

## USB-100 Micro Spectrometer

Building with proprietary technology and in-depth experiences on optical simulation, MEMS fabrication and mechanics-electronics integration, CYT presents you the most compact miniature spectrometers, MicroSpec® series.

Aberration corrected, flat-field designed aspherical concave grating provides uniform resolution, with low stray light and high signal-to-noise ratio features inside the tiny box!



### Key Features

- Light & Handy: W < 150 g, V < 100 cm<sup>3</sup>
- Accurate: resolution 2.5 nm (50 μm slit)
- Reliable: S/N ratio 300 : 1
- General I/O: SMA905 connector and USB 2.0
- Cost Effective and Customization Capability

### Specification

Physical	
Dimension	76.5 mm x 60 mm x 21 mm
Weight	148 g
Spectroscopic	
Wavelength range	350 - 850 nm
Entrance slit	20, 50, 100 μm
Focal length	30 mm input, 40 mm output
Optical resolution	~ 1.5 nm to 5 nm (slit dependent)
S/N ratio	300 : 1 (at full signal)
Integration time	4 ms - 16 seconds
A/D resolution	16 bit

Optical Bench	
Grating type	Aspherical concave grating
Fiber connector	SMA905 to 0.22 NA optical fiber
Detector Specifications	
Detector	Toshiba 1304DG linear CCD array
Detector range	200 - 1100 nm
Pixels	3648 pixels
Pixel size	8 μm x 200 μm
Corrected linearity	> 99.0%
Electronics	
Power consumption	200 mA @ 5 VDC
Computer interface	USB 2.0 @ 12 Mbps (USB 1.1 compatible)

Notes : All specifications are subject to change without notice