



Akura™ PLUS Hanging Drop System Technical Specifications



SPEC002, June 2023

Akura™ PLUS Hanging Drop System Specifications

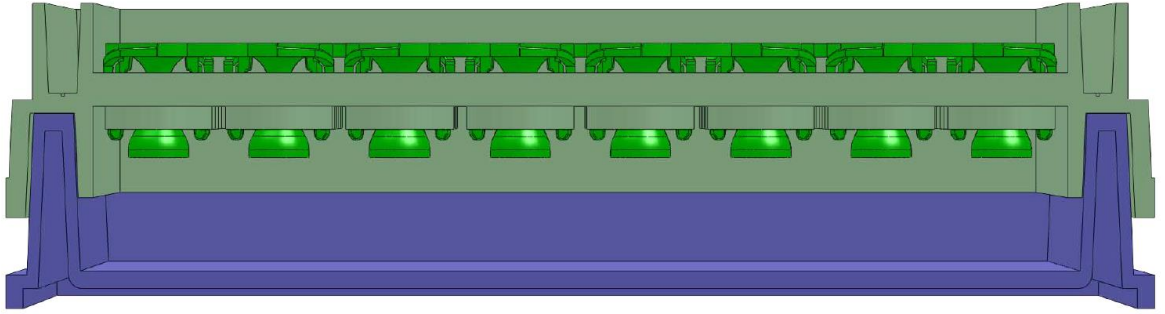
Article number:	CS-PF24
Product name:	Akura™ PLUS Hanging Drop System
Pack size:	10x Akura™ PLUS Plates and 10x Akura™ 96 Spheroid Microplates with lid, sterile
Plate & lid material:	Polystyrene for Akura™ PLUS Plate and Cyclo-olefin-polymer (COP) for Akura™ 96 Plate
Description:	<p>Hourglass shaped, clear 96-well Akura™ PLUS Plates. Plates feature SureDrop™ microtechnology, which allows for precise dispensing into the individual wells of the Akura™ PLUS Plate. At the outlet on the underside of the plate, hanging drops facilitate gravity-assisted formation of spheroids following incubation of seeded cells. The Akura™ PLUS Plate assembly consists of a bottom plate with reservoir, frame with 12x8 well strips, lid and a humidifier pad (Fig. 1).</p> <p>Akura™ 96 Spheroid Microplate surfaces have ultra-low attachment coated wells. The wells are hydrophilic, neutrally charged and promote long-term maintenance (> 4 weeks) of 3D cell cultures.</p>

Akura™ PLUS Plate Dimensions:

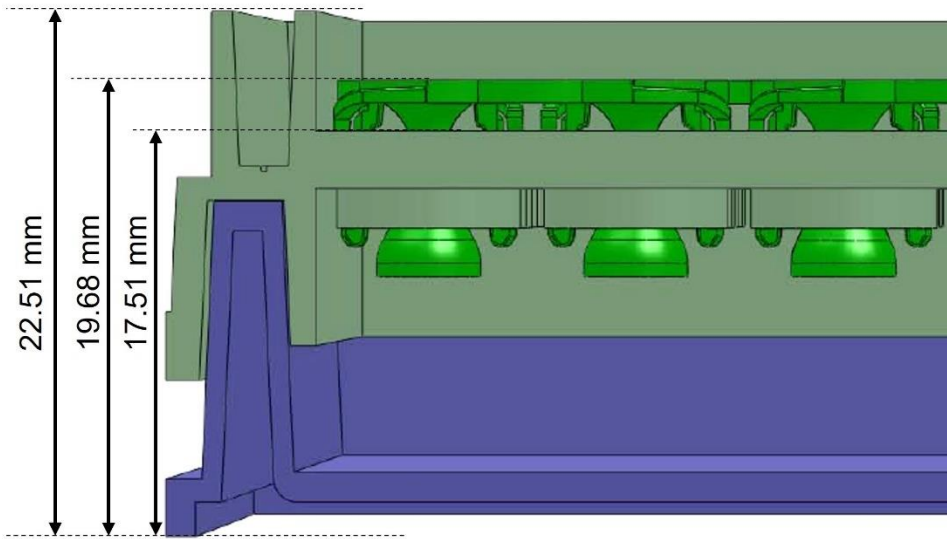
Plate length:	127.76 mm
Plate width:	85.48 mm
Height of plate:	22.51 mm
Well Diameter (top):	5.8 mm
Well-to-well distance:	9.0 mm
Working volume:	40 µl

Akura™ PLUS Hanging Drop System – Technical Specifications

A.



