

## Teksan Co.

Light Spectroscopy Instruments

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

# Low Noise Spectrometer (TIDA)

High Resolution Low-Noise Cooled Spectrometer for Sensitive Application

Full option and user-friendly computer program



TIDA spectrometer 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.

## Application Areas

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

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## Features and Specifications

Engineering Specifications	TIDA (CS-G400)
<b>PHYSICAL</b>	
Dimensions: (L x W x H) mm and inches	171 x 135 x 65 mm
Weight: kg and lb	0.79 kg
<b>DETECTOR</b>	
Type:	Toshiba
Cooling	Up to $-20^{\circ}\text{C}$
Range:	190 – 1150 nm
<b>SPECTROSCOPIC</b>	
Wavelength range:	190 – 1150 nm
Integration time:	1 microsecond – 65 seconds to 60 Min
Dynamic range:	$2.5 \times 10^8$ (system); 1500:1 for a single acquisition
Signal-to-noise ratio:	500:1 (at full signal)
Grating:	300
Slit:	5, 10, 25, 50, 100 or 200 $\mu\text{m}$ wide slits
Optical resolution:	$\sim 0.02$ to 10 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
Interfaces:	USB 2.0 USB 3.0
Temperature:	$-33^{\circ}$ to $+75^{\circ}\text{C}$ Storage & $-20^{\circ}$ to $+55^{\circ}\text{C}$ Operation
Humidity:	0% – 90% non-condensing

### SERVICES AVAILABLE

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