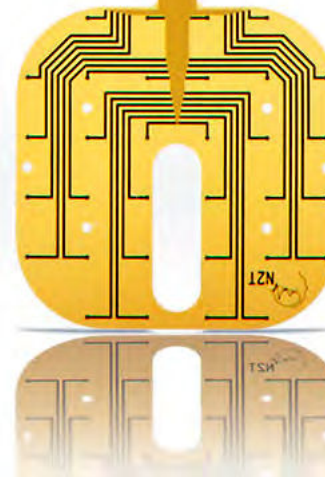
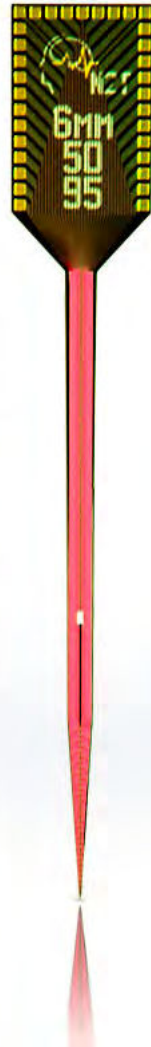




# NeuroNexus

2023 EEG  
Probe Designs

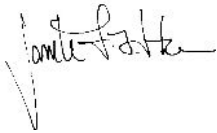


# Welcome!

NeuroNexus is driven to empower discovery in the life sciences. Our focus and passion are to create high-performance interfaces to precisely targeted circuits in the central, autonomic, and peripheral nervous systems and end organs such as the heart, and our technologies and solutions extend from the tissue interface to the user interface. They include an extensive catalog of industry-leading microelectrode arrays, precise and reliable instrumentation systems, and a highly performant, innovative software platform for acquiring, visualizing, and analyzing complex data streams and data sets. Our devices, systems, and software are professionally engineered and manufactured so that we can provide high-quality and reliable solutions as we partner with our customers to help accelerate their scientific research. Visit [neuronexus.com](http://neuronexus.com) to view our entire line of products and services.

## **Thank you for your interest in NeuroNexus microelectrode arrays!**

We offer the largest and most diverse set of high-quality, thin-film multichannel array designs available in the field. Our arrays are designed, fabricated and assembled by a team of neural engineers, scientists and technicians with more than 200 years of collective experience in thin-film array design, manufacturing and application. For nearly two decades, NeuroNexus has continued to build upon and refine our catalog using input from our customers. Throughout the years we have designed nearly 600 unique rigid and flexible arrays for use in recording and stimulation of brain, spinal cord, peripheral nerve and cardiac tissue in species ranging from insects to non-human primates. NeuroNexus strives to meet the needs of all our customers; if you have a unique need not found in this catalog, please contact us as our technology platforms offer virtually unlimited design space to customize a design to suit your specific experimental needs. We look forward to working with you!


A handwritten signature in black ink, appearing to read "Jamille F. Hetke". The signature is written in a cursive style with a large initial "J" and "H".

