# Epoch™ Micro-Volume Spectrophotometer System

BioTek's Epoch™ Micro-Volume Spectrophotometer System is designed for a wide range of applications, from nucleic acid and protein quantification on a micro scale to cell-based assays in microplates, BioCells or standard cuvettes.

The Epoch Microplate Reader bridges the gap between high performance, monochromator-based absorbance readers and the lower cost, lower performing filter-based absorbance readers by providing excellent UV/Vis measurements in a compact, efficient and robust design. Add the Take3™ Micro-Volume Plate to the equation and the result is multi-volume system, capable of performing all the assays common to the biomolecular research laboratory.

Epoch's high quality optical system incorporates a precision monochromator for wavelength selection without using interference filters. Microplate assays in 6- to 384-well plates are quickly and efficiently run via Gen5™ Software. When sample volumes are critical, the Take3 Micro-Volume Plates allow up to forty-eight 2 µL samples to be measured quickly and easily.

For the budget conscious laboratory focused on important nucleic acid and protein quantification as well as standard ELISA and other colorimetric assays, the Epoch Micro-Volume Spectrophotometer System offers unsurpassed versatility.

## Features:

- Take3™ or Take3 Trio Micro-Volume Plates for low (2 µL) volume, BioCell™ or cuvette measurements
- Monochromator wavelength selection from 200 nm to 999 nm in 1 nm increments
- 6- to 384-well plate reading capability
- Automated pathlength correction for direct quantification
- Spectral scanning, endpoint, kinetic, and well area scanning measurements
- Gen5™ Data Analysis Software included
- Integrated detector and electronics for low-noise measurements
- Xenon flash lamp lasts the instrument's lifetime
- Robust housing design for longevity even under heavy usage

BioTek®
Get a Better Reaction.

Take3™ and Take3 Trio plates for micro-volume measurements.

## Applications:

- Low-volume nucleic acid and protein quantification in Take3 plate
- Nucleic acid and protein direct quantification in microplates
- Endpoint or kinetic ELISA
- Spectral scanning
- Cell-based assays

## Models:

Epoch Micro-Volume Spectrophotometer
System includes:
EPOCH: Microplate Spectrophotometer
TAKE3: Micro-Volume Plate
or
TAKE3TRIO: Micro-Volume Plate

## Optional Accessories:

- Gen5™ Secure for 21 CFR Part 11 compliance
- Product Qualification Package
- Patented BioCell™
- Absorbance Test Plate

BioTek®
**BioTek Instruments, Inc.**
Highland Park, P.O. Box 998
Winooski, Vermont 05404-0998, USA

Tel: 802-655-4040 • Toll-Free: 888-451-5171
Outside the USA: 802-655-4740 • Fax: 802-655-7941

# Specifications:

## Epoch™ Microplate Spectrophotometer

### General

| | |
|---|---|
| Detection method: | Absorbance |
| Read method: | End point, kinetic, spectral scan, well area scan |
| Microplate types: | 6 to 384 wells |
| Other labware: | Take3 Micro-Volume Plate |
| Software: | Gen5™ Data Analysis Software |
| Automation: | Compatible with BioStack and 3rd party automation *(EPOCHR model)* |

### Absorbance

| | |
|---|---|
| Wavelength range: | 200 nm – 999 nm, selectable in 1 nm increments |
| Bandpass: | 5 nm |
| Dynamic range: | 0 – 4.0 OD |
| Resolution: | 0.0001 |
| Monochromator wavelength accuracy: | ±2 nm |
| OD accuracy: | 0.0 to 2.0 OD: ±1% ±0.010 OD<br>2.0 to 2.5 OD: ±3% ±0.010 OD |
| OD linearity: | 0.0 to 2.0 OD: ±1% ±0.010 OD<br>2.0 to 2.5 OD: ±3% ±0.010 OD |
| OD repeatability: | 0.0 to 2.0 OD: ±1% ±0.005 OD<br>2.0 to 2.5 OD: ±3% ±0.005 OD |
| Reading speed: | 96 wells: 15 seconds<br>384 wells: 31 seconds |

### Physical Characteristics

| | |
|---|---|
| Power: | 100 – 240 Volts AC 50/60 Hz |
| Dimensions: | 12" W x 12.5" D x 7.7" H (30.5 cm x 31.8 cm x 19.6 cm) |
| Weight: | <15 lbs (6.8 kg) |

### Regulatory

For In Vitro Diagnostic use. All BioTek microplate instrumentation is CE and TUV marked.

## Take3™ Micro-Volume Plates

| | Take3 | Take3 Trio |
|---|---|---|
| 2 µL sample capacity: | 16 | 48 |
| BioCell capacity: | 2 | 2 |
| Cuvette capacity: | 1 | |
| Detection limit: | 2 ng/µL dsDNA (spectrophotometric) | 2 ng/µL dsDNA (spectrophotometric) |
| Detection pathlength: | 0.5 mm nominal | 0.5 mm nominal |
| Detection modes: | Absorbance and Fluorescence | Absorbance and Fluorescence |

Compatible readers: Epoch, Eon, Synergy (equipped with absorbance and/or fluorescence detection), PoverWave XS2

Gen5 interface: Take3 and Take3 Trio available in Gen5 v 2.0 with pre-programmed protocols for nucleic acid and protein quantification. Take3 can also be used with the standard Gen5 interface for other assays, using the microspots, BioCell or cuvette locations.

Use and care: Take3 plates are easily cleaned by simply wiping the slides with laboratory wipes.

*Specification subject to change

**www.biotek.com**

Rev. 7/27/11