

Photopette® German Engineered

Ultra Fast Handheld Spectrophotometer

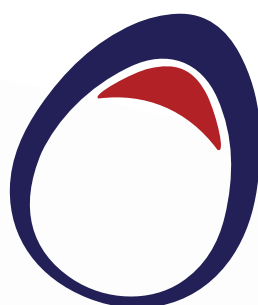
- Handheld Smart Device
- High Accuracy & Repeatability
- <2 Second per Measurement
- No Cross-Contamination
- 25,000 Measurements per Charge



Introducing Photopette®

The Photopette® device is a fast, accurate and economically priced handheld fixed wavelength spectrophotometer universally used in life-sciences, environmental surveillance, food & beverages and chemical industry to measure concentrations in liquid samples. The Photopette personal photometer offers the convenience, performance and seamless integration with cloud, web and mobile computing expected from contemporary devices and applications, saving users precious sample and time, whilst still producing precise and accurate results.

The device enables users to dramatically improve the workflow and increase productivity through speed and portability.



One Click One Result One Second

Key Features

High Speed

- Ultra-fast measurements (less than 2 seconds for each measurement)
- Immediate sampling, no device warm up required
- Intuitive exportation of results via email
- Instant on-spot quantification of nucleic acids, proteins, cells density and many more

Optical System

- Patented optical system
- Measurement precision ± 0.003 AU
- >500,000 measurements per wavelength
- Low energy consumption (25,000+ measurements per charge)
- Maintenance free
- No lamp change required

Simple and Safe

- Handheld with small footprint
- Ergonomic
- Disposable CuveTip® (no cross-contamination)
- No transfer or transport of sample
- Fast and simple to use, no training required

Advanced Software Application

- Geo tagging, photo, notes, date and time embedded in data file
- Real-Time data sharing
- Send measurement data instantly or link to cloud storage
- Automatic software and firmware updates

ULTRAFAST

Measure & Share in 4 Steps



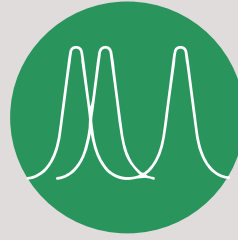
Select

Choose your Application or Wavelength



Measure

Perform Qualitative & Quantitative Measurement using Photometry



Analyse

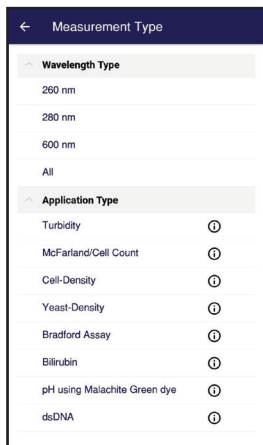
Observe Protein, DNA, RNA, Cell-Count and more...



