

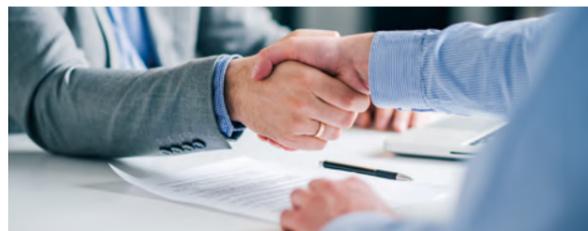
“ Allowed to expect more than you expected. ”



Greetings

LTEK CO., LTD has established in Gyeonggi-do, South Korea with innovative life science measurement equipment. Consisting specialized mechanical engineers who develops micro plate reader for bio medical field and global marketing sales assistants. This powerful and life science laboratory targeting measurement device will always deliver fulfilling results to researches. LTEK is a global enterprise and starting to pierce through the global biomedical device market.

Marketing Goals



Customer centered

We deliver incomparable customer service to fulfil and satisfy our clients



Attaining global businesses

We provide our excellent services worldwide



Trustworthy enterprise

Client's needs are the number one priority



Interminable development

Continuously develop our products for better Performance and future needs

History



2018 Completed development of Micro plate spectrophotometer in 2018

2019 Successfully signed distribution contact with over 10 global enterprises since 2019
Launched newly developed INNO-M in 2019

2020 Completed development of Micro volume spectrophotometer(NANO drop) in 2020

2021~2022 Multi mode microplate spectrophotometer development completed in 2022 and officially launched and now over 20 exclusive and honored distributors through out the world



Certificate & Patents



INNO



INNO-N



INNO-S



ISO 9001



ISO 14001

INNO-S™

Absorbance, Luminescence & Fluorescence Microplate Reader



Wide selection of different wavelengths of fluorescence filters
(※ Refer to the technical sheet)



INNO-S is also available with NANO-V and NANO-VC optional accessories

Technical Details	
Detection modes	Fluorescence (top and bottom), Time-resolved fluorescence, Luminescence, UV-Visible absorbance
Read methods	End point, Kinetic, Spectral scanning, Well-area scanning
Microplate types	6 to 384 well plates, NANO-V™(Option) & NANO-VC™ plate (Option)
Temperature control	Incubation up to 50°C ; ±0.5°C at 37°C
Shaking function	Linear & Orbital
Software	INNO-X™ (basic software) & INNO-X™ SECURE (for 21 CFR Part 11 Compliance) (Option)

Time-Resolved Fluorescence	
Light source	High power LED
Wavelength selection	Filter

Physical Characteristics	
Connectivity	1 USB, 1 RS232 for external PC control
Power	100 – 240 Volts AC. 50/60 Hz
Dimension (mm)	408W x 390L x 290H
Weight	18.2 kg

Reagent Injectors	
Number	2 Syringe pumps
Dispense volume	5-1000 µL in 1 µL increments
Minimum prime volume	1.1 mL, 100 µL with back flush

Regulatory	
CE and RoHS compliant. ISO 9001 & ISO 14001	

INNO-S™ Typical Applications

- Protein quantification
- Enzyme kinetics
- Protein quantification
- Cell proliferation
- Cytotoxicity
- Environmental monitoring
- Genetic analysis
- Food safety



Nucleic acid quantification

- Spectrophotometric determination of dsDNA, ssDNA, RNA at A₂₆₀
- Fluorometric determination of dsDNA with fluorescent dyes, for example, PicoGreen
- Determination of purity based on A₂₆₀/A₂₈₀ ratios



ELISAs

Enzyme-Linked Immunosorbent Assay (ELISA) is one of the most used immunoassay in modern bio research

- Indirect ELISA
- Sandwich ELISA
- Competitive ELISA
- Nucleic acid quantification
- Spectrophotometric determination of dsDNA, ssDNA, RNA at A₂₆₀
- Determination of purity based on A₂₆₀/A₂₈₀ ratios



Flourescence Applications

- Calcium Assay (GPCR)
- Caspase-3 apoptosis Assay
- Cell Growth Assay
- Cytotoxicity Assay
- Fluorescent protein quantification
- Nucleic Acid quantification



Luminescence Applications

- ATP based Cell Viability Assay
- Chemiluminescent ELISA
- Cytotoxicity Assay
- Mycoplasma Monitoring
- NanoBRET/BRET

Features



By using lamp and monochromator, INNO-S™ allows you to measure from 200 to 999 nm freely at your choice of 1nm increment. Xenon lamp(in absorbance) will serve the instrument semi permanent life time which allows the users to experience comfort since lamps do not need to be replaced such as halogen lamps.



