

INNO-H

High-End Multimode Microplate Reader
Monochromator-based Absorbance + Fluorescence + Luminescence
with Filter-based Fluorescence + Luminescence



Description

- Monochromator-based Fluorescence
- Specialized in measuring low-concentration samples
- Various Fluorescence measurements

Certifications

- CE Marked
- RoHS
- ISO 9001 / ISO 13485 / ISO 4001

Specification

General (High-End Multimode Microplate Reader)

Detection modes	UV-Vis Absorbance, Fluorescence Intensity (Monochromator), Dichroic Intensity (Filter), Fluorescence Polarization (Filter), TRF (Time-Resolved Fluorescence), Luminescence (Monochromator/Filter)
Read methods	End point, Kinetic, Spectral scanning, Well-area scanning
Microplate types	6- to 384-well plates
Others	NANO-VC (Microvolume Plate), INNO-QM (Quality Check Plate)
Temperature control	Up to 45 °C ± 0.2°C at 37°C
Shaking	Linear & Orbital & Double Orbital with 4 different speeds
Software	INNO-X™ (Basic software) / INNO-XS™ (21 CFR part 11 Compliance Software) (Optional)

Absorbance

Light source	Xenon flash lamp	Pathlength correction	Yes
Detector	Photodiode	Monochromator wavelength accuracy	±2 nm
Wavelength selection	Monochromator	Monochromator wavelength repeatability	±0.2 nm
Wavelength range	230~999 nm, 1nm increments	OD linearity	<1% from 0 to 3.0 OD
Dynamic range	0~4.0 OD	OD repeatability	< 0.5% at 2.0 OD
Resolution	0.0001 OD		

Fluorescence Intensity

Monochromator-based Fluorescence

Light source	Xenon flash lamp	Wavelength range	250~700 nm (Options 850nm)
Detector	PMT	Dynamic range	>7 decades
Wavelength selection	Monochromator (Bandwidth Variable Option)	Sensitivity	Fluorescein 2.5 pM top / 5pM bottom (96well plate)

Dichroic Intensity (Filter-based Fluorescence)			
Light source	Xenon flash lamp	Wavelength range	250 ~ 700 nm (Options 850nm)
Detector	PMT	Dynamic range	>7 decades
Wavelength selection	Filters	Sensitivity	Top Fluorescein 0.25 pM (96-well plate)

Fluorescence Polarization (Filter-based Fluorescence)		Luminescence	
Light source	Xenon flash lamp	Detector	PMT
Detector	PMT	Wavelength Selection	Filters / Monochromator
Wavelength Selection	Filters	Wavelength Range	200 ~ 700 nm (Options 850nm)
Wavelength Range	400 ~ 700 nm	Sensitivity	10 amol ATP (filter) 20 amol ATP (monochromator)
Sensitivity	2 mP at 1nM fluorescein		

TRF (Time-Resolved Fluorescence)		Temperature Control & Shaking	
Light source	Xenon flash lamp	Temperature Control	Up to 45 °C ± 0.2°C at 37°C
Detector	Filters / Monochromator	Shaking	Linear & Orbital & Double Orbital with 4 different speeds
Wavelength Selection	PMT		

Physical Characteristics			
Connectivity	1 USB, 1 RS232 for external PC control	Dimensions	500W x 410L x 360H
Power	100 ~ 240 Volts AC. 50/60 Hz	Weight	25 kg

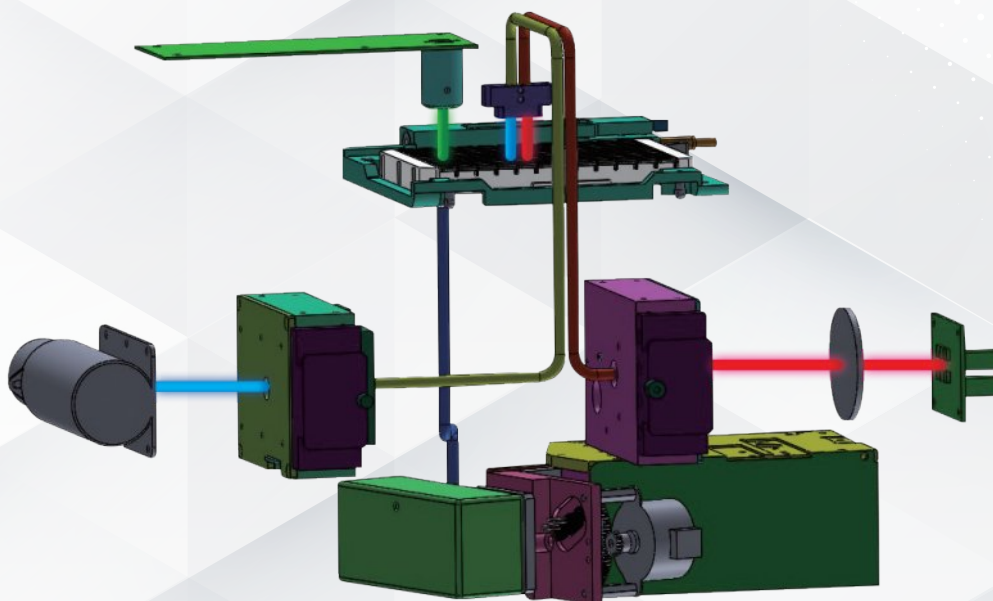
Applicable Optional Products	
Reagent Injector (INNO-D)	<ul style="list-style-type: none"> • 2 Syringe pumps • 5 ~ 1,000μ → 15 ~ 1,000μ • Minimum prime Vol. 1.1mL, 100μL with back flush
Microvolume Plate (NANO-VC)	<ul style="list-style-type: none"> • Nucleic acid and protein quantification with DNA/RNA, Lysozyme, dsDNA, ssDNA, Etc. • 2-2.5μL sample capacity with 24 wells • 2.5ml cuvette holder
Quality Check Plate (INNO-QM)	<ul style="list-style-type: none"> • Absorbance linearity and accuracy QC • Luminescence linearity QC • Fluorescence linearity QC

