



Diagnostic
B I O C H I P S

Electrophysiology Reimagined

2023 Catalog

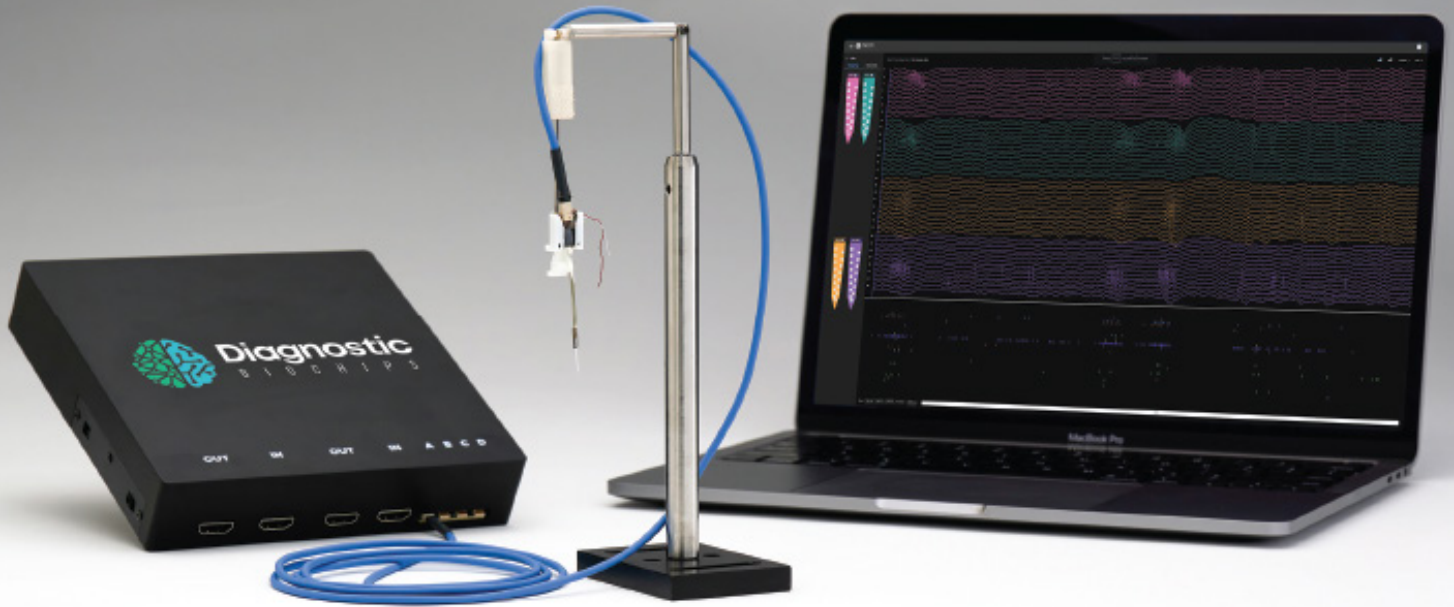
SILICON & JANUS PROBES • DEEP ARRAY • MICRO-ECOG • PLUG & PLAY RECORDING SYSTEM



TRUSTED PARTNER IN RESEARCH

Our focus is on our customers – we do this by delivering consistently high-quality products, supporting industry standards, being innovators in the field of electrophysiology, and supporting you every step of the way.

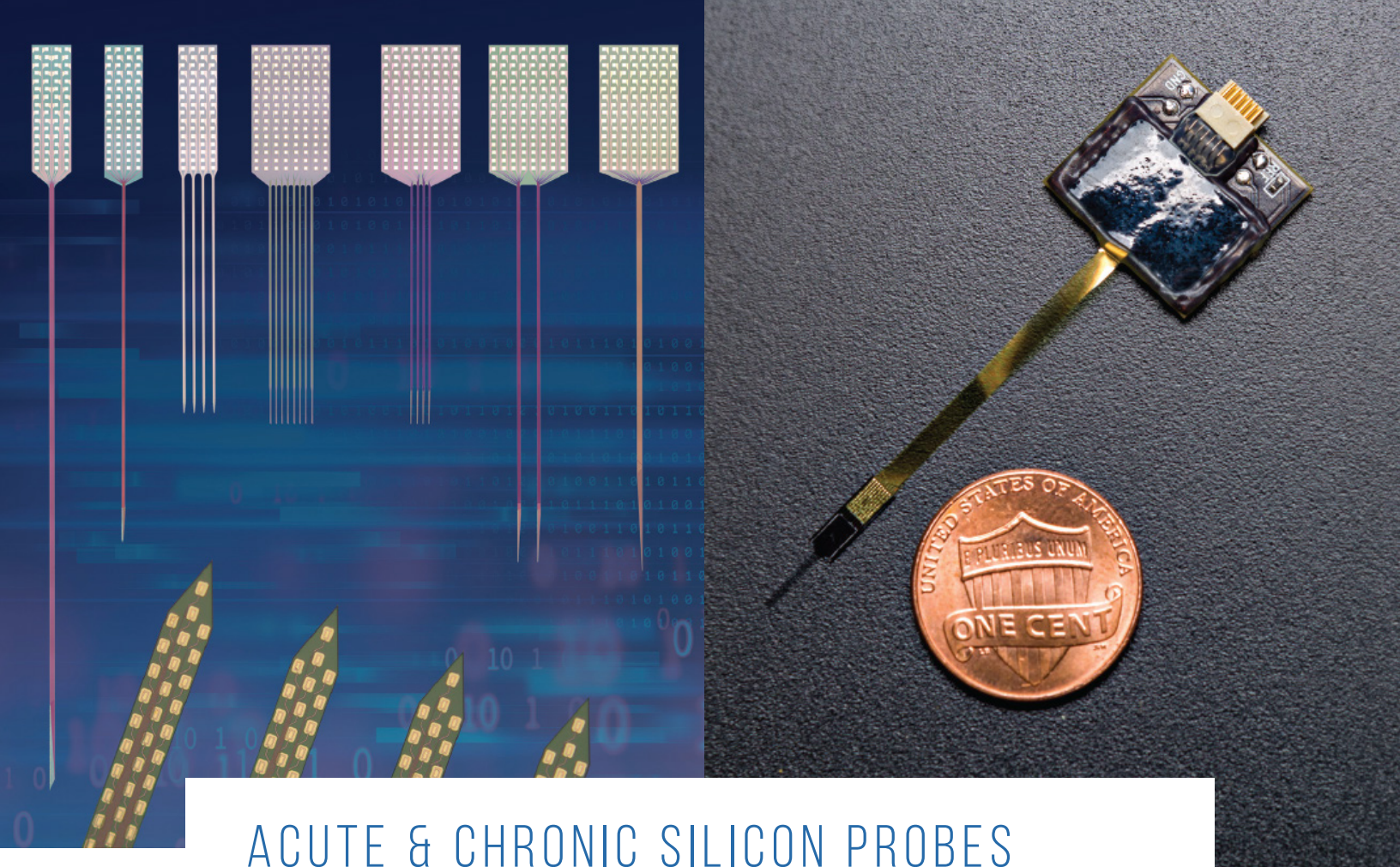
- World class team of engineering and neuroscience experts.
- Readily available product inventory that meets our customers' needs and timelines.
- Invested in advancing the research landscape of brain-related diseases.



PLUG & PLAY RECORDING SYSTEM

DBC provides turnkey systems for electrophysiology, with best-in-class probes, high channel count recording systems, insertion tools, probe holders, and software. We pride ourselves on engineering integrated and easy-to-use systems, with no tinkering required.

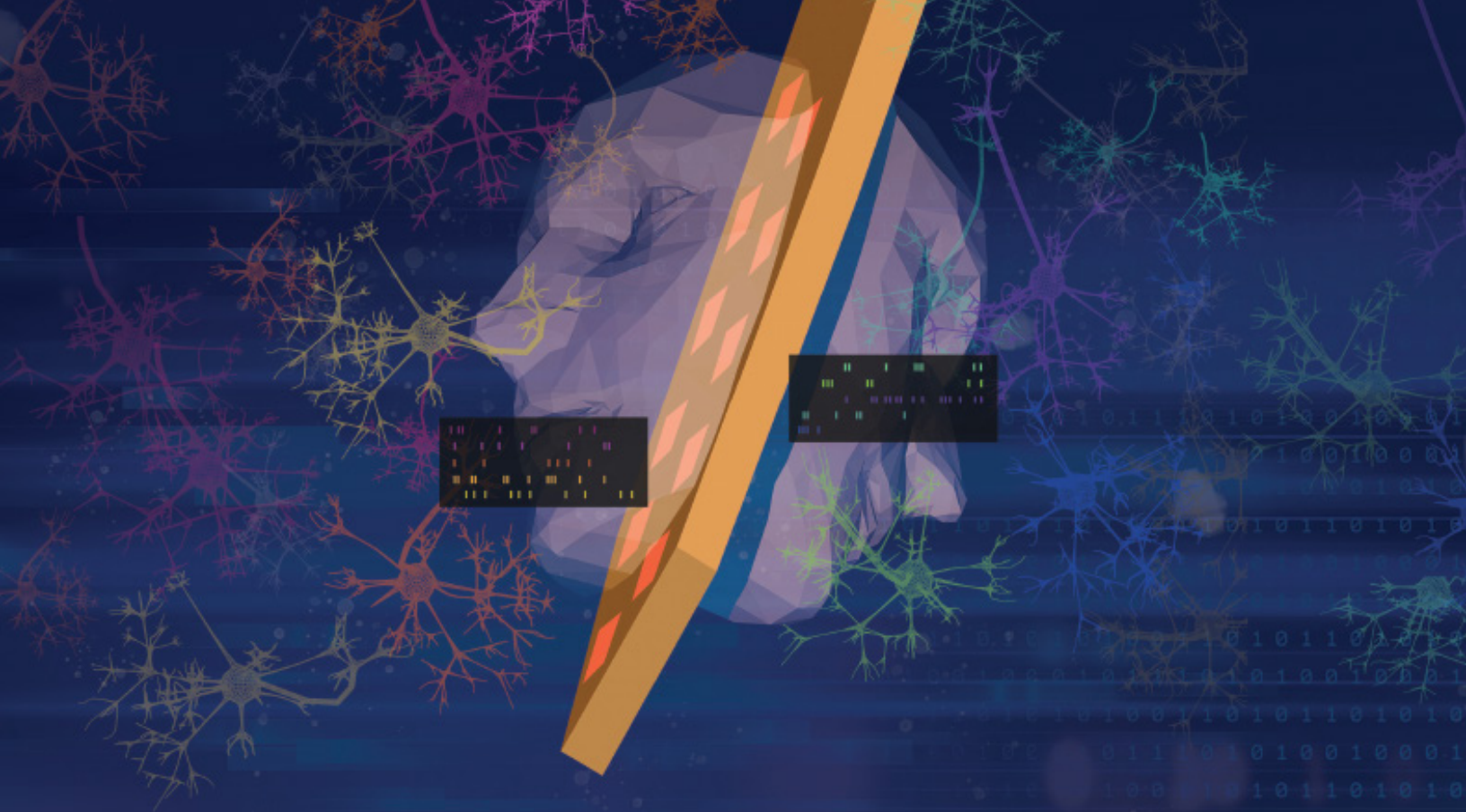
The science is hard...the tools shouldn't be.



ACUTE & CHRONIC SILICON PROBES

DBC neurosensors are the leading market option for electrophysiology, neural recording and chemical sensing.

DBC's neural probes are based on over five years of R&D with the Howard Hughes Medical Institute's Janelia Farm campus. Our high-density electrode arrays optimize single unit separation, with our advanced packaging giving the smallest possible package, making it possible to carry out 128 channel recordings, chronically, even in awake and behaving small animals such as mice and zebra finches.



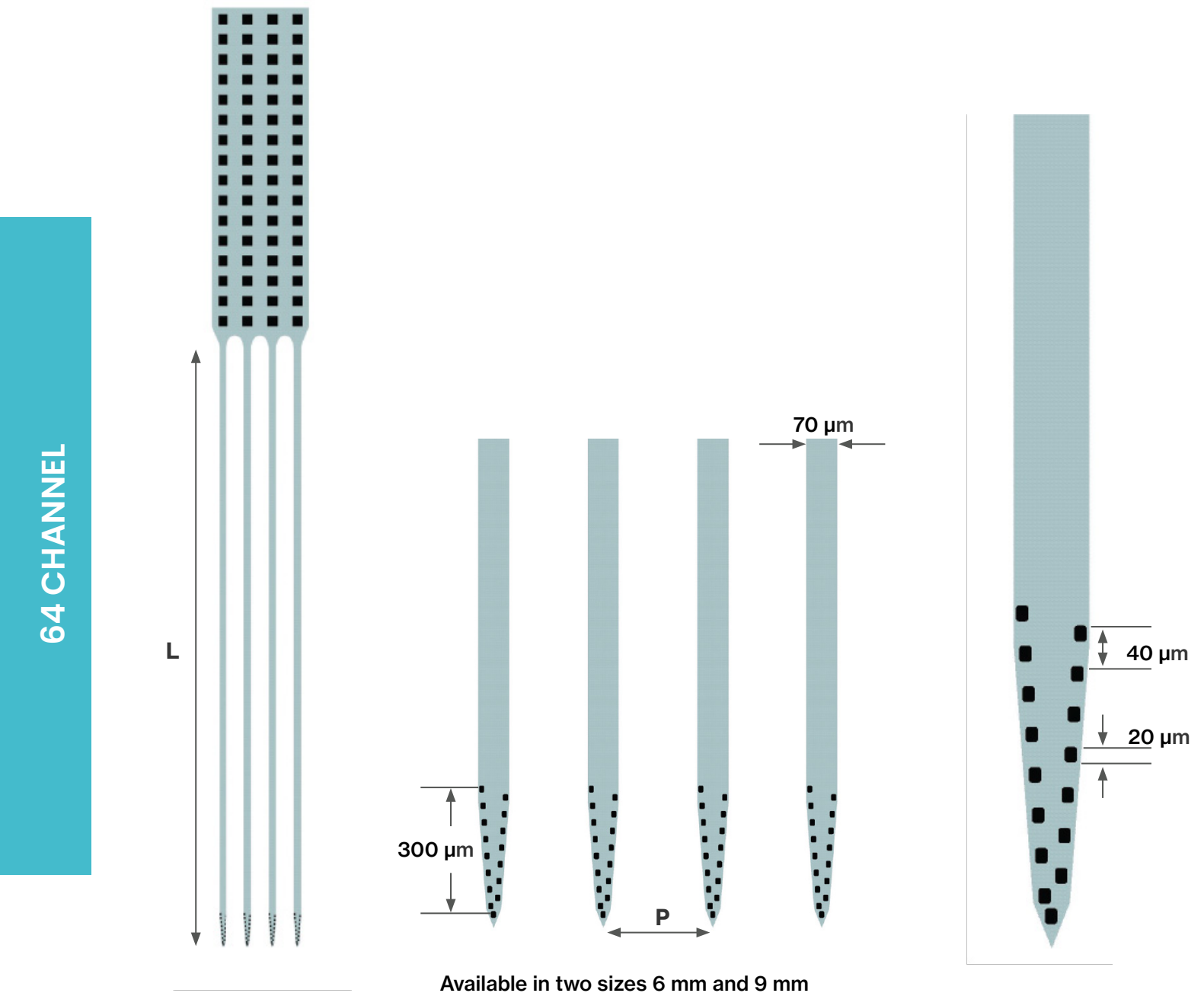
JANUS DOUBLE-SIDED SILICON PROBE

Diagnostic Biochips introduces the new Janus probe, enabling recording from BOTH sides of a planar silicon probe.

Janus can significantly increase your research output per implanted animal, with a higher chance of recording and precisely locating single neurons in a densely populated brain region.

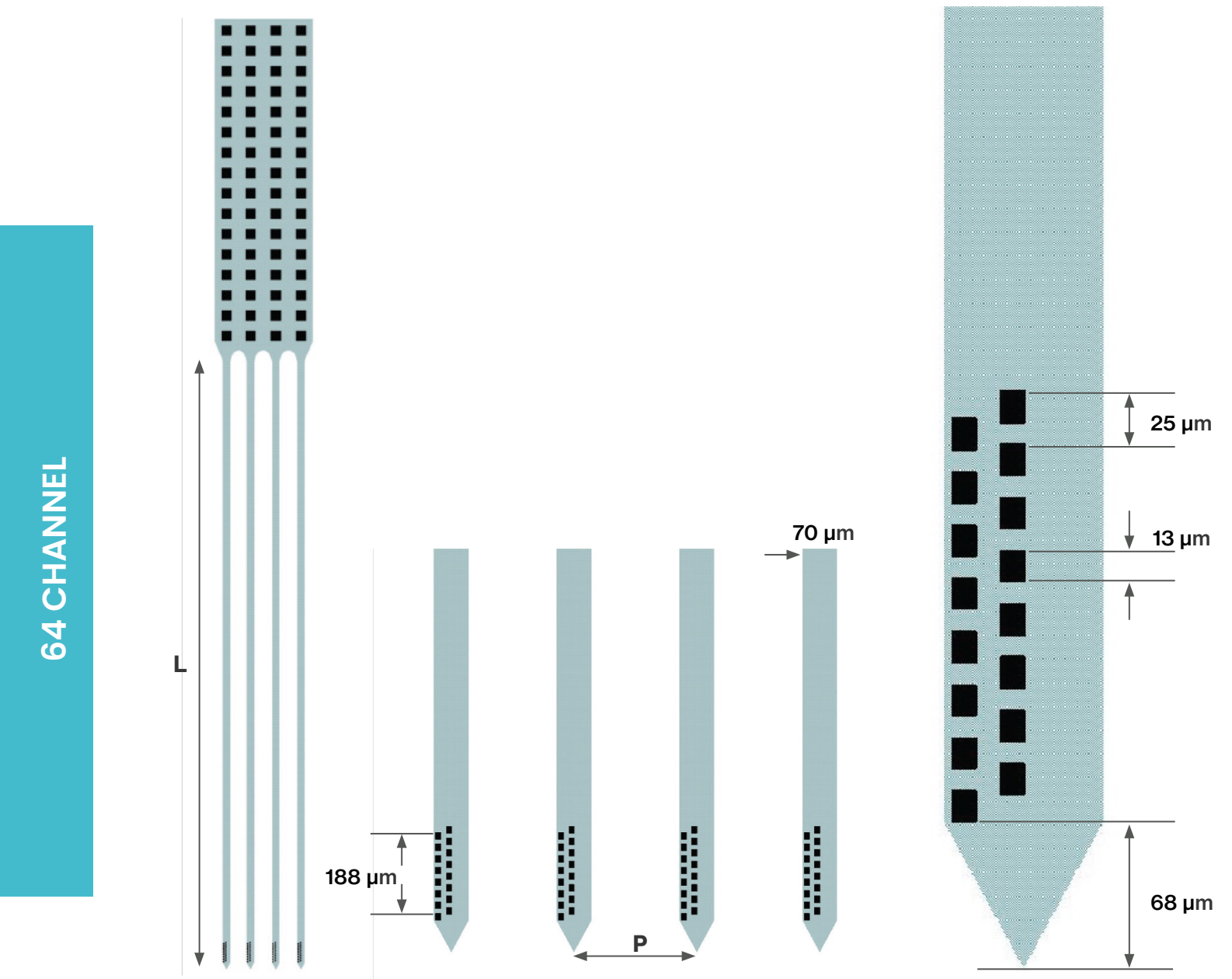
SPECIFICATION	DIMENSIONS
Shank length (L)	6 mm, 9 mm
Shank pitch (P)	250 μm
Shank thickness	15 μm (30 μm)
Recording site	11 μm \times 15 μm

