HyperCAM Delta

The first **24-well HD-MEA platform** capable of simultaneous recording from all wells and electrodes, designed for future upgrades and enhanced capabilities.



www.3brain.com



Key Features & Benefits

24 well HD-MEA upgradable to 96 well

- To fit your expanding research needs

Simultaneous recording of ALL wells, and ALL electrodes

- To enable fast, accurate data collection from every experiment

Integrated environmental chamber

- To ensure optimal conditions for reliable, reproducible results

High-throughput research

- To accelerate your research with enhanced scalability

User-friendly analysis tools

- To save you time and to allow you to create useful data with ease

Seamless integration with automation systems

- To enhance your labs' efficiency



HyperCAM Delta 3

Why the HyperCAM Delta

The HyperCAM Delta coupled with CorePlate[™] offers advantages in two critical areas:

High-density, multi well capabilities.

The high-density properties reduce the number of intra-plate replicates needed to achieve stable results compared to standard MEA platforms, increasing data output from single experiments and lowering overall costs.

Simultaneous recording from ALL wells and ALL electrodes.

The first 24-well HD-MEA system with 1024 electrodes per well, capable of recording from ALL wells and ALL electrodes simultaneously, saving hours of experimental preparation and recording compared to other multi well HD-MEA systems.

Applications

The HyperCAM Delta is designed for a wide range of applications.

Record from:

- Primary cultures
- HiPSC-derived cultures

To perform:

- Toxicology assays
- Disease model characterization

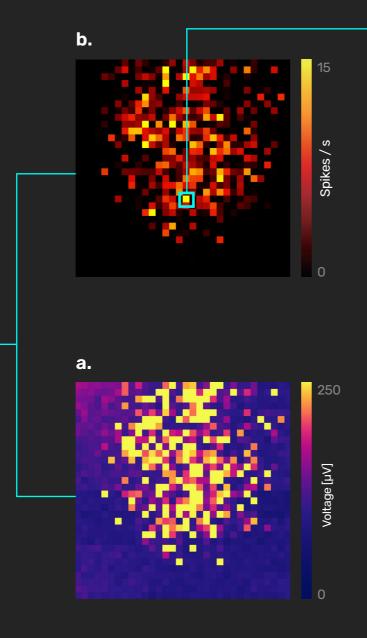


- Spheroids
- Organoids

- Drug screening
- Safety pharmacology

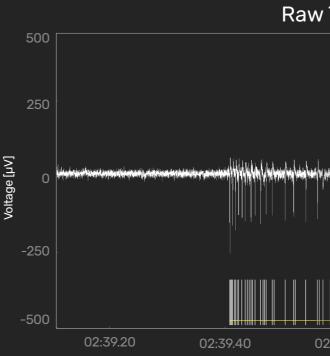
Data examples

Visualize network activity instantly from ALL wells and ALL electrodes.

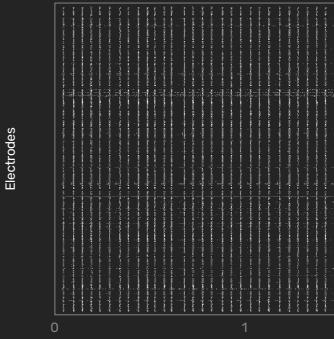




Rat Hippocampal Culture 17 DIV showing a. Raw signal map (change in µV in a 100ms window). b. Activity map showing Mean Firing Rate (spikes / s),



Time [mm:ss.ff] Raw signal trace showing burst activity, with spikes identified below (white vertical lines) and a detected burst (horizontal yellow line).



Raster Plot showing synchronized activity throughout a Rat Hippocampal Culture at 17 DIV.

