and multi-label measurements Measurement channels 8 Measurement range 0 – 4 OD Resolution 0.0001 OD Wavelength range 400 – 750 nm Wavelength selection up to 8 filters on wheel standard filters 405, 450, 492 and 620 nm*** Accuracy at 450 / 492 nm ≤ (0.5 % + 0.010 OD) typical 2.000 – 3.000 OD ≤ (1 % + 0.010 OD) typical Precision / Reproducibility at 450 / 492 nm ≤ (0.5 % + 0.005 OD) 2.000 – 3.000 OD ≤ (0.5 % + 0.005 OD) Linearity 0.000 – 2.000 OD 2.000 – 3.000 OD ≤ 1.0 % 2.000 – 3.000 OD ≤ 1.5 % Shaking linear shaking in 4 different modes Computer interface USB 1.1 / 2.0 Dimensions height: 13.4 cm (5.28 in) width: 34.7 cm (13.66 in) depth: 13.9 cm (7.44 in) Weight < 3 kg	Light source	LED, self-calibrating
Measurement modes endpoint, kinetic and multi-label measurements Measurement range 0 − 4 OD Resolution 0.0001 OD Wavelength range 400 − 750 nm Wavelength selection up to 8 filters on wheel standard filters 405, 450, 492 and 620 nm*** Accuracy at 450 / 492 nm ≤ (0.5 % + 0.010 OD) typical 2.000 − 3.000 OD ≤ (1 % + 0.010 OD) typical Precision/ Reproducibility at 450 / 492 nm 0.000 − 2.000 OD 2.000 − 3.000 OD ≤ (0.5 % + 0.005 OD) 2.000 − 3.000 OD ≤ (1.0 % + 0.005 OD) Linearity 0.000 − 2.000 OD 2.000 − 3.000 OD ≤ 1.0 % 2.000 − 3.000 OD ≤ 1.5 % Shaking linear shaking in 4 different modes Computer interface USB 1.1 / 2.0 Dimensions height: 13.4 cm (5.28 in) width: 34.7 cm (13.66 in) depth: 18.9 cm (7.44 in) Weight < 3 kg	Photodetector	silicon photodiodes
Measurement range 0 − 4 OD Resolution 0.0001 OD Wavelength range 400 − 750 nm Wavelength selection up to 8 filters on wheel standard filters 405, 450, 492 and 620 nm*** Accuracy at 450 / 492 nm ≤ (0.5 % + 0.010 OD) typical 2.000 − 3.000 OD ≤ (1 % + 0.010 OD) typical Precision / Reproducibility at 450 / 492 nm ≤ (0.5 % + 0.005 OD) 0.000 − 2.000 OD ≤ (1.0 % + 0.005 OD) 2.000 − 3.000 OD ≤ (1.0 % + 0.005 OD) 2.000 − 3.000 OD ≤ 1.0 % 2.000 − 3.000 OD ≤ 1.5 % Shaking linear shaking in 4 different modes Computer interface USB 1.1 / 2.0 Dimensions height: 13.4 cm (5.28 in) width: 34.7 cm (13.66 in) depth: 18.9 cm (7.44 in) Weight < 3 kg	Plate type	96-well microplates (including strip-well microplates)
Measurement range 0 - 4 OD Resolution 0.0001 OD Wavelength range 400 - 750 nm Wavelength selection up to 8 filters on wheel standard filters 405, 450, 492 and 620 nm*** Accuracy at 450 / 492 nm ≤ (0.5 % + 0.010 OD) typical 2.000 - 3.000 OD ≤ (1 % + 0.010 OD) typical Precision / Reproducibility at 450 / 492 nm ≤ (0.5 % + 0.005 OD) 2.000 - 3.000 OD ≤ (1.0 % + 0.005 OD) Linearity 0.000 - 2.000 OD ≤ 1.0 % 2.000 - 3.000 OD ≤ 1.5 % Shaking linear shaking in 4 different modes Computer interface USB 1.1 / 2.0 Dimensions height: 13.4 cm (5.28 in) width: 34.7 cm (13.66 in) depth: 18.9 cm (7.44 in) Weight < 3 kg	Measurement modes	endpoint, kinetic and multi-label measurements