**Also available as a 128 channel Janus Double-sided Probe variant P64-1-D (same channel geometry on both sides)*



SPECIFICATION	DIMENSIONS
Shank length (L)	6 mm, 9 mm
Shank pitch (P)	250 μm
Shank thickness	15 μm (30 μm)
Recording site	11 μm \times 15 μm

**Also available as a 128 channel Janus Double-sided Probe variant P64-2-D (same channel geometry on both sides)*



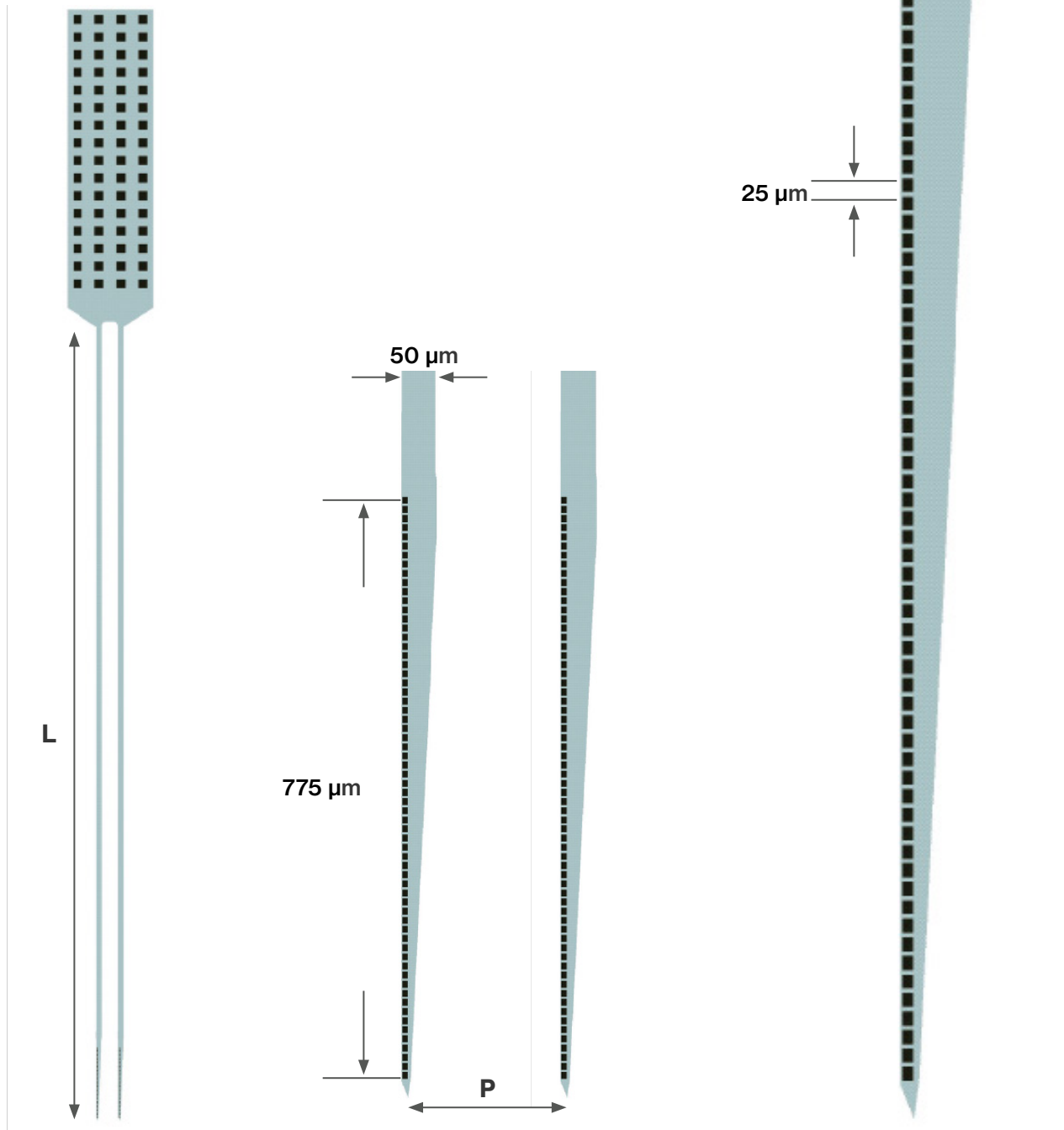
Available in two sizes 6 mm and 9 mm

SPECIFICATION

DIMENSIONS

Shank length (L)	8.3 mm
Shank pitch (P)	250 μm
Shank thickness	15 μm
Recording site	11 μm \times 15 μm

64 CHANNEL



SPECIFICATION

DIMENSIONS

Shank length (L)

8.3 mm

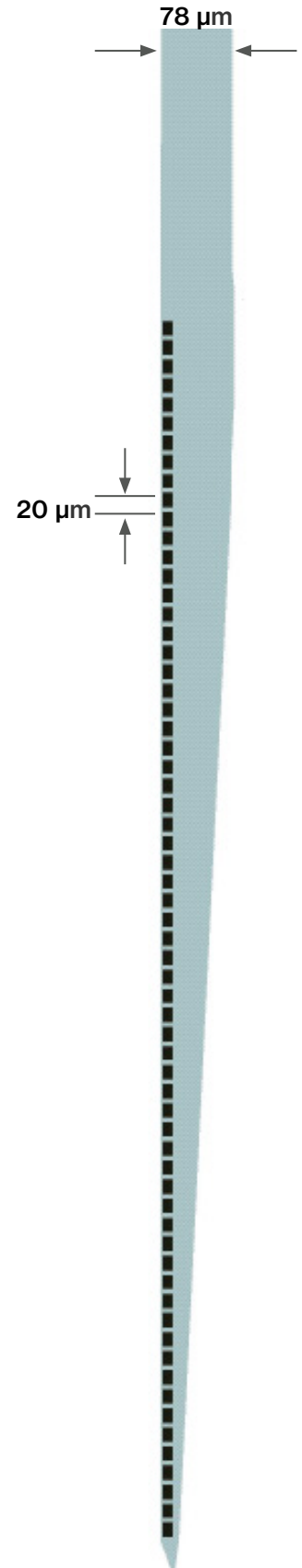
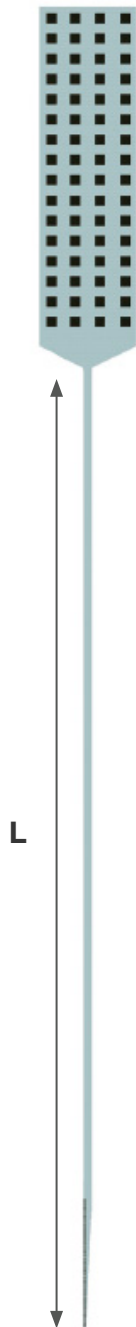
Shank thickness

15 μm

Recording site

11 μm \times 15 μm

64 CHANNEL



SPECIFICATION

DIMENSIONS

Shank length (L)

9 mm

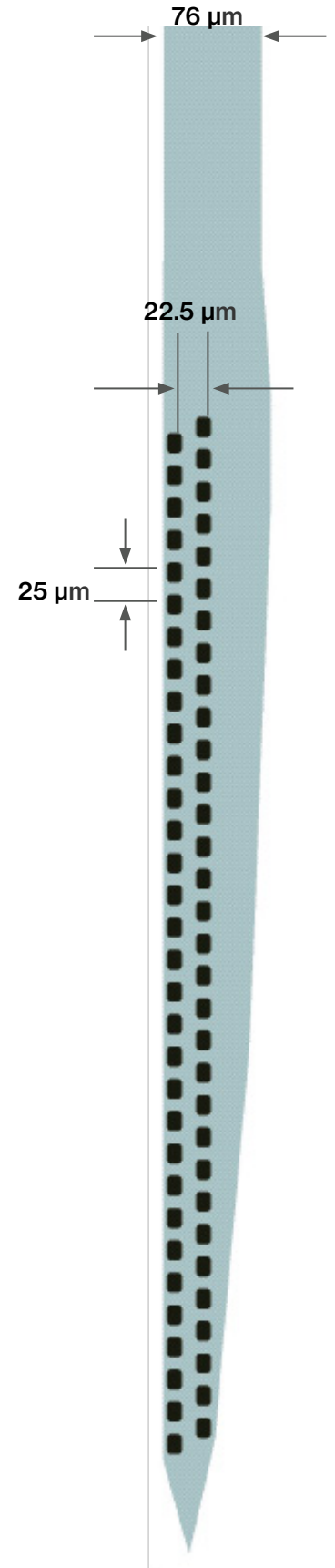
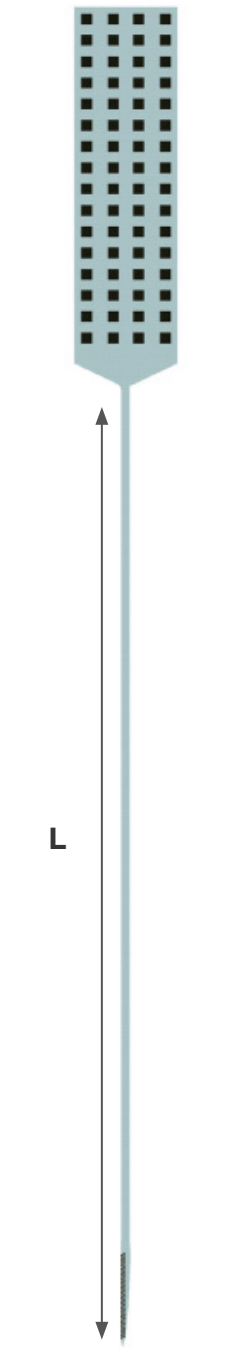
Shank thickness

15 μm

Recording site

11 μm \times 15 μm

64 CHANNEL



SPECIFICATION

DIMENSIONS

Shank length (L)

8 mm

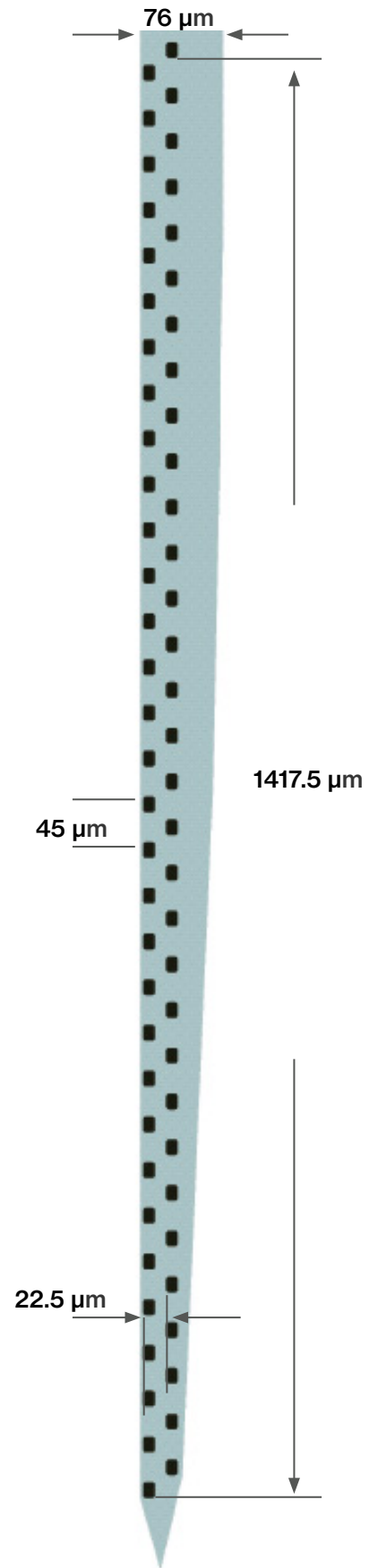
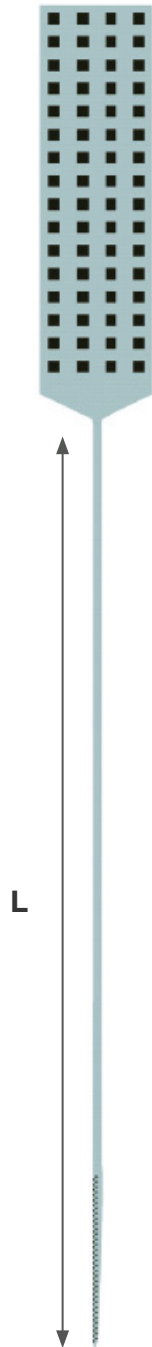
Shank thickness

15 μm

Recording site

11 μm \times 15 μm

64 CHANNEL



SPECIFICATION

DIMENSIONS

Shank length (L) 6 mm

Shank pitch (P)

200 μm

Shank thickness

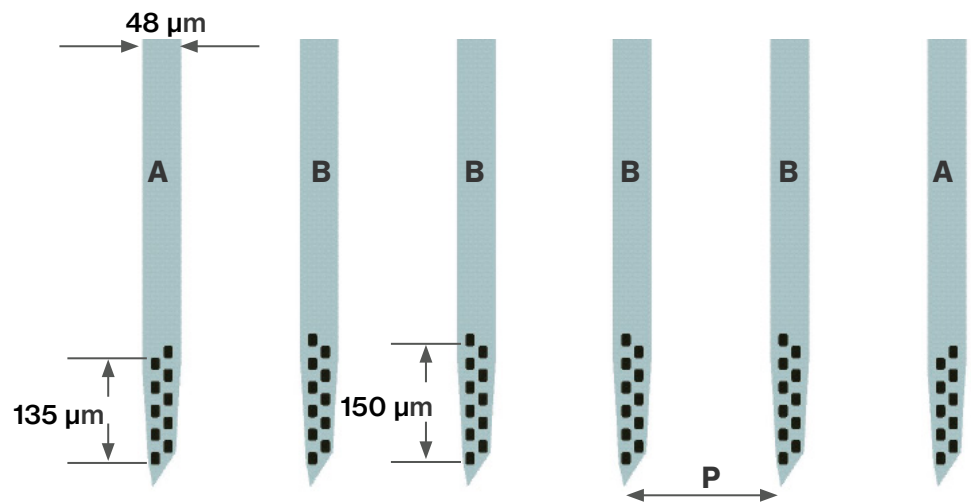
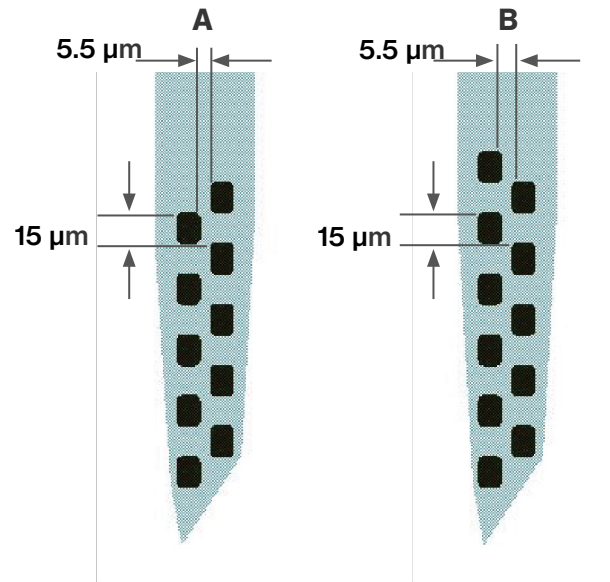
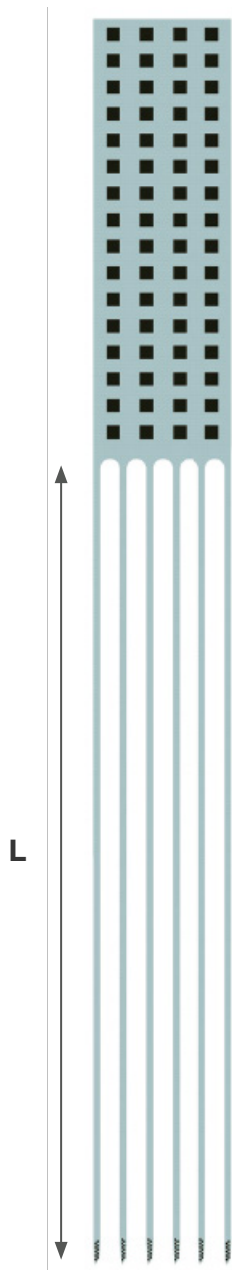
15 μm (30 μm)

Recording site

11 μm \times 15 μm

**Also available as a 128 channel Janus Double-sided Probe variant P64-7-D (same channel geometry on both sides)*

64 CHANNEL



SPECIFICATION

DIMENSIONS

Shank length (L) 9 mm

Shank pitch (P)