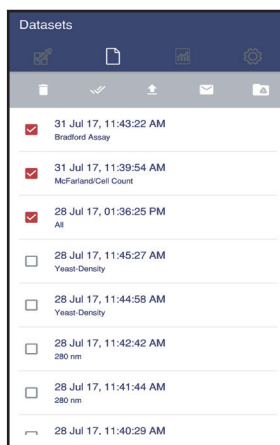
Share

Share your Results with Easy to other Devices or People in Real-Time

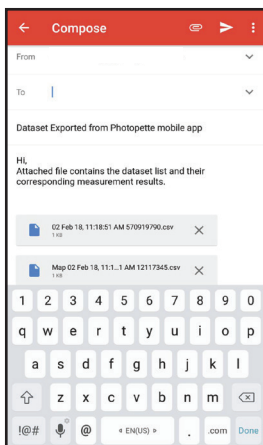
Advanced Software Application



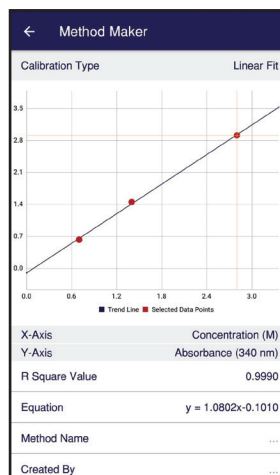
Inbuilt Applications selectable by user



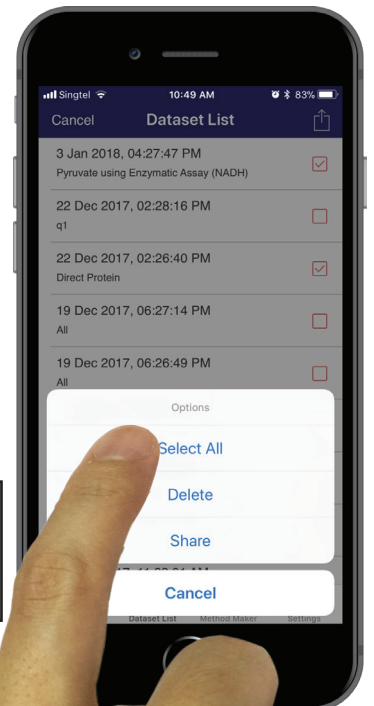
Automatic Time Stamp, Geotag, Photo and Notes



Forward data via email or data storage in cloud



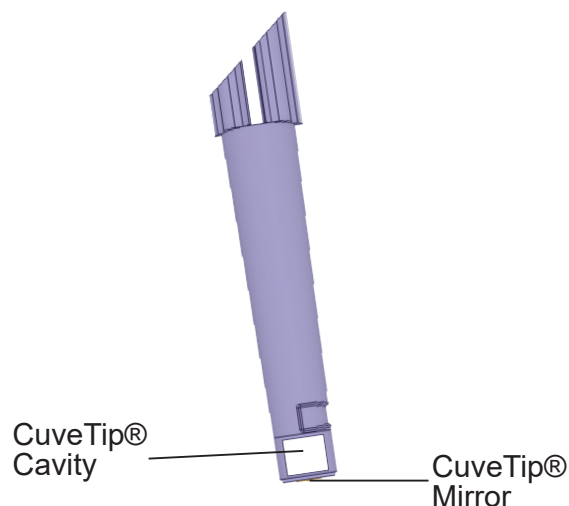
Method Maker function for user defined calibrations



Disposable CuveTip®

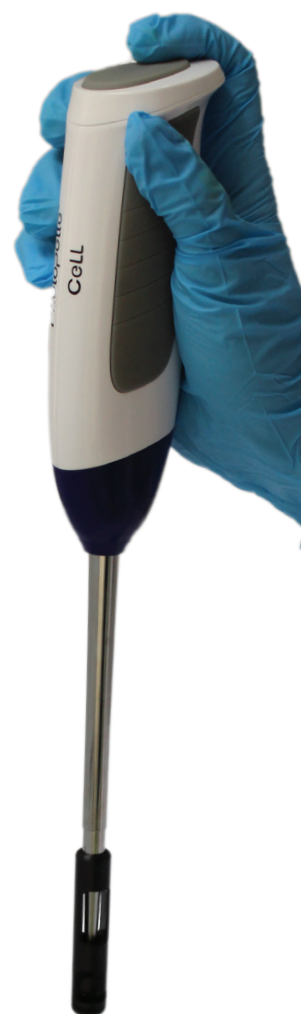
A dual-purpose disposable reflective tip was designed to act as a sample holder and a light-reflecting system, which is in stark contrast to the operation of mainstream spectrophotometers and photometers. Small volume analytes may be measured with low sample loss and no sample transfer using this proprietary CuveTip®.

A minimum volume of 40 microliters is required to fill the cavity of the CuveTip®



Permanent Metal CuveTip®

For certain applications where cross-contamination is not an issue our permanent Metal CuveTip can be used. This is our equivalent to the quartz cuvette. The tip is high precision made from black anodized aluminium with a Teflon coating. It contains an optical mirror made from glass with aluminium reflective coating and quartz coating to protect the aluminium mirror. The permanent Metal CuveTip can be used with most organic solvents and diluted acids and bases. The tip can be sterilized with ethanol.



