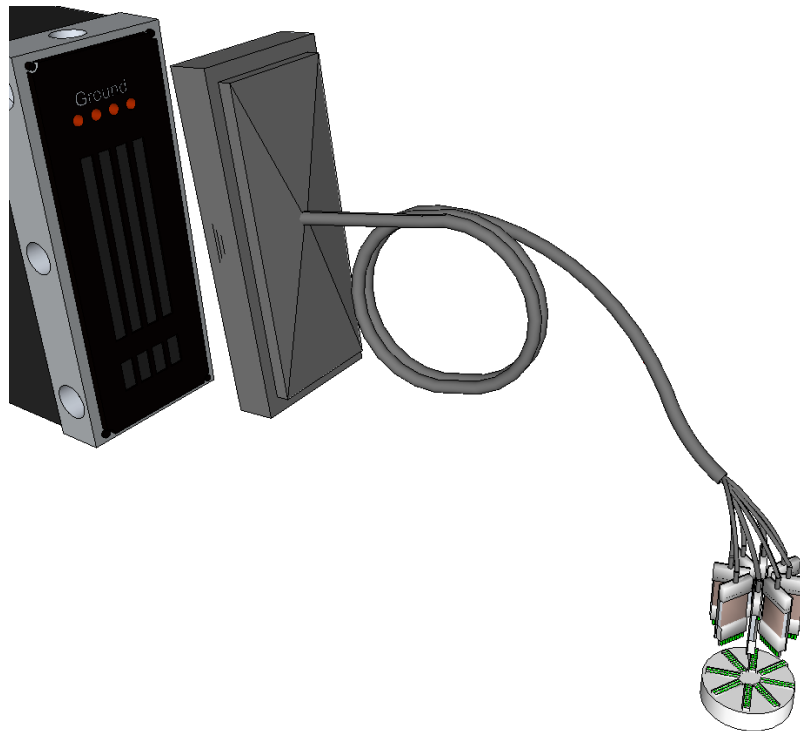


# Caltech Omnetics 8x16

## Instructions for Use



**Blackrock Microsystems, Inc.**

391 Chipeta Way, Suite G

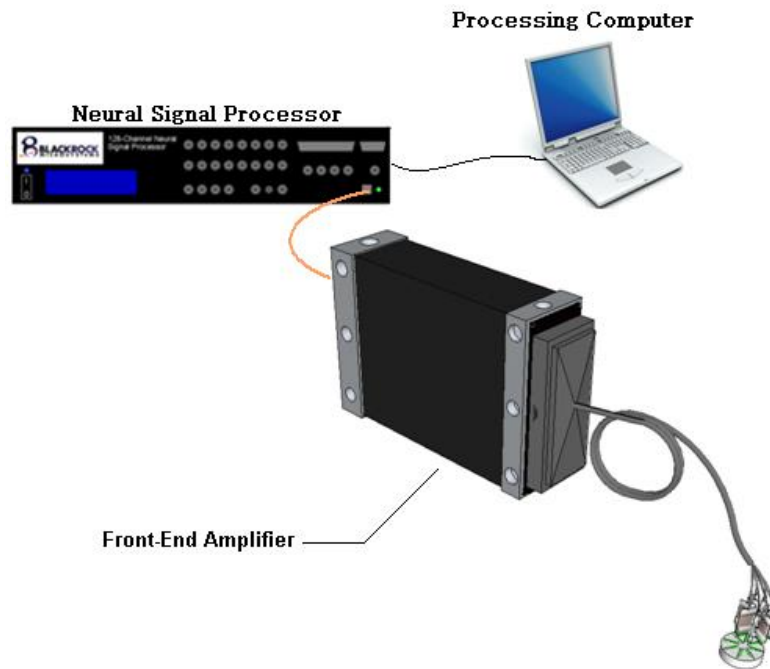
Salt Lake City, UT 84108

Tel: (866) 806-3692

[www.blackrockmicro.com](http://www.blackrockmicro.com)

## 1 System Overview

The Caltech Omnetics 8x16 provides an interface between an Omnetics type pedestal and Blackrock's Cerebus Signal Processor (NSP) for 128-channel high fidelity transmission and recording of extracellular spikes and local field potentials from the brain. Figure 1-1 below shows an application overview of how the Caltech Omnetics 8x16 fits into a complete neural recording system.



**Figure 1-1: Application Overview**

\* Blackrock Cerebus Acquisition System (Neural Signal Processor, Front End Amplifier) is purchased separately.