**Jamille F. Hetke, M.S.**

**VP Engineering**

**Neural Interface Technology, MEMS Design and Fabrication**

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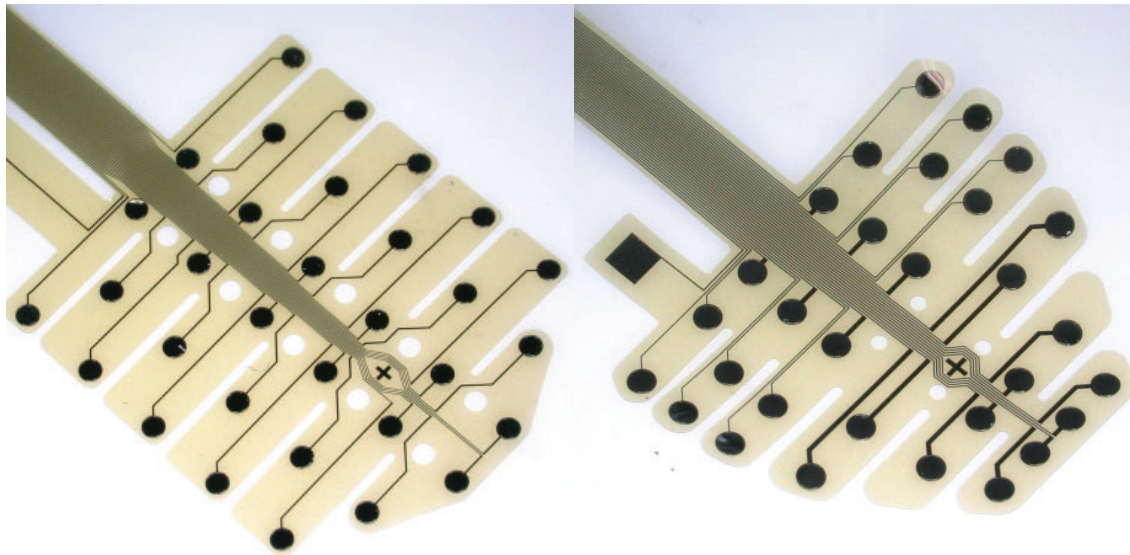
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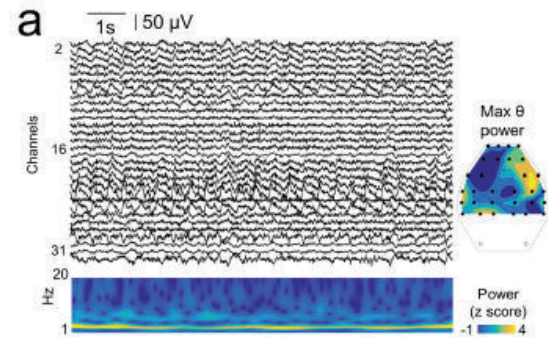


# EEG



NeuroNexus **EEG probes** are ultra-flexible surface grids optimized for electroencephalography.

- **Flexible and Durable** – Fabricated with our polymer MEMS technology, our EEG probes easily conform to the skull. Use a drop of water to adhere the probe to the skull.
- **Stabl** – High quality EEG recordings have been obtained over months.
- **Optimized array designs** – Select from a variety of EEG array designs featuring different recording site placements, for different applications or animal models.

