

AD6020™ DISPENSING PLATFORM

Automated Low Volume Liquid Handling

The AD6020™ is a high throughput, multi-channel, automated liquid handling system. The AD6020™ combines BioDot's low volume dispensing technologies BioJet™, Ultra™ and Rainmaker™ with precision XYZ motion and a large, customizable nest to create a flexible liquid handling workstation. Nests for MTPs and slides are available, or the system can be customized for unique spotting surfaces and/or labware. Manufacturing throughput can be optimized through single/dual shuttle nest designs.

Precision Dispensing

Reliable, consistent, high throughput, non-contact printing from picoliters to microliters. Step-and-repeat and On-the-fly printing modes are available.

Rainmaker™ Dispenser

- Glass Capillary, Piezoelectric
- 25 pL to multiple nL
- Single drop or a high frequency burst

Ultra™ Dispenser

- PEEK Capillary, Piezoelectric
- 100 pL to 1.0 nL
- Single drop or a high frequency burst

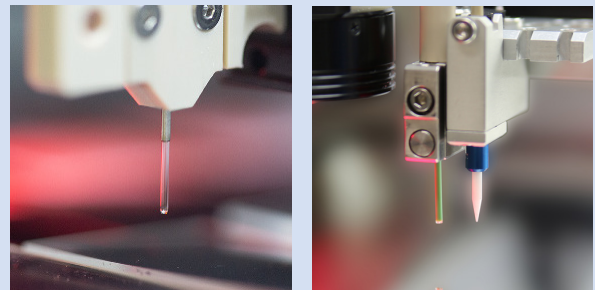
BioJet™ Dispenser

- Solenoid Valve
- 1.3 nL to microliters
- Single drop or burst of drops



Multiple Applications

- DNA, Cell, Protein Dispensing
- Microarrays
- Multiplex ELISAs
- Biosensors
- Microfluidics, Lab-on-a-chip
- Low Volume PCR
- Custom Applications



To learn more about the AD6020, scan this QR code with your smart device:



Unlimited Flexibility, High Throughput Solutions for Production and R&D

Platform

Dimensions (L x D x H)	147 cm x 118 cm x 157 cm
Dispense Area (L x D)	470 mm x 555 mm
Resolution	1 µm
Mechanical Precision	X, Y & Z-Axis typically < 5 µm
Weight	400 kg
Power Requirement	110/220 VAC; 50/60 Hz
Vacuum Requirement	Vacuum Station: -15 to -20 in Hg

Description

Motion	Linear Actuator XYZ Fixed nest plate
Reagent Modes	Aspirate and Dispense Bulk Dispense
Standard	Integrated tip Wash/Waste/Vac Station Humidity Control In-Line Degasser Chassis Link2020™ Software
Choice of Nest Includes: source station	MTP (20 plates) Glass Slide (100 slides) Vacuum/Magnetic Hold Down Custom User Defined
Vision Camera	Fiducial Recognition/Target Alignment (Standard) In-Flight Drop Volume Verification on Rainmaker Only Custom Drop Inspection
Options	Integration of custom modules Cooling and heating units Nest Shuttle (single or dual)

* Speed, material and reagent dependent

** Specifications subject to change without notice

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Dispensing

Printing Modes	Step and Repeat On-the-fly
Channel Capacity	BioJet™ - 1 to 16 Channels (>16 custom) Rainmaker™ - 1 to 16 Channels Ultra™ - 1 to 4 Channels Combinations: BioJet + Rainmaker
Rainmaker™	Piezoelectric, Glass Capillary <ul style="list-style-type: none"> • 25 pL - multiple nL* • 30 - 900 µm spot sizes • Multi-Drop Flexibility • Individual Drop Vol. Prec < 3% CV • 4.5 mm centers
Ultra™	Piezoelectric, PEEK Capillary <ul style="list-style-type: none"> • 100 pL - 1.0 nL* • Multi-Drop Flexibility • Individual Drop Vol. Prec < 5% CV • 9 mm centers
BioJet™	Solenoid, Drop-on-Demand <ul style="list-style-type: none"> • 2.6 nL - microliters • Multi-Drop Flexibility • Volume Precision < 5% CV • 9 mm centers

