

SPECIFICATIONS

# Visualize live cell function at scale with Pixel

Pixel™ enables high-resolution, multiplexed, real-time assessment of live-cell characteristics, providing deeper understanding of how chemical or genetic perturbations affect cell function. Pixel consists of plate and reader options to suit your application with different throughputs from low-throughput research to high-throughput screening.



Pixel Primo

Pixel Octo

### Product Highlights

<b>Benefits</b>	<ul style="list-style-type: none"> <li>Multiplexed live-cell readouts</li> <li>Single-cell resolution</li> <li>Scale without compromise</li> </ul>	<ul style="list-style-type: none"> <li>Seamless integration with other systems</li> <li>Built to scale with cloud services</li> </ul>
<b>Application Modules</b>	<ul style="list-style-type: none"> <li>Electrical imaging (impedance)</li> <li>Cardiac function (electrophysiology &amp; contractility)</li> </ul>	<ul style="list-style-type: none"> <li>Neural function (electrophysiology)</li> <li>Manipulation (patterning &amp; stimulation)</li> <li>Redox electrochemistry</li> </ul>
<b>Selected Applications</b>	<ul style="list-style-type: none"> <li>Endothelial &amp; epithelial biology</li> <li>Cancer cell biology</li> <li>Mechanism of action/toxicology</li> </ul>	<ul style="list-style-type: none"> <li>Stem cell biology</li> <li>Cardiac function</li> <li>Neuron function</li> </ul>

### Pixel System Specifications

Product	Pixel Primo	Pixel Octo
<b>Plate Capacity</b>	1 plate per reader	8 plates per reader
<b>Well Count per Plate</b>	96 or 384	96 or 384
<b>Operation</b>	In-incubator	Benchtop
<b>Environment Control</b>	Temperature	Temperature, CO <sub>2</sub> /O <sub>2</sub> , & humidity
<b>Dimensions (l x w x h)</b>	38.1 cm x 14.6 cm x 8.9 cm	60.0 cm x 32.5cm x 58.5 cm
<b>Data Storage</b>	CytoTronics-AWS cloud	CytoTronics-AWS cloud
<b>Connection Speed</b>	Ethernet 1 Gbps	Ethernet 1 Gbps
<b>Local Device Storage/Buffer</b>	512 Gb	4,096 Gb
<b>Acquisition Software</b>	Pixel Pro	Pixel Pro

## Pixel Microplate Specifications

Product	Pixel Plate 96	Pixel Plate 384
Well Count	96	384
Max Well Volume	≥300 µL	≥80 µL
Recording Area	≥3.5 mm × 3.5 mm	≥1.5 mm × 1.5 mm
Electrode Count	≥78,400 per well	≥14,400 per well
Electrode Pitch	12.5 µm	12.5 µm
Impedance Range	100 Hz - 100 kHz	100 Hz - 100 kHz
Electrophysiology Channels	144	36
Stimulation Electrodes	Arbitrary electrode groups (up to 4 programmable channels)	Arbitrary electrode groups (up to 4 programmable channels)
Sampling Rate	10 - 100 kHz	10 - 100 kHz
Cardiac Contractility	1 kHz (1 ms response), concurrent with electrophysiology	1 kHz (1 ms response), concurrent with electrophysiology
Electrochemistry	0.0 V - 2.0 V/10 pA - 1 µA	0.0 V - 2.0 V/10 pA - 1 µA
Electrochemistry Electrodes	Arbitrary electrode groups (up to 4 programmable channels)	Arbitrary electrode groups (up to 4 programmable channels)



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