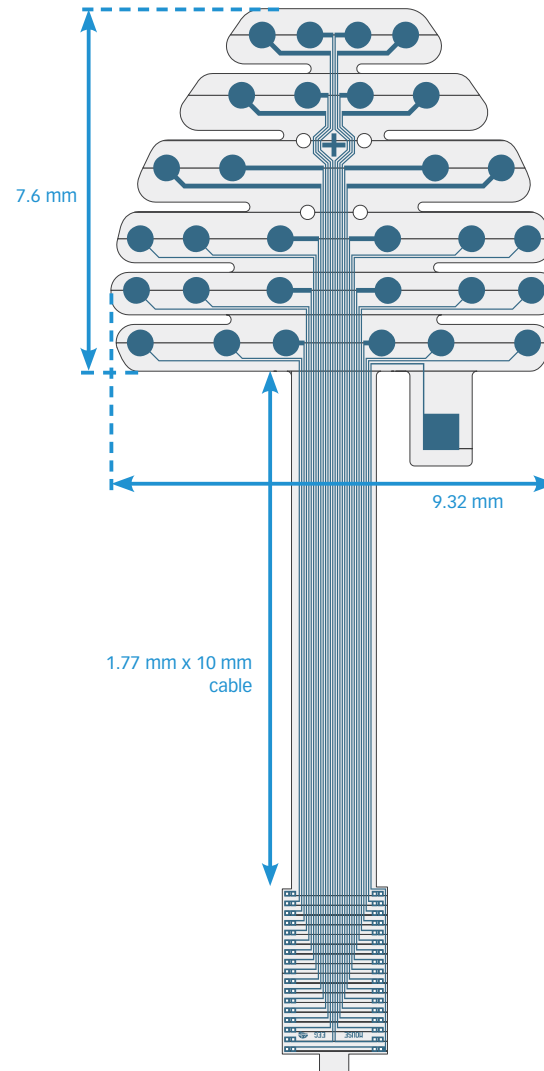
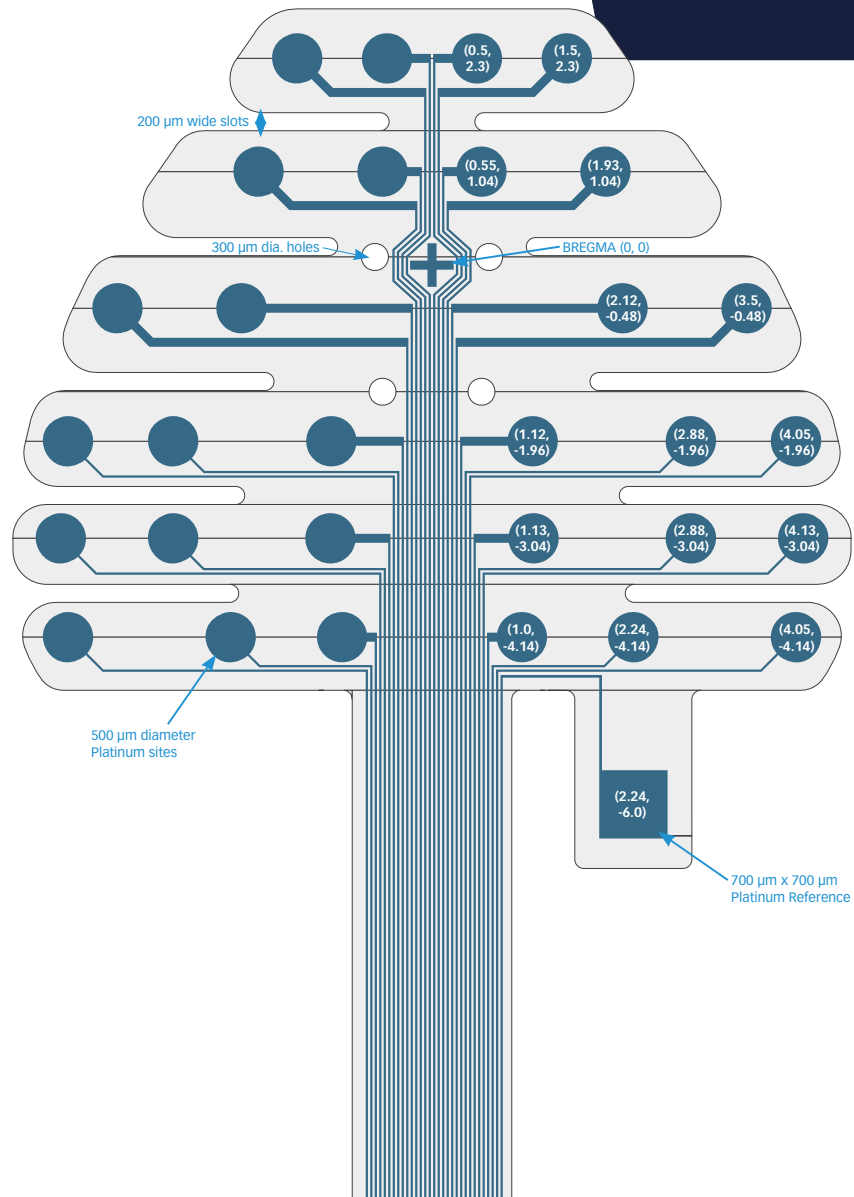


ABOVE: EEG grids allow assessment natural brain rhythms such as exploratory and REM theta (4-12 Hz) during periods free of epileptiform activities. Image courtesy of Dr. Liset de la Prida, Instituto Cajal - CSIC. <https://hippo-circuitlab.com/2017/03/eeg-grids/>

## SPECIFICATIONS

<b>Substrate Material</b>	Polyimide
<b>Electrode Site Material</b>	Platinum
<b>Array Thickness</b>	15 µm
<b>Cable Length</b>	10 mm
<b>Channel Count</b>	30 (Mouse EEG), 32 (all other designs). Custom options available.
<b>Available Packages</b>	H32, HC32, HZ32 X3-H32