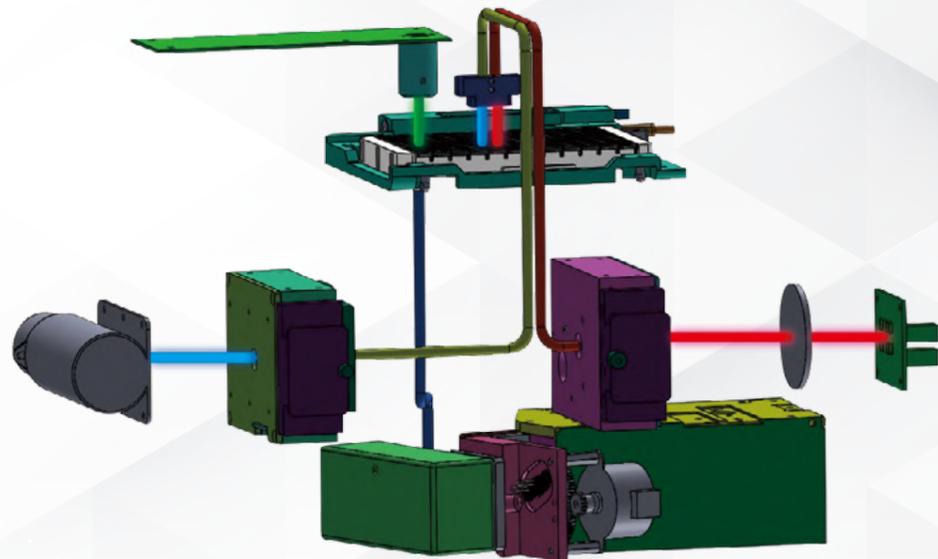
Supporting dual injector with variety of shaking technologies and incubating function up to 50°C.



Using INNO-X™ SECURE S/W offers high performance software and safety reliable security for personal data with CFR Part 11 Compliance function.

INNO-S™

Monochromator and filter optics



INNO-S™ has three main detecting functions. Since INNO-S™ is a monochromator-based microplate spectrophotometer for the absorbance measurements, it requires zero filters and allows you to measure from 200 to 999 nm freely at your choice of 1nm increment. Also Xenon lamps in absorbance will serve the instrument semi-permanent life time which brings the comfortable experiences to the users since the lamps do not need to be replaced such as halogen lamps.

Fluorescence using High Power LED to provide TRF(Time Resolved Fluorescence) and various convenient features as ready to run at "on". Also HPL has semi-permanent life time which the user does not have to go through the burdens such as switching the fluorescence light source every once in a while.

Main Features

- 01 Monochromator-based UV-Vis absorbance
- 02 High power LED and filter-based fluorescence detection for flexibility and performance
- 03 Time Resolved Fluorescence (TRF)
- 04 2µL low volume nucleic acid quantification with NANO-V™ & NANO-VC™ plate (Option)
- 05 Cell friendly orbital shaking and advanced incubator design up to 50°
- 06 Dual reagent injectors for inject/read applications
- 07 Provides INNO-X™ software with powerful and diverse functions. INNO-X™ SECURE (21 CFR Part 11 Compliance)

Specifications



Absorbance	
Light source	Xenon flash lamp
Detector	Photodiode
Wavelength selection	Monochromator
Wavelength range	200 - 999 nm, 1 nm increments
Dynamic range	0-4.0 OD
Resolution	0.0001 OD
Pathlength correction	Yes
Monochromator wavelength accuracy	±2 nm
Monochromator wavelength repeatability	±0.2 nm
OD linearity	<1% from 0 to 3.0 OD
OD repeatability	< 0.5% at 2.0 OD

Fluorescence Intensity	
Sensitivity	Top and Bottom : Fluorescein 5 pM (1 fmol/well, 96-well plate)
Light source	High power LED
Wavelength selection	Filters
Wavelength range	350 - 700 nm
Dynamic range	>6 decades
Detector	PMT

Luminescence	
Sensitivity	Sensitivity - 30 amol ATP(FLASH) - Multi-mode
Wavelength range	190 - 720 nm
Dynamic range	>6 decades
Detection system	Low noise PMT
Peak wavelength	410 nm
Limit of Detection (moles)	30 amol

INNO-N

Micro Volume Spectrophotometer



Description

- Personal account to save and secure the data.
- Lightweight with comfort design.
- Accurate and sensitive touch screen operation.
- Almost unlimited data saving space.

