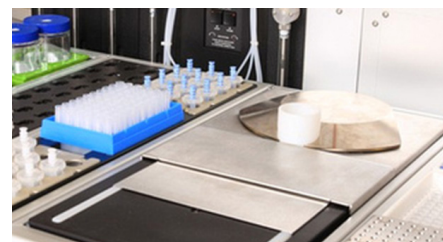


Balance with integrated camera

For Big Kahuna and Junior

Big Kahuna and Junior can handle those tedious weighing jobs with ease using a balance and integrated camera. The balance is used for measuring the mass of solids and liquids in vials and racks, while the integrated camera allows users to monitor objects inside the balance.



Specifications

5-place balance with integrated camera (PN: SG140776)

Description	Specification
Element unit (U) width	4 U (240 mm)
Maximum mass	<ul style="list-style-type: none"> • 111 g at 0.01 mg resolution • 220 g at 0.1 mg resolution
Average response time	<ul style="list-style-type: none"> • <22 s (<100 g) • <16 s (>100 g)
Repeatability: StDev (N = 200)	<ul style="list-style-type: none"> • 0.15 mg (112–200 g) • 0.08 mg (11–111 g) • 0.04 mg (0–10 g)
Repeatability: StDev (N = 10)	<ul style="list-style-type: none"> • 0.80 mg (at 200 g) • 0.40 mg (at 100 g) • 0.22 mg (at 10 g)
Eccentricity*	$e = (C_a \times m \times d_x) + (C_b \times m \times d_y)$ Where: <ul style="list-style-type: none"> • e = Measurement error (mg) • m = Measured mass (mg) • C_a = Constant (= 1.183×10^{-7}) • C_b = Constant (= -1.414×10^{-7}) • d_x = Offset in X direction (mm) • d_y = Offset in Y direction (mm)

* Constants C_a and C_b are based on results from one balance and may not apply to all balances. Balances should be calibrated individually for best results.

4-place balance with integrated camera (PN: SG140143)

Description	Specification
Element unit (U) width	4 U (240 mm)
Maximum mass	1200 g
Weighing range	999.9 g
Average response time	<ul style="list-style-type: none"> • <8 s (medium accuracy) • <15.5 s (high accuracy)
Repeatability: StDev (N = 200)	<ul style="list-style-type: none"> • 0.15 mg (<200 g) • 0.25 mg (200–300 g)
Repeatability: StDev (N = 10)	<ul style="list-style-type: none"> • 0.5 mg (<200 g) • 0.6 mg (200–300 g)
Eccentricity*	$e = (C_a \times m \times d_a) + (C_b \times m \times d_b)$ Where: <ul style="list-style-type: none"> • e = Measurement error (mg) • m = Measured mass (mg) • C_a = Constant (= -5.8×10^{-8}) • C_b = Constant (= 6.5×10^{-8}) • d_a = Offset in X direction (mm) • d_b = Offset in Y direction (mm)

* Constants C_a and C_b are based on results from one balance and may not apply to all balances. Balances should be calibrated individually for best results.

Plate handling

Description	Specification
Maximum footprint	Microtiter: 127.65 mm W x 85.47 mm D
Maximum height (standard plate nest assembly)	87 mm (nominal clearance above weigh pan)
Maximum height (low nest assembly)	105 mm (nominal clearance above weigh pan)
Minimum dry mass	0 g
Maximum mass	220 g

Vial handling

Description	Specification
Number of vial positions	2x: 1 mL, 2 mL, 4 mL, 8 mL 1x: 16 mL*, 20 mL, 40 mL**

* The 16 mL vial nest position is not stable when used with the "low nest" option (vial can tip over).

** The "low nest" option must be used to hold 40 mL vials on the "universal" vial nest. The standard "plate nest" assembly has a provision for 40 mL vials, but the "universal" nest must be removed.

Integrated camera

Description	Specification
Resolution	1032 pixels W x 779 pixels ~9.2 pixels/mm
Frame rate (frames per second)	21 fps at 100 Mbps
Field of view	85 mm
Depth of field	>30 mm
Recommended vials	See vial handling table above
Communication	Ethernet



Unchained Labs

6870 Koll Center Pkwy
Pleasanton, CA 94566
Phone: 1.925.587.9800
Toll-free: 1.800.815.6384
Email: info@unchainedlabs.com

© 2018 Unchained Labs. All rights reserved. Big Kahuna and Junior are trademarks and Unchained Labs is a registered trademark of Unchained Labs. All other brands or product names mentioned are trademarks owned by their respective organizations.