# Mouse EEG



available packages

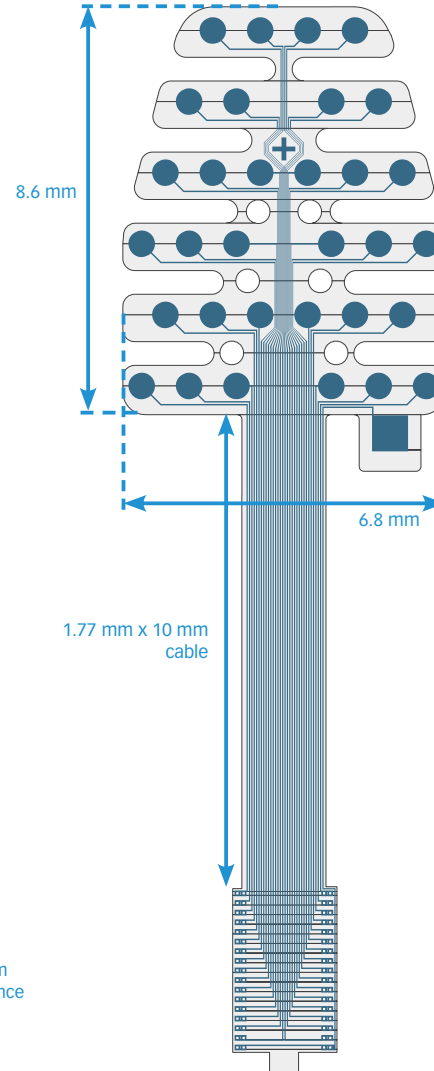
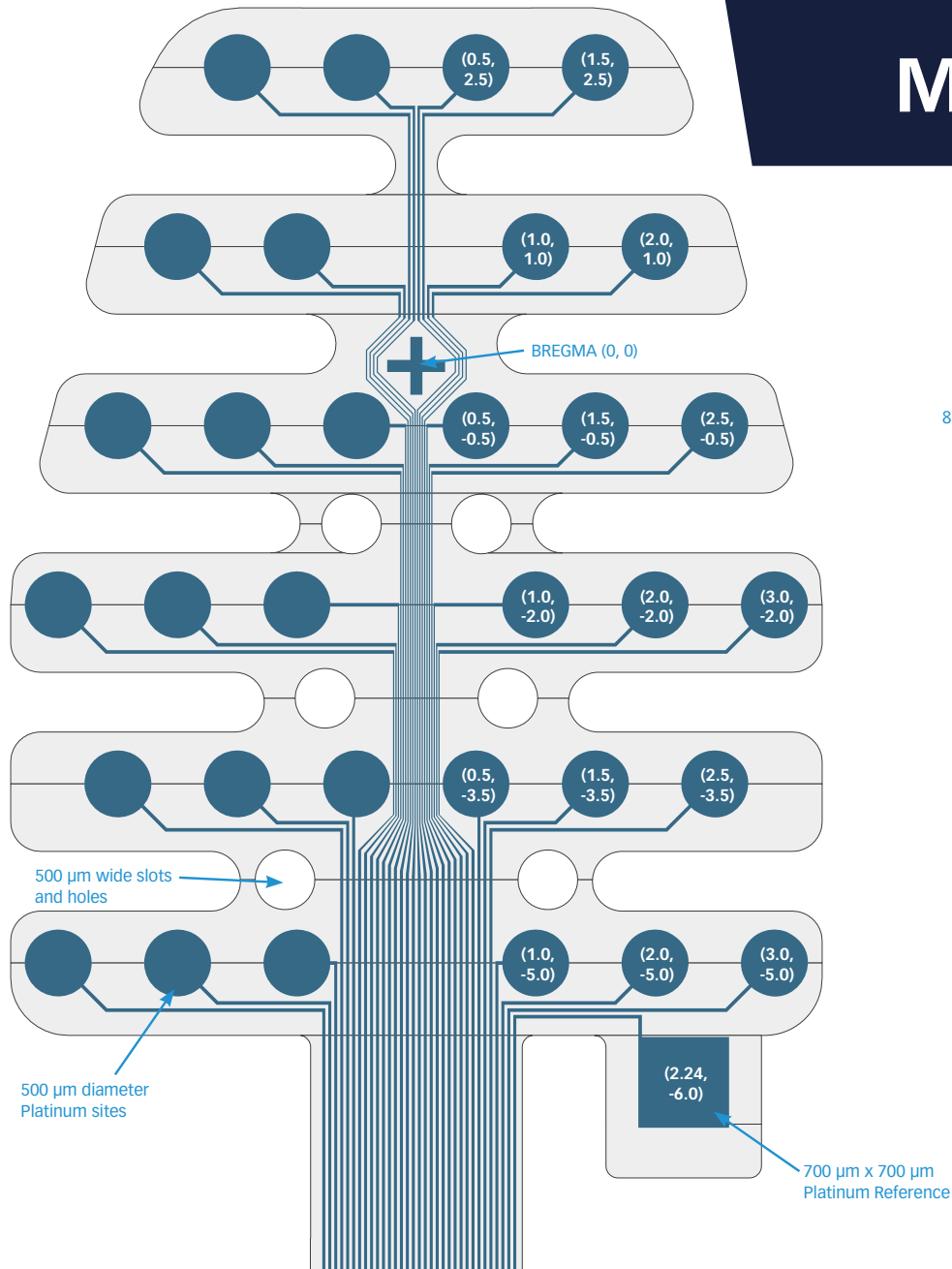
## CHRONIC

