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**RadioProcessor™ USB Power  
Supply  
Owner's Manual**

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# *RadioProcessor™ USB Power Supply*

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## Table of Contents

|                                  |   |
|----------------------------------|---|
| I. Overview                      | 4 |
| II. Connector Information        | 5 |
| <a href="#">Input Connector</a>  | 5 |
| <a href="#">Output Connector</a> | 5 |
| III. Contact Information         | 6 |

## I. Overview

The RadioProcessor™ USB Power Supply generates +5V/2A, +6V/1A and -6V/0.2A output voltages with a low ripple factor as required by the RadioProcessor™ USB board. The RadioProcessor™ USB Power Supply can operate under two different configurations depending on the input power sources:

**1. Single input power source that is +12 V is available:**

In this configuration, the RadioProcessor™ USB Power Supply converts the 12 V input voltage into three regulated 5V/2A, +6V/1A and -6V/0.2A output voltages. The RadioProcessor™ USB Power Supply has a wide input voltage range of 7.5 V-16 V in this configuration.

**2. Dual input power source that is +12 V and +5 V are available:**

In this configuration, the RadioProcessor™ USB Power Supply converts the +12 V input voltage into +6V/1A and -6V/0.2A output voltages and takes 5V/2A directly from the +5 V input source.

The DC/DC voltage conversion circuit design utilizes switch-mode technology to achieve high power conversion efficiency and thus decreasing the operating temperature.

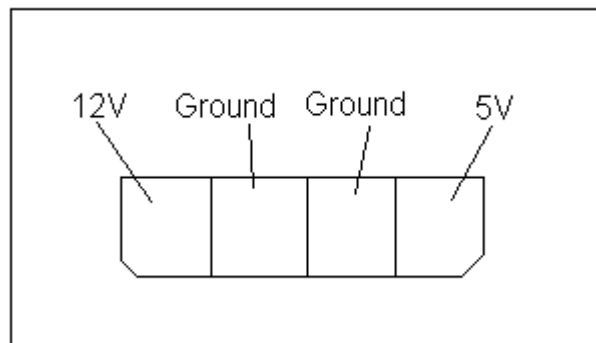
The 4-pin input connector is compatible with standard 12 V and 5 V PC power supply connectors. The 6-pin output connector is pin-compatible with the power connector of RadioProcessorUSB boards, facilitating a simple 1:1 cable connection between boards.

The physical size of the board is approximately 5 cm by 10 cm.

## II. Connector Information

### Input Connector

The RadioProcessor-USB™ Power Supply has one 4-pin input connector. The pin and signal arrangements for this connector are shown below in Figure 1.

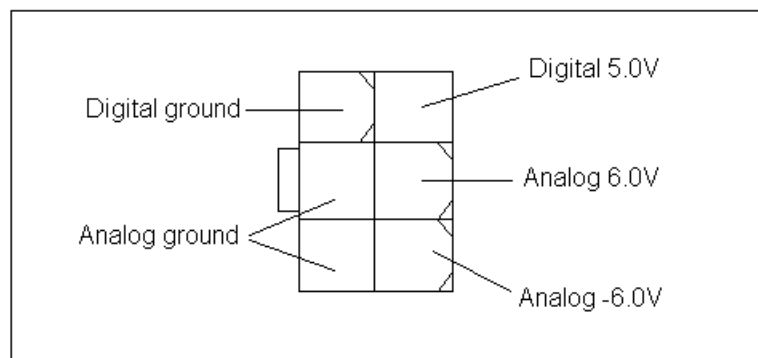


**Figure 1:** 4-Pin Input Connector

Part number: 53109-0410 (Mouser 538-531-09-0410)

### Output Connector

The RadioProcessor-USB™ Power Supply has one 6-pin output connector. The pin and signal arrangements for this connector are shown below in Figure 2.



**Figure 2:** 6-pin Output Connector

Part number: 39-28-8060 (Digi-Key WM23802-ND)

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## **Cable Information**

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If you will be making your own power supply cable to connect to the 6-pin output connector, you will need the following parts or their equivalents: One 6-pin female Mini-Fit Jr.™ connector (DigiKey part No. WM23702-ND) and six Mini Fit Jr.™ crimp receptacles (Digikey part No. WM2501-ND).

### **III. Contact Information**

**SpinCore Technologies, Inc.**

**Telephone: 352-271-7383**

**Web: <http://www.spincore.com/>**