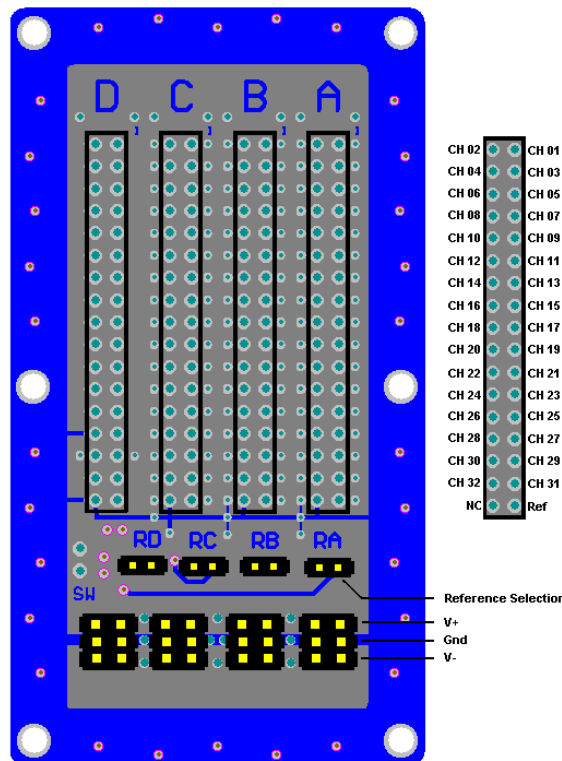
## 2 Hardware

### 2.1 Caltech Omnetics 8x16 Pin-out

Each bank on the Front-end Amplifier (labeled A, B, C and D) has two 16 channel Omnetics connectors associated with it. Each pair of Omnetics connectors are color coded and only channels 1-16 on each bank has the reference pin connected and is marked with a white dot (noted with a “R” shown in Table 2-1). Jumper RA, RB, RC and RD on the patient cable housing are for reference selection to ground. When the shunt is placed, the corresponding bank uses ground as the reference, see Figure 2-1 below.

	Bank A (Red) ●	Bank B (Blue) ●	Bank C (Orange) ●	Bank D (Green) ●
Channel 1-16	A1 R	B1 R	C1 R	D1 R
Channel 16-32	A2	B2	C2	D2

Table 2-1: Caltech Omnetics 8x16 Pin-out

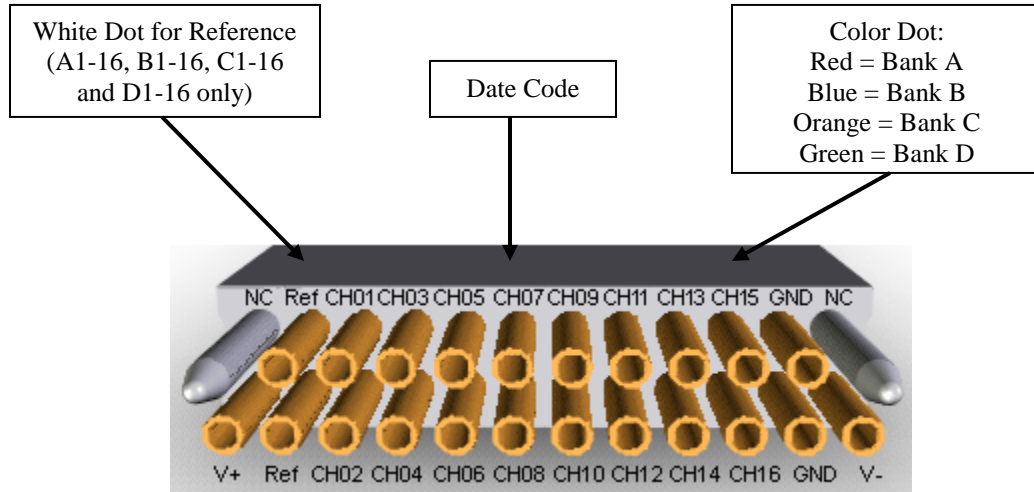


\*The NC pins on Bank A, B, C and D are connected to ground. The switch on the top of the housing is not connected.

Figure 2-1: Caltech Omnetics 8x16 Pin-Out

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**Figure 2-2: Caltech Omnetics 8x16 cable input Pin-Out**

### 3 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.

#### 3.1 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#**  
**391 Chipeta Way, Suite G**  
**Salt Lake City, UT 84108 USA**  
**Tel: (801) 582-5533**