

### 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.

## **Broadband Spectrometer (TIDA)**

High Resolution Spectrometer for Maximum Flexibility

Full option and user-friendly computer program



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 ~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.

### **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 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**

| 7 4 7 404 14                      |   |
|-----------------------------------|---|
| <b>Engineering Specifications</b> | TIDA (UCS-G400)                                     |
| PHYSICAL                          |   |
| Dimensions: (L x W x H) mm and    | 137 x 135 x 65 mm                                   |
| inches                            |   |
| Weight: kg and lb                 | 0.61 kg   |
| DETECTOR                          |   |
| Type:                             | Toshiba   |
| Range:                            | 190 – 1150 nm                                       |
| SPECTROSCOPIC                     |   |
| Wavelength range:                 | 190 – 1150 nm                                       |
| Integration time:                 | 1 microsecond – 65 seconds to 60 Min                |
| Dynamic range:                    | 2.1 x 10 <sup>8</sup> (system); 1400:1 for a single |
|                                   | acquisition   |
| Signal-to-noise ratio:            | 270:1 (at full signal)                              |
| Grating:                          | 300   |
| Slit:                             | 5, 10, 25, 50, 100 or 200 µm wide slits             |
| Optical resolution:               | ~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)   |
| ELECTRONICS                       |   |
| Power consumption:                | 200 mA at +5 VDC                                    |
| Interfaces:                       | USB 2.0 USB 3.0                                     |
| Temperature:                      | -33° to +75° C Storage & -20° to +55° C             |
|                                   | Operation   |
| Humidity:                         | 0% – 90% non-condensing                             |

### SERVICES AVAILABLE

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

