

BD SpectralFX™ Technology

Advanced performance and fluorochrome flexibility



What is BD SpectralFX™ Technology?

BD SpectralFX™ Technology combines an optimized hardware design for full-spectrum optical detection with a system-aware unmixing algorithm to maximize the palette of colors that can be used for flow cytometry with optimal spectral resolution and sensitivity. BD SpectralFX™ Technology is paired with a next-generation setup and quality control (QC) system and a guided software workflow that helps to automate detector setup for consistency and performance and to simplify the spectral workflow.

How does it work?

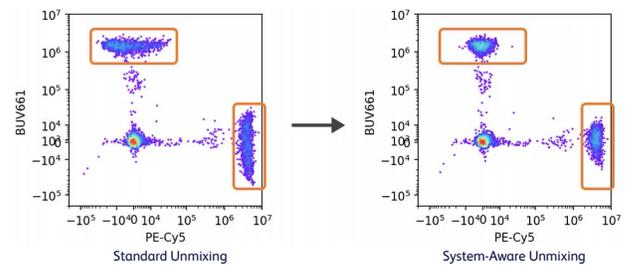
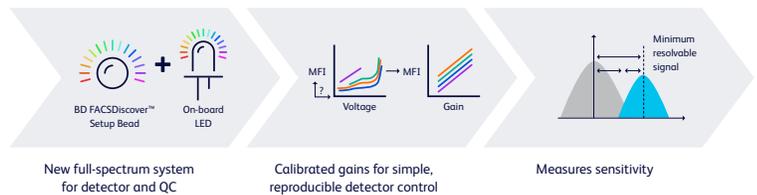
BD SpectralFX™ Technology uses a modular optical architecture that minimizes optical losses to allow higher detector count. The technology allows expansion of panel size and fluorochrome selection flexibility with 78 fluorescent detectors across five lasers with algorithmically optimized bandpass filters.

Technology innovations:

Next-Generation Setup and QC: Next-generation setup and QC automates detector setup for consistency and performance. An on-board LED is used to perform detector gain calibration and characterize detector sensitivity as part of daily setup, enabling simple and consistent detector gain control across all detectors. In addition, a broad-spectrum setup bead is used to track full-system performance and to ensure consistent measurement results over time through MFI tracking. Default detector gain settings are available for each experiment to provide a balance between detector sensitivity and dynamic range, eliminating the need to manually adjust voltages for every experiment.

System-Aware Unmixing Algorithm: System-aware unmixing manages spread across a wide range of detector gain settings using LED-based detector noise calibration and real-time noise estimates for each fluorescence detector, helping manage the spread of unmixed population across the spectrum.

Guided Workflow: BD FACSCorus™ Software uses a guided workflow to support best practices while staying flexible for new applications. A step-by-step workflow is provided with all the necessary steps to successfully perform an experiment:



Expand your discovery power with BD SpectralFX™ Technology on the BD FACSDiscover™ Platform family of instruments



BD FACSDiscover™ A8 Cell Analyzer



BD FACSDiscover™ S8 Cell Sorter

BD flow cytometers are Class 1 Laser Products. For Research Use Only. Not for use in diagnostic or therapeutic procedures.

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