250 μm

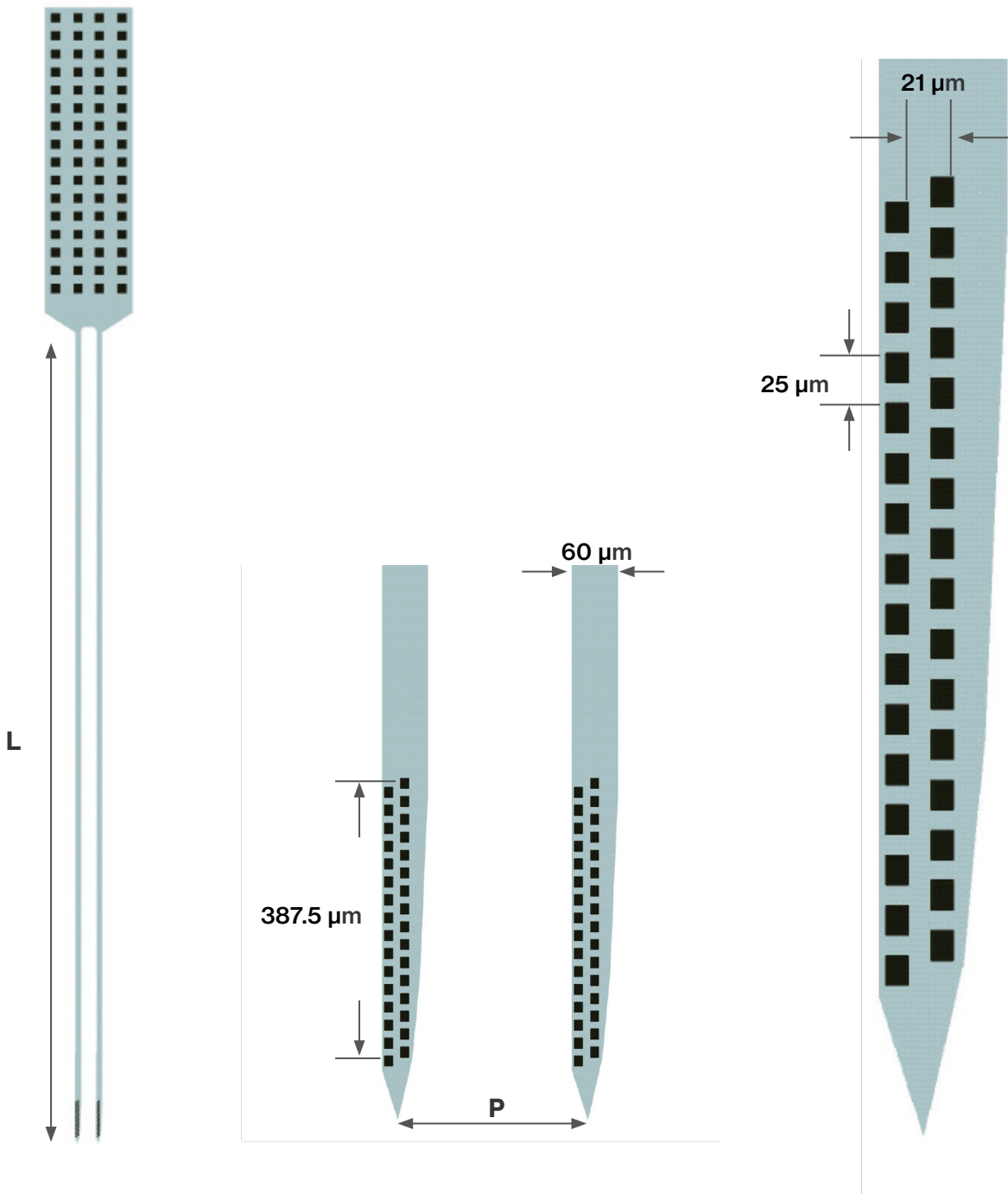
Shank thickness

15 μm

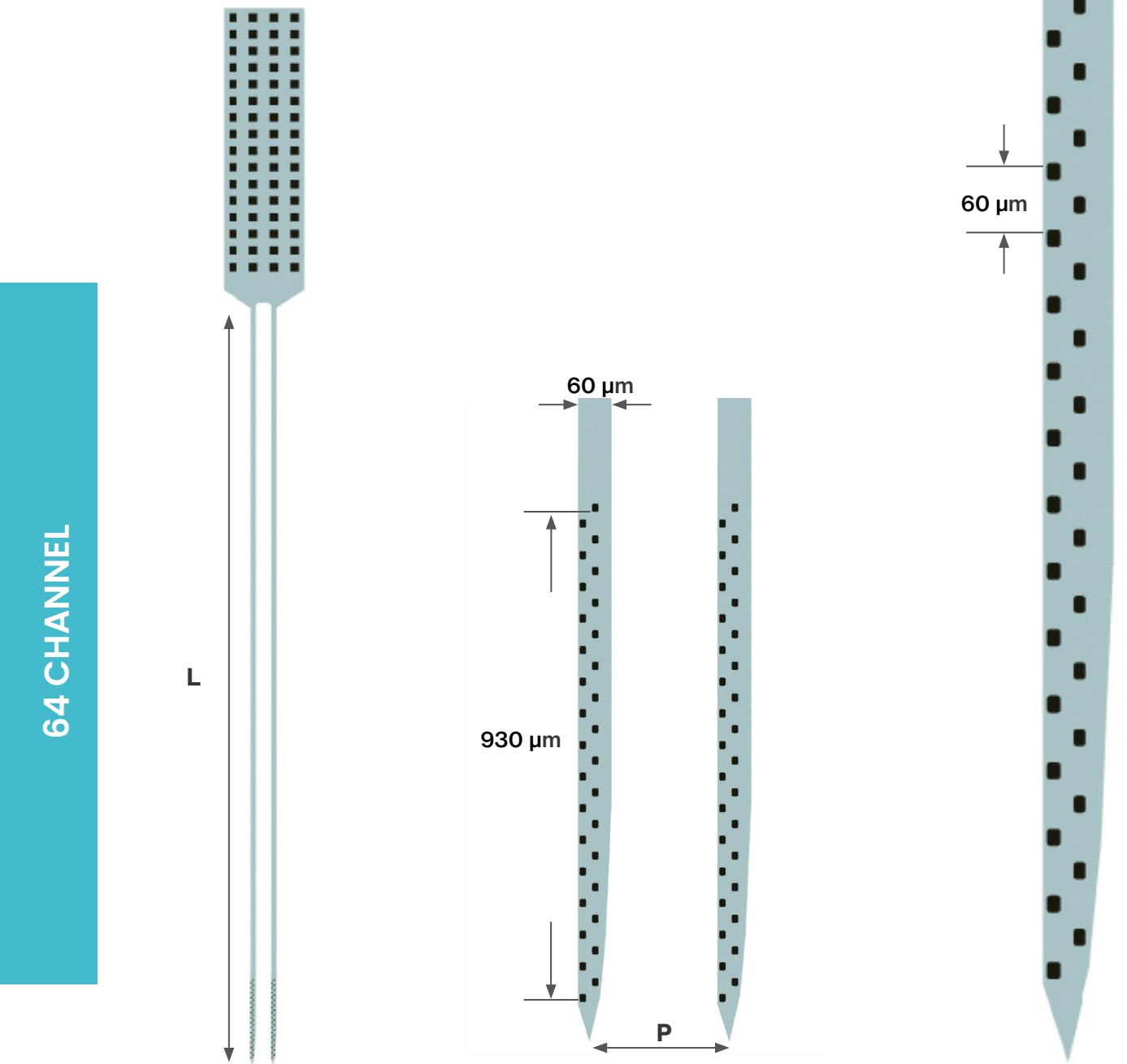
Recording site

11 μm \times 15 μm

64 CHANNEL



SPECIFICATION	DIMENSIONS
Shank length (L)	9 mm
Shank pitch (P)	250 μm
Shank thickness	15 μm
Recording site	11 μm \times 15 μm



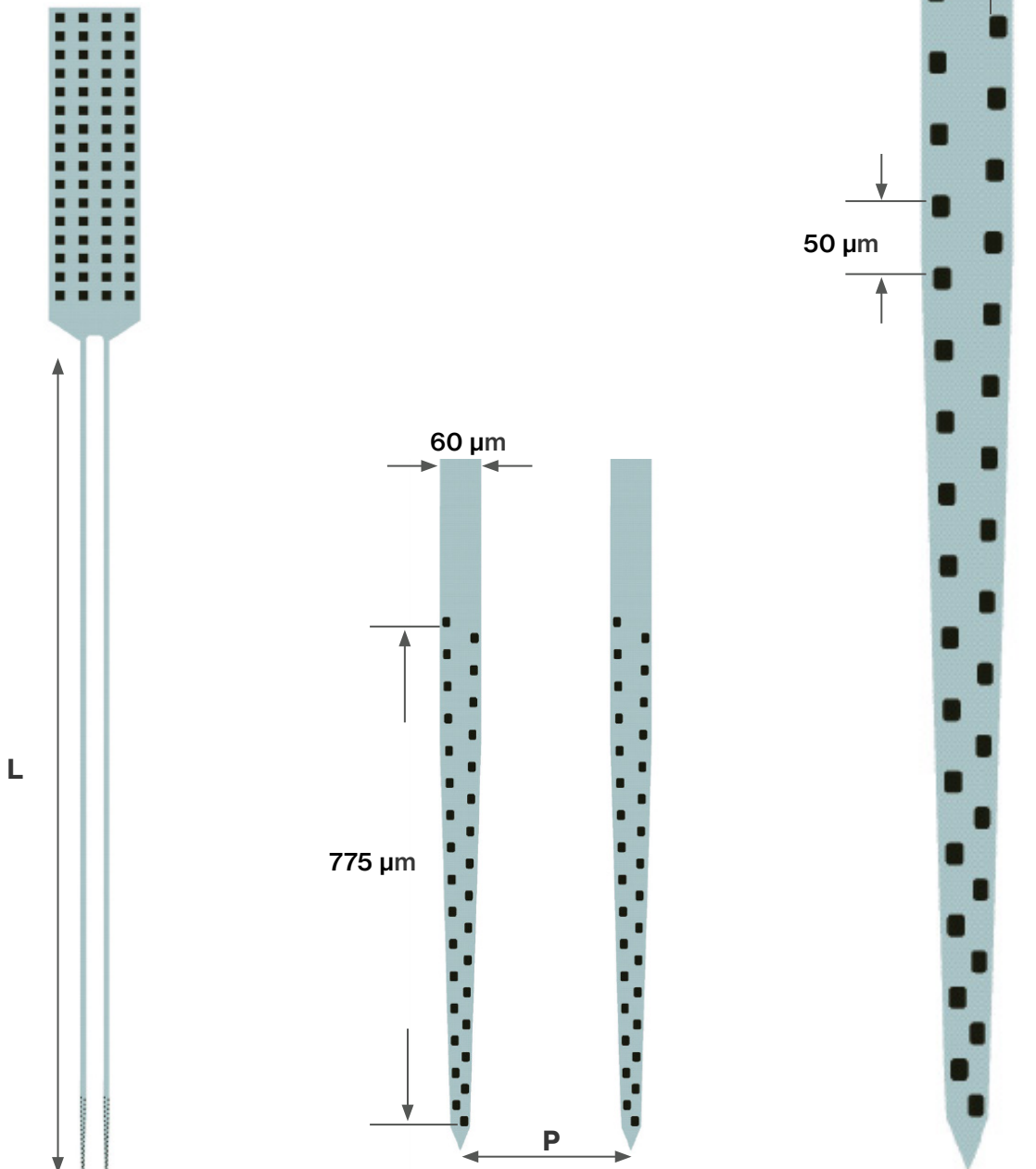
SPECIFICATION

DIMENSIONS

Shank length (L)	9 mm
Shank pitch (P)	250 μm
Shank thickness	15 μm (30 μm)
Recording Site	11 μm \times 15 μm

**Also available as a 128 channel Janus Double-sided Probe variant P64-10-D (same channel geometry on both sides)*

64 CHANNEL



SPECIFICATION

DIMENSIONS

Shank length (L)

15 mm

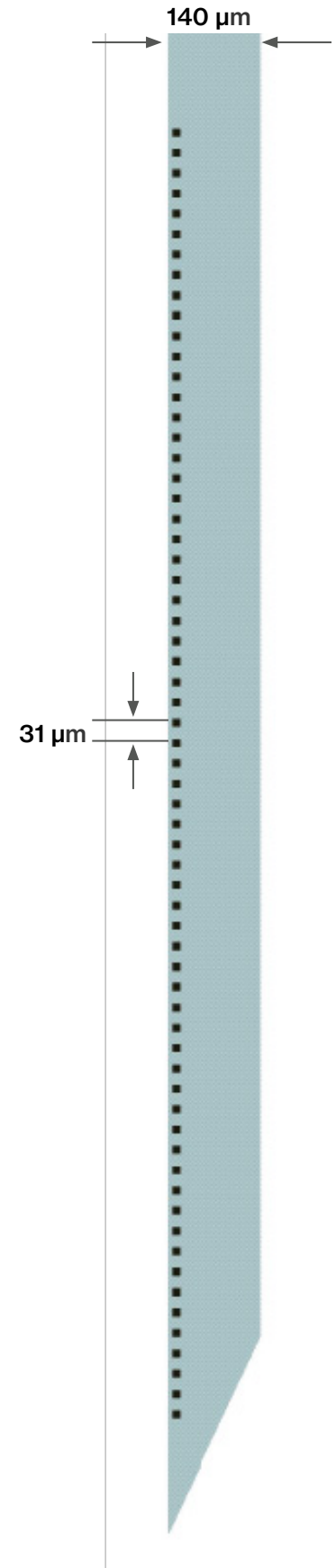
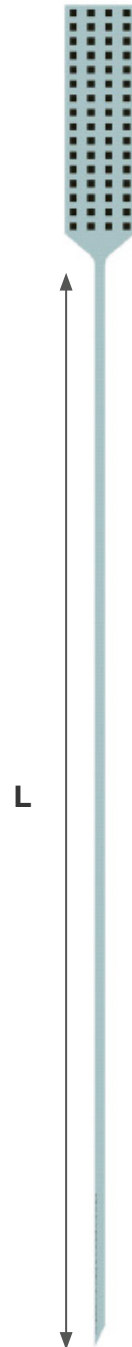
Shank thickness

35 μm and 100 μm

Recording site

11.5 μm \times 11.5 μm

64 CHANNEL



SPECIFICATION

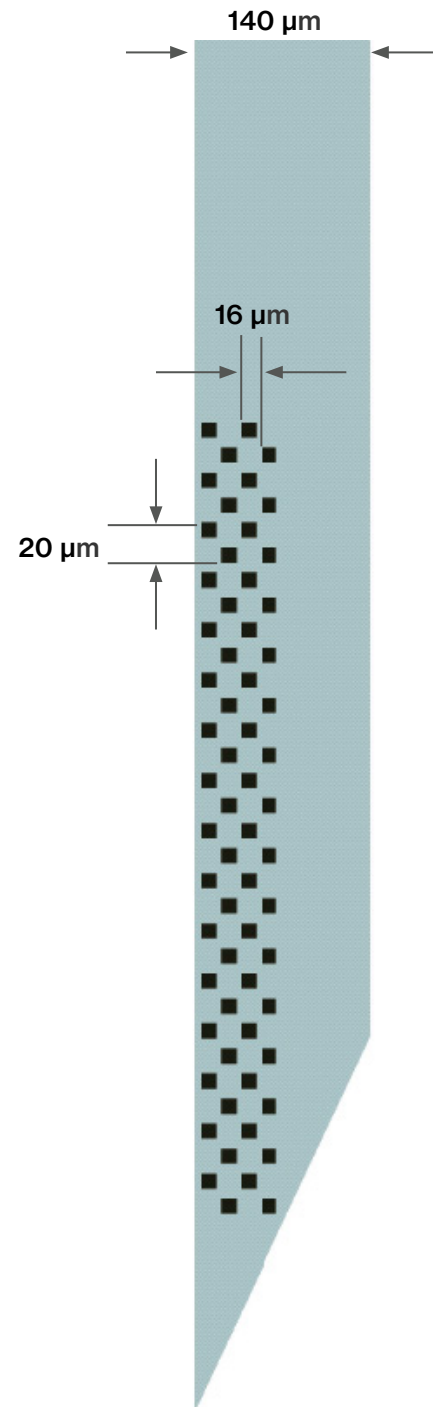
DIMENSIONS

Shank length (L) 15 mm

Shank thickness 35 μm and 100 μm

Recording site 11.5 μm \times 11.5 μm

64 CHANNEL



SPECIFICATION

DIMENSIONS

Shank length (L)

6.5 mm

Shank thickness

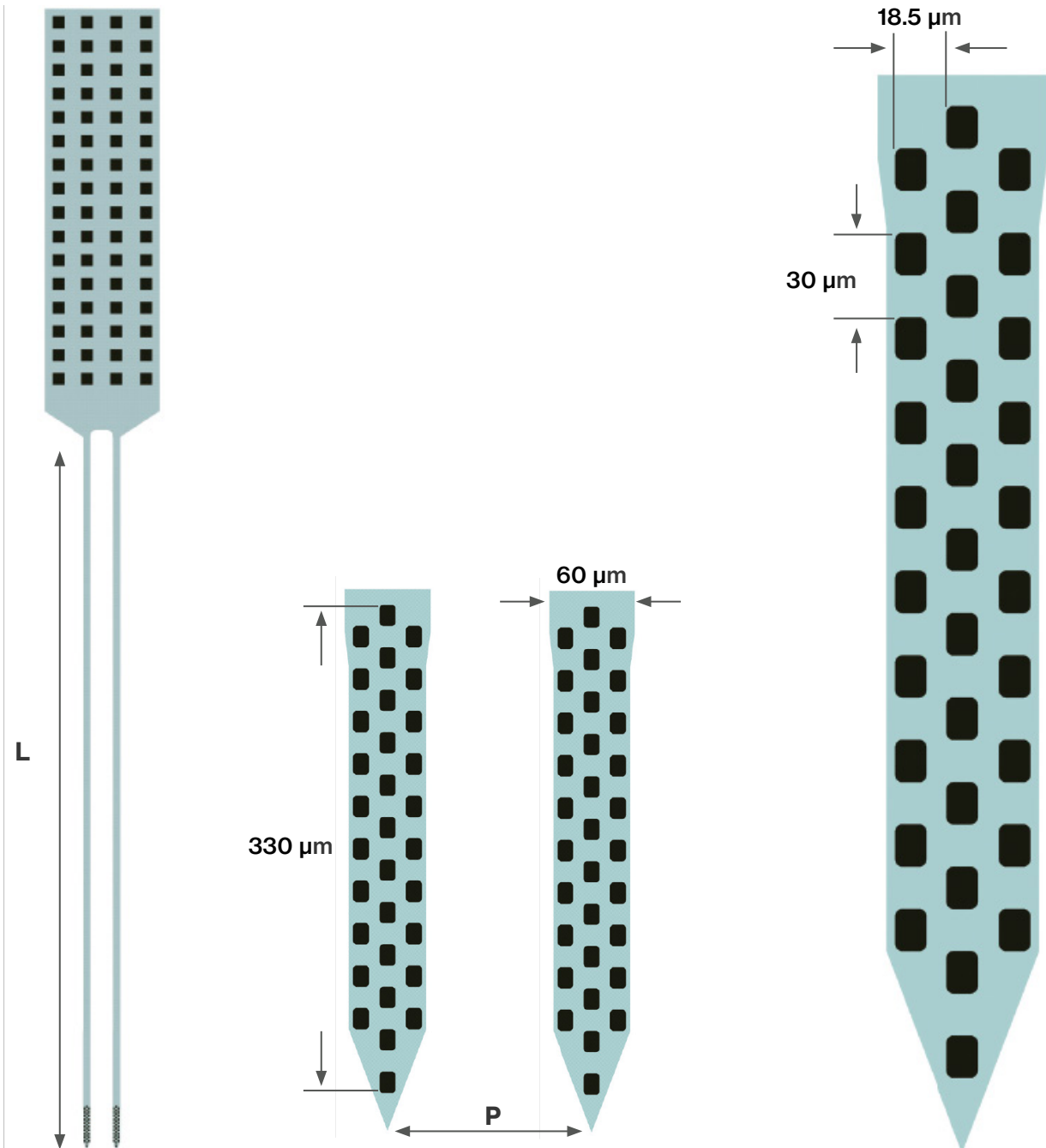
15 μm

Recording site

11 μm \times 15 μm

**Also available as a 128 channel Janus Double-sided Probe variant P64-13-D (same channel geometry on both sides)*

64 CHANNEL



SPECIFICATION

DIMENSIONS

Shank length (L)