HyperCAM Delta 7

Time [Min]

	والالبان والمستعمل المعكمة فتعاصينات متعلد ومعتميهم والمترافق فلترا	
	55. 	
ار المحمد فروغ شد بعد مسید فردهای در است. محمد محمد باری فرد مارد بر مارد بر از از از محمد محمد بارد بر از از ا ا	میں اور <u>میں میں میں میں میں میں میں میں میں اور میں اور میں میں میں میں میں میں میں میں میں میں</u>	
وتحمدها فيعاقب أحمالك أناستان المتكر متقدما والمعارفان والمراجعات والرا	وللمعارض والمستعمر والمستعمر والمستعمر والمستعمر والمستعمر وأعلاله والمستعمر وال	and the second se
and a standard standard and a standard and the standard	1. A statistical property (see the cost of the statistical property of the statisti	And the state of t
e se se de la companie	is subjectional mean interest of the second field of the	and the second
	ž, br	
Accession when the start of the second se	a na filipana na inanana ina ang mininanananana ana ng hijanganan. A sakata	and a second second second second second
i essentine — i per essent essent essentine essentin pictule de muneri	ersellin in traderica nel excerption in test resultant projection can available of the second s	the state of the second s
	ar de constante sera sera sera sera constante a constante a constante sera sera sera sera sera sera sera ser	and the second
generation and an an and the supervision of the subscription of th	an linear states and an and an and an and an and a state of the states o	er viteration actual second vitera
ومعيشي شيشي فيستحد ومستحد ومرشي فالمعالم والمعالم والمعامل والمعامل والمعامل والمعالية والمعالم	a a tribuctoria de la companya de la	
医疗疗 医结核 网络加加斯特尔 化合物 医白色 医外外的 医外外的 医外的 计算法 化合合物 化合合物 化合合物 化合合物 化合合物 化合合物 化合物 化合物 化	ی او ا <u>ست. میکر</u> بر وجود روی چر از میک توریخ میکر میکر روی ورد. ا	and and the state of the state
やららの主人の行きないので、「「「」」の「「」」のないので、「」	a - data atazon az si nijir datazon en dian kendarana za zanazo az na en L	or the same office and one of the Dopped
Construction of the Principal Activity of the	in the surface measure concerns and the re-	NAMES OF STREET, IN INCOME. IN AN ADDRESS OF STREET, S
	a se imposed a service se proprieta repretar repretar proprieta a proprieta a constructiva da constructiva da c	ander de la constant
المعادية المعارضة المعارضة بالمعالمين المعارضة المعارضة المعارضة المعارضة المعارضة المعارضة المعارضة المعارضة ا المعارضة المعارضة الم	and the second	a environmente autorean di surra e analizza anarañ e anerañ.
والمحافظة والمحافظة والمتقامين كالمتقام والمتقام والمتعارية والمراجع والمستعملية	an in fair and an	
derved is the particular is such transfer dereven in dark which is a	te en ligter en dieter en oerent te mie wet voere oeren 2000.	erekienskererssensessign i som
يانية المركبين المركب المركبين	is the first and and an electric set and a state of the set of the	and a model was made and a start of the second s
وللمستع لكف ألهمان بالمستعد وشروعتهم ومرابع والمشرف والمعارفة	ويتعلقهم فالمشتقين فللمستعمل والمستعمل والمشارك وللمتعال	and the discount of the second second second
an a static particum to the product of the state of the	as yr breu ol a san an en an i asrasan an <mark>ghl</mark> i she draehan ar man gar	າມແມ່ນເຮົາແຮງແຮງແຮງແຮງແຮງແຮງ
		the line of some the line works on the source of the line of the source
والمستركبة والمتعادية والمستعاد وستعاد والمتركب والمراجع والمسترك والم والمسترك والمسترك والمست والمسترك والمسترك والمست والمسترك والمست	ويتركب والمراجع فالمعادية والمناطقة والمناطقة والمناطق والمنافعة والمناطقة والم	e demonstrate a conservation de la serva
والمعاطية والمستعملين والمستعم ومستعما ومنامع والمستعمل ومشارعتها والمستعمل وال	a se de la comercia de ser en de la comercia de la	
· ·		



