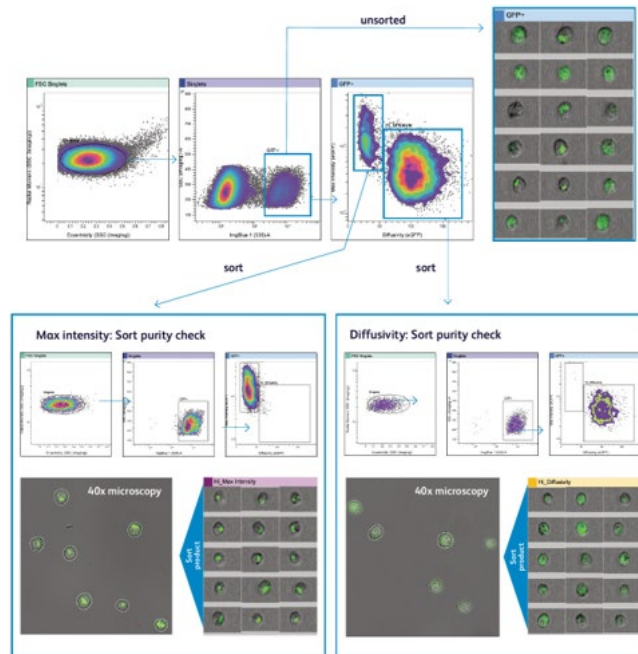


BD FACSDiscover™ S8 Cell-Sorter with CellView

The BD FACSDiscover S8 Cell Sorter is a high-dimensional spectral flow cytometer that integrates real-time, camera-less spatial imaging and morphological insights into the cell sorting process.