8 mm

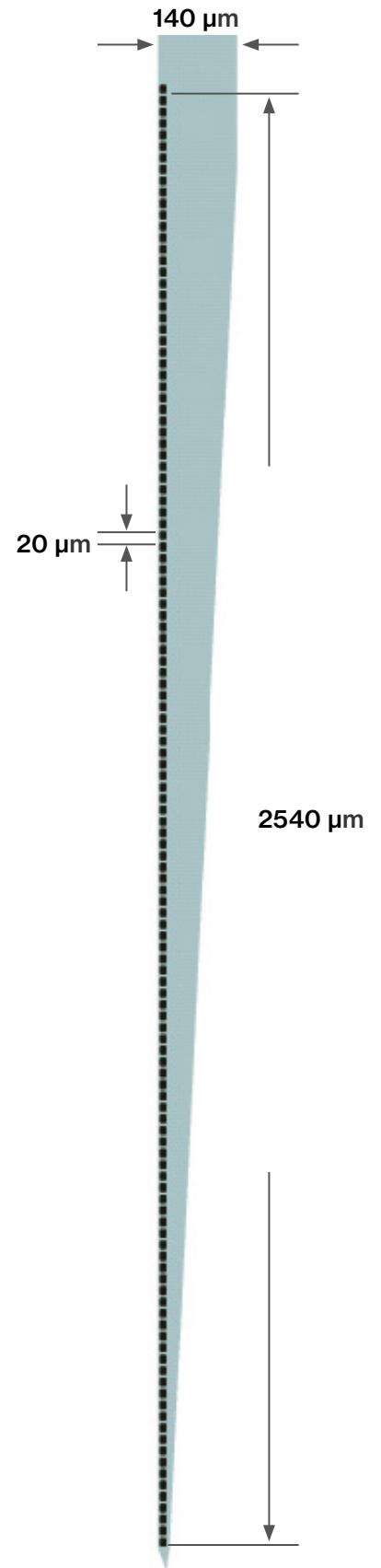
Shank thickness

15 μm

Recording site

11 μm \times 15 μm

128 CHANNEL

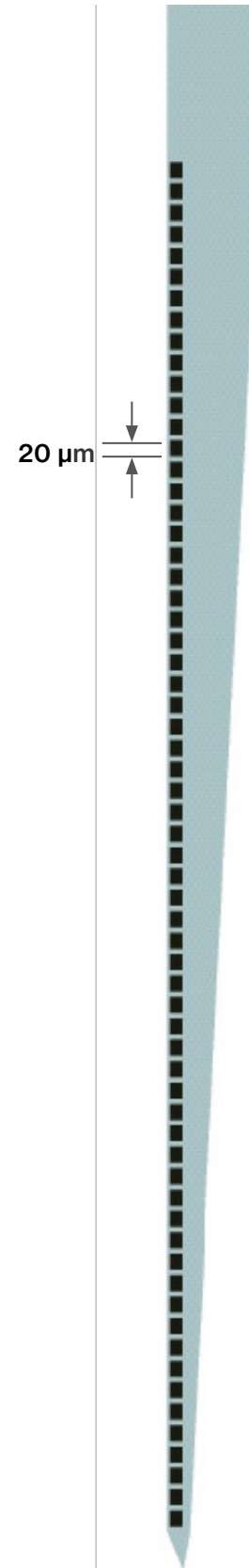
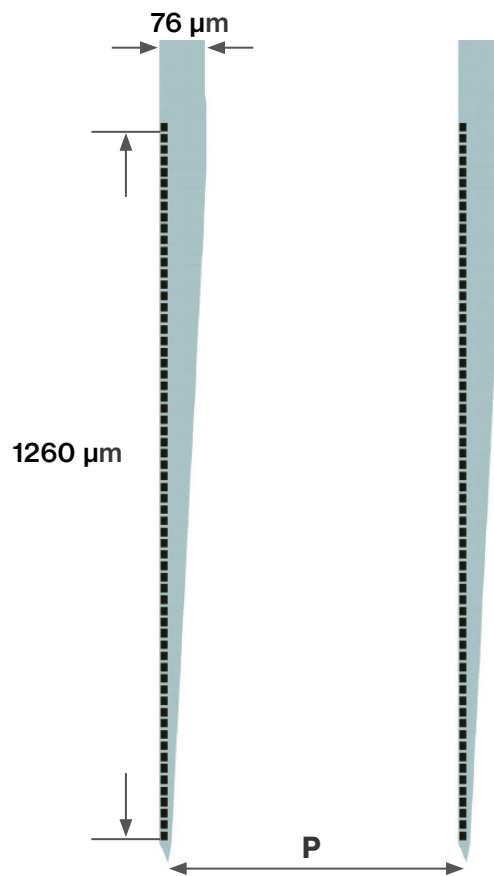
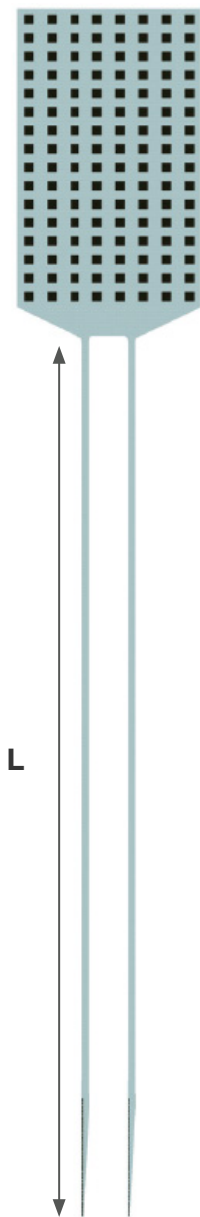


SPECIFICATION

DIMENSIONS

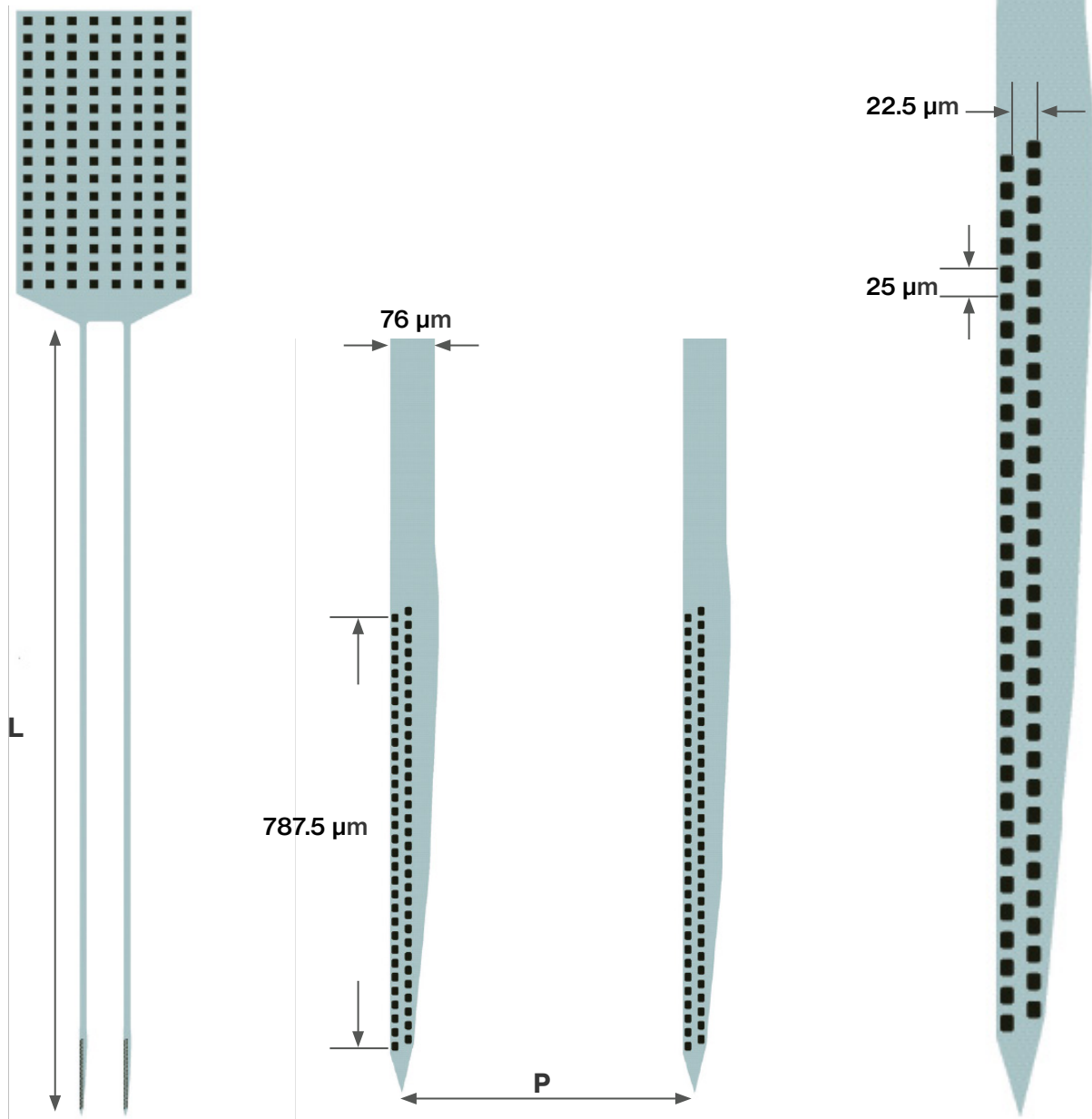
Shank length (L)	9.5 mm
Shank pitch (P)	500 μm
Shank thickness	15 μm
Recording site	11 μm \times 15 μm

128 CHANNEL



SPECIFICATION	DIMENSIONS
Shank length (L)	9 mm
Shank pitch (P)	500 μm
Shank thickness	15 μm
Recording site	11 μm \times 15 μm

128 CHANNEL

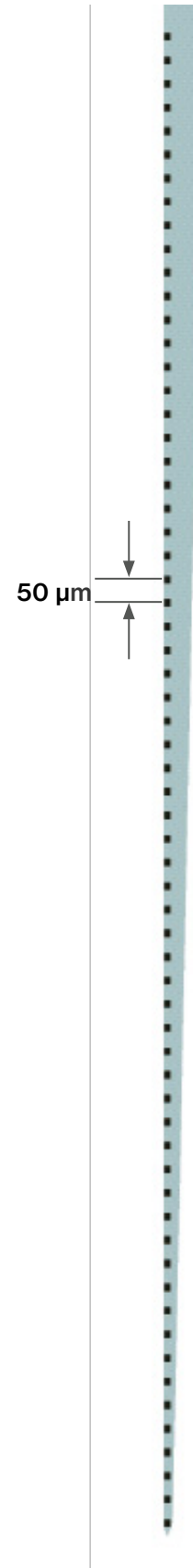
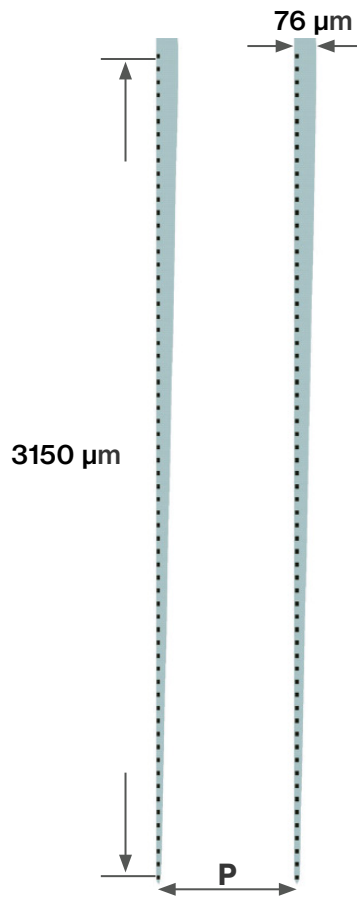
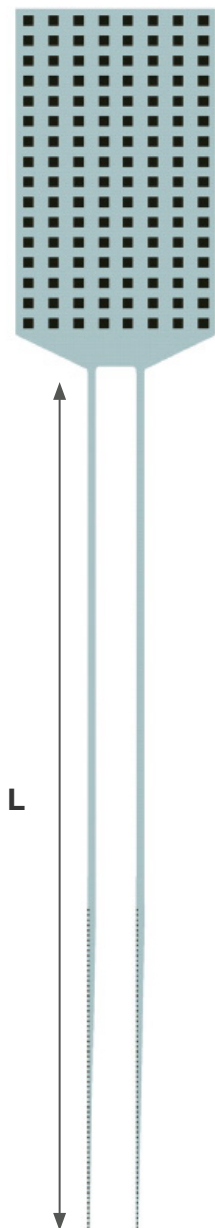


SPECIFICATION

DIMENSIONS

Shank length (L)	8.5 mm
Shank pitch (P)	500 μm
Shank thickness	15 μm
Recording site	11 μm \times 15 μm

128 CHANNEL

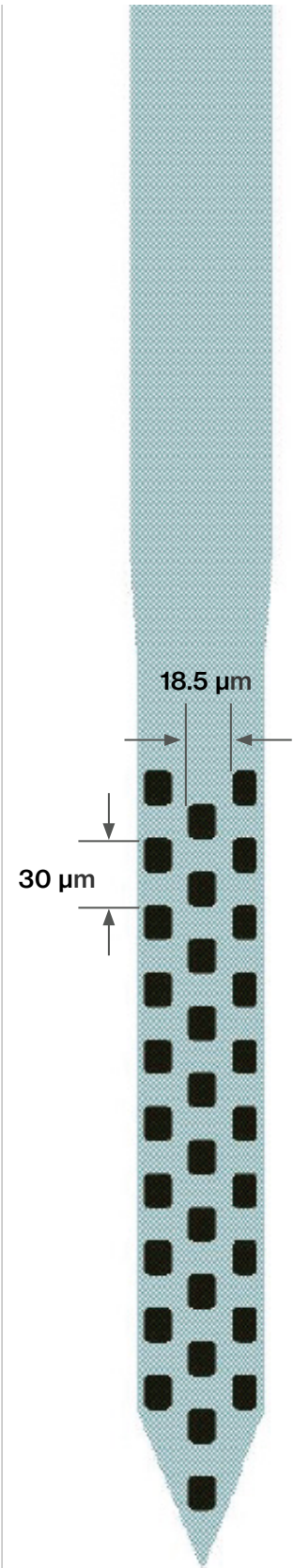
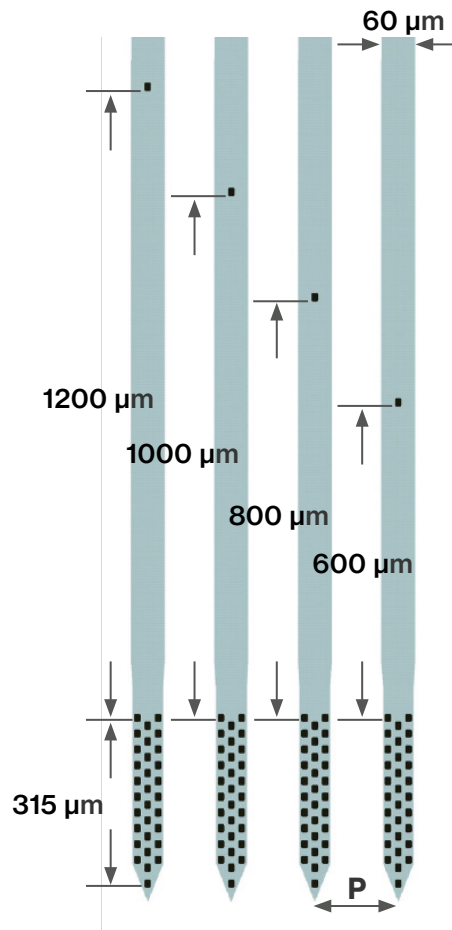
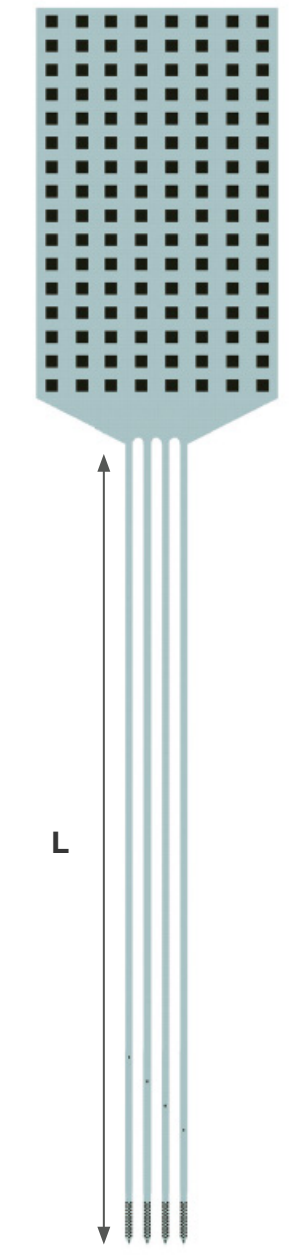


SPECIFICATION

DIMENSIONS

Shank length (L)	6.5 mm
Shank pitch (P)	150 μm
Shank thickness	15 μm
Recording site	11 μm \times 15 μm

