Specification Sheet

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Agilent NovoCyte Advanteon

Laser/Filter availability for 1, 2, or 3 laser instruments

	Lasers	405 nm	488 nm	561 nm	640 nm
FL Channel	445/45 nm	✓			
	525/45 nm	✓	✓		
	572/28 or 586/20 nm	✓	✓	✓	
	615/20 nm	✓	✓	✓	
	667/30 nm	✓	✓	✓	✓
	695/40 nm	✓	✓	✓	✓
	725/40 nm	✓	✓	✓	✓
	780/60 nm	✓	✓	✓	✓

Optics	
Laser	Solid state laser with on-board thermal-electric cooling and guaranteed thermal stability and beam quality
Laser beam profile	10 x 80 µm elliptical beam
Laser operation	Laser on only when acquiring samples
Optical alignment procedure	Fixed; no operator alignment required
Fluorescence detection	Silicon photomultiplier (SiPM) with high photon detection efficiency; Individual photodector for each channel
FSC/SSC sensitivity	FSC: 0.4 µm; SSC: 0.1 µm
Fluorescence threshold sensitivity	FITC < 75 MESF; PE < 50 MESF; APC <20 MESF
Fluorescence resolution	< 3% CV for CEN
Optical filters	User exchangeable, "Smart" filter automatically read by the system
Fluidics	
Flow cell	170 x 290 µm rectangular quartz flow cell
Sample acquisition rate	100,000 events/second
Sample delivery	Positive-displacement syringe pump enabling direct volumetric absolute count without the need for reference counting beads
Volumetric absolute count precision	< 5%
Sample flow rate	5 - 120 µL/min, continuously adjustable
Sheath flow rate	6.5 mL/min
Sample aspiration volume	5 µL - 5 mL
Manual sample format	12 x 75 mm tube, 1.5 & 2.0 mL Eppendorf tube
Compatibility to autosampler	No fluidic tubing disassembly or reconnection required
Fluid level sensing	Active sensing with automated warnings when any fluid level is out of specified range
Fluid container capacity	3 L sheath, 3 L waste, 500 mL cleaning, 500mL rinse; Optinal large fluidic cart with 15 L sheath and 15 L waste
Carryover	< 0.1%
Sample injection probe (SIP) rinse	Automated flying collar wash of inner and outer SIP surface after each sampling
Fluidics system monitoring	In-line pressure sensor monitors the pressure in real time. Automated system recovery when pressure is out of range due to clogging
Fluidics system maintenance	Automated startup and shutdown with fluidic system cleaning. Automated user executable cleaning, debubble, rinse, unclog, priming, and decontamination
Sample recovery	Ability to recover sample (if available) after acquisition is complete

Data Management	
Software	NovoExpress
Parameters	Height and area for FSC, SSC and all fluorescent channels, width off trigger channel, time
Dynamic range	24 bit; 7.2 decades logarithmic scale
Fluorescence photodetector gain control	User adjustable, optimized, default gain setting for each individual channel
Compensation	Full inter-beam matrix, during or post acquisition
Output data files	FCS 3.0, FCS 3.1; CSV; batch PDF reports
Data report	Automatic report. Customizable report. Batch PDF report
Workstation	Intel core i5 processor. 8G RAM. 1T Hard drive. Small form factor. Optional higher configuration workstation
Monitor	23.8 inch flat panel (1,920 x 1,200 resolution)
Computer operating system	Microsoft Windows 10 Professional (64 bit) or new version with Microsoft Office pre-installed
Usage monitor	Comprehensive transaction log and system log
User management	Administrative creation of individual user accounts and user groups with privilege control. Configurable roles for individual users. User operation time tracking
Physical Parameters	
Dimension (W X D X H)	24.4 X 18.1 X 18.8 in (62 X 46 X 48 cm) 33.5 X 18.1 X 18.8 in (85 X 46 X 48 cm) with NovoSampler Q
Weight	95 lbs (43kg) 123 lbs (56kg) with NovoSampler Q
Operating temperature	5°C - 30°C
Operating humidity	Relative humidity 80% maximum
Power requirements	100-240 VAC, 50-60 Hz

Agilent NovoSampler Q

Agilent NovoSampler Q Specifications		
Physical parameters	Dimension (W X D X H)	16.9 X 11.0 X 11.8 in (43 X 28 X 30 cm)
	Weight	29.3 lbs (13.3 kg)
Installation	Installation method and calibration	Automated self-calibration after installation. No need to reconfigure fluidics tubing or connection. Automated self-calibration after installation
Performance and capability	Labware compatibility	Agilent 40 tube rack for 12 x 75 mm tube, 24-well, 48-well, 96-well (flat, U-, V-bottom), and 384-well microtiter plates
	Labware calibration	Automated bottom height mapping and calibration to accommodate different labware. Calibrated labware template can be saved for future use
	SIP collision detection	Automated fluidics system recovery after detection of SIP collision; automatic acquisition of the next sample after successful recovery
	Carryover	< 0.1 %
	Mix mode	Orbital shaking up to 3000 rpm. User definable mixing frequency, speed, acceleration, and duration
	Bar code reading	Integrated barcode reader. Automatically prompt barcode as specimen name in the software
	Fluidics system rinse	Automated post-sampling rinse for every sample. User definable extra rinse cycle and rinse frequency

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