H32  
HC32  
HZ32  
X3-H32

thickness

15  $\mu\text{m}$

# Mouse EEG (Reticular)



available packages

## CHRONIC

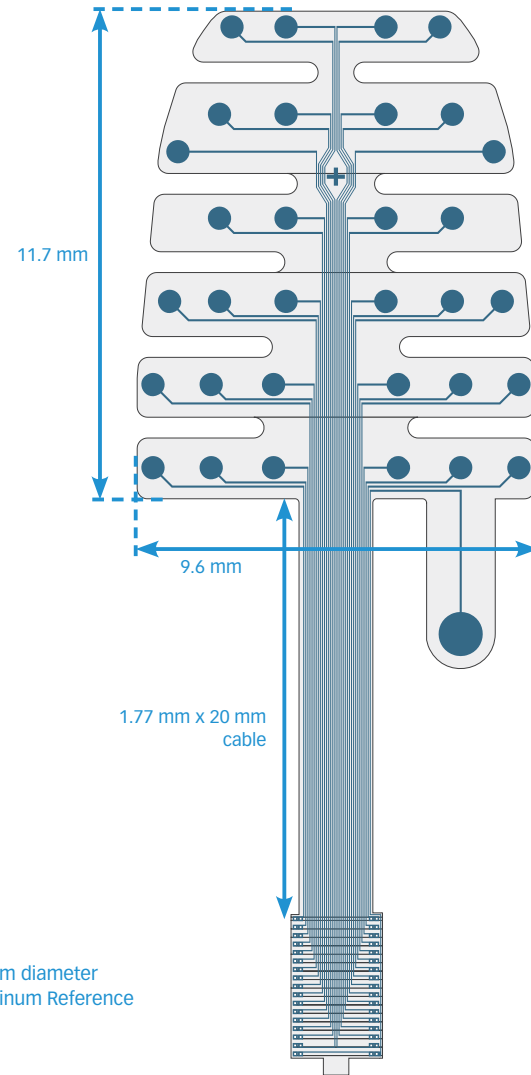
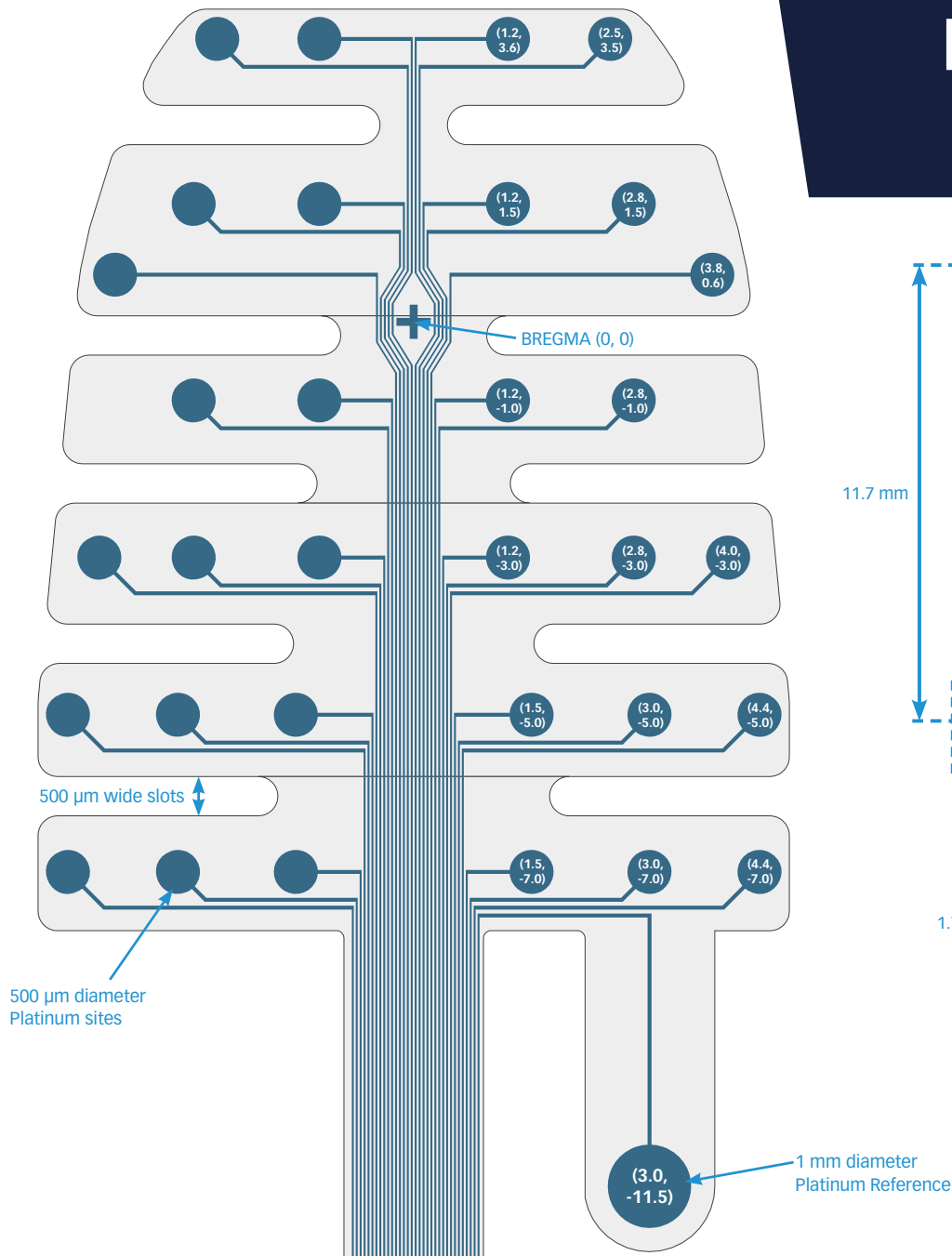
H32  
HC32  
HZ32  
X3-H32