128 CHANNEL

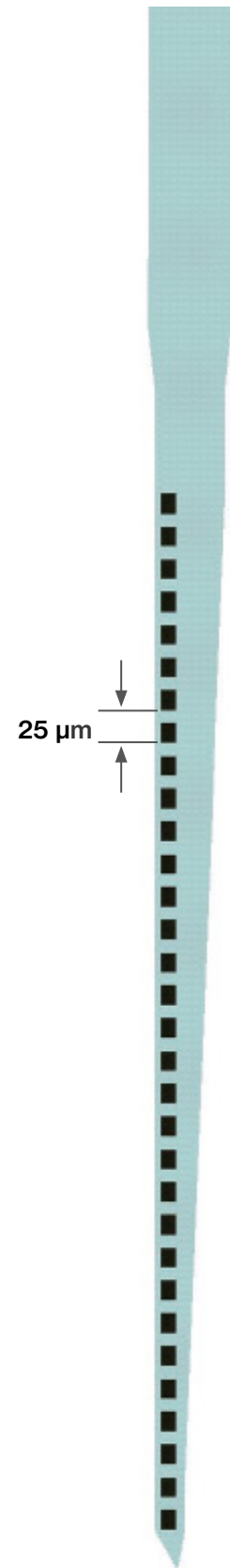
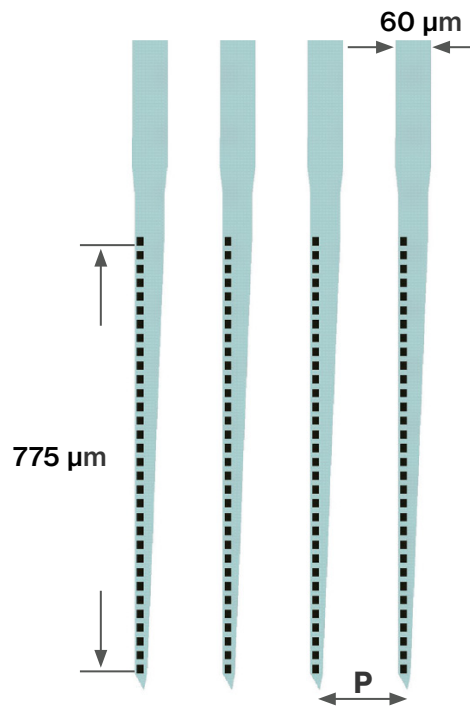
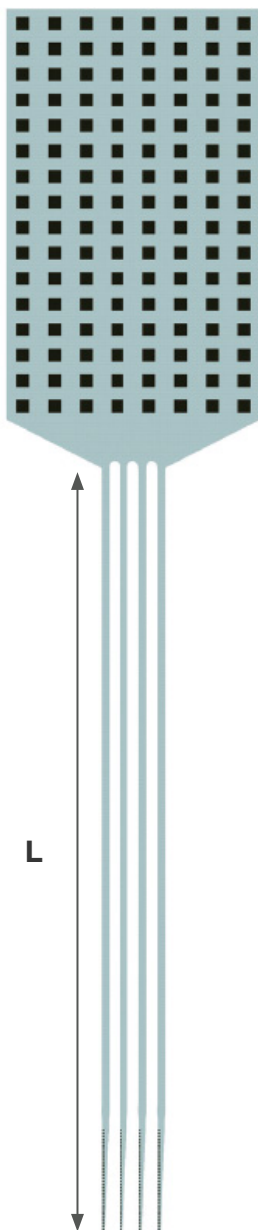


SPECIFICATION

DIMENSIONS

Shank length (L)	6 mm, 12 mm
Shank pitch (P)	150 μm
Shank thickness	15 μm
Recording site	11 μm \times 15 μm

128 CHANNEL



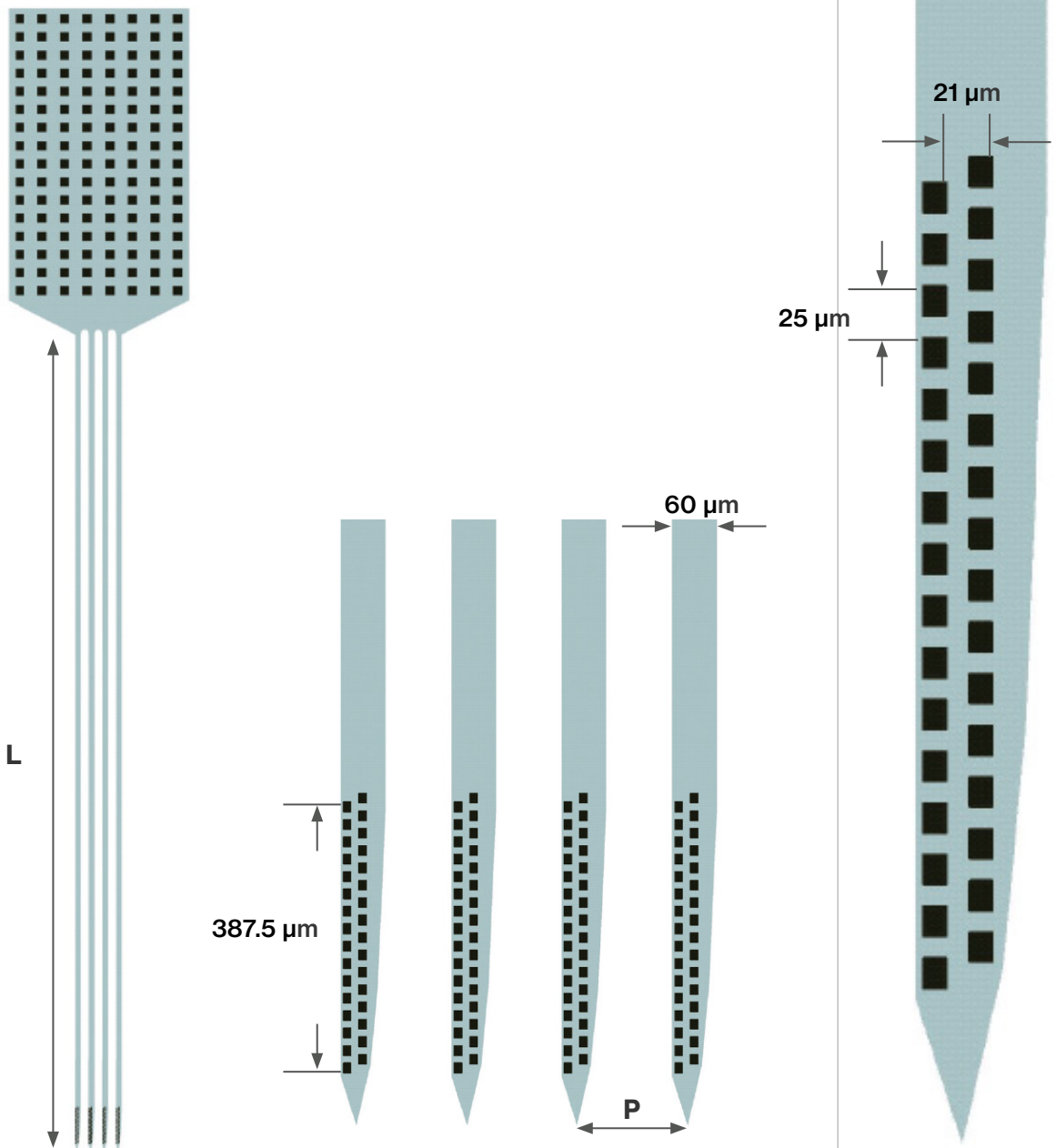
Available in two sizes 6 mm and 12 mm

SPECIFICATION

DIMENSIONS

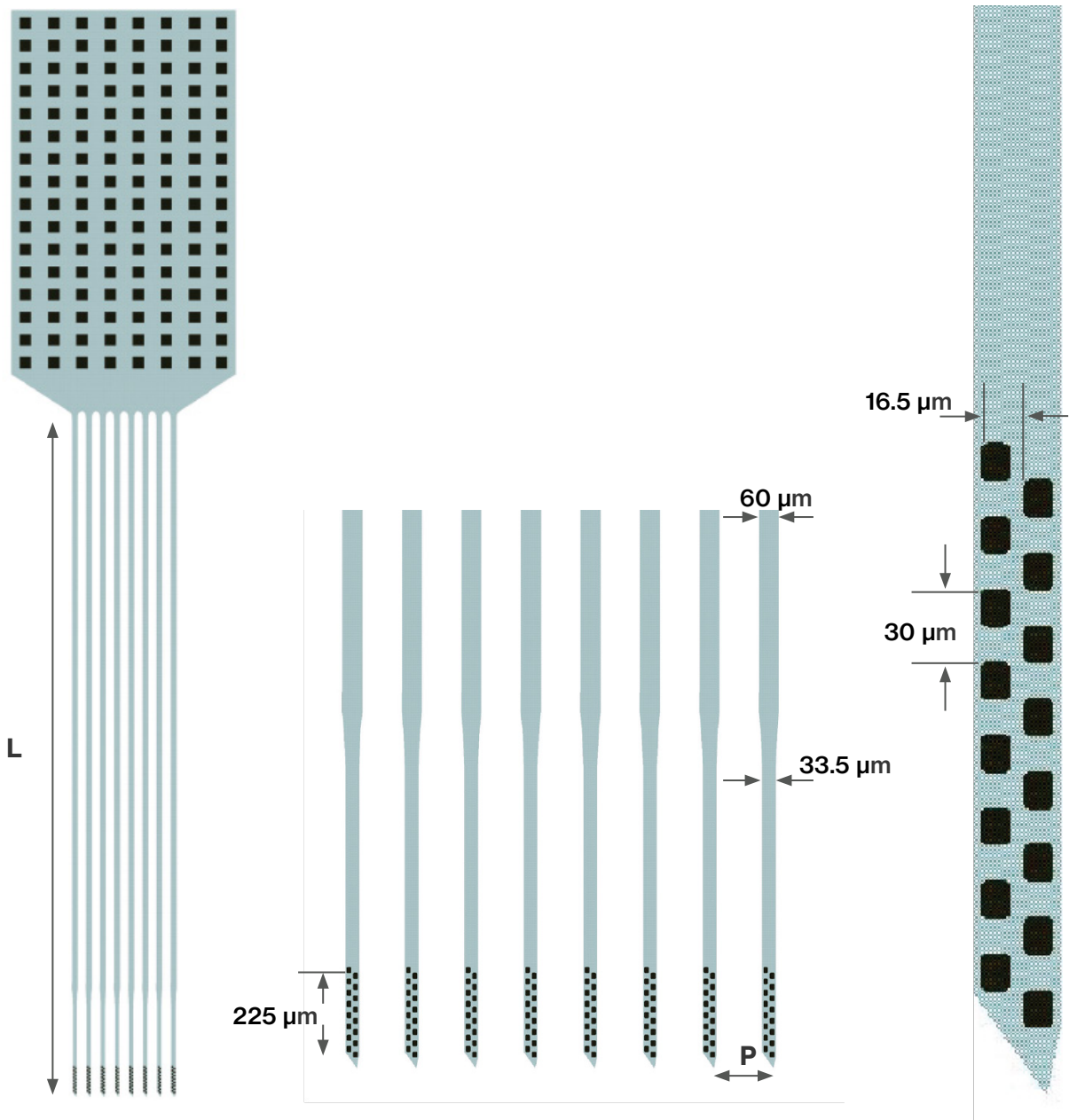
Shank length (L)	6 mm
Shank pitch (P)	150 μm
Shank thickness	15 μm
Recording site	11 μm \times 15 μm

128 CHANNEL



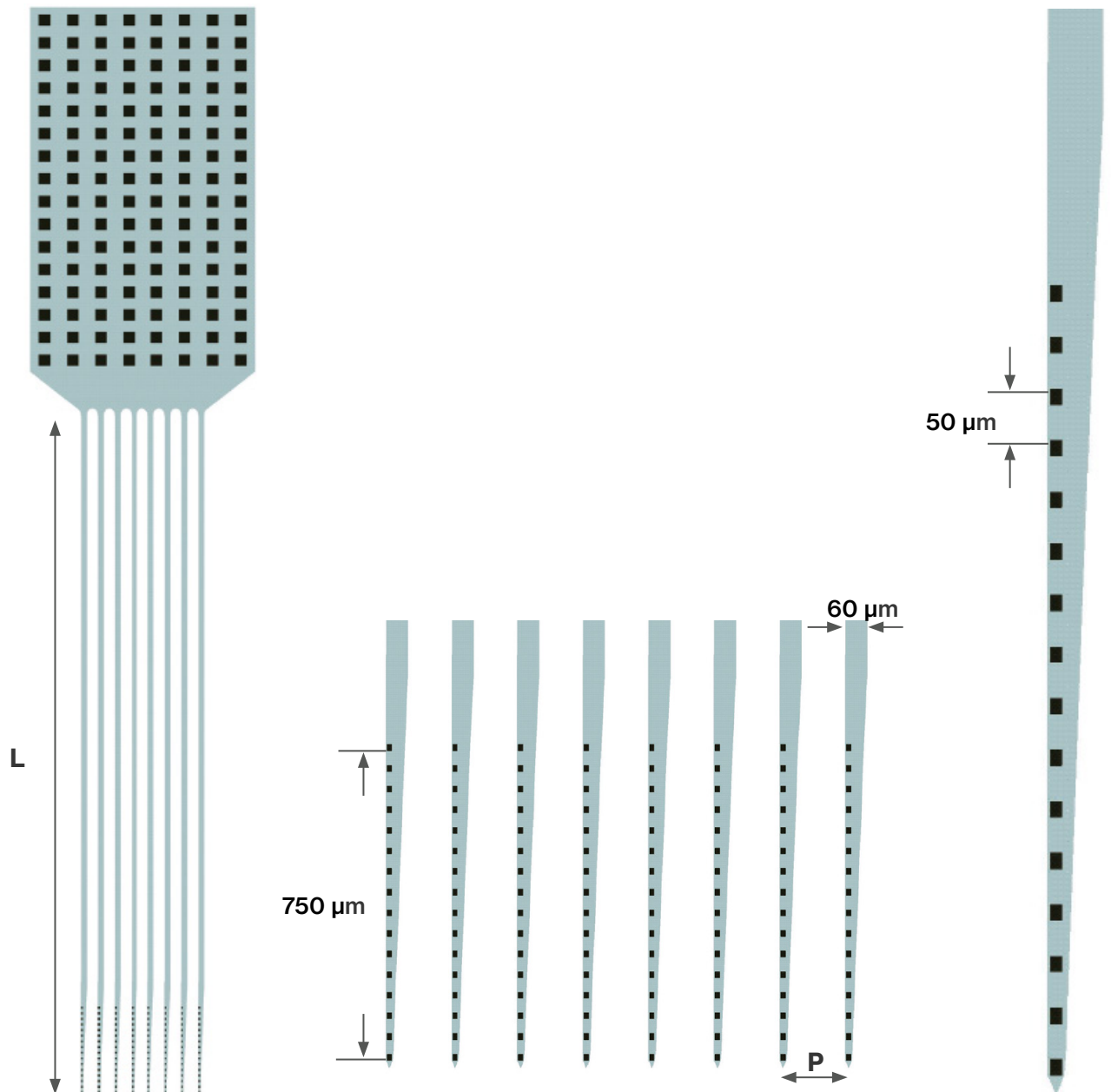
SPECIFICATION	DIMENSIONS
Shank length (L)	6 mm
Shank pitch (P)	125 μm , 150 μm
Shank thickness	15 μm
Recording site	11 μm \times 15 μm

128 CHANNEL



SPECIFICATION	DIMENSIONS
Shank length (L)	6 mm
Shank pitch (P)	150 μm
Shank thickness	15 μm
Recording site	11 μm \times 15 μm

128 CHANNEL

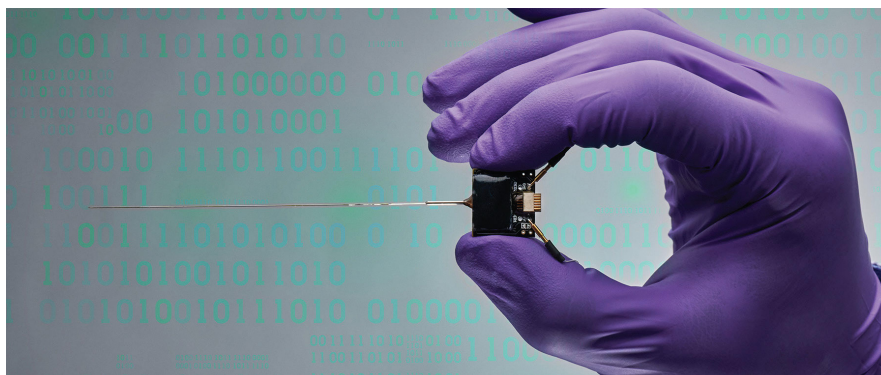




DEEP ARRAY PROBE

Diagnostic Biochips presents the new Deep Array probe, providing unprecedented single unit recording quality in deep brain structures.

The Deep Array enables chronic and acute recording in non-human primate (NHP) and other large animals, with up to 128 microelectrodes integrated on a mechanically robust, yet chronically stable stainless steel substrate.



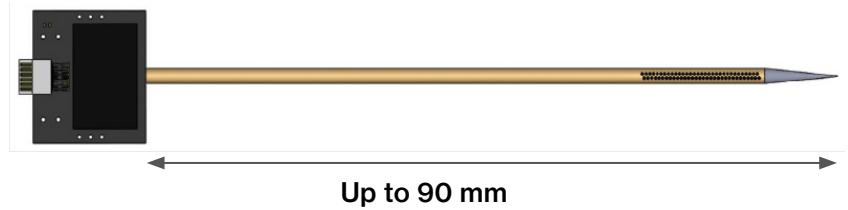
Designed as an alternative to silicon probes for deep structure (25–90mm) recordings.

