

X-SERIES: XDAQ™

INTRODUCING OUR XDAQ™: The next generation of electrophysiology research for bidirectional neural interfaces

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

ISOLATED NEURAL DATA INPUT PORT:

XDAQ™ ensure high quality data.

- Stimulations and recordings ports are electrically isolated for optimal signal quality and noise reduction.

TruGround: Most systems have a single ground node that are not optimized for *in vivo* ephys.

- Streamlines noise optimization by separating grounds and electrical paths into two nodes.
- Access the headstage and earth shield ground nodes through the headstage and XDAQ™ back panel.



ELECTROPHYSIOLOGY MODES:

Recording Mode:

- Sampling rate: 30kHz record data up to 1024 ch
- four 256 ch headstages (X6R256) or 16 RDH214 chips

Stimulation/Recording- XDAQ One:

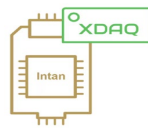
- **128ch stim or recording**
 - Four 32 ch Stim/record headstages (X3SR32)
 - or 8 RHS2116 chips
- **Current:**
 - 10nA to 2.55 mA of constant Stimulation per channel
- **Configurable stimulus pattern:**
 - Biphasic
 - Tiphasic
 - burst
- **Configurable compliance voltage:**
 - +/- 7 V
 - 10 V to -4 V
 - 4 V to -10 V



CAPABILITIES

Switchable Stimulation/Recording:

XDAQ™ and X-Headstage offer a software configurable interface to 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 stimulation/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.



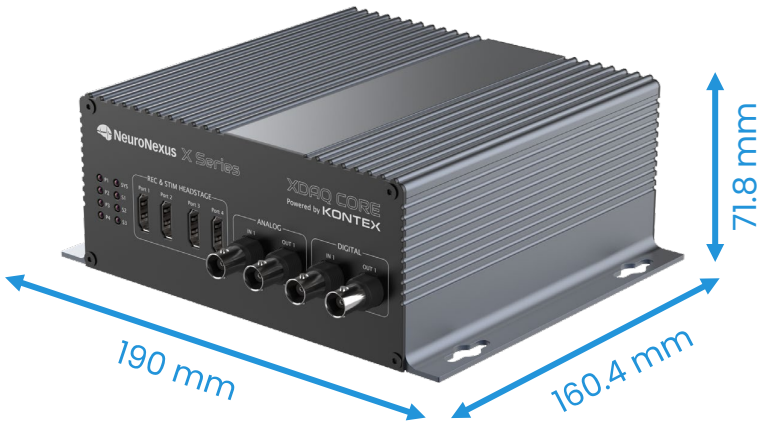
Impedance Testing: XDAQ™ and X-Headstage can perform electrode impedance measurements.

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XDAQ ONE

- 512/1024 Channel (1-30 kHz freq)
- 64/128 Channel Electrical Stimulation
 - 10 nA-2.55 mA, 33 μ s 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 μ s 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)



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