Resolution 0.0001 OD Wavelength range 400 − 750 nm Wavelength selection up to 8 filters on wheel standard filters 405, 450, 492 and 620 nm*** Accuracy at 450 / 492 nm 0.000 − 2.000 OD 2.000 − 3.000 OD ≤ (1.% + 0.010 OD) typical Precision / Reproducibility at 450 / 492 nm (0.5 % + 0.005 OD) 2.000 − 3.000 OD ≤ (1.0 % + 0.005 OD) Linearity (0.00 − 2.000 OD 2.000 − 3.000 OD ≤ 1.0 % 2.000 − 3.000 OD ≤ 1.5 % Shaking linear shaking in 4 different modes Computer interface USB 1.1 / 2.0 Dimensions height: 13.4 cm (5.28 in) width: 34.7 cm (13.66 in) depth: 18.9 cm (7.44 in) Weight < 3 kg	Measurement channels	8
Wavelength range 400 − 750 nm Wavelength selection up to 8 filters on wheel standard filters 405, 450, 492 and 620 nm*** Accuracy at 450 / 492 nm ≤ (0.5 % + 0.010 OD) typical 2.000 − 3.000 OD ≤ (1 % + 0.010 OD) typical Precision / Reproducibility at 450 / 492 nm (0.5 % + 0.005 OD) 0.000 − 2.000 OD ≤ (0.5 % + 0.005 OD) 2.000 − 3.000 OD ≤ (1.0 % + 0.005 OD) Linearity (0.00 − 2.000 OD) 2.000 − 3.000 OD ≤ 1.0 % 2.000 − 3.000 OD ≤ 1.5 % Shaking linear shaking in 4 different modes Computer interface USB 1.1 / 2.0 Dimensions height: 13.4 cm (5.28 in) width: 34.7 cm (13.66 in) depth: 18.9 cm (7.44 in) Weight < 3 kg	Measurement range	0 – 4 OD
Wavelength selection up to 8 filters on wheel standard filters 405, 450, 492 and 620 nm*** Accuracy at 450 / 492 nm ≤ (0.5 % + 0.010 OD) typical 2.000 - 3.000 OD ≤ (1 % + 0.010 OD) typical Precision / Reproducibility at 450 / 492 nm ≤ (0.5 % + 0.005 OD) 0.000 - 2.000 OD ≤ (1.0 % + 0.005 OD) 2.000 - 3.000 OD ≤ 1.0 % 2.000 - 2.000 OD ≤ 1.5 % Shaking linear shaking in 4 different modes Computer interface USB 1.1 / 2.0 Dimensions height: 13.4 cm (5.28 in) width: 34.7 cm (13.66 in) depth: 18.9 cm (7.44 in) Weight < 3 kg	Resolution	0.0001 OD
standard filters 405, 450, 492 and 620 nm*** Accuracy at 450 / 492 nm ≤ (0.5 % + 0.010 OD) typical 2.000 - 3.000 OD ≤ (1 % + 0.010 OD) typical Precision / Reproducibility at 450 / 492 nm 0.000 - 2.000 OD 2.000 - 3.000 OD ≤ (0.5 % + 0.005 OD) 2.000 - 3.000 OD ≤ (1.0 % + 0.005 OD) Linearity 0.000 - 2.000 OD 2.000 - 3.000 OD ≤ 1.0 % Shaking linear shaking in 4 different modes Computer interface USB 1.1 / 2.0 Dimensions height: 13.4 cm (5.28 in) width: 34.7 cm (13.66 in) depth: 18.9 cm (7.44 in) Weight < 3 kg	Wavelength range	400 – 750 nm
Accuracy at 450 / 492 nm 0.000 − 2.000 OD ≤ (0.5 % + 0.010 OD) typical 2.000 − 3.000 OD ≤ (1 % + 0.010 OD) typical Precision / Reproducibility at 450 / 492 nm 0.000 − 2.000 OD ≤ (0.5 % + 0.005 OD) 2.000 − 3.000 OD ≤ (1.0 % + 0.005 OD) Linearity 0.000 − 2.000 OD ≤ 1.0 % 2.000 − 3.000 OD ≤ 1.5 % Shaking linear shaking in 4 different modes Computer interface USB 1.1 / 2.0 Dimensions height: 13.4 cm (5.28 in) width: 34.7 cm (13.66 in) depth: 18.9 cm (7.44 in) Weight < 3 kg	Wavelength selection	up to 8 filters on wheel
0.000 − 2.000 OD ≤ (0.5 % + 0.010 OD) typical 2.000 − 3.000 OD ≤ (1 % + 0.010 OD) typical Precision / Reproducibility at 450 / 492 nm (0.5 % + 0.005 OD) 0.000 − 2.000 OD ≤ (1.0 % + 0.005 OD) Linearity (0.00 − 2.000 OD 2.000 − 3.000 OD ≤ 1.0 % 2.000 − 3.000 OD ≤ 1.5 % Shaking linear shaking in 4 different modes Computer interface USB 1.1 / 2.0 Dimensions height: 13.4 cm (5.28 in) width: 34.7 cm (13.66 in) depth: 18.9 cm (7.44 in) Weight < 3 kg		standard filters 405, 450, 492 and 620 nm***
