



Wirelessly Programmable Dual Channel Neural Stimulation System

» For Neuroscience Research Applications

FEATURES

- » Two External TTL Stimulation triggers available on USB Dongle
- » Available with 2 channels, independently enabled and programmed
- » Up to $\pm 1\text{mA}$ output
- » Drives electrodes with up to 20 k Ω resistance*
- » Headstage weight: 3.6 grams
- » Internal 60mAH rechargeable battery (battery life varies with stim pattern requirements)
- » Communicates data with StimWare® via USB dongle transceiver
- » Up to 12 bits of current resolution
- » Pulse width as short as 100 μs



Stimulator Headstage USB Dongle Transceiver



PRODUCT DETAILS

Triangle BioSystems International presents a dual channel wireless neural stimulation system that allows researchers to generate and upload two separately customizable waveform patterns via a USB dongle transceiver. Alternatively, the two channels can be combined to achieve an even larger voltage differential. The complete system is comprised of a wireless stimulating headstage with integrated battery, a USB dongle transceiver and StimWare® pattern generation software. The StimWare® software interface allows the user direct control over the details of the uploaded stimulation pattern, including three tiers of nested patterns, on/off function and a manual pattern trigger option.

This small headstage unit can be quickly and easily mounted on an animal's head and, depending on the programmed signal frequency and amplitude, can provide up to weeks of wireless stimulation before draining the battery completely. Additionally, this headstage can be used concurrently with our wireless, tethered or multiplexed neural recording headstages.



Stimulator Headstage



S-Series

Stim Ware

Pattern Generation Software

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SOFTWARE FEATURES

In using StimWare™ for the 2 channel wireless stimulator system, you are provided precise control over every aspect of your experiments. Just set the details of your signal in our user-friendly interface, then upload the pattern. It's that easy.

System control options include:

- » Initial Delay
- » Single Pulse Current and Duration
- » Train Pattern (Multiple Pulses)
- » Stimulus Pattern (Multiple Trains)
- » Remote headstage on/off control
- » Manual pattern triggering



SYSTEM SPECIFICATIONS

PARAMETER	MIN	TYP	MAX	UNITS	NOTES
Power Supply					
Battery life	3		5.5	Hours	Re-chargeable battery with 15 minute recharge time
Input Impedance Specs					
8kΩ			±1	mA	Up to 100μs pulse width
80kΩ			±100	μA	Up to 100μs pulse width
1MΩ			±8	μA	Up to 100μs pulse width
Headstage Mechanical Specs					
Length		19.6		mm	Edge to Edge
Width		17.8		mm	Edge to Edge
Height		10.5		mm	Edge to Edge
Weight		3.6		grams	With connector and dipped package
Output connector					4-Pin Male Mill-max, .050"