



RadioProcessor™ USB
Power Supply
Owner's Manual



RadioProcessor™ USB Power Supply

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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 of 12V for triple DC/DC conversion:

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. This is the standard model and is suitable for most applications.

2. Dual input of 12V and 5V for dual DC/DC conversion:

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. Please specify if you have dual inputs available and would prefer this model, SpinCore will be glad to provide.

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.

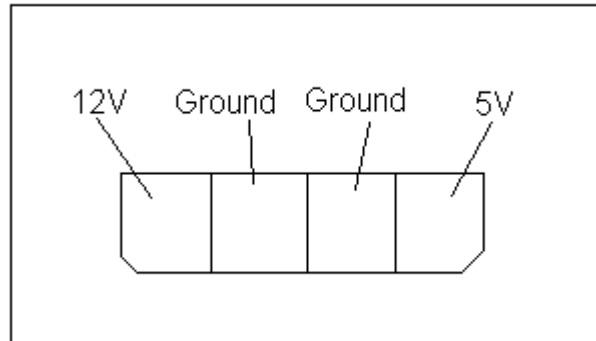


Figure 1: 4-Pin Input Connector

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.

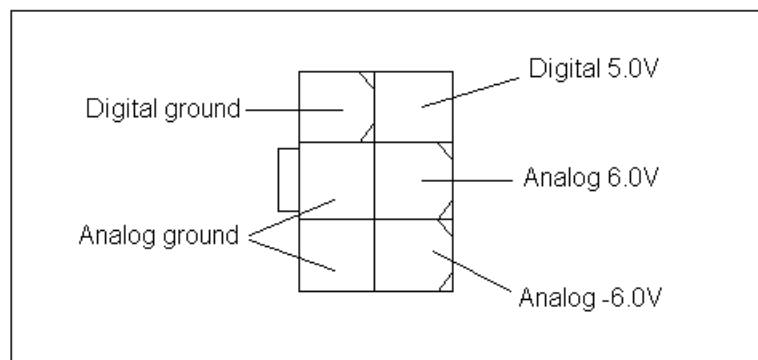


Figure 2: 6-pin Output Connector

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

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Cable Information

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

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