B.



C.

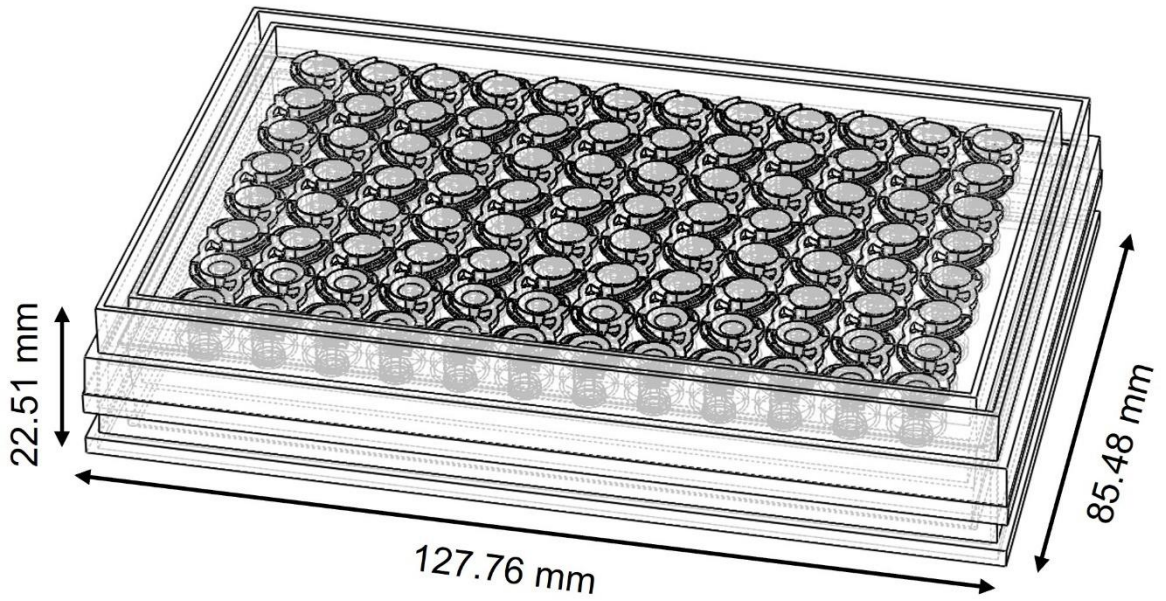


Figure 1: A. Side view of Akura™ PLUS Plate (Frame with 12x8-well strips) attached to bottom plate. B. Dimensions of Akura™ PLUS Plate. C. Angled view to see SureDrop™ technology.

