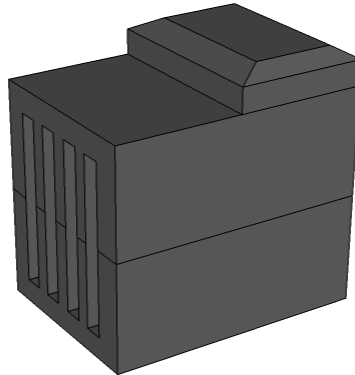


Blackrock Quick Switch Adapter Instructions for Use



Blackrock Microsystems, Inc.

630 Komas Drive, Suite 200

Salt Lake City, UT 84108

Tel: (866) 806-3692

www.blackrockmicro.com

Quick Switch Adapter – Instructions for Use

1 System Overview

The Quick Switch Adapter provides an interface between Blackrock's 128-Channel Stim Switch, Data Acquisition System and implanted microelectrode array(s) and is designed to programmatically switch between stimulation and recording for up to 96 electrodes (32 on each bank). In stimulation mode, current is directed towards a selected set of electrode channels from an approved stimulation source such as the CereStim R96. In recording mode, data from the neural signals are recorded and stored by a data acquisition system. The figure below shows an application overview of how the Quick Switch Adapter fits into a complete stimulation and recording system.

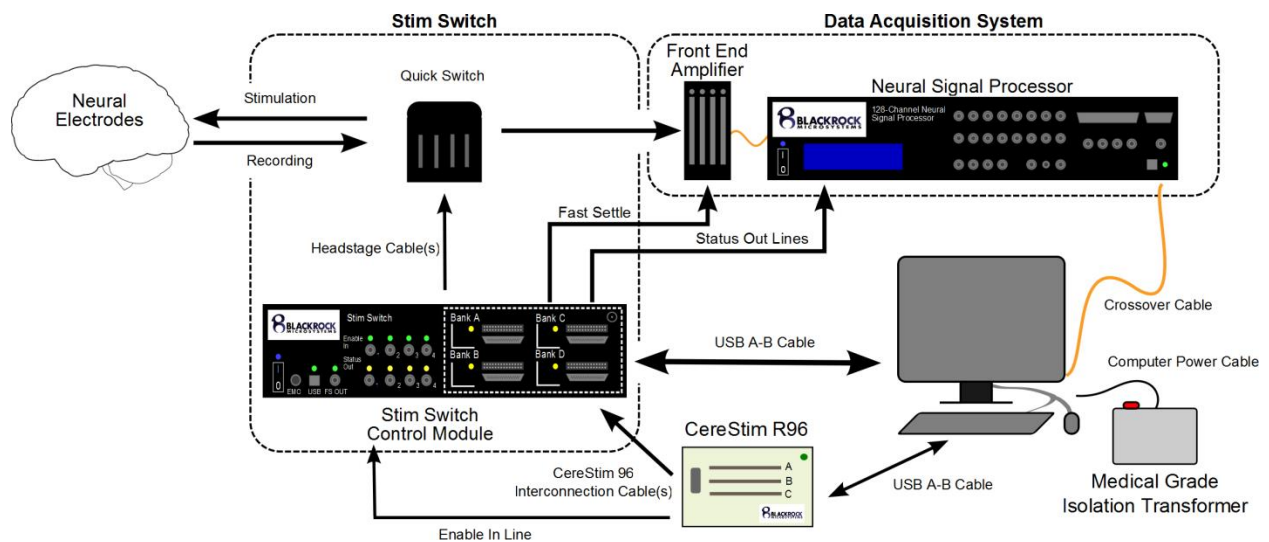


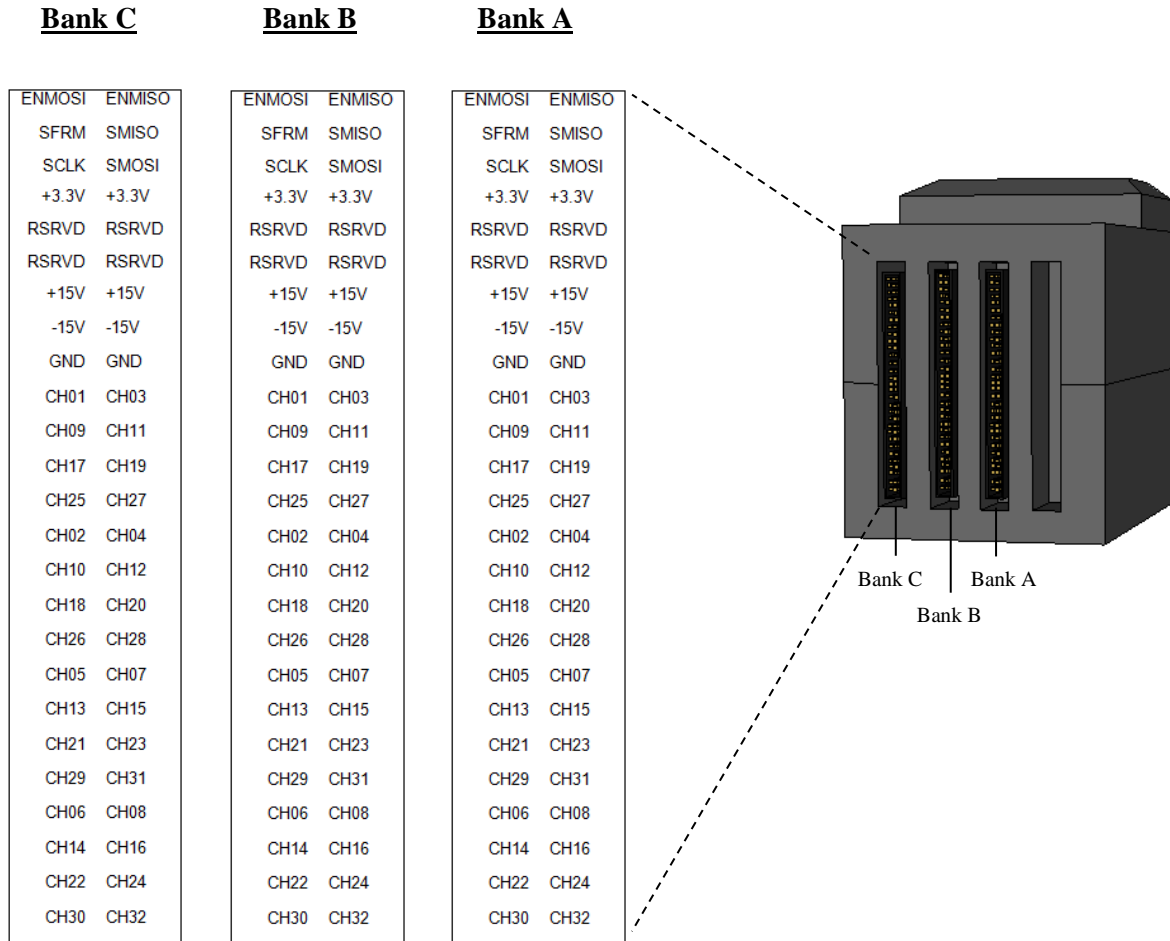
Figure 1: Application Overview

****NOTE:** The 128-Channel Stim Switch, CereStim R96, Microelectrode array(s) and Cerebus Data Acquisition System are purchased separately.