- Intan chips integrated for 64-chan and 128-chan probes (12-pin SPI connection)
- Passive 36-pin Omnetics for 32-chan probes

Recording channels	32, 64, 128
Impedance	<100kΩ at 1kHz
Shank length	Up to 90 mm
Shank diameter	0.2 mm
Tip Taper	11°, 0.5 mm long
Distance: Tip to first site	0.6 mm ± 0.1 mm
Shank material	Stainless Steel

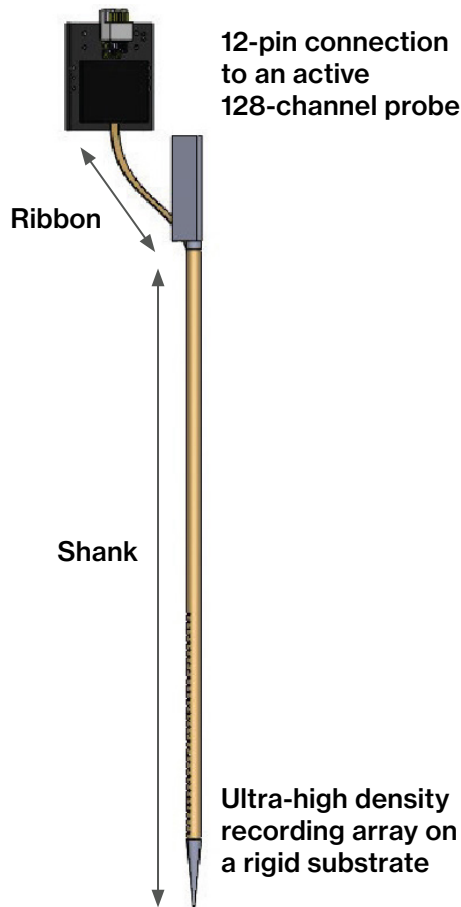
Acute Probes

Please specify the shank length



Chronic Probes

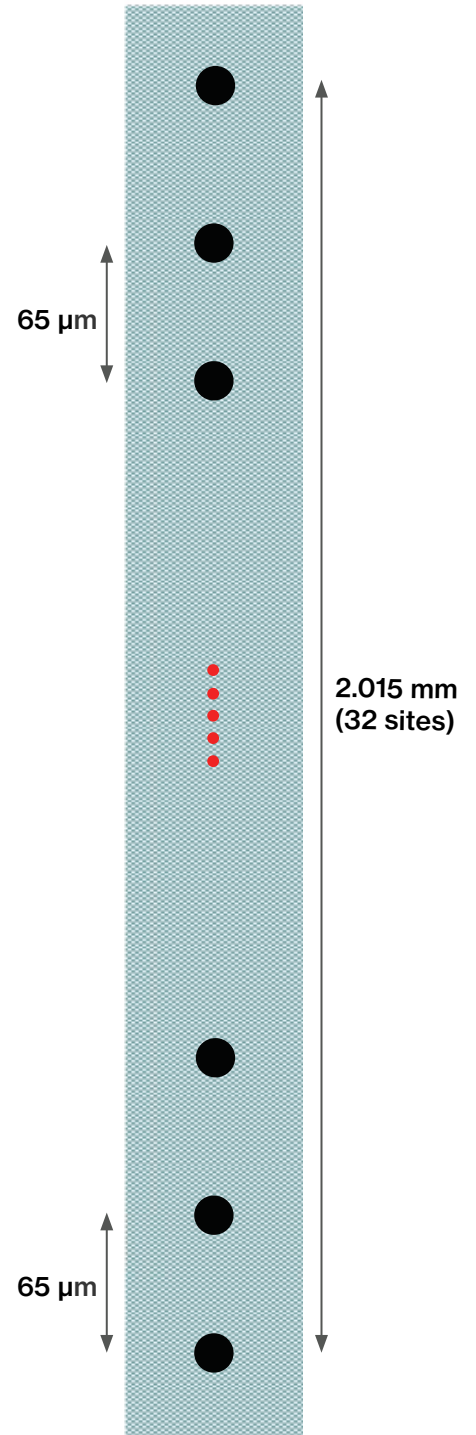
Please specify the ribbon length (ribbon + shank = Up to 90 mm)



Not drawn to scale

SPECIFICATION	DIMENSIONS
Max shank length	90 mm
Shank diameter	0.2 mm
Site diameter	20 μ m
Recording span	2.015 mm
Shank material	Stainless steel

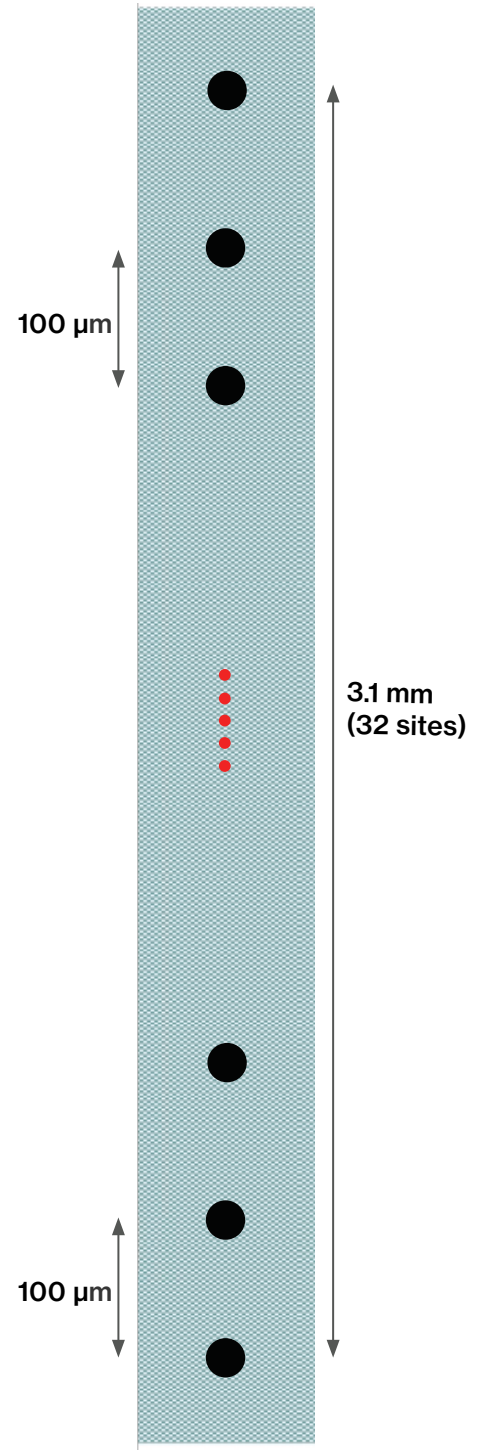
32 CHANNEL



Not drawn to scale

SPECIFICATION	DIMENSIONS
Max shank length	90 mm
Shank diameter	0.2 mm
Site diameter	20 μm
Recording span	3.1 mm
Shank material	Stainless steel

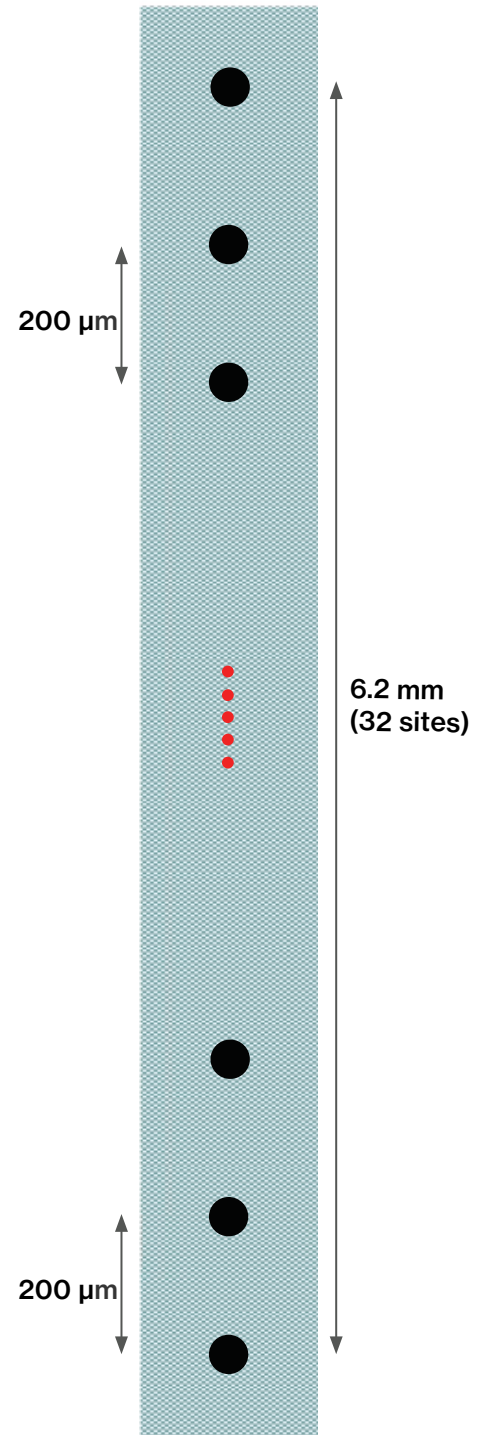
32 CHANNEL



Not drawn to scale

SPECIFICATION	DIMENSIONS
Max shank length	90 mm
Shank diameter	0.2 mm
Site diameter	20 μ m
Recording span	6.2 mm
Shank material	Stainless steel

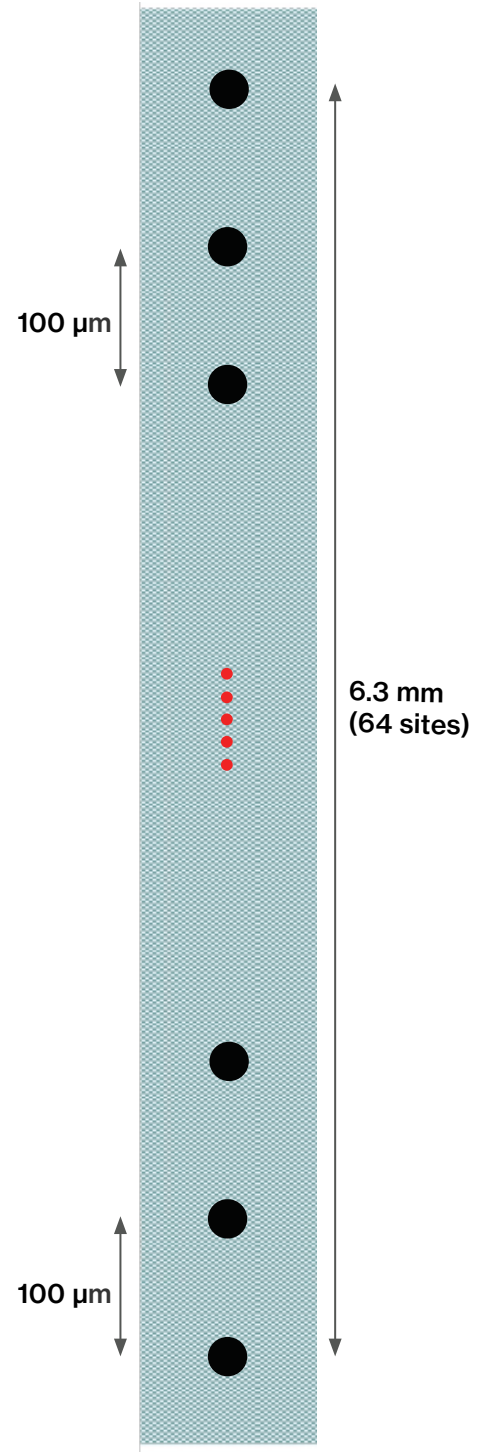
32 CHANNEL



Not drawn to scale

SPECIFICATION	DIMENSIONS
Max shank length	90 mm
Shank diameter	0.2 mm
Site diameter	20 μm
Recording span	6.3 mm
Shank material	Stainless steel

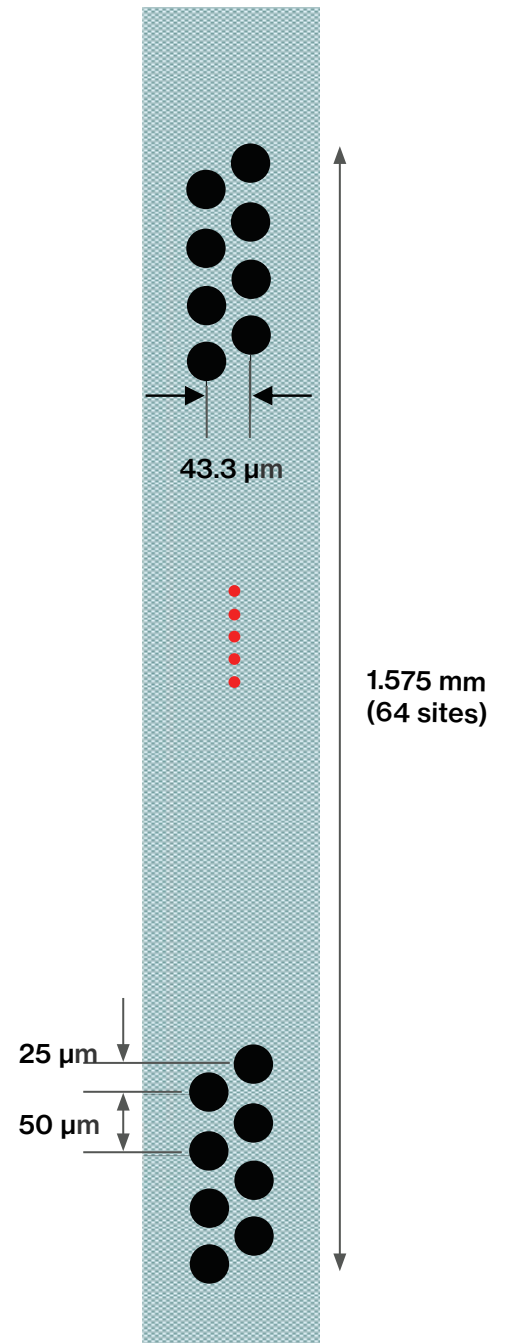
64 CHANNEL



Not drawn to scale

SPECIFICATION	DIMENSIONS
Max shank length	90 mm
Shank diameter	0.2 mm
Site diameter	20 μm
Recording span	1.575 mm
Shank material	Stainless steel

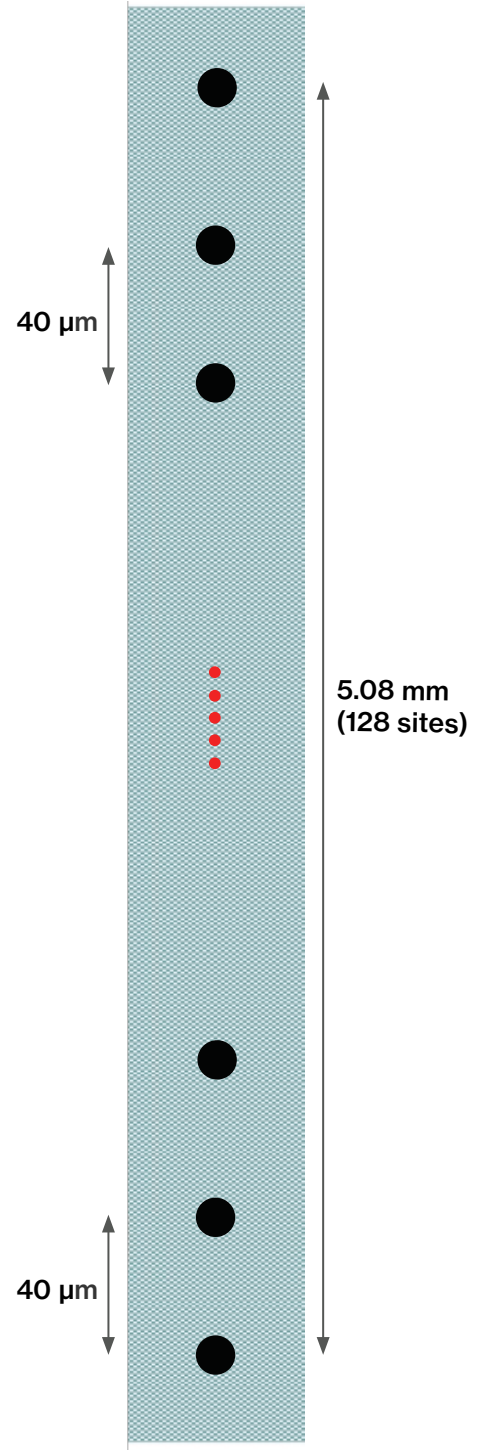
64 CHANNEL



Not drawn to scale

SPECIFICATION	DIMENSIONS
Max shank length	90 mm
Shank diameter	0.2 mm
Site diameter	20 μm
Recording span	5.08 mm
Shank material	Stainless steel

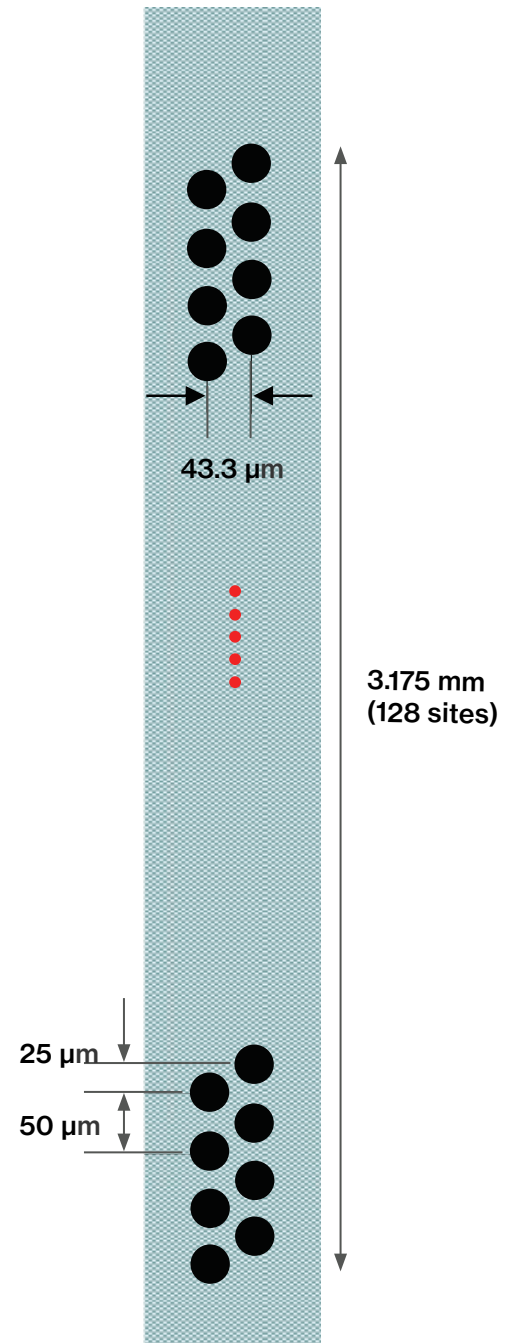
128 CHANNEL



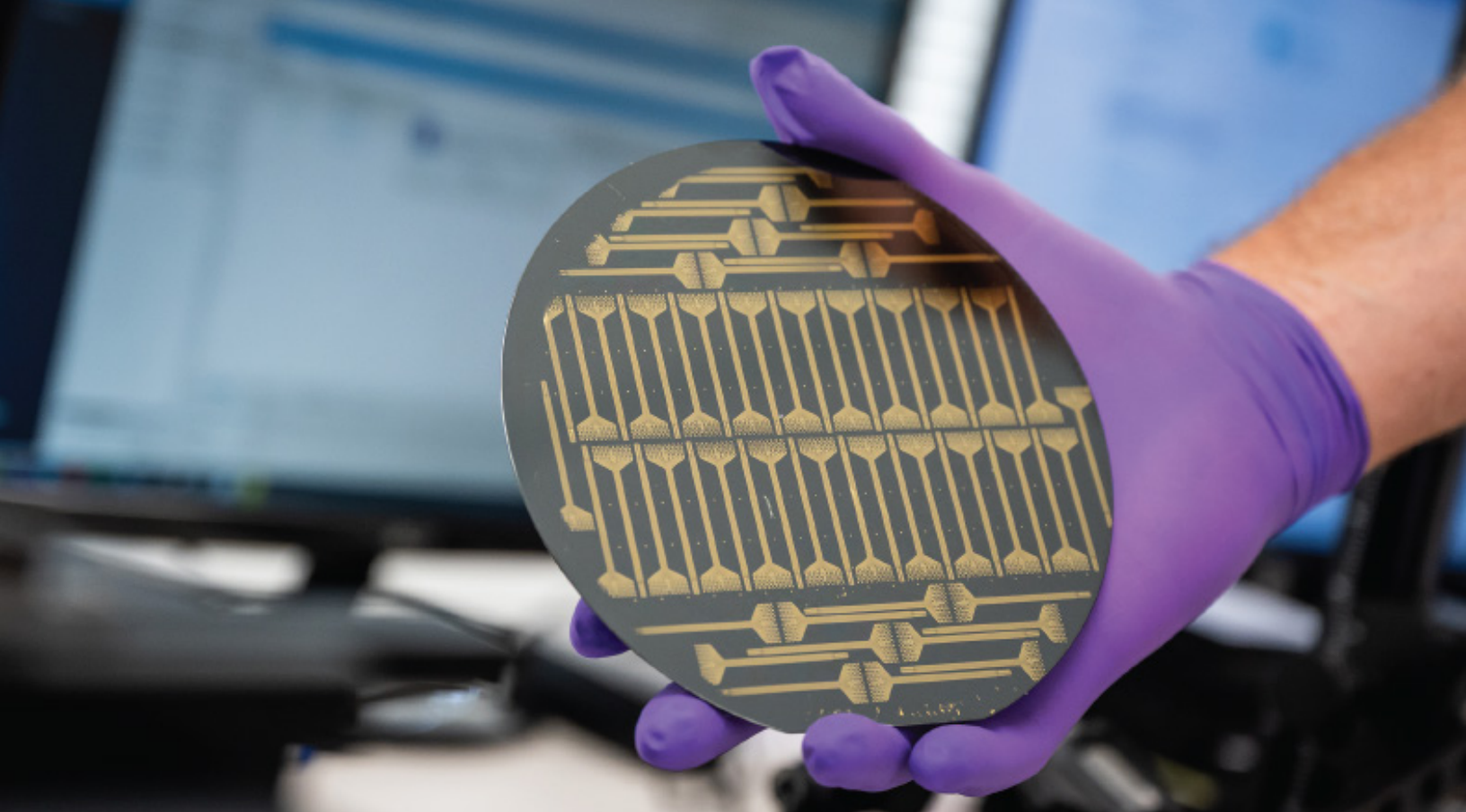
Not drawn to scale

SPECIFICATION	DIMENSIONS
Max shank length	90 mm
Shank diameter	0.2 mm
Site diameter	20 μm
Recording span	3.175 mm
Shank material	Stainless steel

