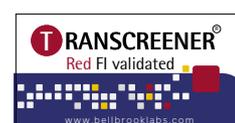




Infinite® F500

Top class performance in a modular,
filter-based detection system



Infinite F500

A detection platform with top-of-the-range sensitivity for all measurement modes

The Infinite F500 is Tecan's most sensitive filter-based detection platform. It is based on the latest technological developments to provide a multifunctional and modular system that rapidly analyzes all your fluorescence- and luminescence-based assays at outstanding sensitivity levels.

A wide range of options

The Infinite F500 supports a broad range of measurement modes and functions that allow you to easily use many current assay technologies.

Options and modules

- Fluorescence intensity bottom (UV/VIS)
- Fluorescence polarization
- TR-FRET / HTRF®
- Luminescence (flash and glow)
- 1536-well optics (for absorbance, fluorescence intensity top and luminescence, not applicable with injectors)
- Injectors
- Barcode

Basic instrument

- Fluorescence intensity top (UV and VIS)
- Absorbance
- TRF
- z-focus
- Shaking
- Temperature control

An infinite relationship with your assays

The fast, sensitive and flexible Infinite F500 is ideal for an extremely broad range of applications, including ratiometric assays (e.g. TR-FRET) and other technologies routinely used in drug discovery, life sciences and academic research institutes. It is capable of reading 6- to 1536-well microplates, including standard and low-volume plates. By selecting high speed, on-the-fly measurements, you can read a 1536-well plate in less than 30 seconds (see page 4).

Infinite F500 – Options and modules

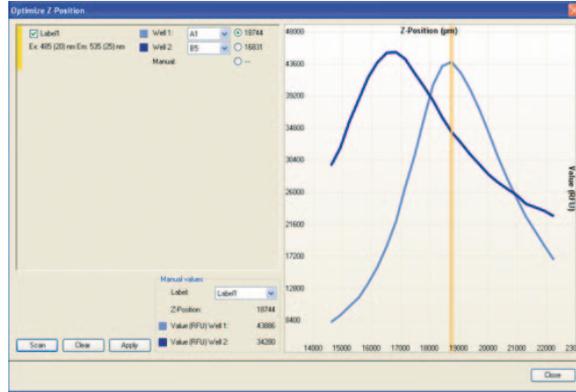
	Fluorescence intensity top reading incl. time resolved fluorescence
	Fluorescence intensity bottom reading
	Absorbance
	Photon counting luminescence incl. dual color luminescence
	Fluorescence polarization
	Temperature control
	Injectors

The Infinite F500 supports a broad range of microplate-based detection assays, including selected biomolecular assays for screening, enzymatic assays, reporter gene assays, molecular binding studies, calcium-based assays, TR-FRET based assays and flash luminescence measurements in combination with injectors.

Technologically advanced with powerful features and tools to meet your application demands



Integrated injectors with selectable syringe sizes.



Automatic z-focus (for fluorescence intensity top).



Programmable filter slide with an electronic chip.

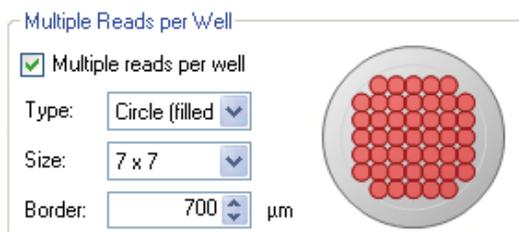
Injectors

The instrument has one or two fully integrated injectors available. You can choose between three different syringe sizes (500, 1000 and 2500 µl) and the innovative design allows the Infinite F500 to inject and read at the same position for selected detection modes and plate formats.

Software designed for your workflow

The Infinite F500 comes with an easy-to-use i-control™ software interface that allows you to individually define the workflow for an application. Each workflow can easily be created by arranging the measurement components in a sequence according to the desired assay workflow. The application script is then visible and can be saved for future use.

For comprehensive data evaluation and processing, Tecan's advanced Magellan™ software offers features for all microplate formats that are compatible with the Infinite F500.