All Photopette devices are compatible with disposable CuveTips and our new metal CuveTip.

Applications

The Photopette® is a high performance handheld fixed wavelength spectrophotometer for fast and demanding applications.

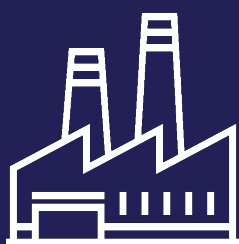


Life Science / Pharma

- > Fast Pantorazole Measurement in Pills
- > DNA Concentration Measurement at 260 nm Using Photopette® Bio
- > Determination of Lactate Concentration Using Photopette® Cell
- > Hela Cell Counting by Optical Density Measurements with Photopette® Cell
- > Measuring Cell-Viability by Resazurin (Alamarblue) Assay using Photopette® Cell
- > Protein Measurement using Bradford Assay and Photopette® Cell
- > Direct Protein Concentration measuring using Photopette® Bio

Food & Beverage

- > Dal quality classification by soluble protein content measurements
- > Measuring pH using Photopette® Cell
- > Determination of Lactate Concentration Using Photopette® Bio
- > Determination of Ethanol in Alcoholic Beverages Using Photopette® Bio



Industrial

- > On-site nickel measurements for the metal plating industry
- > Direct Turbidity Measurement Using Photopette® Turbidity

Environment

- > Measuring pH using Photopette® Cell
- > Direct Turbidity Measurement Using Photopette® Turbidity
- > Cyanobacteria (Spirulina) measurements in water and cultures

Designed for:

The Photopette® is the ideal instruments for quick measurements at the lab bench, in the cell culture hood or out in the plant or on the field.

- Academic teaching laboratories (life science)
- Cell culture or tissue culture
- DNA and Protein quantification
- Beer, wine and spirits
- Farming and livestock
- Fishery industry
- Outdoor water and chemical analysis
- Photopette® is for research use only – not approved for human or veterinary clinical diagnostics.

Photopette® Cell	Photopette® Bio	Photopette® Turbidity	Photopette® OD600	Photopette® Custom
- Enzymatic Assays - Cell Viability Assays - Cell Density - Bradford Protein	- DNA, RNA, Protein, NAD / NADH enzymatic assays	- Compatible to USEPA 180.1 and ISO 7027 - Water Testing	- Bacterial Density - E. Coli Density - Yeast Density - Mammalian Cell Count - Several Inbuild Density Applications	- Custom Applications using up to 3 different Wavelengths between 260 and 900 nm

Model	Wavelengths	iOS and Android Apps	Ergonomics	Photo, Notes, Timing, GPS Embedding	Weight	Language	Product Code
Photopette® Cell	340 nm, 570 nm, 600 nm	Yes	Yes	Yes	160 g	English, German & Chinese	508-PC
Photopette® Bio	260 nm, 280 nm, 340 nm	Yes	Yes	Yes			508-PB
Photopette® Turbidity	570 nm, 850 nm	Yes	Yes	Yes			508-PT
Photopette® OD600	600 nm	Yes	Yes	Yes			508-OD600
Photopette® Custom / OEM	Up to 3 custom wavelengths	Yes	Yes	Yes			508-PV

