

# USB Pre-Programmable Dual Channel Neural Stimulation System

S-Series

» For Neuroscience Research Applications

## FEATURES

- » Available with 2 channels, independently enabled and programmed
- » Up to  $\pm 1\text{mA}$  output
- » Headstage weight: 3.3 grams
- » Internal 60mAH rechargeable battery (battery life varies with stim pattern requirement)
- » Reprogrammable with StimWare™ via USB tether connection
- » Up to 12 bits of current resolution
- » Magnetically controlled on/off and standby/active mode switches
- » Pulse width as short as  $100\mu\text{s}$
- » LED indicators for mode type, battery life, & USB charging



Stimulator Headstage

## StimWare

Pattern Generation Software

Stimulator  
Headstage

USB Data Upload



## PRODUCT DETAILS

Triangle BioSystems International presents a dual channel wireless neural stimulating headstage system that allows researchers to generate and upload two separately customizable waveform patterns via a simple USB interface. 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, StimWare™ pattern generation software, and a USB cable for uploading waveforms and recharging. The StimWare software interface allows the user direct control over the details of the uploaded stimulation pattern, including three tiers of nested patterns.

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



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)



### SYSTEM SPECIFICATIONS

PARAMETER	MIN	TYP	MAX	UNITS	NOTES
<b>Power Supply</b>					
Battery life	3		5.5	Hours	Re-chargeable battery with 15 minute recharge time
<b>Input Impedance Specs</b>					
6.5kΩ			±1	mA	Up to 100μs pulse width; Max output current
25kΩ			±260	μA	Up to 150μs pulse widthcurrent
50kΩ			±130	μA	Up to 250μs pulse width
100kΩ			±60	μA	Up to 350μs pulse width; Max recommended impedance
<b>Headstage Mechanical Specs</b>					
Length		22.8		mm	Edge to Edge
Width		18.4		mm	Edge to Edge
Height		8.5		mm	Edge to Edge
Weight		3.3		grams	With connector and dipped package
Output connector					4-Pin Male Mill-max, .050"