2.000 − 3.000 OD	Accuracy at 450 / 492 nm	
Precision / Reproducibility at 450 / 492 nm ≤ (0.5 % + 0.005 OD) 0.000 - 2.000 OD ≤ (1.0 % + 0.005 OD) Linearity 0.000 - 2.000 OD 2.000 - 3.000 OD ≤ 1.0 % 2.000 - 3.000 OD ≤ 1.5 % Shaking linear shaking in 4 different modes Computer interface USB 1.1 / 2.0 Dimensions height: 13.4 cm (5.28 in) width: 34.7 cm (13.66 in) depth: 18.9 cm (7.44 in) Weight < 3 kg	0.000 – 2.000 OD	\leq (0.5 % + 0.010 OD) typical
0.000 - 2.000 OD ≤ (0.5 % + 0.005 OD) 2.000 - 3.000 OD ≤ (1.0 % + 0.005 OD) Linearity 0.000 - 2.000 OD 2.000 - 3.000 OD ≤ 1.0 % Shaking linear shaking in 4 different modes Computer interface USB 1.1 / 2.0 Dimensions height: 13.4 cm (5.28 in) width: 34.7 cm (13.66 in) depth: 18.9 cm (7.44 in) Weight < 3 kg	2.000 – 3.000 OD	≤ (1 % + 0.010 OD) typical
2.000 - 3.000 OD ≤ (1.0 % + 0.005 OD) Linearity 0.000 - 2.000 OD 2.000 - 3.000 OD ≤ 1.0 % Shaking linear shaking in 4 different modes Computer interface USB 1.1 / 2.0 Dimensions height: 13.4 cm (5.28 in) width: 34.7 cm (13.66 in) depth: 18.9 cm (7.44 in) Weight < 3 kg	Precision / Reproducibility at 450 / 492 nm	
Linearity 0.000 - 2.000 OD ≤ 1.0 % 2.000 - 3.000 OD ≤ 1.5 % Shaking linear shaking in 4 different modes Computer interface USB 1.1 / 2.0 Dimensions height: 13.4 cm (5.28 in) width: 34.7 cm (13.66 in) depth: 18.9 cm (7.44 in) Weight < 3 kg	0.000 – 2.000 OD	$\leq (0.5 \% + 0.005 \text{ OD})$
0.000 - 2.000 OD ≤ 1.0 % 2.000 - 3.000 OD ≤ 1.5 % Shaking linear shaking in 4 different modes Computer interface USB 1.1 / 2.0 Dimensions height: 13.4 cm (5.28 in) width: 34.7 cm (13.66 in) depth: 18.9 cm (7.44 in) Weight < 3 kg	2.000 – 3.000 OD	$\leq (1.0 \% + 0.005 OD)$
2.000 – 3.000 OD ≤ 1.5 % Shaking linear shaking in 4 different modes Computer interface USB 1.1 / 2.0 Dimensions height: 13.4 cm (5.28 in) width: 34.7 cm (13.66 in) depth: 18.9 cm (7.44 in) Weight < 3 kg	Linearity	
Shaking linear shaking in 4 different modes Computer interface USB 1.1 / 2.0 Dimensions height: 13.4 cm (5.28 in) width: 34.7 cm (13.66 in) depth: 18.9 cm (7.44 in) Weight < 3 kg	0.000 – 2.000 OD	≤ 1.0 %
Computer interface USB 1.1 / 2.0 Dimensions height: 13.4 cm (5.28 in) width: 34.7 cm (13.66 in) depth: 18.9 cm (7.44 in) Weight < 3 kg	2.000 – 3.000 OD	≤ 1.5 %
Computer interface USB 1.1 / 2.0 Dimensions height: 13.4 cm (5.28 in) width: 34.7 cm (13.66 in) depth: 18.9 cm (7.44 in) Weight < 3 kg		
Dimensions height: 13.4 cm (5.28 in) width: 34.7 cm (13.66 in) depth: 18.9 cm (7.44 in) Weight < 3 kg	Shaking	linear shaking in 4 different modes
Dimensions height: 13.4 cm (5.28 in) width: 34.7 cm (13.66 in) depth: 18.9 cm (7.44 in) Weight < 3 kg		
width: 34.7 cm (13.66 in) depth: 18.9 cm (7.44 in) Weight < 3 kg	Computer interface	USB 1.1 / 2.0
width: 34.7 cm (13.66 in) depth: 18.9 cm (7.44 in) Weight < 3 kg		
depth: 18.9 cm (7.44 in) Weight < 3 kg	Dimensions	
Weight < 3 kg		
Power supply External power supply: 100 – 240 V AC, 50 / 60 Hz, max. 1.2 A (auto sensing)		
	Power supply	External power supply: 100 – 240 V AC, 50 / 60 Hz, max. 1.2 A (auto sensing)

