NeuroNexus
neuronexus.com

X-SERIES XDAQ™

XDAQ™ is the next generation of electrophysiology research systems for bidirectional neural interfaces. NeuroNexus offers its X-Series products in partnership with KonteX Neuroscience, tuned for our microelectrode arrays and Radiens™ software suite for the best, most turnkey experience.

- Starting at $4875
- Up to 1024 ch Recording
- Up to 128 ch Stimulation
- Expandable, Modular GPIOs
- Flexible Analog Waveform Generator

1024 ch Electrophysiology

Stream data from up to four 256 channel headstages (X6R256 X-Headstage), or 16 RDH2146 chips, for a total of 1024 channels simultaneously at 30 kHz.

128 ch Electrical Stimulation

In stimulation mode, **XDAQ™** One has 128 switchable and software-configurable stim/record channels that can drive up to four 32 ch stim/rec headstages (X3SR32 X-Headstage) or 8 RHS2116 chips. Drive customizable stimulation from 10 nA to 2.55 mA of constant current stimulation per channel.

Configurable stimulus pattern:
- Biphasic
- Triphasic
- Burst

Configurable compliance voltage:
- +/- 7 V
- 10 V to -4 V
- 4 V to –10 V

Isolated Neural Data Input Port

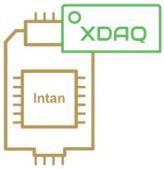
XDAQ™ is designed for the highest quality data possible. Stimulation and recording ports are electrically isolated from all other inputs and outputs to optimize signal quality and reduce noise.

TruGround

Most systems have a single ground node and are not optimized for *in vivo* ephys. TruGround makes noise optimization easy and logical by separating grounds and electrical paths into two nodes. Access both headstage and earth shield ground nodes via the headstage and the back panel on **XDAQ™**.

Capabilities

Switchable Stimulation/Recording: **XDAQ™** and **X-Headstage** offer a software configurable interface to select and modify stimulation and recording channels on your probe.



Cross-Compatibility: **XDAQ™** and **X-Headstage** are compatible with **Intan** system components and software.

Electroplating: **XDAQ™** with SR stim/record headstages can perform automated electroplating.

Short Circuit Analyzer: **XDAQ™** controls the short analyzer to identify shorts in probes and headstages.

TTL & DAC Output Pattern Generator: **XDAQ™** features a flexible pulse generator engine that can drive digital and analog outputs.

Impedance Testing: **XDAQ™** and **X-Headstage** can perform electrode impedance measurements.

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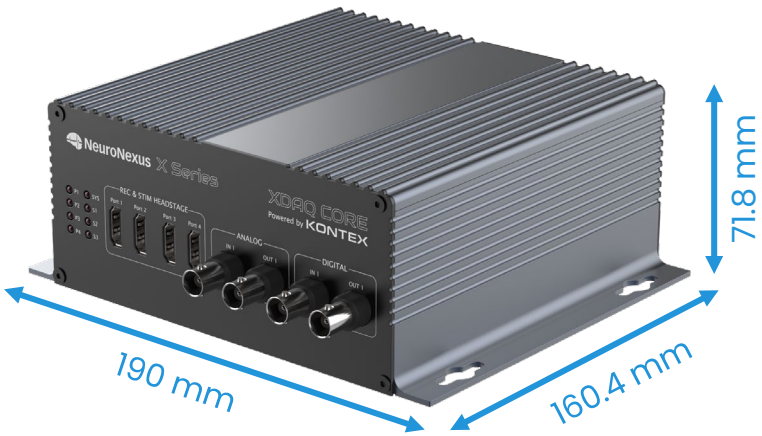
XDAQ™

XDAQ ONE

- 512/1024 Channel (1-30 kHz freq)
- 64/128 Channel Electrical Stimulation
  - 10 nA-2.55 mA, 33 µs steps
  - VStim: ±7 V, 10 V to -4V, 4 V to -10 V
- 4X Digital GPIO (compliance: +/-5 V)
- 4X Analog GPIO (+/-10 V, calibrated)
- Isolated Ports
- TruGround
- Heavy-Duty Heatsink Enclosure
- Additional GPIO using XDAQ Expander and DB25 BNC Breakout Board

Specifications

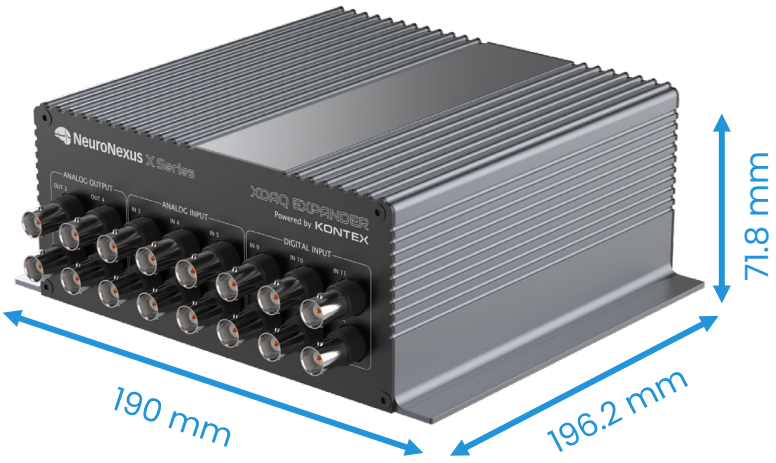


XDAQ CORE

- 512 Channel Recording (1-30 kHz freq)
- 16/32 Channel Electrical Stimulation
  - Port 1 only
  - ± 10 nA to ± 2.55 mA, 33 µs steps
  - VStim: ±7 V
- 2X Digital GPIO (compliance: +/-5 V)
- 2X Analog GPIO (+/-10 V)
- Aluminum Enclosure
- Additional GPIO using XDAQ Expander and DB25 BNC Breakout Board

XDAQ EXPANDER

- +24 Digital GPIO (compliance: +/-5 V)
- +6 Analog GPIO (+/- 10 V, calibrated)
- Aluminum Enclosure



DB25

- Panel Mountable BNC Breakout Board
- +12 Digital GPIO (compliance: +/-5 V)

Powered by
KONTEX

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