

# Photo Absorbance Meter

Portable Design

## PiCOEXPLORER (PAS-110-YU)

Minimum sample volume 30  $\mu$ L

Dimension 70 x 150 x 30 mm

Weight ~200g (with batteries)

### A portable absorptiometer using white LED as light source

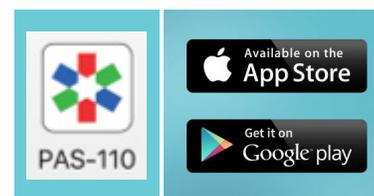
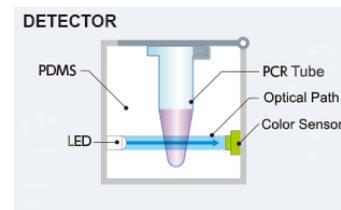


#### ■ Operation and features

- Palm-size absorptiometer made of silicon resin (PDMS)
- The highly sensitive yet extremely compact design of PiCOEXPLORER is a result of the breakthrough Silicone Optical Technology (SOT)
- Smarter data management  
Measurement results can be verified on a smart phone or tablet by downloading a special application that uses bluetooth communication. Raw data (absorbance, concentration, intensity) can be output to a PC in excel format for easy data processing.
- Measurements can be taken directly from unopened PCR tubes, preventing contamination risk and sample loss

#### ■ Applications

- Measurement of bacterial turbidity
- Quantification of protein (BCA method, Bradford method)
- Measurement of antioxidant activity
- Amino acid measurement (ninhydrin method)
- Quantification of glucose
- Environmental water analysis
- Analysis of heavy metals



#### ■ Specifications

Model	PiCOEXPLORER				
Usage environment	Temperature humidity	5-35°C, 70% RH or less			
	Altitude	2000m or less			
	Installation condition	Indoor, pollution degree 2			
Measurement	Total samples	1 sample			
	Time	1 second or more			
	Absorbance range	0.02 or more (Gentian violet dilute solution)			
Sensor unit	Light source	White LED			
	Detector	Color sensor	Maximum absorption wavelength		Wavelength range
			Red	615 nm	575-660 nm
			Green	530 nm	455-630 nm
			Blue	460 nm	400-540 nm
Communication interface	Bluetooth low energy (Bluetooth smart)				
Frequency of operation	2402-2480 MHz				
Type of modulation	GFSK				
Channel spacing	2 MHz				
Channel number	40				
Peak output power	Less than 0 dBm				
Antenna gain	2.41 dBi				
Antenna type	PCB Antenna				
Compatible tablet	Nexus 7 (2013), Nexus 9, iPhone*2				
Recommended PCR tube	WATSON brand 137-211C 0.2 mL				
Minimum sample volume	30 $\mu$ L*3				
Dimension	70 x 150 x 30 mm (excluding protrusions)				
Weight	about 200g (including batteries)				
Power	4.5V DC (3 AAA-type batteries) (Note: Batteries not provided in the package) 5V DC (micro-USB connector *1)				
Operating voltage	Battery 3.6~4.5 Vdc				

\*1 Use the cable to connect to a computer or other appropriate power source to power the unit w/o batteries (device automatically senses power source; this connection cannot be used to transmit data.)

\*2 Device may have disturbed images, may not start app, or may cause other malfunctions if used with unsupported smartphone or tablet model.

\*3 With a sample volume of 30 $\mu$ L, be sure to measure with the device tilted 10° or less horizontally