

WE MAKE YOUR

# AVA-CHEM-KIT

## DATA SHEET

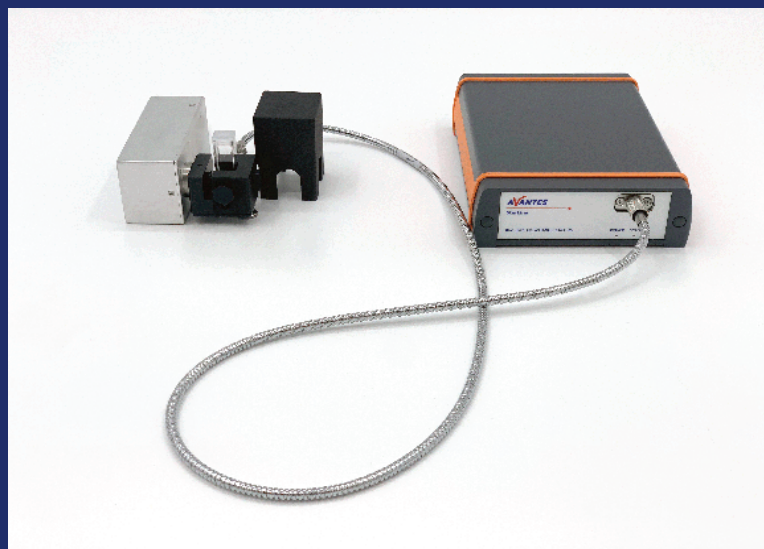
**AVANTES**<sup>USA</sup>  
MEMBER OF THE NYNOMIC GROUP

The Avantes Chemistry absorbance bundle is the ideal system configuration for a variety of labs, including University, research, teaching, and industrial. The system is configured for UV/VIS/NIR measurements from 200-1100 nm and provides spectral resolution as low as 1 nm (FWHM). The system includes a high-speed CMOS detector spectrometer, deuterium halogen light source, cuvette holder, fiber optic cable, and quartz cuvette cells. The spectrometer includes our exclusive replaceable slit technology allowing for user changeable slits to optimize performance between resolution or throughput (sensitivity). Avantes AvaSoft software facilitates measurements in absorbance, transmission, reflection and two types of irradiance for a variety of applications. Additional software features support many output file formats (Excel, JCAMP ASCII), FMWH and peak tracking, and time series (kinetics) functions. The modularity of the Avantes system provides for the use additional of probes and other sampling accessories to suit the requirements of each use case.

### ABSORBANCE SETUP



### FLUORESCENCE SETUP



## KEY FEATURES

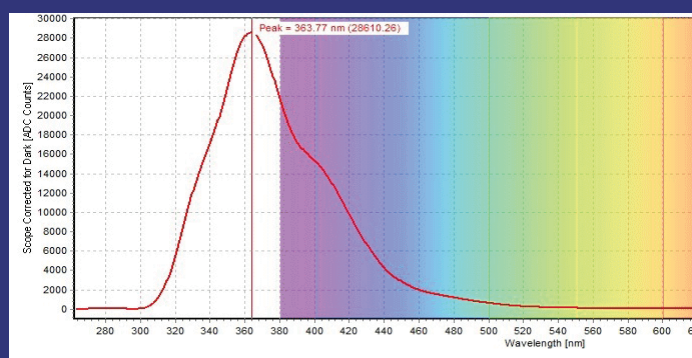
- **RANGE:** 200-1100 nm
- **RESOLUTION:** 1.0 nm to 9.2 nm (Slit Dependent)
- **INTEGRATION TIME:** 9 Microseconds to 59 Seconds
- **SIGNAL TO NOISE:** 300:1