INNO-H product line configuration chart				
	INNO-H	INNO-HML	INNO-HM	INNO-HD
Monochromator Absorbance	0	0	0	
Monochromator Fluorescence	0	0	0	
Monochromator Luminescence (Fiber)	0	0		
Filter Fluorescence (Dichroic)	0			0
Filter Luminescence	0			0
Fluorescence Polarization (Option)	0			0
TRF	0	0	0	0
Shaking & Incubation	0	0	0	0

※The user can select TWO dichroic filter sets by default when purchasing the INNO-H(D) model

INNO-H™

Monochromator and filter optics



LTEK's INNO-H is an High-end Multimode Microplate Reader for Absorbance, Luminescence, and Fluorescence. It is designed for various applications, making it a versatile device for your research. INNO-H supports monochromator-based Fluorescence, Dichroic Intensity, and Fluorescence Polarization. These various features make it the most sensitive fluorescence measurement technology available and are specialized for measuring low concentration samples. It offers a broad wavelength spectrum and the convenience of using a monochromator to eliminate the need for filter selection. It uses a xenon flash lamp, known for its long life and durability, for semi-permanent use. It offers four types of read methods, Incubation and Shaking mode. To facilitate users experimentation, LTEK provides a variety of INNO-H sublines.

With user-friendly software included as standard, LTEK's INNO-H allows you to easily optimize all settings in your experiments. Optional nanovolume plates and quality check plates are available for your convenience. Experience accurate measurements for a wide range of experiments, all at an affordable price.

Main Features

- 01 Monochromator-based UV-Vis Absorbance, Fluorescence, Luminescence
- 02 Filter-based Fluorescence and Luminescence with diverse wavelength selection
- 03 Dichroic Fluorescence & Fluorescence Polarization specialized in measuring low-concentration samples
- 04 TRF (Time-Reserved Fluorescence) and Xenon flash lamp for a semi-permanent lifetime
- 05 Cell friendly orbital Shaking and advanced Incubator design up to 45°C
- 06 2µL low volume nucleic acid & protein quantification with NANO-VC™ Plate (Option)
- 07 Provides INNO-X™ software with unlimited license & free software upgrade, and INNO-XS (21 CFR Part 11 Compliance)

INNO product line series configuration chart

	INNO	INNO-M	INNO-SA	INNO-SF	INNO-S	INNO-HD	INNO-HM	INNO-HML	INNO-H
Absorbance (Monochromator)	0	0	0		0		0	0	0
Luminescence (Filter)		0		0	0	0			0
Luminescence (Monochromator)								0	0
Fluorescence (Filter)				0	0	0			0
Fluorescence (Monochromator)							0	0	0
TRF				0	0	0	0	0	0
Dichroic Intensity						0			0
Fluorescence Polarization						0			0
Shaking	0	0	0	0	0	0	0	0	0
Incubation			0	0	0	0	0	0	0
Dual Injector			0	0	0	0	0	0	0

Optional Accessories



INNO-Q (Option)

- Absorbance Quality Check Plate for accuracy, linearity, and alignment

INNO-QM (Option)

- Absorbance, Luminescence, and Fluorescence Q.C plate
- Abs – 9 Wells: 0.14 to 2.2 OD @ 450 nm
- Fluo – 8 wells: Read EX 485 nm / EM 530 nm or EX 540 nm / EM 590 nm
- Lumi – 9 wells: Approximate four-decade dynamic range standard

NANO-VC (Option)

24 Wells DNA/RNA/Protein Quantitative Measurement

Using 2 μ L of DNA/RNA samples, quantitative measurement is possible. This also helps the users to understand or interpret the unknown or unspecified samples by measuring from 240 to 320 nm with 2 nm steps. A total of 2 μ L 24 wells allow you to measure variety types of samples at the same time.

dsDNA, RNA, ssDNA, 1Abs at 1cm = 1 mg/ml

BSA, IgG, Lysozyme, and other samples are measurable.

Specification

2 μ L Sample capacity	24 wells
Cuvette capacity	1 slot
Cuvette size	2.5 ml tube
Compatible model	All LITEK Microplate Reader series
Optical path length	0.5 mm
Detection limit	2 ng/pl dsDNA

