GDAŃSK UNIVERSITY OF TECHNOLOGY

Appendix No. 1
ZZ/149/009/D/2024

DESCRIPTION OF THE SUBJECT OF THE ORDER

Supply of the 32-channel signal preamplifier boards for tracking system is part of a project No. 2022/47/P/NZ4/03358 within the POLONEZ BIS programme co-funded by the National Science Centre and the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No. 945339

Research project entitled *Electrical stimulation of Anterior Thalamic Nuclei for memory modulation.*

The subject of the contract is divided into two parts. The Ordering Party allows the submission of an offer for a selected part.

PART 1 - 32-channel signal preamplifier board with infrared LEDs

32-channel signal preamplifier board with at least 5m-long cables with infrared LEDs for tracking system

Supply includes: 1 unit

Requirements**:**

- must be non-inverting JFET input amplifiers with 100 Mohm input impedance
- input connectors Mill-Max 0.05" pitch, 9x4 array
- maximum PCB size 21 x 16 mm
- must include wide-view infrared LEDs arranged in two clusters of 4 and 2 LEDs, each spaced 4-5 cm apart, with brightness adjustable
- minimum 5m-long cables must be constructed in two bundles of 22 individual cores, each core made from stranded wire (for example 7xAWG44), to provide the robustness and flexiblity required for low-noise recording in freely-moving animals
- must be proven to be successfully used for single-unit recordings in freely moving rats in spatial memory studies which were published in multiple scientific publications in top-tier neuroscience journals

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PART 2 - 32-channel signal preamplifier board

32-channel signal preamplifier board with at least 5m-long cables

Supply includes: 1 unit

Requirements:

- must be non-inverting JFET input amplifiers with 100 Mohm input impedance
- input connectors Mill-Max 0.05" pitch, 9x4 array
- maximum PCB size 21 x 16 mm
- minimum 5m-long cables must be constructed in two bundles of 22 individual cores, each core made from stranded wire (for example 7xAWG44), to provide the robustness and flexiblity required for low-noise recording in freely-moving animals
- must be proven to be successfully used for single-unit recordings in freely moving rats in spatial memory studies which were published in multiple scientific publications in top-tier neuroscience journals

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