

## Teksan Co.

Light Spectroscopy Instruments

### Address

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For more information on any of  
our products or services please  
visit us on the Web.

# TIDA Low Noise Spectrometer (200-850)

High Resolution Low-Noise Cooled Spectrometer for Sensitive Application

Full option and user-friendly computer program



## Application Areas

- Engineering
- Food & Beverage Quality Control
- Chemistry
- Laser Characterization
- Biology
- Physics & Astronomy
- Protein & Nucleic Acid Analysis
- Volcanology
- Color Analysis
- Environments
- Nanotechnology
- Polymers

TIDA is a small-footprint, high-resolution spectrometer that is well suited for applications such as wavelength characterization of lasers and LEDs, monitoring of gases and monochromatic light sources, and determination of elemental atomic emission lines, Chemicals absorption, and color analysis, depending on spectrometer configuration, optical resolution as fine as  $\sim 0.02$  nm (FWHM) is possible. Also, users can add TIDA accessories such as light sources, probes and optical fibers to configure a variety of application-specific systems. TIDA draws power from the both power supply and also host PC, eliminating the need for an external power supply.

TIDA is perfect for applications where fast reactions need to be monitored and high resolution is necessary, such as chemistry and biochemistry applications. Data programmed into a memory chip on each TIDA includes wavelength calibration coefficients, linearity coefficients, and the serial number unique to each spectrometer. Our spectrometer operating software simply reads these values from the spectrometer. a feature that enables hot swapping of spectrometers among PCs. TIDA Spectrometer connects to a notebook or desktop PC via USB port.

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## Features and Specifications

Engineering Specifications	TIDA UCS-G400 Series
<b>PHYSICAL</b>	
Dimensions: (L x W x H) mm	171x 135 x 65 mm
Weight: kg	0.75 kg
<b>DETECTOR</b>	
Type:	array detector
A/D Type	16bit
Cooling	Up to -5° C
Range:	200-850 nm
<b>SPECTROSCOPIC</b>	
Wavelength range:	200-850 nm
Integration time:	1 microsecond – 65 seconds to 60 Min
Dynamic range:	2.5 x 10 <sup>8</sup> (system); 1500:1 for a single acquisition
Signal-to-noise ratio:	1:300 up to 1:700
Dynamic Range	1300:1 for a single acquisition, 8.5 x 10 <sup>7</sup>
Low Dark Level	Yes
Low Dark Noise	Yes
Grating:	300 Line per mm
Slit:	25µm wide slits
Optical resolution:	~1.2-1.8 nm (FWHM)
Stray light:	<0.04% at 532 nm; <0.11% at 452 nm
Buffering:	No
Fiber optic connector:	SMA 905 to single-strand optical fiber (0.22 NA)
<b>ELECTRONICS</b>	
Power consumption:	200 mA at +5 VDC
TRIG	No
Interfaces:	USB 2.0 USB 3.0
Temperature Storage	-33° to +75° C
Temperature Operation	-15° to +50° C
Humidity:	0% – 90% non-condensing

### SERVICES AVAILABLE

Technical Support  
Installation and Setup  
Maintenance  
Application Support  
Hardware Support  
Guaranteed Warranty