Tecan – Who we are

Tecan is a leading global provider of laboratory instruments and solutions in biopharmaceuticals, forensics, clinical diagnostics, academic centers and life science industries, and specializes in the development and production of automation solutions, detection instruments such as microplate readers, microarray-related products and washers.

Founded in Switzerland in 1980, Tecan has manufacturing, research and development sites in both North America and Europe, and maintains a sales and service network in 52 countries. To date, Tecan has distributed approximately 20,000 microplate readers worldwide and is committed to continuous technological improvements and compliance to global quality standards.

Austria +43 62 46 89 33 Belgium +32 15 42 13 19 China +86 21 2898 6333 Denmark +45 70 23 44 50 France +33 4 72 76 04 80 Germany +49 79 51 94 170 Italy +39 02 92 44 790 Japan +81 44 556 73 11 Netherlands +31 18 34 48 174 Portugal +351 21 000 82 16 Singapore +65 644 41 886 Spain +34 93 490 01 74 Sweden +46 31 75 44 000 Switzerland +41 44 922 89 22 UK +44 118 9300 300 USA +1 919 361 5200 Other countries +41 44 922 8125

Tecan Group Ltd. makes every effort to include accurate and up-to-date information within this publication; however it is possible that omissions or errors might have occurred. Tecan Group Ltd. cannot, therefore, make any representations or warranties, expressed or implied, as to the accuracy or completeness of the information provided in this publication. Changes in this publication can be made at any time without notice.

Tecan and Infinite are registered trademarks and Magellan and MultiCheck are trademarks of Tecan Group Ltd. Männedorf, Schwitzerland. Excel is a registered trademark of Microsoft Corporation or its subsidiaries in the US and/or other countries.

© 2010, Tecan Trading AG, Switzerland, all rights reserved.



^{*}together with Magellan Tracker software

 $[\]hbox{\it **} For further details please refer to Magellan software features (www.tecan.com/magellan).}$

^{***}additional filters available separately