Quick Switch Adapter – Instructions for Use

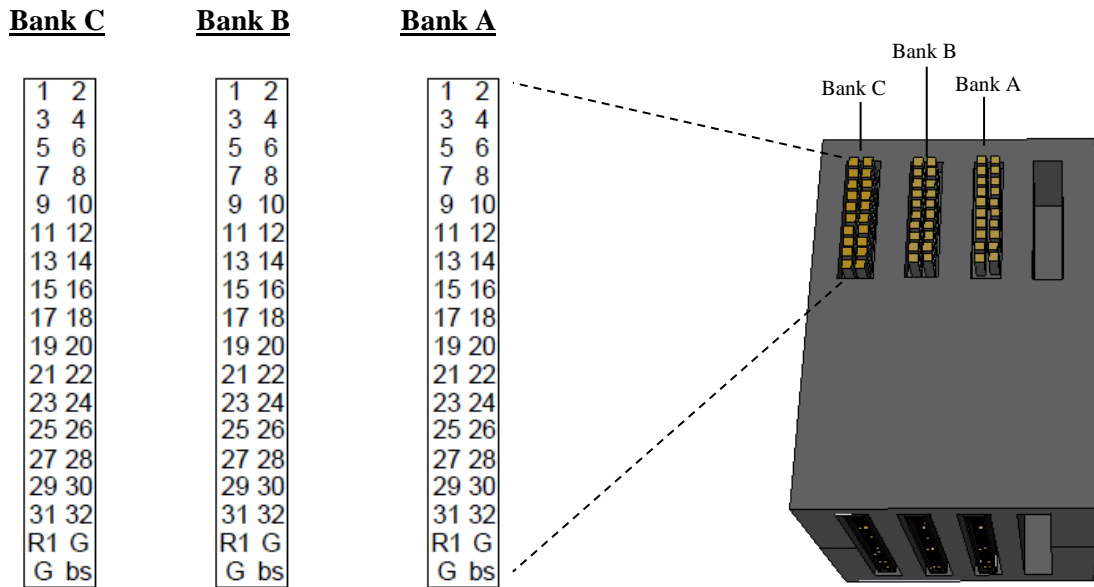
2 Quick Switch Adapter Pin-Out

2.1 Connection to 128-Channel Stim Switch (Side View):

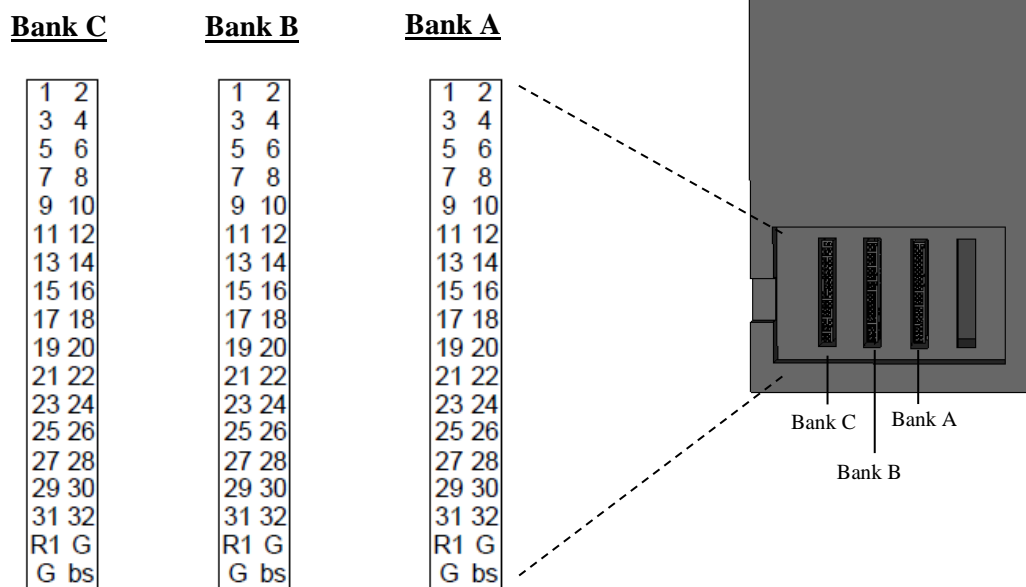


Quick Switch Adapter – Instructions for Use

2.2 Connection to Front-End Amplifier (Top View):



2.3 Connection to Electrode Array (Bottom View)



3 Quick Switch to Patient Cable Adapter Pin-Out

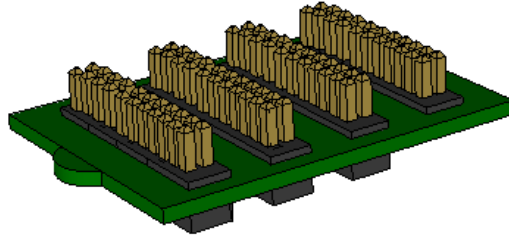
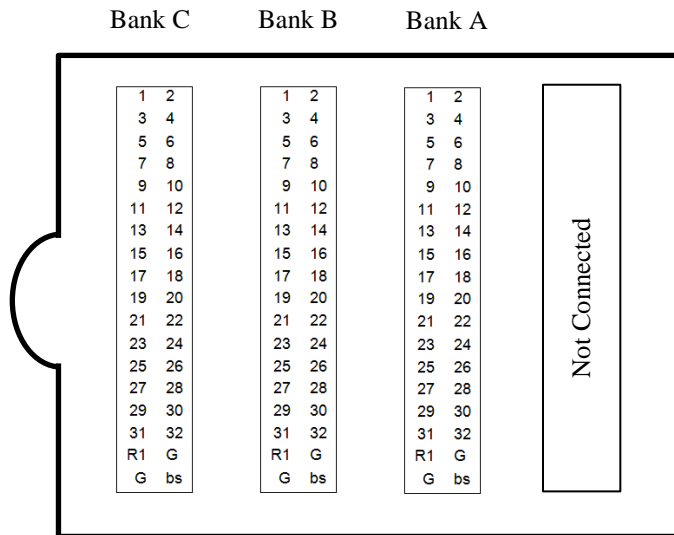