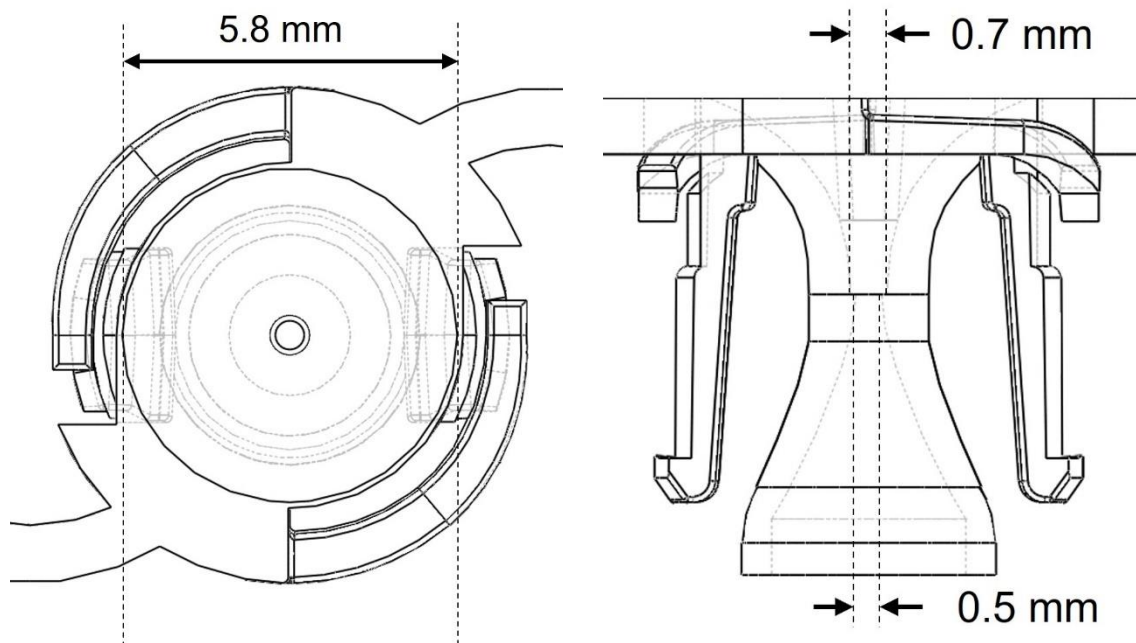


Figure 2: A. Top view well opening. B. Side view of hourglass shaped well.

Akura™ 96 Spheroid Microplate:

The Akura™ 96 plate format is compliant with standard microtiter-plate definitions as specified by the Society for Biomolecular Screening (SBS). The 96 wells are arranged in 8 rows and 12 columns, identified by alphanumeric labels (Figure 3A). Individual wells show a regular wide opening at the top narrowing down into a small cavity at the well bottom, with a flat optically clear base (Figure 3B), designed to accommodate microtissues of up to 1 mm in diameter. Plate technical specifications are provided as a reference for automation system programming (Figure 4, 5 and 6).

Plate Dimensions:

Plate length:	127.76 mm
Plate width:	85.48 mm
Height of plate:	14.35 mm
Height of plate with lid:	15.35 mm
Height of well:	12.75 mm
Skirt height:	0.4 mm
Diameter well opening:	6.70 mm
Diameter well bottom:	1 mm
Thickness well bottom:	0.8 mm
Working volume:	70-80 µl
Well-to-well distance:	9 mm
SureXchange™ tip position:	1.71 mm horizontal offset; 9.86 mm in z-height (see Fig. 6)
Plate and lid material:	COP (Cyclo-olefin-polymer), Polystyrene

A



B

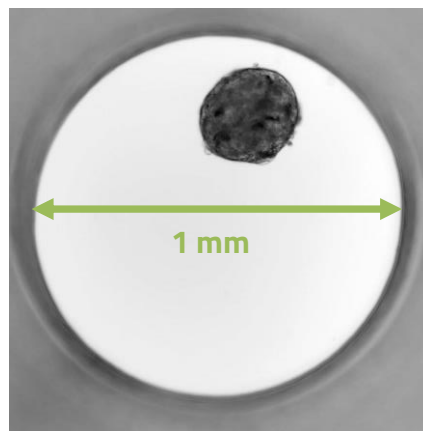


Figure 3: A. Angled view of Akura™ 96 Plate. B. Human liver microtissue in Akura™ 96 Plate. The well diameter is exactly 1 mm.