02:39.60

02:39.80

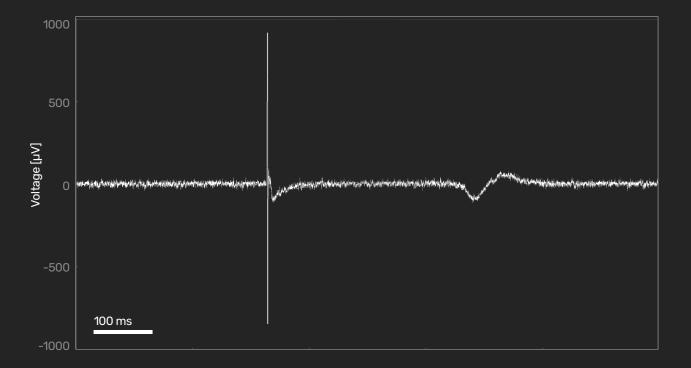
02:40.00

Raw Traces

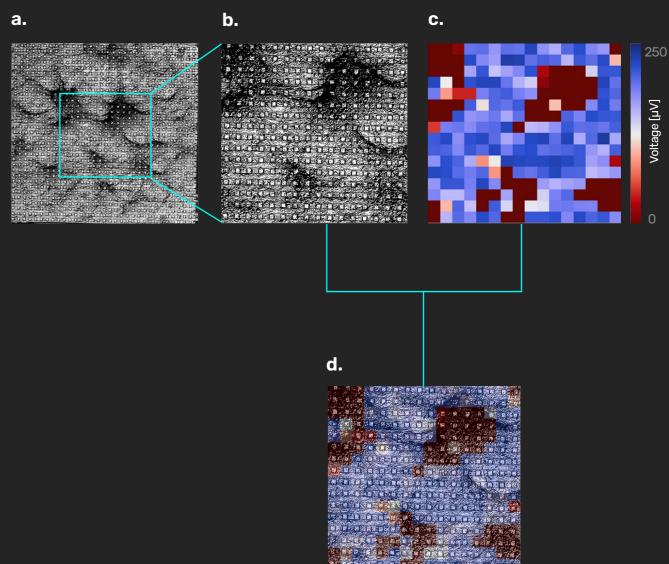
Software

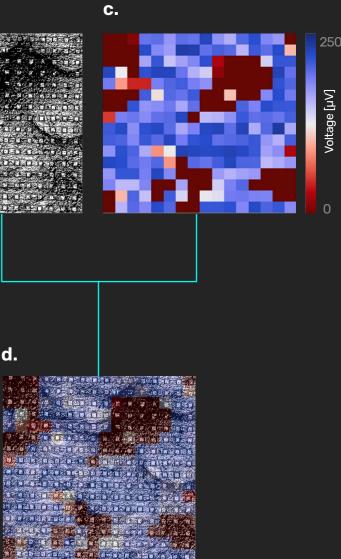
Our easy-to-use interface supports advanced analysis with over 100 metrics for:

- Neuronal activity: Comprehensive metrics for in-depth analysis.
- Neuronal network activity: Includes advanced tools such as Center of Activity Trajectory (CAT) and Connectivity Mapping.
- Cardiac Function: Detailed metrics for analyzing cardiac activity.



Raw trace from a cardiomyocyte culture DIV9 displaying a clear initial QRS complex followed by a T wave.





a. Rat Hippocampal Culture at 11 DIV over CorePlate[™]. b. Magnification of a central area of the culture. **c.** Activity map measured by changes in μ V in a 100ms window. **d.** Overlay of the activity map over the culture image.

Technical Specifications



HyperCAM Delta:

Dimensions: 530 x 290 x 350mm $(W \times D \times H)$

Environmental Chamber: Built-in

Want to know more?

Visit our website to find out about our other CorePlate™ supporting single & multi well platforms.

24-Well CorePlate[™]:

Number of Electrodes per Plate: 24,576 Number of Electrodes per Well: 1,024

Sampling Frequency: 10 kHz

Electrode Size: 20 x 20µm

Electrode Pitch: 50µm

Active Area Dimensions: 1.57mm x 1.57mm

Well Volume: ~1mL





Schedule a meeting with one of our scientists to learn more about our technology.



HyperCAM Delta 11



Huobstrasse 16 8808 Pfäffikon SZ, Switzerland +41 813227086