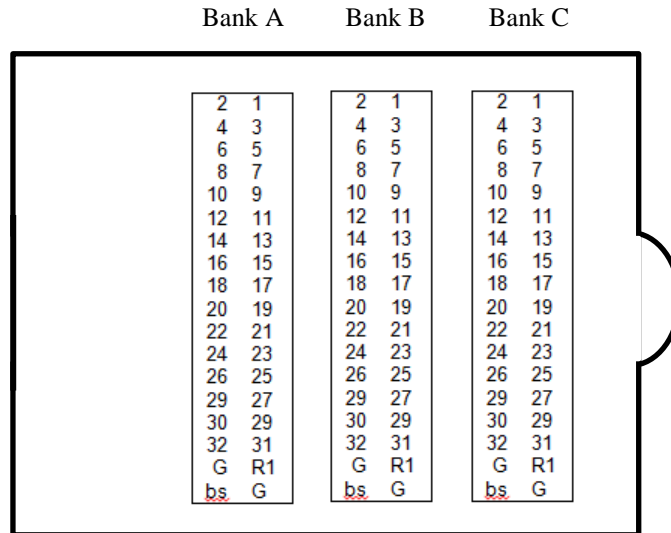
Figure 2: Quick Switch to Patient Cable Adapter

3.1 Top Layer (4 Connectors)



Quick Switch Adapter – Instructions for Use

3.2 Bottom Layer (3 Connectors)



4 Instructions for Assembly

4.1 Connection to the 128-Channel Stim Switch

1. Verify that all systems are powered off.
2. Assemble the 128-Channel Stim Switch according to the instructions in the 128-Channel Stim Switch User Manual.
3. Plug a Stim Switch Headstage Cable (included with 128-Channel Stim Switch packaging) into Banks A through C of the 'HST OUT' connectors on the front panel of the 128-Channel Stim Switch. The headstage cables can be secured in place using thumbscrews.
4. Plug the other end of the Headstage Cables into the 50-pin connectors of the Quick Switch Adapter. The Headstage Cables from each Bank (A-C) on the Stim Switch should connect to their corresponding Headstages housed within the Quick Switch (Refer to Section 2.1 above). Be careful, the connections are keyed, but it is possible to partially plug the cable(s) in backwards.

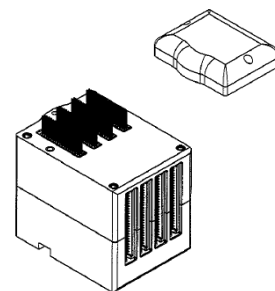


Figure 3: 128-Channel Stim Switch Headstage Cable

Quick Switch Adapter – Instructions for Use

4.2 Connection to the Data Acquisition System

1. Verify that all systems are powered off.
2. Using a screw driver, remove the top cover of the Headstage Housing to expose the connectors for connecting the Stim Switch to the Data Acquisition System.
3. Attach one end of the Patient Cable (i.e. the end with 4x 36 position female connectors) to the exposed connectors and attach the other end of the cable to the Front End Amplifier. The Patient Cable and Front End Amplifier are included in the CerePort Data Acquisition System packaging.
4. For further instructions on setting up and using the CerePort System, please refer to the user manual provided in the CerePort System packaging.



**Figure 4: Quick Switch
DatAcquisition
Connectors**

4.3 Connection to the Electrodes

1. Verify that all systems are powered off. **CAUTION: Never connect/disconnect the CerePort Plug when these systems are powered on.**
2. Attach the Quick Switch Adapter to the CerePort Plug. This connection is keyed.
3. Screw the NeuroPort plug securely onto the Patient Pedestal.
4. The Electrodes are now ready for stimulation/recording.

5 Warranty

Blackrock Microsystems, Inc. warrants that its products are free from defects in materials and manufacturing for a period of one year from the date of shipment. Blackrock will, at its option, repair or replace any product that does not comply with this warranty. This warranty is voided by:

1. Any modification or attempted modification to the product done by anyone other than an authorized Blackrock employee
2. Any abuse, negligent handling or misapplication of the product.

This constitutes the sole warranty made by Blackrock, Inc. There are no other warranties, expressed or implied, which extend beyond those described herein or to anyone other than the original purchaser, including the implied warranties of merchantability and fitness for a particular purpose. In no event shall Blackrock Microsystems, Inc. be liable for any incidental or consequential damages, or for the infringement of any patent rights or third party rights due to the use of its products.

Quick Switch Adapter – Instructions for Use

5.1 Return Merchandise Authorization (RMA)

In the unlikely event that your adaptor needs to be returned to Blackrock for repair or maintenance, do not send any equipment back without a Return Merchandise Authorization Number. An RMA number will be issued to you by a Blackrock representative. If you need to obtain an RMA number, you may contact a product support representative at (801) 582-5533 or toll free at (866) 806-3692.

Once an RMA number has been issued, it is important to safely pack the returned item for shipping back to Blackrock. It is preferred that you save the original boxes and packing materials that your system arrived in for return shipment. Please address the package as follows:

Blackrock Microsystems, Inc.
ATTN: RMA#
630 Komas Drive, Suite 200
Salt Lake City, UT 84108 USA
Tel: (801) 582-5533