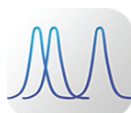
Ordering Information

508-PC	Photopette® Cell Kit supplied with Photopette® device (supports 340 nm, 570 nm & 600 nm), Photopette® stand holder, CuveTip® Box, CuveTip® Ejector Box, 88 disposable CuveTips®, USB connection cable and quick start guide.
508-PB	Photopette® Bio Kit supplied with Photopette® device (supports 260 nm, 580 nm & 340 nm), Photopette® stand holder, CuveTip® Box, CuveTip® Ejector Box, 88 disposable CuveTips®, USB connection cable and quick start guide.
508-PT	Photopette® Turbidity Kit supplied with Photopette® device (supports 570 nm & 850 nm), Photopette® stand holder, CuveTip® Box, CuveTip® Ejector Box, 88 disposable CuveTips®, USB connection cable and quick start guide.
508-OD600	Photopette® OD600 Kit supplied with Photopette® device (supports 600 nm), Photopette® stand holder, CuveTip® Box, CuveTip® Ejector Box, 88 disposable CuveTips®, USB connection cable and quick start guide.
508-PV	Photopette® Custom Kit supplied with Photopette® device (supports Up to 3 custom wavelengths between 260 nm and 1000 nm), Photopette® stand holder, CuveTip® Box, CuveTip® Ejector Box, 88 disposable CuveTips®, USB connection cable and quick start guide.
4106-STAN	Standard Disposable CuveTips® - 6 x racks per Carton.
4112-STAN	Bulk Standard Disposable CuveTips® - 12 x racks per Carton.
4106-STER	Sterile Disposable CuveTips® - 6 x racks per Carton.
4112-STER	Bulk Sterile Disposable CuveTips® - 12 x racks per Carton.
301-PMCT	Permanent Metal CuveTip® attachment. Black eloxated aluminum with a Teflon coating. Resistant to most organic solvents" to "Permanent Metal CuveTip® attachment. Made from black anodized aluminium with a Teflon coating. Resistant to most organic solvents.

Technical Specifications

Instrument Type	Fixed wavelengths handheld spectrophotometer with ambient light compensation.
Wavelength Accuracy	±2 nm
Measurement Precision & Accuracy	±0.003 AU
Photometric range	0.000 AU ~ 3.000 AU
Measurement time	Within 2 seconds per measured wavelength
Warm up time	None
Lifetime (light-source)	>500,000 measurements per wavelength
Operation and handling	• Easy sterilization with ethanol wipes. • Water and dust resistant housing. • Resistant to mild acids and solvents.
Operating conditions	• Recommended: 18~25 °C at 30% RH. • Maximum: 5~45 °C at 80% RH (non-condensing). • (25,000 measurements and / or 6 days standby on a single charge). • Auto power save mode
Storage conditions	-20 to 50 °C (max) and up to 80% RH (non-condensing)
Disposable CuveTip®	Standard CuveTip® ; UV CuveTip® Chemical compatible to aqueous solutions, dilute acids and bases, alcohols, vegetable oils, blood serum, cell culture media, etc.
Permanent metal attachment CuveTip®	UV to visible range. *Highly accurate. Can be sterilized in 70% ethanol. Chemical compatible to most organic solvents, dilute acids and bases, mineral and vegetable oils, blood serum, cell culture media, etc.
Software	App running under Android and iOS, simple and intuitive to use. Factory defined applications, user defined applications generated with the Method Maker™ function. Automatic kinetic measurements, seamless connectivity and data sharing within seconds. Geo tagging, photo, notes, date and time embedded in data files. Automatic software and firmware updates. Selftesting function.
Power supply	Internal 2500 mAh lithium ion battery with microUSB charging socket.
Dimensions and weight	Fits within 202 mm x 47 mm x 42 mm; Weight = 160 g approx.
Supported languages (App)	English, German and Chinese
Certification	CE and FCC by TÜV SÜD Singapore
Sampling free workflow	Photopette® can directly measure samples without sample transfer in the following sample containers: 96 well plates, 15 and 50 ml Falcon tubes, T75 cell culture flask, 500 to 2000 microliter reaction tubes, Erlenmeyer flask up to 500 ml.

*Made from black anodized aluminium with a Teflon coating.



Photopette® App





Represented by



All the information within this brochure was correct at the time of printing. Tip Biosystems reserves the right to make changes to their products to improve their performance or appearance.

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