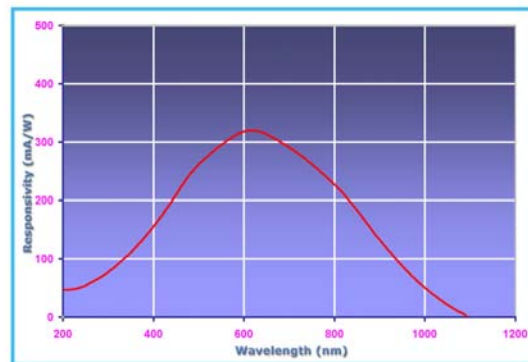


Diode Array Spectrometers



- *Deep Well and High dynamic range*
- *Spectral response from 200nm to 1100nm*
- *512 element diode array*
- *Enhanced 8051 microprocessor*
- *16-bit A/D*
- *Offset DAC*
- *Fast USB2.0 interface*
- *Non scanning device, acquire full spectrum in milliseconds!*
- *Small, rugged, portable*

Control Development, Inc., uses silicon photodiode arrays to provide high performance spectrometers at very affordable prices for UV-VIS-SWNIR spectroscopy. Our diode array spectrometers, with their deep well, high dynamic range, are ideal for high light level measurements where small changes need to be detected. Features like Auto-Cal, on-board EEPROM calibration, and 16-bit electronics provide a lot of performance at a very affordable price.



All our spectrometers come with free application software. CDI Spec32 is a data acquisition package with several data processing techniques included. Also supplied free are our Lab View VI, Active X application, and DLLs.

All our devices are compact, rugged, portable and well suited for OEM applications as well as process, QC, laboratory, and educational purposes. We will custom design spectrometers for your application usually at no extra charge.

Product Specifications

Part Number PDA-512

Spectrometer

Spectral Range (nm)* 200-1100
Linear Dispersion (nm/pixel) defined by spectral range
Resolution FWHM (nm) defined by linear dispersion
Wavelength Accuracy* ¼ pixel

Input Fiber

Single fiber
Core Diameter (microns) 400
Material Ultra Low OH or High OH
Connector 905 SMA
Input Slit Width (microns) 25, 50, 100 or none (fiber itself)

Optics

Gratings
Lines/mm 200, 300, 400, 600, 1200, 1800, 2400, 3600
Coating Material Aluminum or Gold

Order Sorting Filter Available

*nominal, factory set, user-defined range in that spectral region

Detector

Material Type Silicon
Number of elements 512
T.E. cooling none
Pixel Dimensions (WxH) 25 µm X 500 µm

Electronics

Integration times 1.7 ms to 16 s
A/D Converter 16 Bit
Readout speed 3 µs per pixel
Readout Noise * <6 counts RMS
Offset DAC Yes
Memory On-Board
Microprocessor Enhanced 8051
Strobe TTL compatible
Lamp Drivers Two

*nominal

Power Requirements

Voltage 5V DC
Current 8 Amps
Power supply Included

Communications

USB2.0 Interface

Internal Wavelength Calibration

Internal Mercury-Argon line source option available

Physical Dimensions

Dimensions 6.535"L X 4.173"W X 3.0"H
Weight 2 lb

Software

The following is included free with every spectrometer purchase:
Spec32™, DLLs, Lab View VI, and Active X App all with user manuals

Warranty and Support

Warranty 1 year
Extended Warranty Available
Support Several support packages available
Telephone 9:00 AM to 5:00 PM, EST, Mon-Fri.