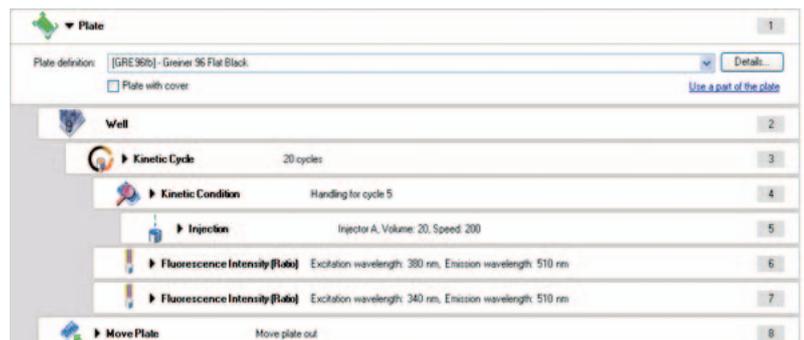
Multiple reads-per-well function.

Filter slides and filter selection

The Infinite F500's advanced technology includes the concept of programmable filter slides with electronic chips. These ultra-lightweight filter slides allow for faster filter switching, down to 150 ms, making the Infinite F500 suitable for a wide range of ratiometric measurements.

Automated z-focusing

The Infinite F500 includes automatic z-focusing in all top reading modes, significantly improving the quality of your measurements by reducing unspecific noise levels. The z-focusing function facilitates the adaptation of the instrument even for challenging assay parameters such as low volumes or different well shapes.



Typical workflow in i-control for measurements with injectors.

Infinite F500 — Typical performance values

Light source	High energy xenon flash lamp	
Wavelength selection		
Wavelength range		
Fluorescence intensity top	230 – 900 nm	
Fluorescence intensity bottom UV	230 – 900 nm	
Fluorescence intensity bottom VIS	380 – 900 nm	
Fluorescence polarization	300 – 750 nm	
Absorbance	230 – 1000 nm	
Detectors		
Fluorescence	Low dark current PMT (UV and red sensitive)	
Absorbance	UV silicon photodiode	
Luminescence	Photon-counting system with low dark current PMT	
Plate formats	6- to 1536-well plates	
Temperature control	4 °C above ambient temperature up to 42 °C	
Shaking	Linear, orbital, selectable amplitude	
Fluorescence sensitivity values		
Fluorescence top reading	10 amol / well (Greiner® 384-well low volume black plate; 10 µl)	
Fluorescence bottom reading	0.4 fmol / well (Greiner 96-well SensoPlate™; 200 µl)	
TRF	0.5 amol / well Europium (Greiner 384-well low volume white plate; 10 µl, 100 flashes)	
FP	2 mP	
Luminescence sensitivity value		
Glow luminescence	225 amol / well (Greiner 384-well low volume white plate; 25 µl)	
Flash luminescence	12 amol / well (Greiner 384-well white plate; 55 µl)	
Absorbance		
Accuracy (@ 492 nm, 0–2 OD)	+/- 0.8 % and 0.008 OD	
Measurement range	0 – 4 OD	
Injectors		
3 different syringe sizes	500 µl 1000 µl 2500 µl	
Fastest read times (1 flash/well fluorescence intensity top)		
384-well plates	kinetic cycle	< 19 sec
	plate in/plate out	< 35 sec
1536-well plates	kinetic cycle	< 26 sec
	plate in/plate out	< 40 sec

.....

Austria +43 62 46 89 33 **Belgium** +32 15 42 13 19 **China** +86 21 289 86333 **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. All mentioned trademarks are protected by law. For technical details and detailed procedures of the specifications provided in this document please contact your Tecan representative. This brochure may contain reference to applications and products which are not available in all markets. Please check with your local sales representative.

Tecan and Infinite are registered trademarks and i-control and Magellan are trademarks of Tecan Group Ltd., Männedorf, Switzerland. HTRF® is a registered trademark of Cisbio international, France. The fluorescence ratio associated with the HTRF readout is a correction method developed by Cisbio international and covered by the US patent 5527684 and its foreign equivalents, for which Cisbio international has granted a license to Tecan Group Ltd. Its application is strictly limited to the use of HTRF reagents and technology, excluding any other TR-FRET technologies. LanthaScreen® is a registered trademark of Invitrogen Corporation (now life technologies), Carlsbad, USA. Transcreeper® HTS Assay Platform is a patented technology of BellBrook Labs, LLC USA. Transcreeper® is a registered trademark of BellBrook Labs, LLC USA. DLReady™ is a trademark of Promega Corporation, USA. Greiner® is a registered trademark and SensoPlate™ is a trademark of Greiner Bio-One GmbH, Germany.

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

www.tecan.com/InfiniteF500

394 708 V3.3; 08-2010