## INSTRUMENT DETAILS

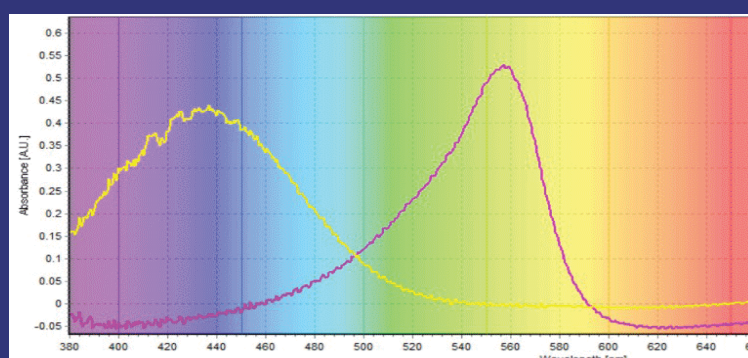
- **SPECTROMETER:** 2048 Pixel CMOS Spectrometer with replaceable slit for maximum flexibility
- **LIGHT SOURCE:** Deuterium Halogen Light Source & 1 cm Cuvette Holder

Chemistry Absorbance System	
AvaSpec-ULS2048CL-EVO-RS-UA	Ultra-low stray light fiber optic UV/VIS/NIR spectrometer with replaceable slit, 2048 pixel/14x200 $\mu\text{m}$ CMOS detector, grating UA (200-1100 nm), DCL-UV/VIS-200, OSC-UA, USB3 powered, high speed USB3 and ETH interface. Includes AvaSoft-Full and slit kit SMA (slit 25-RS pre-installed; 50, 100 and 200 $\mu\text{m}$ in box).
AvaLight-DHc	Compact Deuterium-Halogen light source 200-2500 nm with TTL-shutter, needs PS-12V/1.0A (not included)
PS-12V/2.08A	Power Supply for AvaLight-HAL-(S)-Mini and AvaLight-XE-HP
IC-DB26-2	Interface cable AvaSpec-USB2/EVO platform to DB15 for AvaLight-S with shutter for auto save darks & lamp off, AvaLight-XE control, 2 m
CUV-DA	SMA screw-on 10 mm cuvette holder for AvaLight-DHc/XE/LED, including COL-UV/VIS lens and 2 mirrors.
CUV-COVER-DA	Cover for Direct Attached cuvette holders. Suitable for CUV-ATT-DA(-HAL-MINI) & CUV-DA(-HAL-MINI)
FC-UVIR400-1-ME	Fiber cable, 400 $\mu\text{m}$ fiber, broadband UV/VIS/NIR (200-2500 nm), 1 m, SMA terminated; ME metal jacketing
CUV-10-2	Quartz cuvette 10 mm, 2 windows, 3.5 ml; 2 pieces
Resolution Range	Range: 200-1100 nm SNR Integration Time

## FLUORESCENCE SPECTRA



## ABSORBANCE SPECTRA




## FLUORESCENCE INSTRUMENT OPTIONS

With additional accessories, the absorbance systems' functionality can be expanded and reconfigured for fluorescence. The high-powered pulsed xenon source provides for up to 6 Watts of optical power for fluorescence excitation, allowing for stronger emission and greater overall sensitivity. The FH-DA filter holder allows for filtering of the Xenon light output to a specific for fluorescence excitation.

Fluorescence Add Ons	
AvaLight-XE-HP	6W Xenon light source (200-1000 nm) with Y cable for power and trigger connection to AvaSpec-EVO, needs extra PS-12V/2.08A power supply
FH-DA	Direct-attach filter holder for 13 mm or 1/2" diameter filters, 1-8 mm thick, including one UV/VIS collimating lens for AvaLight-DHc/XE/LED mounting
CUV-10-4	Quartz cuvette 10 mm, 4 windows, 3.8 ml; 2 pieces

## Temperature Controlled Setup Option

Dip Probe	
FDP-2UVIR200-2-5-mini	1/8" mini dip probe, 5 mm spacing, 10 mm path length, broadband UV/VIS/NIR (200-2500 nm), 2 m
	
Temp-Controlled Cuvette Holder	
CUV-UV/VIS-TC-ABS/FL	Absorbance & fluorescence kit. Price includes q-pod sample compartment, TC 125 temperature controller, two QCL-UV collimating lenses, 2 QILUV imaging lenses and 2 QMP mirror plugs and 2 QMP mirror plugs, BATH 100 submersible pump, QSLITS optical slits, cover with access cap, tubing, cables and a stir bar, and Q-Blue control software