

APS-1623W-x Aquaphotomics System

Handheld Aquaphotomics Spectrophotometer with Free Choice of Light Frequency and Intensity



Key Benefits:

- ❖ Wavelength range in 2-nd and 3-rd overtones of water (660nm to 970nm)
- ❖ LEDs light source at 16 water absorbance ranges
- ❖ Choice of light frequency and intensity
- ❖ Light perturbation mode
- ❖ Real time monitoring
- ❖ Non - destructive testing of samples
- ❖ Diffuse reflection measurements
- ❖ Optional modules for transmission measurements
- ❖ Optional 10, 20, 50 mm cuvette holders
- ❖ Optional probe for bioreactor process monitoring
- ❖ Suitable for field measurements
- ❖ USB and Bluetooth connection
- ❖ PC, tablets and smartphones control
- ❖ No moving parts - Robust
- ❖ Compact design
- ❖ Easy to use
- ❖ High “performance to price” ratio

Target applications:

- ❖ *Food and agriculture*
- ❖ *Pharmaceutical*
- ❖ *Environmental*
- ❖ *Cosmetics*

Target models:

- ❖ Diagnostics of oxidative stress, inflammation on cellular and body level
- ❖ Human body hydration
- ❖ Water quality and water functionality evaluation
- ❖ Bio and aqueous solution monitoring and quality evaluation
- ❖ Milk freshness, milk origin authenticity evaluation
- ❖ Disease diagnosis using urine, blood, milk spectra
- ❖ Bacteria identification, bacteria growth phase prediction
- ❖ Fermentation process monitoring and stage identification
- ❖ Bio molecule (protein, sugar etc.) isomer identification
- ❖ Estrus (pregnancy) detection

APS-1623W-x Aquaphotomics System

Technical Specification:

Specifications are subject to change notice.

Illumination source:	Integrated LEDs
Measurements:	Diffuse reflection or Transmission
Wavelength Range:	Water absorbance bands in the range of 660 ÷ 970 nm
Wavelength Selection:	Automatic
Detector:	Silicon photodiode
Photometric Measuring Range:	0 ÷ 3 Abs
Photometric Accuracy:	± 0.005 Abs @ 1.5 Abs Nominal
Photometric Linearity:	± 0.002 Abs (0 - 3 Abs)
Reproducibility:	± 0.005 Abs (0 - 3 Abs)
Sample Cell Compatibility:	Cuvette, 10, 20 or 50mm pathlength (with optional liquid module)
Interface:	Bluetooth or PC via USB - Mini
Power Supply:	USB or External Adapter, 5V DC / 0.5A & Li ION battery 3.6V/1.2Ah
Operating Temperature:	10 ÷ 40°C
Operating Humidity:	max 80% relative humidity (non-condensing)
Storage Conditions:	-20 ÷ 60°C, max. 80% relative humidity (non-condensing)
Dimensions (L x W x H):	115 mm x 60 mm x 85 mm
Weight:	0.275 kg
Enclosure Rating:	IP40

Ordering information:

Base models:

APS-1623W-x - ordering code

x- is the type of the optical head:

- ❖ B - base model 17.5mm diameter
- ❖ M - mini 12mm diameter
- ❖ B4 - with four fibers
- ❖ CD- Custom designed

Liquid cuvette module:

APS-1623W-x-LCM - ordering code (optional)

LCM - with holders for cuvettes: 10, 20, 50mm pathlength

Contact: <https://dtk-electronics.com>