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RAMAN BUILDING BLOCK 532

Thinking out of the box? Let us meet your needs!

Introducing a one of a kind opportunity to build and fully customize your own spectrometer system. Take advantage of our high quality manufacturing capabilities, and setup a spectrometer system using our unique flexible OEM setup that will satisfy all your unique ideas. Our OEM modular setup is designed to keep up with all your application and performance demands as you Discover It Yourself.

A RAMAN BUILDING BLOCK 532 is comprised of the following necessary components: a spectrometer, a 532nm laser, a sampling probe, and other optional accessories. Choose the options to build the breadboarding system most suitable for your needs.

High-quality and precise parts for all your prototyping needs

- ★ Building Blocks are fully customizable and adaptable to your requests
- ★ Fiber-optic probe with external trigger
- ★ Fiber optic sampling flexibility



B&W Tek offers both BWSpec® software and Software Development Kit (SDK) packages enabling solutions suited for Raman applications.

BWSpec®

BWSpec® is a spectral data acquisition software, which is a foundation for all B&W Tek instruments. This software includes a wide range of tools that are designed to perform basic measurements and calculations at the click of a button. It offers multiple data formats and gives users the ability to optimize acquisition parameters, such as integration time and laser power. This also includes automatic dark removal, and manual/auto baseline correction.

Software Development Kit (SDK)

SDKs allow users to control B&W Tek spectroscopic instruments through their own customized interfaces. Basic laser and spectrometer control for data acquisition, calibration and module synchronization is possible. The SDK package is designed for 32 and 64-bit windows operating system and available for all our USB-based spectrometers.

Advanced packages with data processing algorithms and chemometric model support (models from BWIQ software) are available for full system control. The math functions for data processing include curve fitting, peak finding, smoothing, and a prediction engine, delivering a full solution spectrometer system.

Sample Applications



Material Science

Material characterization and identification

Food

Safety and quality determination



Device Fabrication

Silicon wafer testing

Pharmaceutical

Development, identification and verification of raw materials and more...



Custom Device Diagnosis

Feasibility studies and prototypes

Research and Development

Fully customizable uses for R&D and proof of concept use





RAMAN BUILDINGBLOCK 532

Discover your Block

We have three prepared Building Block breadboards for our 532 nm laser excitation category. Each building block is setup and selected by our excellent engineers with the highest quality parts. Each block is designed to help you discover the most efficient and precise methods to achieve your goals.

	Entry Block	Professional Block	Research-Grade Block
Spectrometer Options	Glacier® T BTC162E-532S	Exemplar® T BTC665N-532S	Exemplar® HT BTC667N-532S
Excitation Wavelength	532 nm	532 nm	532 nm
Raman Shift Coverage	150 to 4000 cm ⁻¹	150 to 4200 cm ⁻¹	150 to 4200 cm ⁻¹
Note: The start range of Raman shift is dependent on the selected probe			
Coverage Range	532 nm to 680 nm	532 nm to 687 nm	532 nm to 687 nm
Resolution	4.5 cm ⁻¹ @ 614 nm	4.5 cm ⁻¹ @ 614 nm	4.5 cm ⁻¹ @ 614 nm
Detector Type	2048-element Response-Enhanced Linear silicon CCD Array	2048-element High Quantum Efficiency Back-Thinned CCD Array	Deep-Cooled, 2048-element High Quantum Efficiency Back-Thinned CCD Array
Thermoelectric Cooling	14° C	-2° C	Deep cooled at -25 °C
Dimensions	191 mm × 94 mm × 90 mm (7.5" × 3.7" × 3.5")	200 mm × 180 mm × 120 mm (7.8" × 7.1" × 4.0")	220 mm × 180 mm × 130 mm (8.7" × 7.1" × 5.1")
Weight	3.9 lbs. (~1.8 kg)	5.4 lbs. (~2.5 kg)	7.6 lbs. (~3.4 kg)

For more spectrometer model customization options, datasheets, and price information please contact us

Laser Options

BWG-532-50-DIY

Power Options: Standard offered is 50mW

Note: The 532 nm laser product is built as per the specifications of the customer and sold solely as a component (or a module) to incorporate into other equipment. The purchaser assumes responsibility to comply with US FDA21 CFR 1040 with regard to the use of this laser and its introduction into commerce.

Probe Options

	Industrial-Grade	Lab-Grade
Model Number	BAC101-SS-532	BAC100B-532
Excitation Wavelength	532 nm	532 nm
Laser Blocking	OD6 Default	OD6 Default
Shaft Material	316 Stainless Steel	304 Stainless Steel
Shaft Length	203.2 mm (8")	76.2 mm (3")
Shaft Diameter	12.7 mm (0.5")	5.4 mm (.21")
Working Distance	0.5 mm, 0.8 mm in Liquid	5.4 mm
Maximum Operating Temperature	200° C	80° C; Non-immersive use

For more probe or laser customization options, datasheets, and price information please contact us

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