

# UT-CDS-600-EX Spectrometer

## Real Time Spectral Reproduction Accessory

### Accurate

The UT-CDS-600-EX is an external accessory to the Spectra-UT, UT-1000 Ultra-tunable Sources.

The UT-CDS-600-EX uses the CDS-600 to measure light from a source or reflected light off a surface. The measured spectrum is fed into the UT-1000 where the UT-1000 reproduces the measured spectrum in a highly uniform spectral radiance.

It is as easy as making a spectral radiance measurement of a sample, hit send and the UT-1000 reproduces the spectrum through its uniform radiance port.

### Easy to use

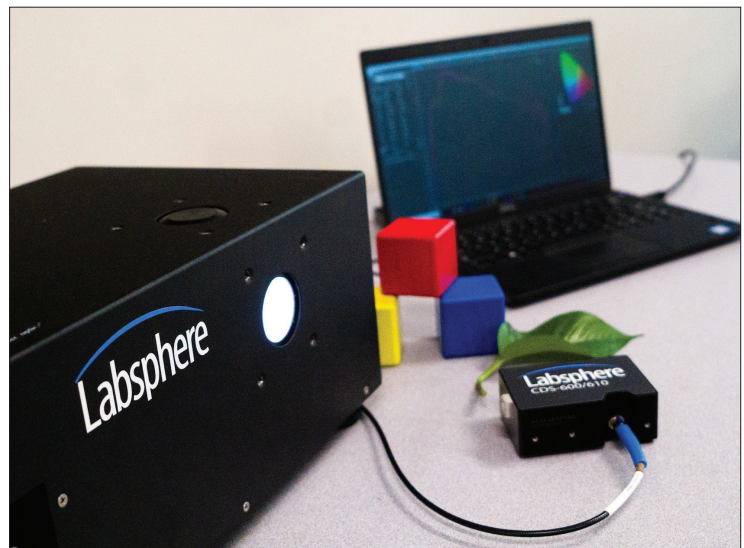
The UT-CDS-600-EX spectrometer easily connects to a PC via an USB-2 port. A fiber optic cable connects to the radiance head, enabling the remote positioning of the spectrometer and data collection application calibration and measurement.

The software guides the user through making data acquisition simple while still meeting the needs of experienced researchers.

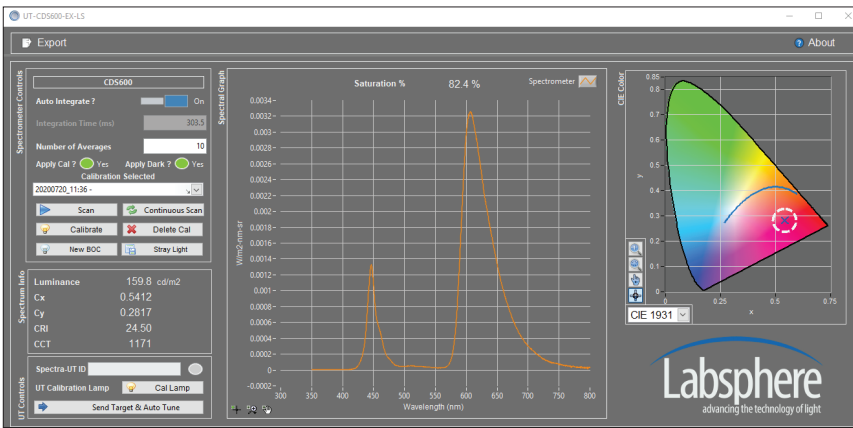


### Value:

- Reproduce display spectrum for color correction
- Reproduce natural objects under different illuminations for image analysis
- Save time creating visible spectral targets for the UT-1000
- User calibration feature using UT-1000 spectral radiance



Labsphere's UT-CDS-600-EX next to the UT-1000 Ultra-Tunable Source



UT-CDS-600-EX-LS  
Software Example of  
Display Measurement

## Ordering Information

Model Number	Order Number	Description
UT-CDS-600-EX	AA-01581-200	UT-1000 External Spectrometer Accessory

### Includes

- CDS 600 spectrometer with 3 m fiber optics cable and 2 m USB 2 cable
- Radiance Head
- Radiance Head Calibration Adapter
- UT-CDS-600-EX-LS Software

## Specifications

Wavelength Range:*	200 - 850 nm
Signal-to-Noise Ratio:	250:1 (at full signal)
A/D Resolution:	16 bit
Dark Noise: (correctable)	50 RMS counts
Dynamic Range:	2 x 10 <sup>8</sup> (system); 1300:1 for a single acquisition
Integration Time:	1 ms to 5 seconds
Stray Light:	<0.05% at 600 nm; <0.10% at 435 nm
Corrected Linearity:	>99.8%
<b>Detector</b>	
Detector:	Sony ILX511 linear silicon CCD array
Detector Range:	200 - 1100 nm
Pixels:	2048 pixels
Pixel Size:	14 µm x 200 µm
Pixel Well Depth:	~62,500 electrons
Sensitivity:	75 photons/count at 400 nm; 41 photons/count at 600 nm
<b>Optical Bench</b>	
Design:	f/4, Symmetrical crossed Czerny-Turner
Focal Length:	42 mm input; 68 mm output
Entrance Aperture:	100 µm
Fiber Optic Connector:	SMA 905 to 0.22 numerical aperture single-strand optical fiber
<b>Electronics</b>	
Power Consumption:	90 mA @ 5 VDC
Connector:	10-pin connector
Computer Operating Systems:	Windows XP with USB port
Computer Interfaces:	USB 2.0 @ 480 Mbps
<b>Physical</b>	
Spectrometer Dimensions:	89.1 mm x 63.3 mm x 34.4 mm
Spectrometer Weight:	190 grams

\* Visible range used only for UT-1000 applications