128 CHANNEL



Not drawn to scale



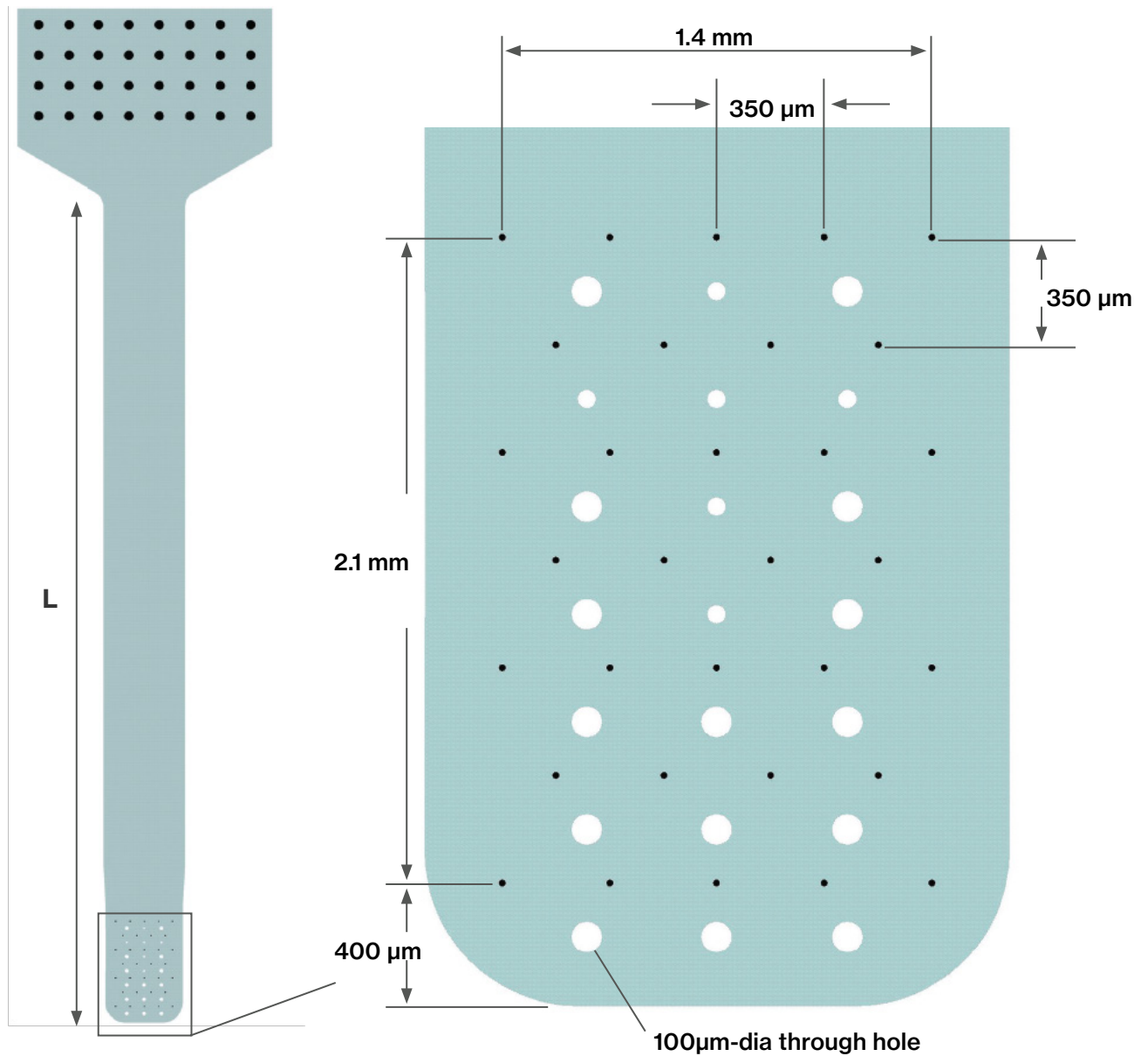
MICRO-EC_oG

DBC's ultra-thin, conformable polymer electrode arrays are used for recording field potentials and spikes from the surface of the brain.

These electrodes are utilized in acute and chronic experiments in a variety of animal models including rodents, sheep and non-human primates. Just like our penetrating (laminar) probes, the recording sites are designed for high spatial resolution field and action potential recording.

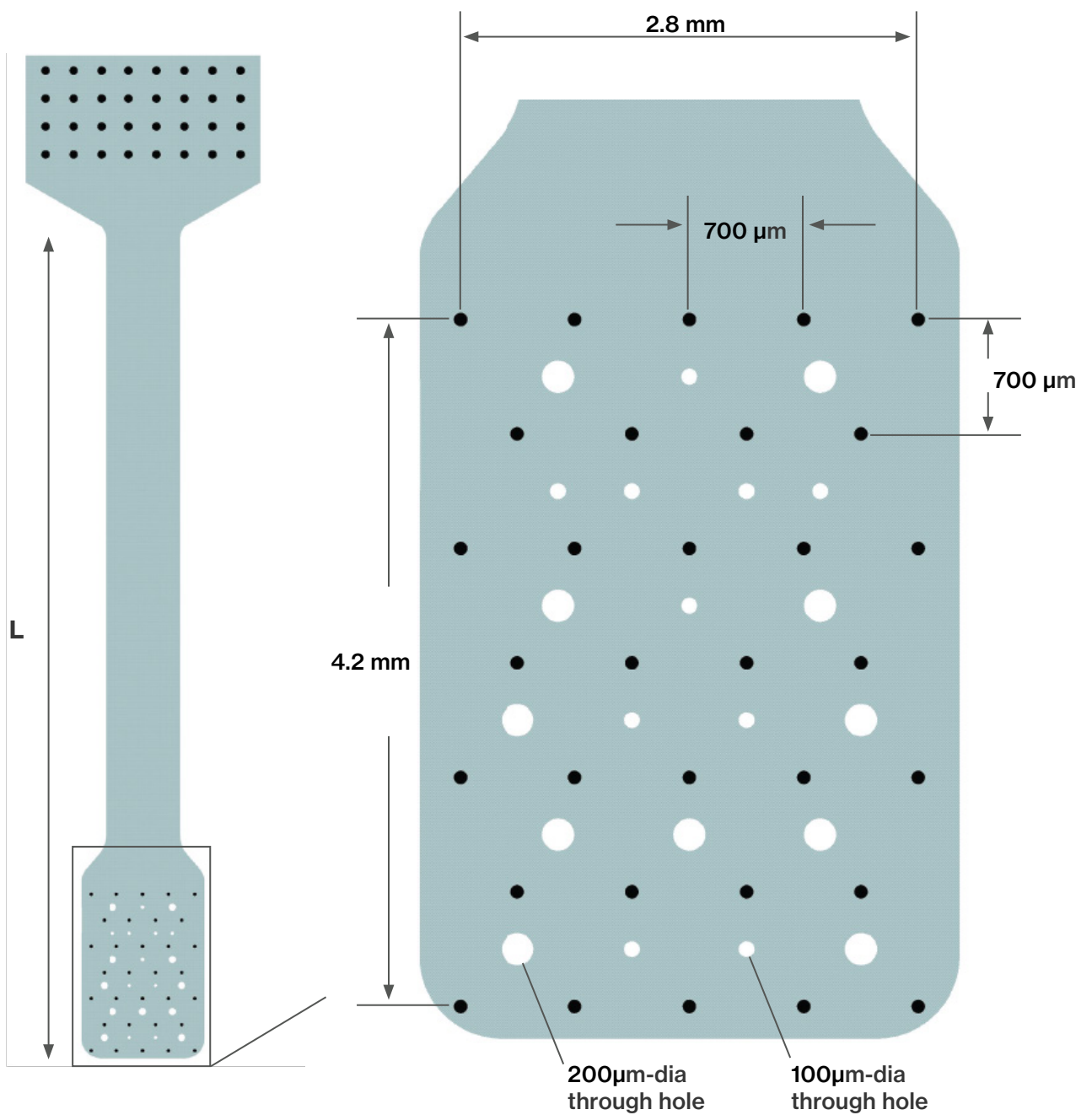
SPECIFICATION	DIMENSIONS
Cable length (L)	18 mm
Cable thickness	4 μm
Recording site	20 μm diameter
Assembly	ASSY-116

32 CHANNEL



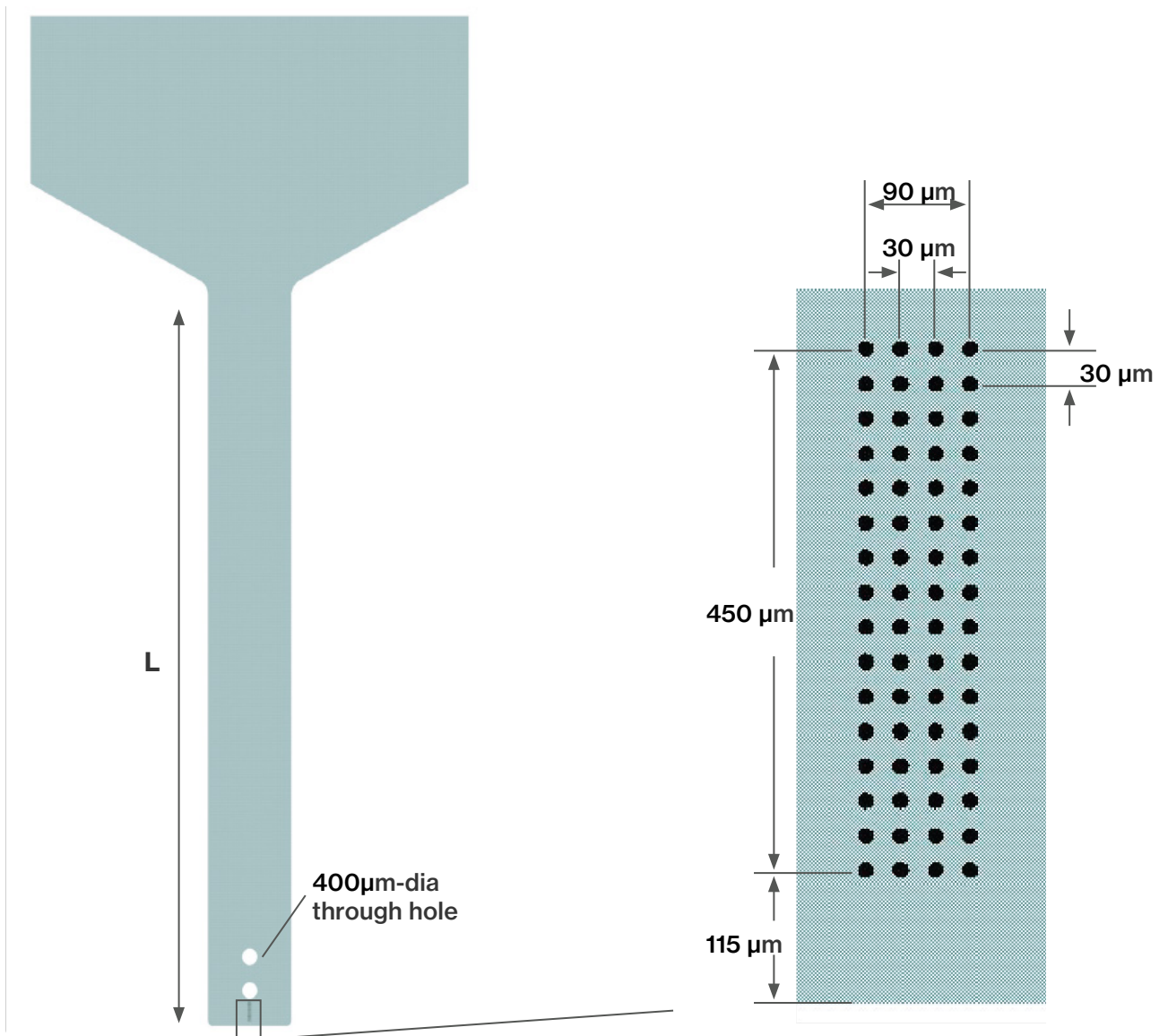
SPECIFICATION	DIMENSIONS
Cable length (L)	18 mm
Cable thickness	4 μm
Recording site	80 μm diameter
Assembly	ASSY-116

32 CHANNEL

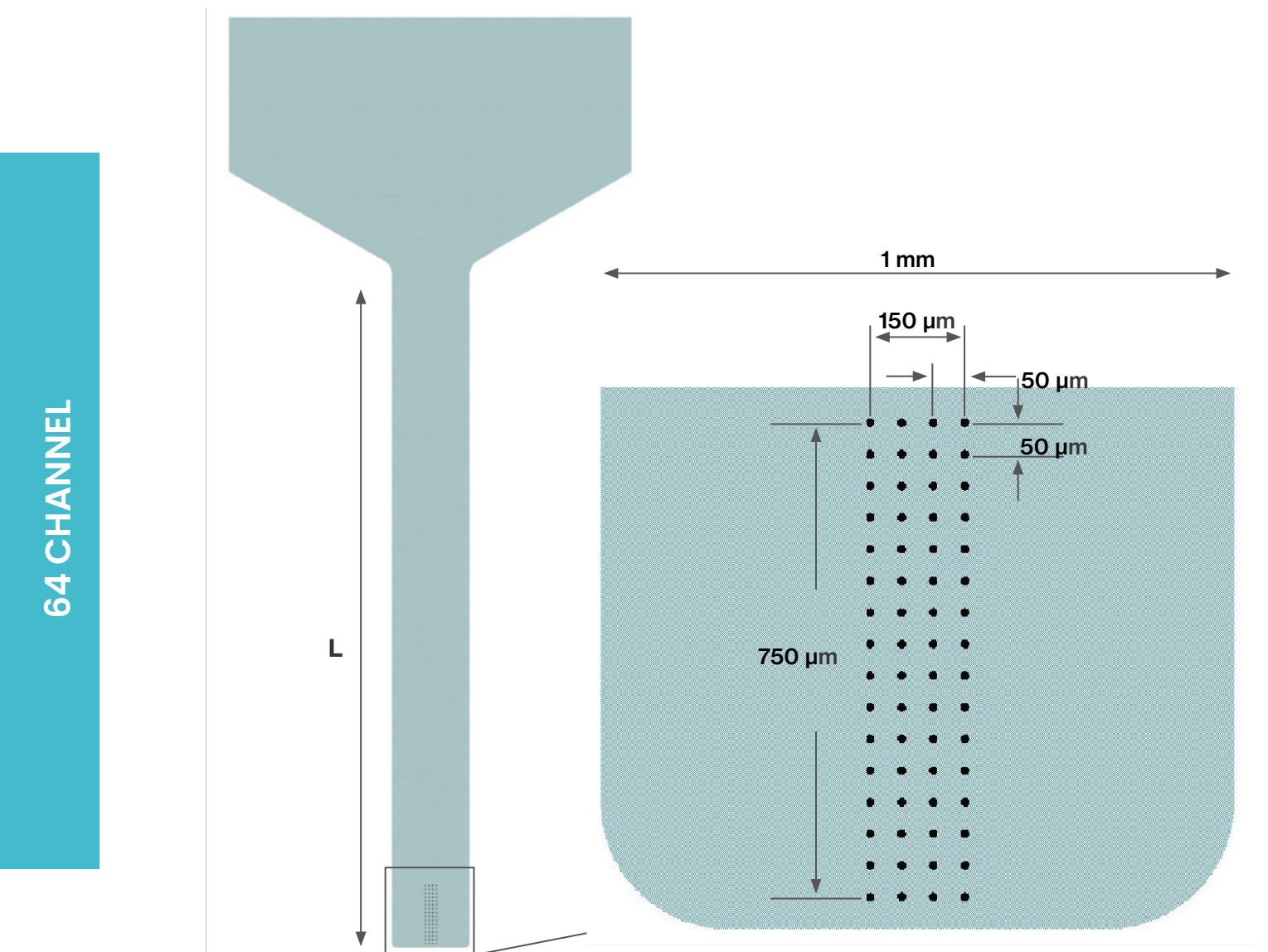


SPECIFICATION	DIMENSIONS
Cable length (L)	20 mm
Cable thickness	4 μ m
Recording site	12 μ m diameter
Assembly	ASSY-156

