

SPECIFICATIONS

Model	JSAN
Optics	
Lasers	Blue: 488 nm, ≥ 20 mW solid-state laser: first laser
	Red: 638 nm, ≥ 20 mW semiconductor laser: second laser
	UV: 375 nm, ≥ 16 mW semiconductor laser: third laser (optional)
	Violet: 405 nm, ≥ 50 mW semiconductor laser: third laser
Detection Optics	Fiber optics coupled with a hybrid flow cell
	Detectors detect emitted fluorescence passing through fiber optics.
Detection Parameters	Forward scatter (FSC), and side scatter (SSC)
	Four fluorescences (first laser), two fluorescences (second laser), and two fluorescences (third laser: optional)
Detectors	Three fixed-fiber apertures for the 488, 638, and 375/405 nm lasers
	Forward scatter (FSC) detector: one photodiode
	Side scatter (SSC) detector: one PMT
	Fluorescence detectors: upto eight PMTs A standard JSAN is equipped with six PMTs.
	Four PMTs detect fluorescence excited by the blue laser.
	Two PMTs detect fluorescence excited by the red laser. Optional two PMTs detect fluorescence excited by the additional UV/violet laser.
Sample Acquisition Rate	Maximum acquisition rate: 60,000 events per second
Fluorescence Sensitivity	200MESF using SPHERO™ Rainbow Calibrite Particles
Fluorescence Resolution	Coefficient of variation (CV): <3.0%, PI-stained chicken erythrocyte nuclei (CEN)
Signal Processing	
Signal Processing System	Digital processing system
Signal Processing Parameters	Maximum parameters: 10 (eight default parameters and two optional parameters)
Signal Resolution	1024/4096 channels per each parameter
Signal Dynamic Range	20-bit linear signal, four/six-decade digital-log signal for any parameter
Pulse Processing	Height, Area, and Width measurements available
Fluorescence Compensation	No limit to inter- and intra-beam compensation
	Default 6 x 6 and optional 8 x 8 matrix-compensation
Sorting	
Sorting System	Droplet-sorting System
Sorting Mode	Three modes: normal, high purity, and high recovery, each sets 1-3 droplets
Sorting Speed	Drop drive frequency: $\geq 60,000$ droplets per second Max. speed: 20,000 cells per second
Sorting Resolution	256 x 256, 65,536 points
Sort Collection	Two-way sorting
Sort Performance	Purity: >98% (using CaliBRITE™ Beads)
Utilities	
Workstation	Operation System: DOS/V and Windows® XP
Monitor	Two LCDs: over 15-inch and over 18-inch monitors
Printer	Color-inkjet printer
Software	JSAN software AppSan (FCS 2.0)
Power	JSAN main body: operation at 100VAC and 50 or 60 Hz, 10A
	Workstation: 100VAC 50 or 60 Hz, 5A
	Pump Unit: 100VAC 50 or 60 Hz, 5A
	Transformer: input 120V/220V, output 100V
Size and Weight	JSAN main body: 66.5 cm depth, 95 cm width, and 63 cm height; approx. 130 kg
	Pump Unit: 39 cm depth, 60 cm width, and 41cm height; approx. 40 kg
	Tank Unit: 31 cm depth, 60 cm width, and 60 cm height; approx. 15kg
Options	
Extension	CloneMate: Automated cell deposition unit; CoolMate: Sample cooling device
Lasers	Third laser: 375 nm semiconductor/405 nm semiconductor laser
JSAN Body Color	Standard: black; Option: blue, green, and red
Peripherals	Monitor size, external magneto-optic disk (MO), and JSAN Workbench

- ※ Ambient temperature and humidity: within a range of 19 to 25°C, 40 to 60%, and non condensing
- ※ The JSAN flow cytometer is For Research Use Only. Not for use in diagnostic or therapeutic procedures.
- ※ The JSAN workbench is an option.
- ※ Optional body colors of images in this brochure might differ from actual ones.
- ※ The specifications are subject to change without notice.
- ※ Windows is a registered trademark of Microsoft Corporation.
- ※ SPHERO is a trademark of Sperotech, Inc.
- ※ CaliBRITE Beads is a trademark of BD Biosciences.