SPECIFICATIONS

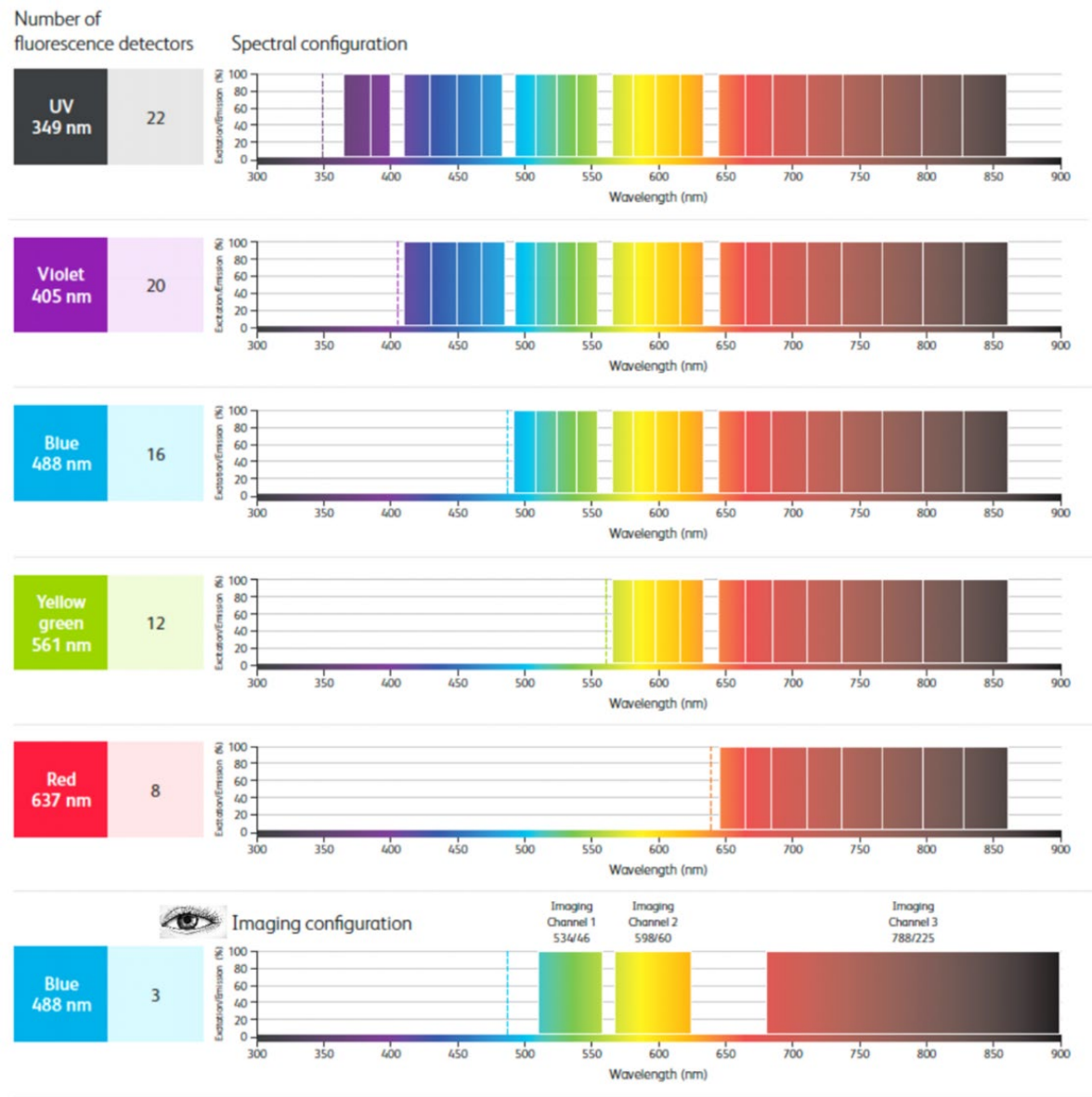
Key Technical Specifications

Optical System & Lasers

Lasers: Up to 5 spatially separated lasers:

- 349 nm (UV): 30 mW nominal / >27 mW output
- 405 nm (Violet): 50 mW nominal / >45 mW output
- 488 nm (Blue): 100 mW nominal / >95 mW output
- 561 nm (Yellow-Green): 50 mW nominal / >45 mW output
- 637 nm (Red): 100 mW nominal / >90 mW output

Fluorescence Detectors: 78 spectral avalanche photodiode (APD) detectors mapped across the full spectrum:



Scatter Detectors: Forward Scatter (FSC), Side Scatter (SSC), and Axial Light Loss (ALL).

BD CellView™ Image Technology

- Image Detection: Employs orthogonal frequency domain multiplexing to generate images electronically without requiring a camera.
- Imaging Detectors: 6 independent, imaging-enabled APD detectors (Blue 488 nm laser).
- Imaging Metrics Derived: Size, eccentricity, max intensity, diffusivity, total intensity, center of mass (X/Y), radial moment, correlation, and delta center of mass.

Fluidics & Sorting

- Nozzle Sizes: 85- μ m, 100- μ m, and 130- μ m removable nozzles (can be sonicated).
- Sorting Capabilities: Up to 6-way sorting into 5-mL tubes, as well as high-throughput plate sorting (6-, 24-, 48-, 96-, and 384-well plates).
- Sample Input/Temperature: Supports 1.5-mL, 2.0-mL, and 12 x 75-mm tubes with constant software-controlled agitation.
- Temperature Control: 4 °C, 22 °C, 37 °C, and 42 °C

APPLICATIONS

- For sterile-sorting of mammalian cells.
- Direct sort (single-cells or bulk) into PCR tubes for RNA preparation work.
- Cell-Imaging of fluorescence up to 20X magnification.
- Index sorting.

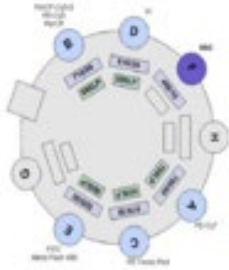
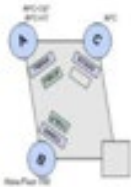
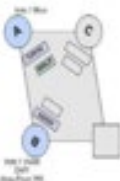
BD 3-Lasers Fortessa X20



SPECIFICATIONS

- Multi-colour analysis for up to 10 parameters
- 3 air-cooled lasers at 355-nm UV, 488-nm Blue and 633-nm Red
- Acquisition rates of up to 10,000 events/second

FLOW CYTOMETRY FACILITY (SBS-NTU)
Fortessa X-20 (3-laser) configuration
Simultaneous analysis of up to 10 colours

Laser and Optical Devices	Excitation Lasers(nm)	BD filter range (nm)	Recommended Fluorochromes
	BLUE 488nm	780/60	PE-Cy7
		710/50	PerCP-Cy5.5, PE-Cy5, PerCP
		575/25	PE
		610/20	PI
		525/50	FITC, Alexa 488
		488/10	SSC
	RED 633nm	780/60	APC-Cy7, APC-H7
		670/30	APC
		730/45	Alexa Fluor 700
	UV 355nm	525/50	Indo – 1(Blue)
		450/50	Hoechst Blue, DAPI, Indo-1(violet) Alexa Fluor 350

BD 5-Lasers Fortessa X20



SPECIFICATIONS

- Multicolour analysis for up to 18 parameters.
- 5 air-cooled lasers at 355-nm UV, 405-nm Violet, 488-nm Blue, 561-nm Yellow/Green and 633-nm Red.
- Acquisition rates of up to 10,000 events/second.