thickness

15  $\mu\text{m}$

# Rat EEG (Functional)

Designed in collaboration with Dr. Anthony Hudetz



available packages

**CHRONIC**

H32  
HC32  
HZ32  
X3-H32

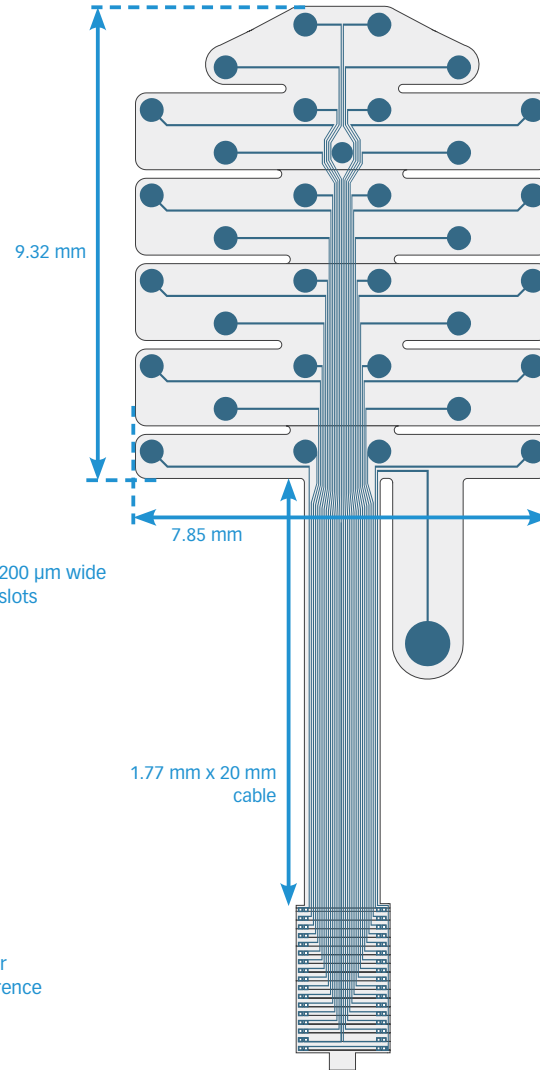
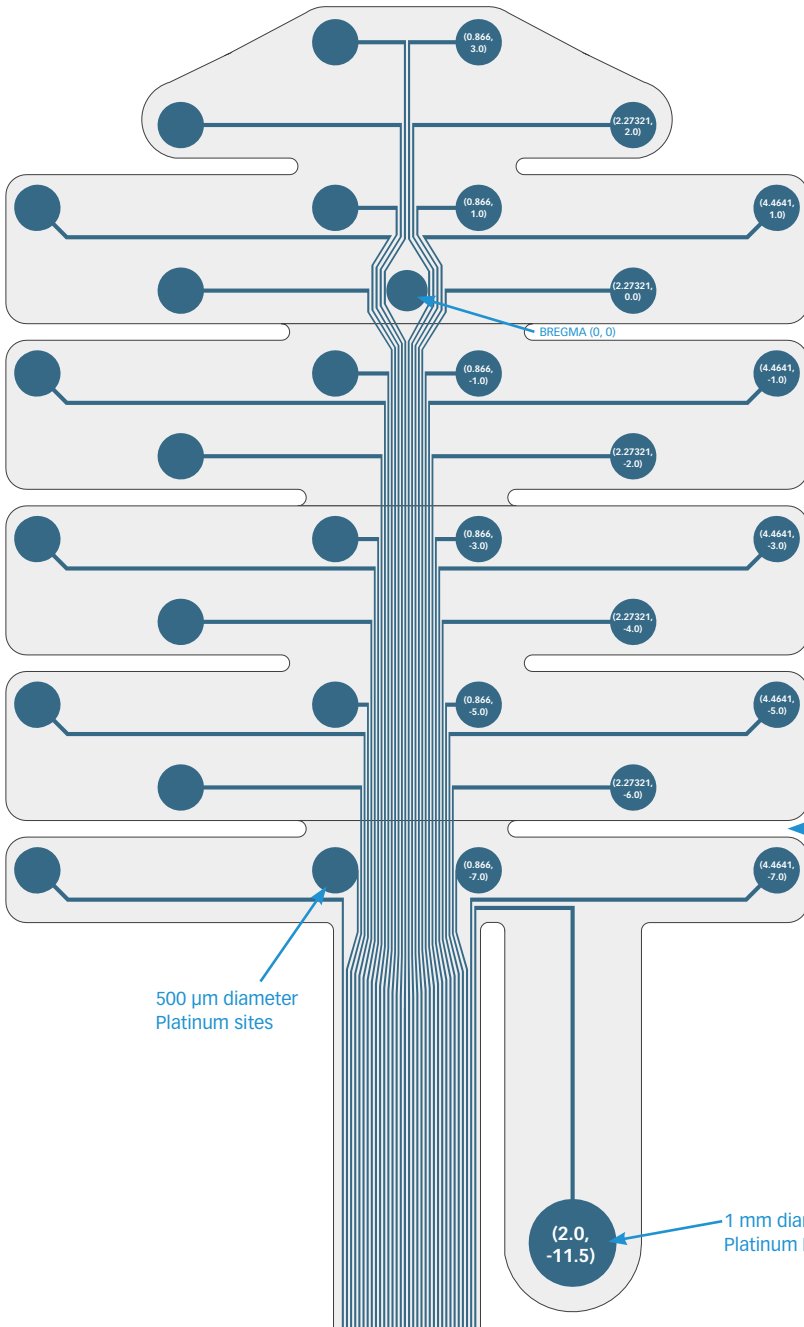
thickness

15 μm



# Rat EEG (Triangular)

Designed in collaboration with Dr. Anthony Hudetz



available packages

**CHRONIC**

- H32
- HC32
- HZ32
- X3-H32

thickness

15 μm