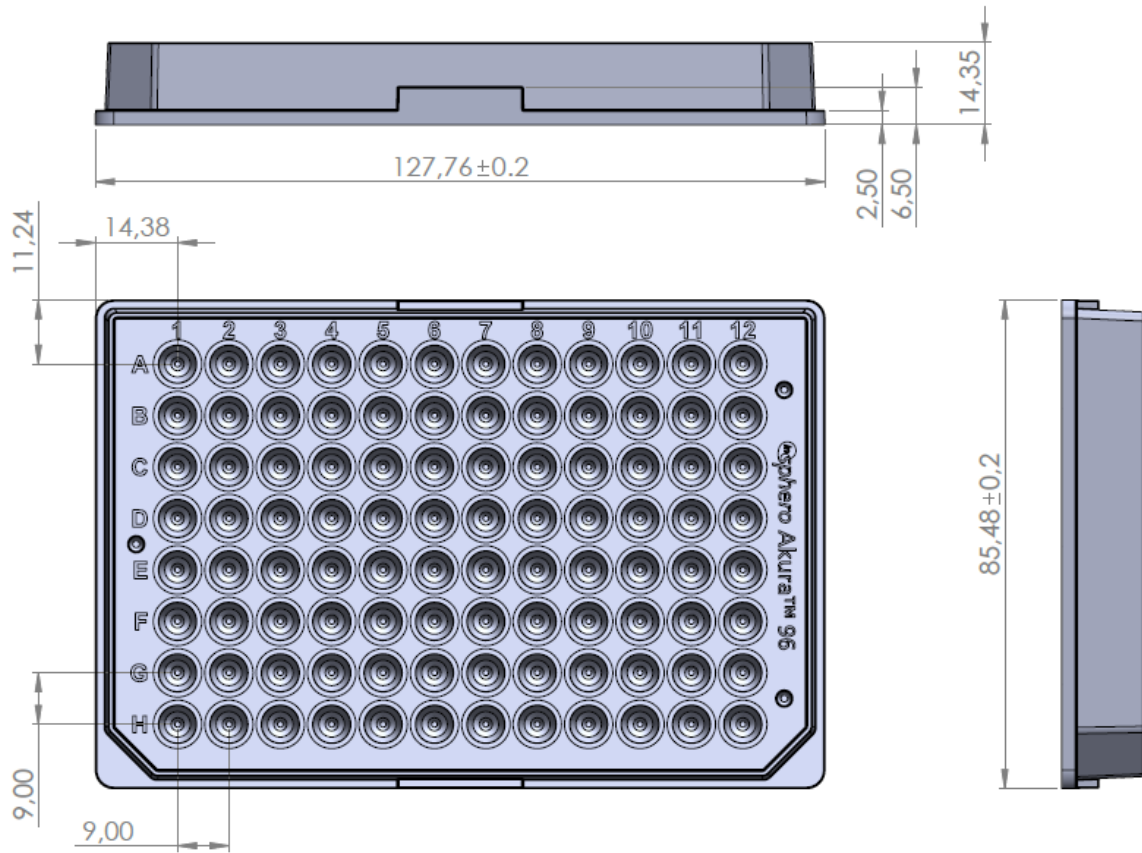


Figure 4: Technical specifications of Akura™ 96 Plate in mm.

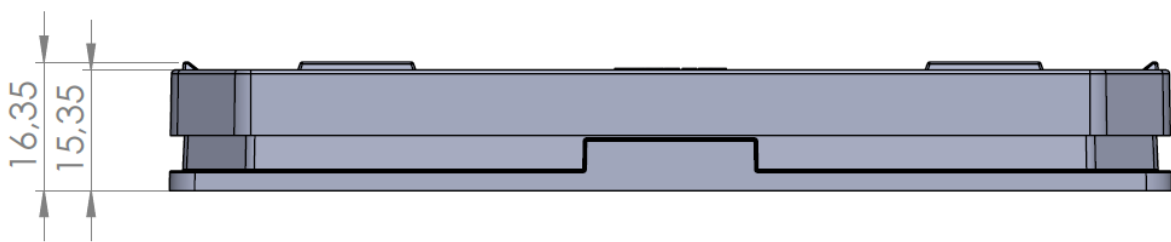


Figure 5: Height of well with lid in mm.