FLOW CYTOMETRY FACILITY (SBS-NTU)

FortessaX-20 5-Laser Configuration.

Analysis of max 18 fluorescence parameters.

Excitation nm	Bandpass Filters	Fluorochromes
BLUE 488nm	685/35	PerCP-Cy 5.5/PerCP.
	530/30	FITC, Mitogreen, YFP, GFP.
	488/10	SSC
YELLOW/GREEN 561nm	780/60	PE-CY7
	670/30	PE-CY5
	710/50	PE-CY5.5
	610/20	PE-Texas Red, mCherry, PI, PE-CF594.
	586/15	RFP, DSRED, PE, TritC, Mitotracker-orange.
RED 633nm	780/60	APC-CY7, APC Vio770, APC-eFluor780.
	730/45	Alexa Fluor 680 and 700.
	670/30	APC, CY5, Alexa 633 and 647.
VIOLET 405nm	780/60	BV785, Qdot 800.
	710/50	BV711, Qdot 705.
	670/30	BV650, Qdot 655.
	610/20	BV605, BV570, Qdot 605.
	525/50	Amcyan, BV510, GFP.
	450/50	CFP, BV421, Pacific Blue, DAPI.
UV 355nm	740/35	BUV737
	379/28	BUV395, Indo-1 (Violet)

BD 5-Lasers FACSymphonyA5.2

The BD FACSymphony A5.2 (often categorized as the Symphony Spectral or A5 SE) is a highly advanced, multi-parameter cell analyzer by Becton Dickinson. Built for deep immunophenotyping and high-dimensional analysis, it uniquely allows researchers to acquire single-cell data in both full-spectral and conventional compensation workflows



SPECIFICATIONS

- Simultaneous analysis for up to 50 parameters.
- Full-spectral acquisition capable.
- 5 air-cooled lasers at 355-nm UV, 405-nm Violet, 488-nm Blue, 532-nm Yellow/Green and 628-nm Red.
- Digital acquisition rates of up to 10,000 events/second.

NTU - SBS FACSymphony A5.2 Configuration

LASER	WAVELENGTH (nm)	POWER (mW)	DETECTOR	MIRROR	FILTER	PARAMETER	FLUOROCROME CHOICES
UV	355	60	A	765	809/82	UV809	BLU805
			B	705	736/64	UV736	BLU737
			C	675	695/40	UV695	Qdot705
			D	645	660/30	UV660	BLU661
			E	595	610/30	UV610	BLU615-P
			F	570	585/30	UV585	BLU563
			G	535	540/20	UV540	Q545-Biotin
			H	495	515/60	UV515	BLU496
			K	425	446/67	UV496	DAPI, Hoechst33258, FV5440UV
			L	365	379/34	UV379	BLU395
Violet	405	250	A	810	845/70	V854	Qdot 800
			B	765	785/50	V785	BV785
			C	730	750/40	V750	BV750
			D	690	710/40	V710	BV711
			E	665	680/30	V680	
			F	645	660/30	V660	BV650
			G	605	615/25	V615	BV605
			H	585	595/30	V595	FV5575V
			I	570	576/20	V576	BV570
			J	530	540/20	V540	VioGreen
			K	495	510/40	V510	BV510, BV500, FV5510, Amcyan
			L	465	470/15	V470	BV480
			M	430	450/40	V450	
			N	415	427/25	V427	BV421
Blue	488	400	A	770	810/79	B810	BB790
			B	724	750/60	B750	BB755
			C	685	710/50	B710	BB700
			D	665	675/20	B675	BB660
			E	645	660/30	B660	BB630
			F	585	602/40	B602	
			G	570	576/20	B576	
			H	520	537/32	B537	S-BLUE 550, FITC, Alexa 488, EYFP, BB515, FV5520, GFP, EGFP, Sytox Green
			I	500	510/20	B510	BB515
			J		488/10	SSC	SSC
YG	532	200	A	800	825/49	YG825	
			B	750	780/60	YG780	BYG790-F, PE-Cy7
			C	735	750/40	YG750	
			D	699	730/50	YG730	PerCP-eFluor710
			E	680	691/69	YG691	PE-Cy5.5
			F	665	670/20	YG670	PE-Cy5
			G	645	660/30	YG660	PE-Fire640
			H	595	602/40	YG602	PE-CF594, PE-Texas Red, mCherry, FV5620, Alexa 568, Alexa 594
			I	570	585/30	YG585	PE, mOrange, RFP, Alexa 532
Red	628	200	A	750	780/60	R780	APC-Fire810
			B	720	730/50	R730	APC-H7
			C	699	710/25	R710	APC-R700, FV5700, AF700
			D	680	680/30	R680	R718, Alexa 660
			E	665	675/20	R675	S-NIR 685
			F	645	660/30	R660	Alexa 647, Alexa 613, APC

Cytek Aurora 5-Lasers Full-Spectral Flow-Cytometer



The Cytek Aurora 5-Laser is an advanced spectral flow cytometer designed for deep immunophenotyping and high-complexity cell analysis. By capturing the entire emission spectrum of fluorochromes rather than targeting specific bands, it enables simultaneous detection of up to 40+ colors from a single sample.

