

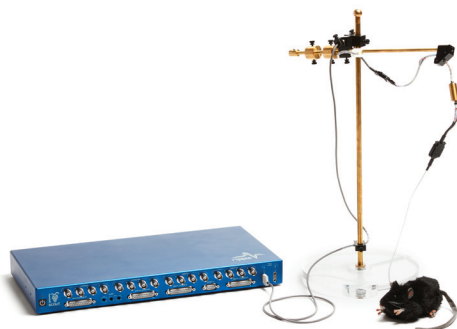
SIMULTANEOUS STIMULATION AND RECORDING IN THE SMALLEST FRONT END AVAILABLE

Powerful Technology in a Tiny Package

Featuring Ripple Neuro's proprietary ASIC technology, the Pico Front Ends are exceptionally small and lightweight allowing for simultaneously stimulation and recording in the smallest behaving animals such as mice and songbirds. Notable features include:

- Selectable stimulation on any (or all) channels: Each and every channel can independently be selected for stimulation on-the-fly
- Fast Settle Technology to eliminate stimulus artifacts: With submillisecond recovery time, you can see the resultant spikes from your stimulation
- Digitization for noise immunity: Digitizing on the skull makes the signal immune to movement artifacts. Multiplexing multiple channels onto fewer conductors allows for an exceptionally lightweight and flexible cable.
- Smallest and lightest commutator available: The Pico commutator is exceptionally small and weighs less than 10g. This allows it to be mounted on a balance arm which gives the subject much greater range of motion.

	<i>PICO16+STIM</i>	<i>PICO32</i>	<i>PICO32+STIM</i>
Weight	0.8 grams	1.2 grams	2.3 grams
Dimensions	13.2 x 11.7 x 3.5 mm	15.0 x 13.8 x 3.5 mm	23.8 x 21.5 x 3.5 mm



THE ULTIMATE SYSTEM FOR FREELY BEHAVING SUBJECTS

With the power and flexibility of the Scout Processor, you have everything you need for truly novel experiments. Onboard processing allows for closed-loop stimulation with minimal latency, or dynamic experiments that adapt to the animal's behavior. A multitude of analog and digital I/O allows you to control a wide array of behavioral devices. Integrated video recording from multiple inexpensive USB cameras allow you to easily match behavior to electrophysiological responses.

SYSTEM SPECIFICATIONS

Number of Channels	Up to 128
Sample Rate	30 ksps
Resolution	16-bit – 0.125, 0.25, or 0.5 $\mu\text{V}/\text{bit}$
Input Range	$\pm 4, 8, \text{ or } 12 \text{ mV}$ (set by resolution)
Input - Referred Noise	$< 2.1 \mu\text{Vrms}$
Analog I/O	28 inputs and 28 outputs
Digital I/O	20 inputs, 20 outputs and 2 strobos
Impedance Measurement	10 k Ω to 1.0 M Ω
Stimulation Resolution	1, 2, 5, or 10 $\mu\text{A}/\text{step}$ (programmable)
Stimulation Range	± 100 steps (up to $\pm 1 \text{ mA}$)
Compliance Voltage	$\pm 8.5 \text{ V}$

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