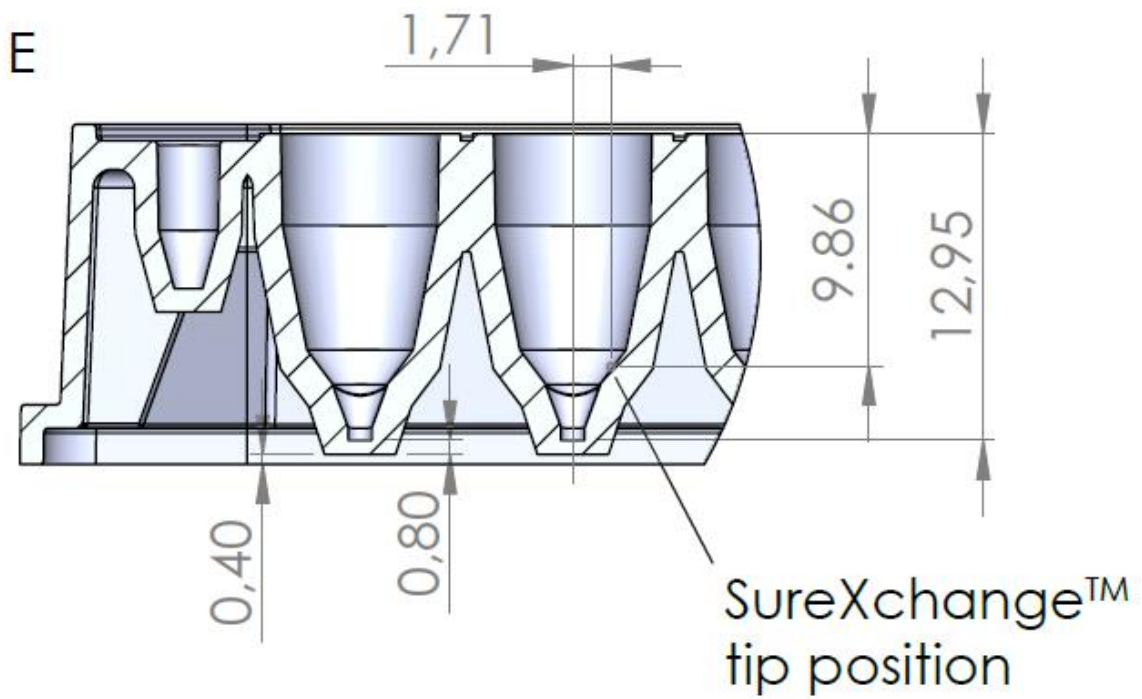
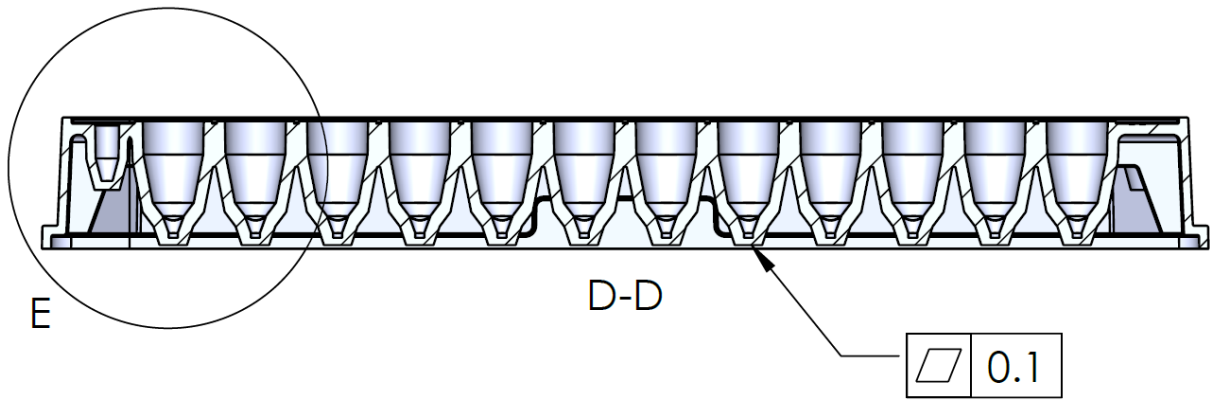


Figure 6: Height of well, skirt height, well bottom thickness and SureXchange™ tip position in mm.



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