SPECIFICATIONS

- **Laser Configuration:** Equipped with Ultraviolet (355 nm), Violet (405 nm), Blue (488 nm), Yellow-Green (561 nm), and Red (640 nm) lasers.
- **Detection Channels:** 64 fluorescence channels and 3 scatter channels.
- **Spectral Unmixing:** Real-time unmixing allows researchers to use previously incompatible dyes (e.g., APC and Alexa Fluor 647) in the same panel.
- **Autofluorescence Extraction:** Proprietary technology removes background autofluorescence, making it ideal for difficult or rare cell populations.
- **High Throughput:** Features an automated sample loader compatible with 96-well plates and tube racks.

CONFIGURATION

Tested Fluorochromes			
Laser (nm)	Primary Detector	Fluorochrome	Emission Max (nm)
355	UV2	cFluor [®] UV388	388
		BD Horizon [™] BUV395	395
	UV6	Alexa Fluor [®] 350	442
		LIVE/DEAD [®] Blue	450
	UV7	Zombie UV [™]	459
		DAPI	470
	UV9	BD Horizon [™] BUV496	495
		BD Horizon [™] BUV563	560
	UV10	BD Horizon [™] BUV615	616
	UV11	BD Horizon [™] BUV661	661
UV14	BD Horizon [™] BUV737	737	
UV16	BD Horizon [™] BUV805	805	
405	V1	Brilliant Violet [™] 421	421
		cFluor [®] V420	420
	V2	Alexa Fluor [®] 405	421
		Super Bright 436	436
	V3	cFluor [®] V450	450
		Pacific Blue [™]	455
	V5	Brilliant Violet [™] 480	480
		cFluor [®] V505	505
	V7	Brilliant Violet [™] 510	510
		VioGreen [™]	520
	V8	cFluor [®] V547	547
		Brilliant Violet [™] 570	570
	V10	cFluor [®] V610	610
		Brilliant Violet [™] 605	605
	V11	Super Bright 645	645
Brilliant Violet [™] 650		650	
V13	Super Bright 702	702	
	Brilliant Violet [™] 711	711	
V14	Brilliant Violet [™] 750	750	
	Super Bright 780	780	
V15	Brilliant Violet [™] 785	785	
488	B1	cFluor [®] B515	515
		BD Horizon [™] BB515	515
	B2	Vio [®] 515	514
		FITC	520
	B3	Alexa Fluor [®] 488	525
		cFluor [®] B548	548
	B6	BD Horizon [™] BB630	631
		BD Horizon [™] BB660	667
	B8	PerCP	680
		cFluor [®] B690	690
B9	PerCP-Cy [™] 5.5	680	
	BD Horizon [™] BB700	700	
B10	PerCP-Vio [®] 700	704	
	PerCP-eFluor [®] 710	730	
B12	BD Horizon [™] BB755	755	
	BD Horizon [™] BB790	790	
561	YG1	cFluor [®] YG575	575
		PE	575
	YG2	cFluor [®] YG584	584
		cFluor [®] YG600	600
	YG3	cFluor [®] YG610	610
		PE/Dazzle [™] 594	610
	YG4	PE-Alexa Fluor [®] 610	630
		PE/Fire [™] 640	640
	YG5	cFluor [®] YG667	667
		PE-Cy [™] 5	668
YG7	cFluor [®] YG710	710	
	PE/Fire [™] 700	695	
YG9	PE-Alexa Fluor [®] 700	720	
	cFluor [®] YG781	781	
640	R1	PE-Cy [™] 7	780
		cFluor [®] R659	659
	R2	APC	659
		cFluor [®] R668	668
	R4	Alexa Fluor [®] 647	668
		cFluor [®] R720	720
	R6	Alexa Fluor [®] 700	720
		BD Horizon [™] APC-R700	704
	R7	Zombie NIR [™]	746
		cFluor [®] R780	780
R8	APC-Cy [™] 7	780	
	APC-eFluor [®] 780	780	
R8	APC/Fire [™] 750	780	
	cFluor [®] R840	810	
R8	APC/Fire [™] 810	810	