64 CHANNEL

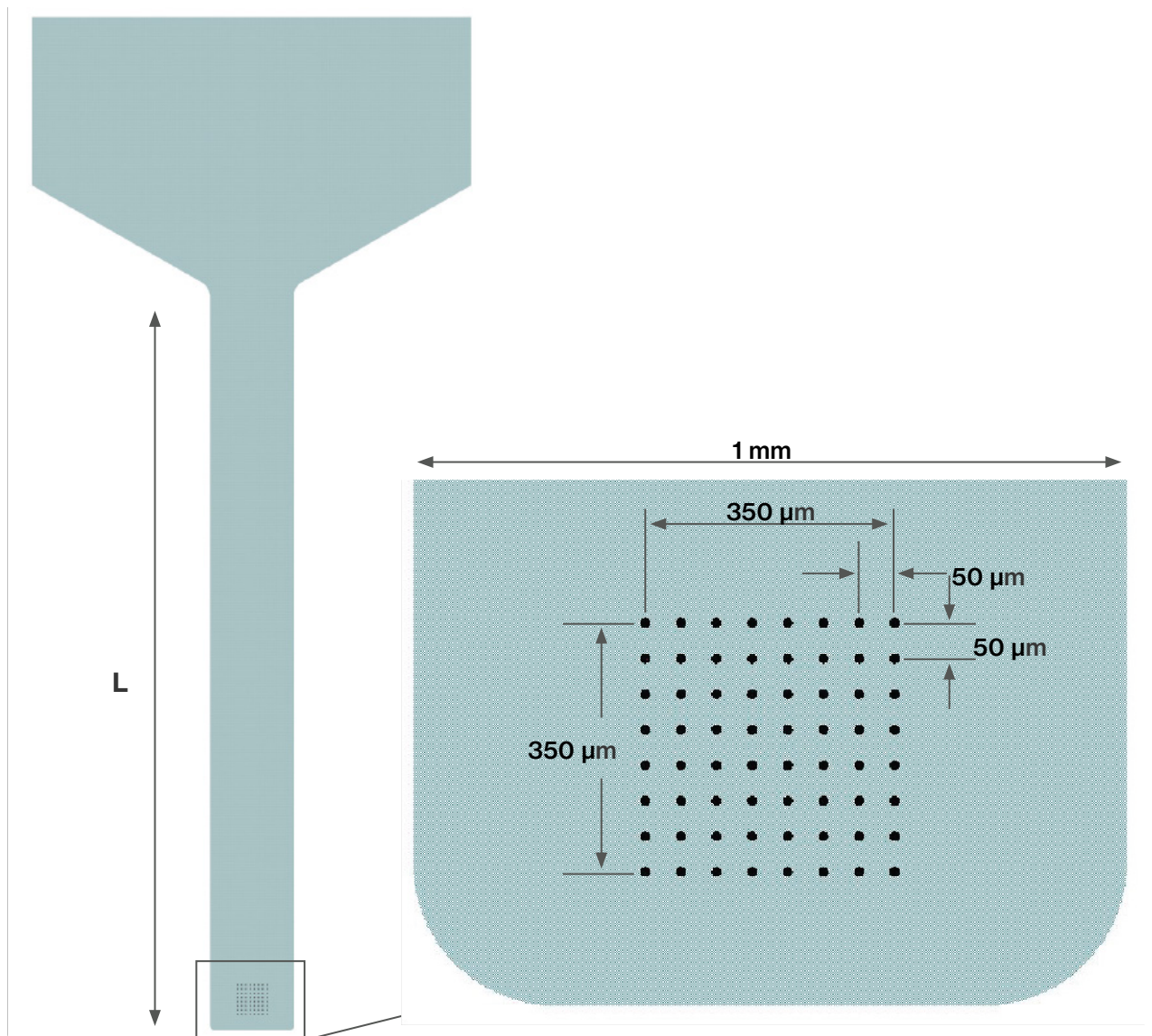


SPECIFICATION	DIMENSIONS
Cable length (L)	20 mm
Cable thickness	4 μm
Recording site	12 μm diameter
Assembly	Int-64



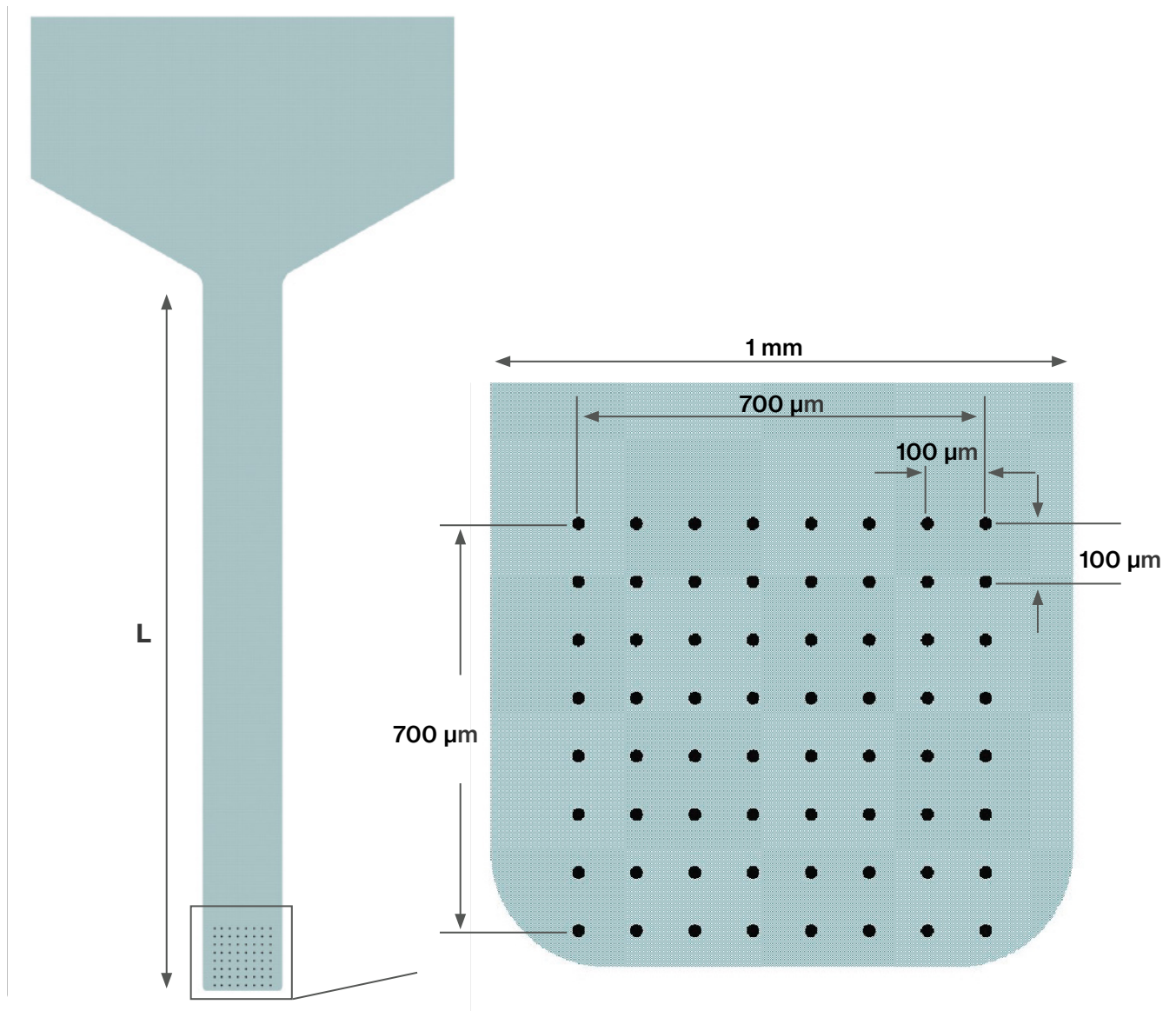
SPECIFICATION	DIMENSIONS
Cable length (L)	20 mm
Cable thickness	4 μm
Recording site	12 μm diameter
Assembly	Int-64

64 CHANNEL



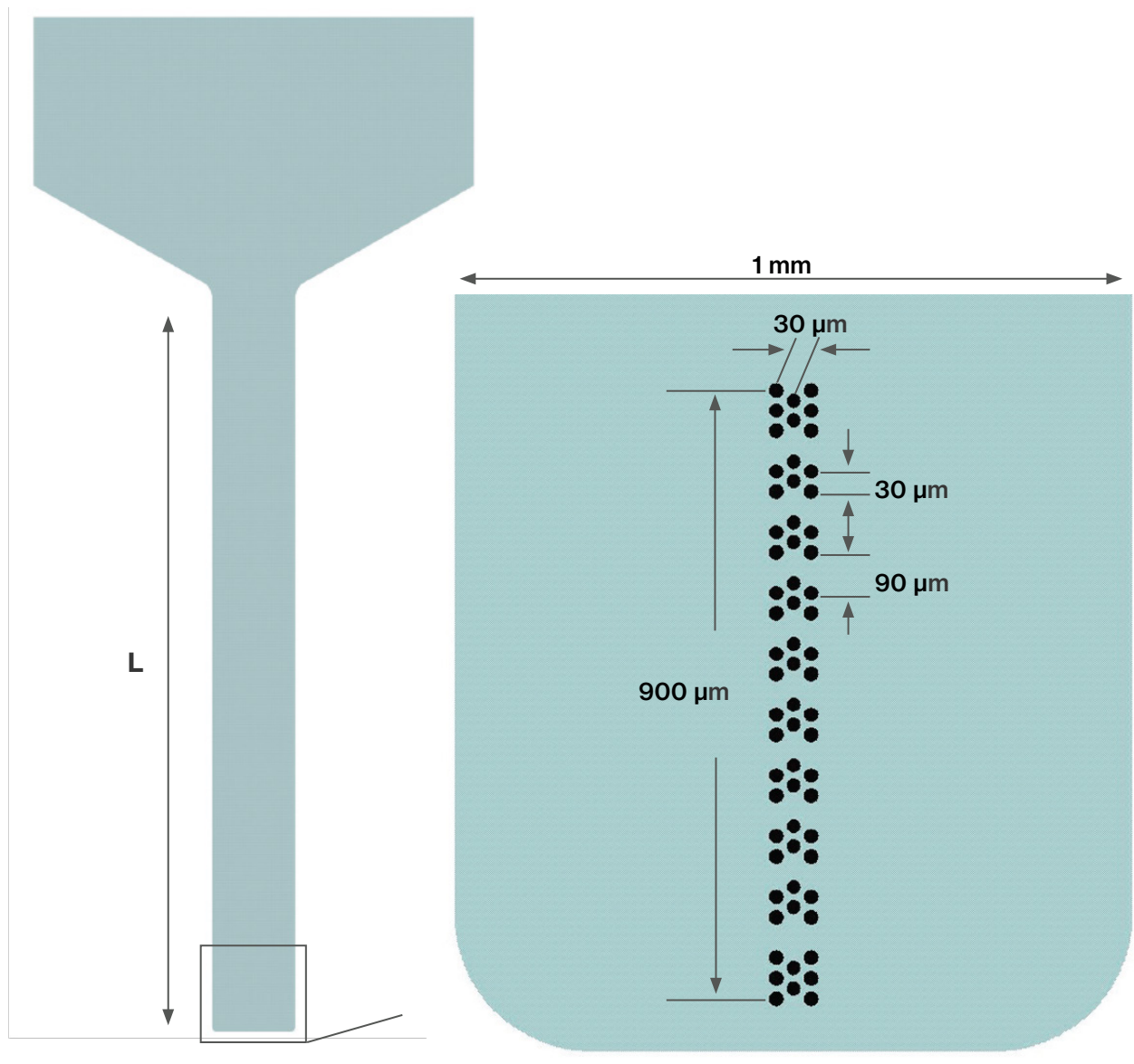
SPECIFICATION	DIMENSIONS
Cable length (L)	20 mm
Cable thickness	4 μm
Recording site	20 μm diameter
Assembly	Int-64

64 CHANNEL



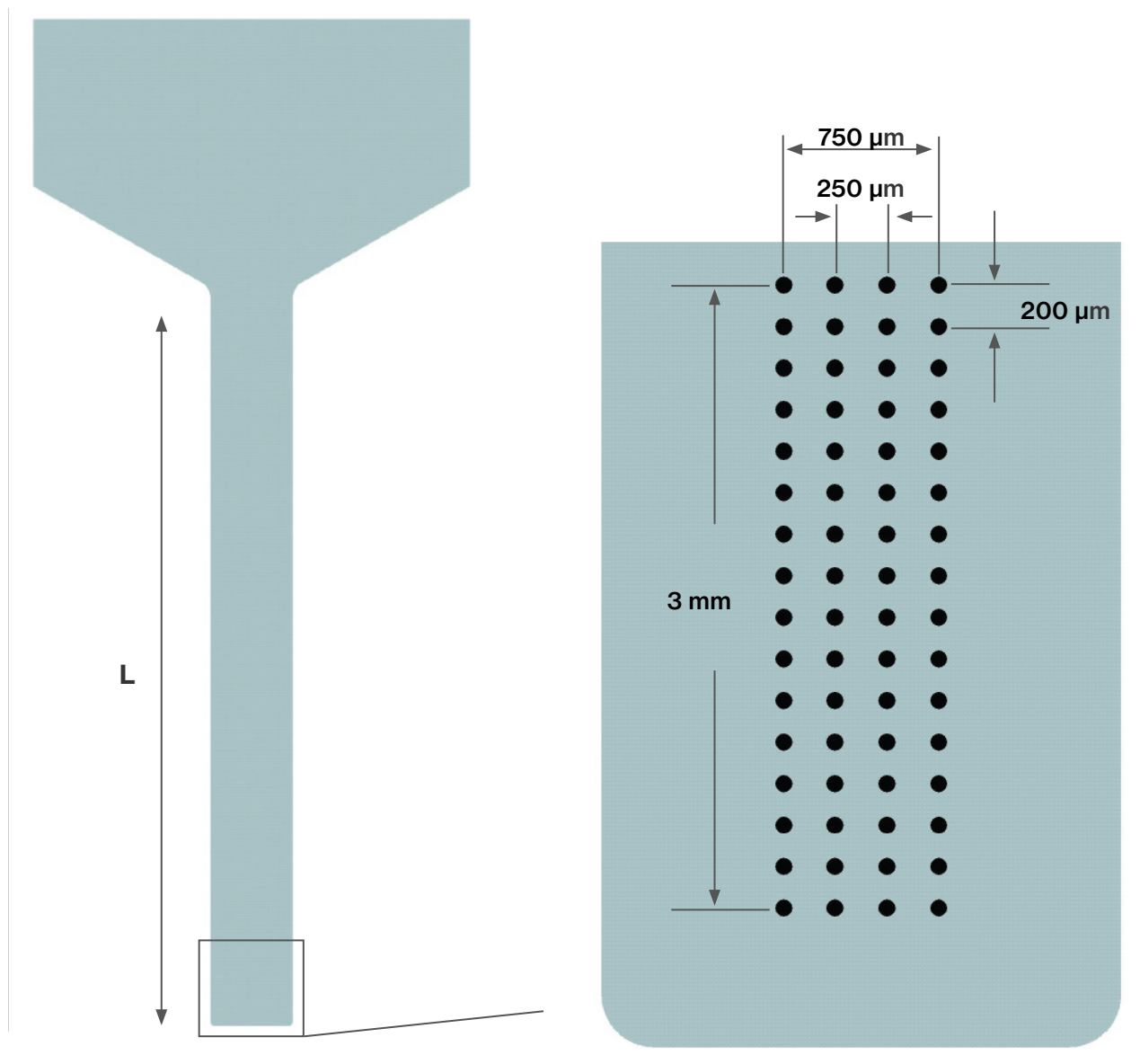
SPECIFICATION	DIMENSIONS
Cable length (L)	20 mm
Cable thickness	4 μm
Recording site	20 μm diameter
Assembly	Int-64

64 CHANNEL



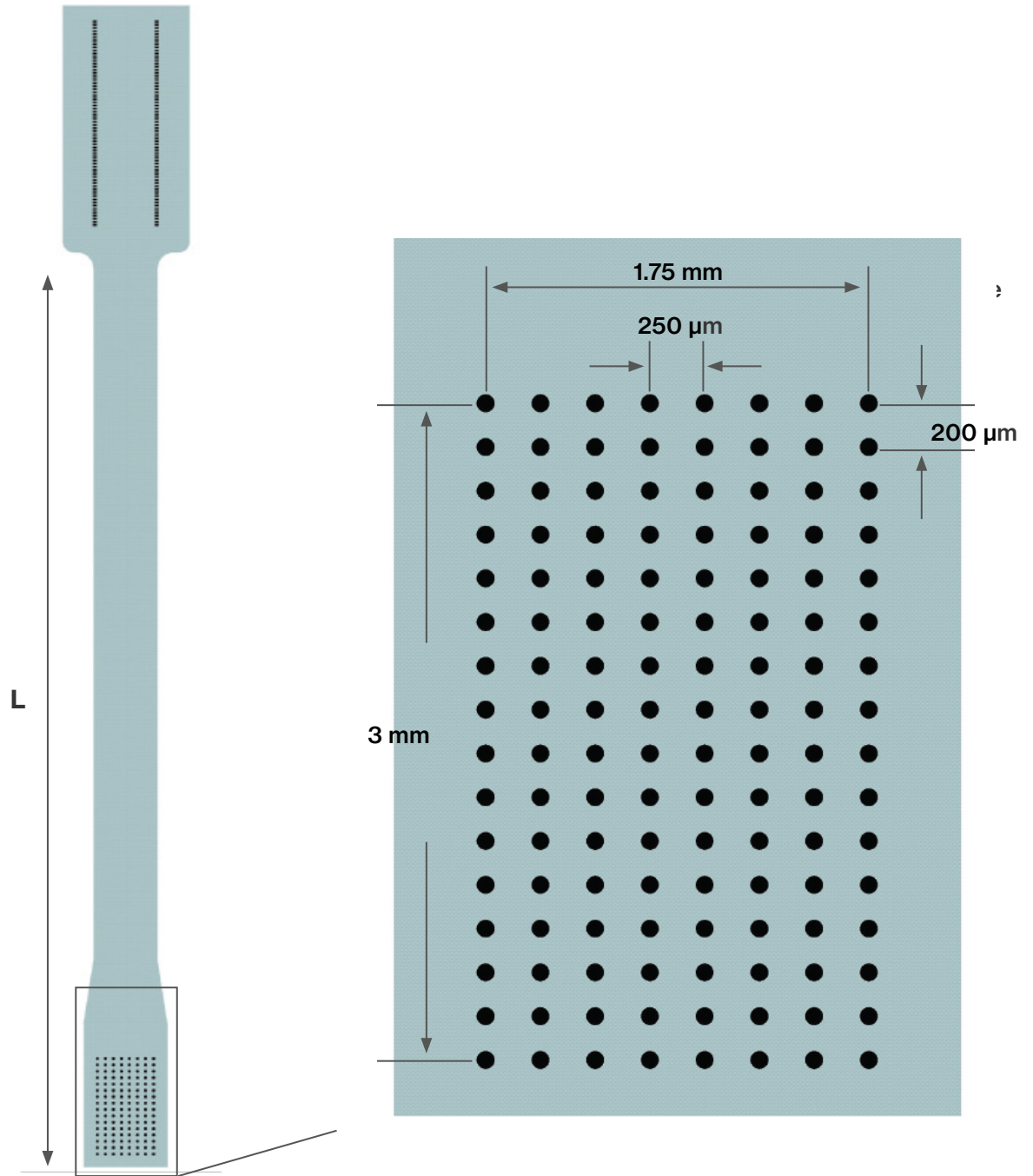
SPECIFICATION	DIMENSIONS
Cable length (L) 20 mm	
Cable thickness	4 μ m
Recording site	80 μ m diameter
Assembly	ASSY-156, Int-64

64 CHANNEL



SPECIFICATION	DIMENSIONS
Cable length (L)	20 mm
Cable thickness	4 μm
Recording site	80 μm diameter
Assembly	Int-128

128 CHANNEL





Diagnostic
B I O C H I P S

Electrophysiology Reimagined

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