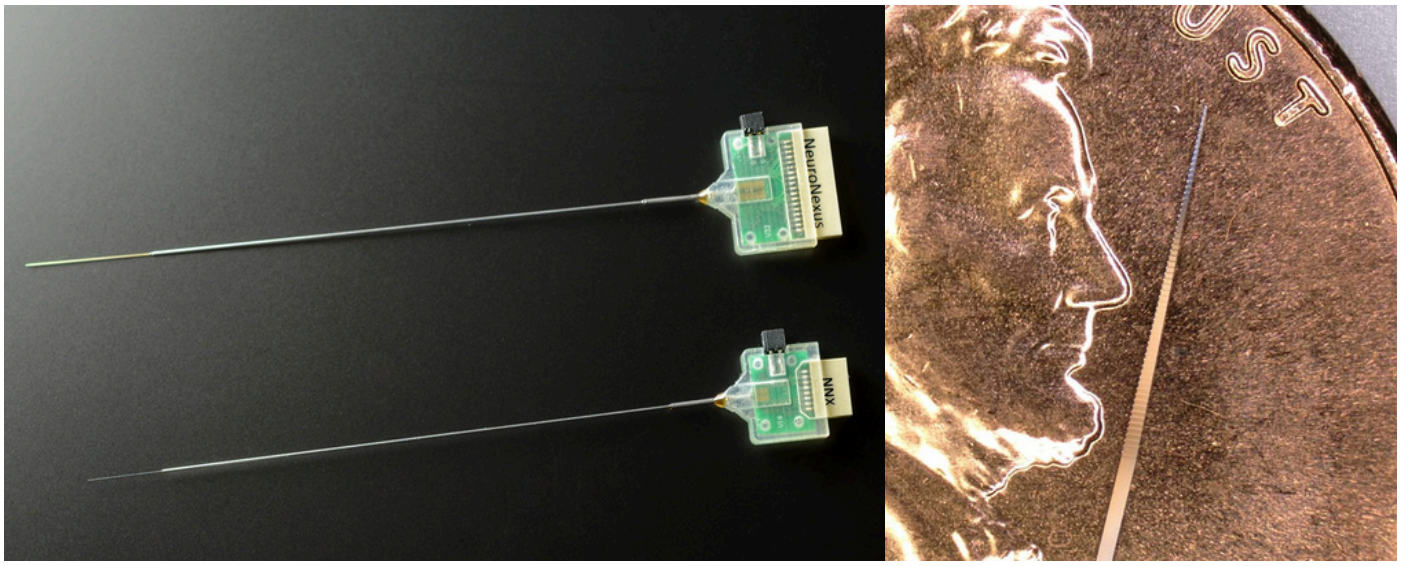
NeuroNexus
neuronexus.com

Vector Array™



The **Vector Array™** is optimized for deep brain applications, utilizing NeuroNexus microelectrode technology to record and stimulate in high resolution in hard-to-reach structures. Vector Arrays™ are compatible with NaN and Narishige drives.

- **Reach deep brain structures** – The Vector Array™ comes in implantable lengths up to 110 mm to reach deep structures in large animal models.
- **High Resolution** – Record and/or stimulate with 16, 32, or 64 channels. The Vector Array™ features the same precise electrode geometry and contact density as other NeuroNexus microelectrode arrays.
- **Versatile** – Configure the Vector Array™ for acute or chronic applications.
- **Optogenetics-Compatible** – An optical fiber can be mounted on the Vector Array™ for optogenetics applications.
- **Options, options** – Specify a laminar array design, or utilize multiple representation techniques with a Poly2 contact layout. Alternatively, design your own custom Vector Array™ .
- **Robust Hybrid assembly** – The Vector Array™ combines a high-resolution silicon multichannel electrode array with a rigid stainless steel support body. This arrangement provides strength where needed, while minimizing tissue damage at the recording sites.
- **Inexpensive** – With a low cost per use, the Vector Array™ increases your data yield while saving you money.
- **Durable** – With proper cleaning and maintenance, a single Vector Array™ can be expected to provide excellent recording quality across repeated experiments.

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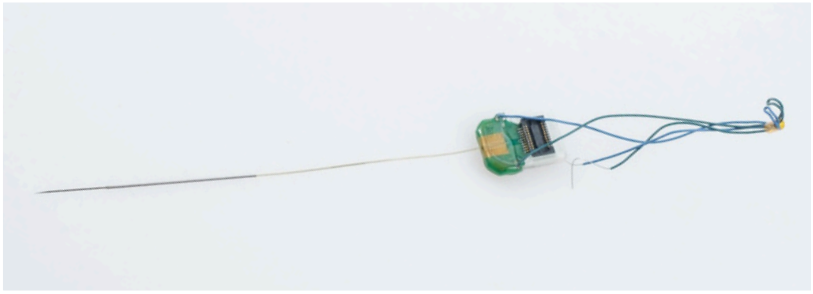
Chronic Vector Array™



The **Chronic Vector Array™** is a design enabling access to deep brain structures (> 10 mm deep) for chronic applications.

Chronic Vector Arrays™ can be configured with implantable lengths from 30 - 55 mm. Please factor in implantation hard- ware (clamps, etc.) when configuring your probe.

Opto Vector Array™

FLAT FIBER OPTIONS (ID / OD / NA)

50 µm/62.5 µm, 0.22 NA (etched)
105 µm/125 µm, 0.22 NA (standard)
200 µm/220 µm, 0.22 NA
200 µm/225 µm, 0.39 NA
400 µm/425 µm, 0.39 NA
50 µm/62.5 µm, 0.66 NA
105 µm/125 µm, 0.66 NA
200 µm/220 µm, 0.66 NA

Specifications

Channel Count	16, 32, 64
Total Length	70 mm or 110 mm
Silicon Electrode Length	10 mm
Silicon Electrode Width	20 µm min (Edge design), 75 µm min (Poly2 design), 175 µm max
Silicon Electrode Thickness	50 µm
Site Area	177 µm²
Site Coverage	375 µm - 6300 µm, depending on design
Electrode Site Material	Iridium
Site Target	Single Unit or LFP/ Stimulation
Support Body Diameter	315 µm OD (16-channels) 400 µm OD (32- and 64-channels)
Available Packages	V16, V32, V64, VC16, VC32, VC64, VZ16, VZ32, VZC16, VZC32, OV16, OV32

Chambers and Drives

Various chambers and drives are available for the Vector Array, including the **NaN** and **Narishige** drives. Please contact your NeuroNexus sales representative for more information.

Left: pDrive Chronic Primate Microdrive