Certifications

- CE marked
- ISO 9001 / ISO 14001
- ROHS

Specification

Absorbance accuracy	3%	Lamp	Light Emitting Diodes (LED)
Applications	Nucleic Acid Quantification	Measurement time	<5 sec.
	DNA Quantification	No. of samples	1
	RNA Quantification	Pathlength (Metric)	0.5mm
	Protein Quantification	Resolution	<8nm
Certifications/ Compliance	CE, RoHS, ISO9001, and ISO14001	Sample volume (Metric)	2µL
Concentration	3000ng/pL (dsDNA) ; 60mg/mL (BSA)	Wattage	10W
Connections	USB	Wavelength range	260nm, 280nm ,360nm
Detection limits	0.12mg/ml (BSA), 4ng/pL(dsDNA)	Weight (Metric)	2.2 kg
Detector type	Silicon photodiode	Dimension (mm)	205L x 220W x 160H
Display	LCD	Voltage	24V Adaptor

INNO

Microplate Spectrophotometer (Absorbance)



Description

- 200nm to 999nm wavelength range
- Wavelength selection monochromator
- Xenon flash lamp for a semi-permanent life time

Certifications

- CE marked
- ISO 9001 / ISO 14001
- RoHS

Specification

Wavelength accuracy	±2nm	OD accuracy	0 ~ 2 OD ± 1%
Electrical requirements	INPUT 100 to 240V 50 / 60Hz (65W Adaptor)	OD linearity	0 ~ 2 OD ± 1%
Microplate type	6 ~ 384 well plate	OD repeatability	0 ~ 2 OD ± 1%
Detector	Photodiode	Shaking	Two step speed
Light source	Xenon flash	DNA/RNA Micro Volume Plate 24 wells	2µL Samples / Cuvette (Option)
Wavelength range	200 to 999 nm	Weight	7.5kg
Wavelength selection	Monochromator	Dimension (mm)	333W x 303L x 245H
Application	Spectral scanning, End point, Kinetic, Area scan	Software	INNO-X (Microsoft windows software)
Dynamic range	0 ~ 4.0 OD	Supported software regression	Linear, Quadratic, Cubic, Log, Exponential, Point-to-point, 4PL
Resolution	0.0001 OD		

INNO-M

Multi-Mode reader (Absorbance + Luminescence)



Description

- 200nm to 999nm wavelength range
- Wavelength selection monochromator
- Xenon flash lamp for a semi-permanent life time
- Multi-mode (Absorbance + Luminescence)

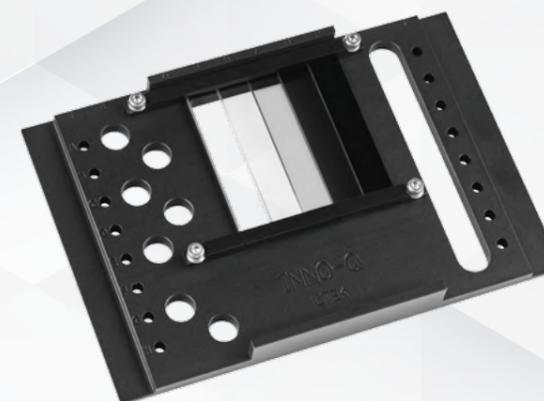
Certifications

- CE marked
- ISO 9001 / ISO 14001
- RoHS

Specification

Absorbance			
Wavelength accuracy	±2nm	Dynamic range	0-4.0 OD
Electrical requirements	INPUT 100 to 240V 50/60Hz/ (65W Adaptor)	Resolution	0.0001 OD
Microplate type	6 ~ 384 well plate	OD accuracy	0~2 OD ± 1%
Detector	Photodiode	OD linearity	0~2 OD ± 1%
Light source	Xenon flash	OD repeatability	0~2 OD ± 1%
Wavelength range	200 to 999 nm	Shaking	Two step speed
Wavelength selection	Monochromator	DNA/RNA Micro Volume Plate 24 wells	2µL Samples / Cuvette (Option)
Application	Spectral scanning, End point, Kinetic, Area scan		
Luminescence		Others	
Detector	Photomultiplier (PMT)	Software	INNO X (Windows Software)
Wavelength range	300 - 700nm	Supported software regression	Linear, Quadratic, Cubic, Log, Exponential, Point-to-point, 4PL
Peak Wavelength	420nm	Weight	8kg
Limit of Detection (moles)	3x10 ⁻²¹ moles	Size	333x303x245

Optional Accessories



INNO-Q (Option)

- Dual Reagent Injector Module
- INNO-X™ Secure (for 21 CFR Part 11 Compliance)
- Absorbance Test Plate (INNO-Q)
- NANO-V™ & NANO-VC™ plate



NANO-VC (Option)

24 well DNA/RNA Quantitative measurement

Using 2µL of DNA/RNA samples, quantitative measurement is possible.

This also helps the users to be able to understand or interpret the unknown or unspecified samples by measuring from 240 to 320 nm with 2nm steps.

Total of 24 2µL wells allow you to measure variety types of samples at the same time.

DsDNA, RNA, ssDNA, 1 Abs at 1cm = 1 mg/ml
BSA, IgG, Lysozyme and other samples are measurable.

Specification

2µL Sample capacity	24 wells
Cuvette capacity	1 slot
Cuvette size	2.5 ml tube
Compatible model	INNO, INNO-M&INNO-S
Optical path length	0.5 mm
Detection limit	2 ng/pLdsDNA