

khs

instruments

analog::blocks

***12 V to ± 12 V & DC/DC Test
Power Modules
and Boards***

User Manual

Rev. 1.0

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1) General Description

The analog::blocks 12 V to ± 12 V Power & DC/DC Module allows an external 12 V supply of up to 1 A to be connected directly to the analog::blocks power rails.

If a negative supply voltage is required, an optional DC/DC converter can be fitted to generate the negative rail.

The replaceable DC/DC converter position also provides a convenient way to evaluate and compare different converter types, output voltages and noise performance within an actual analog circuit.

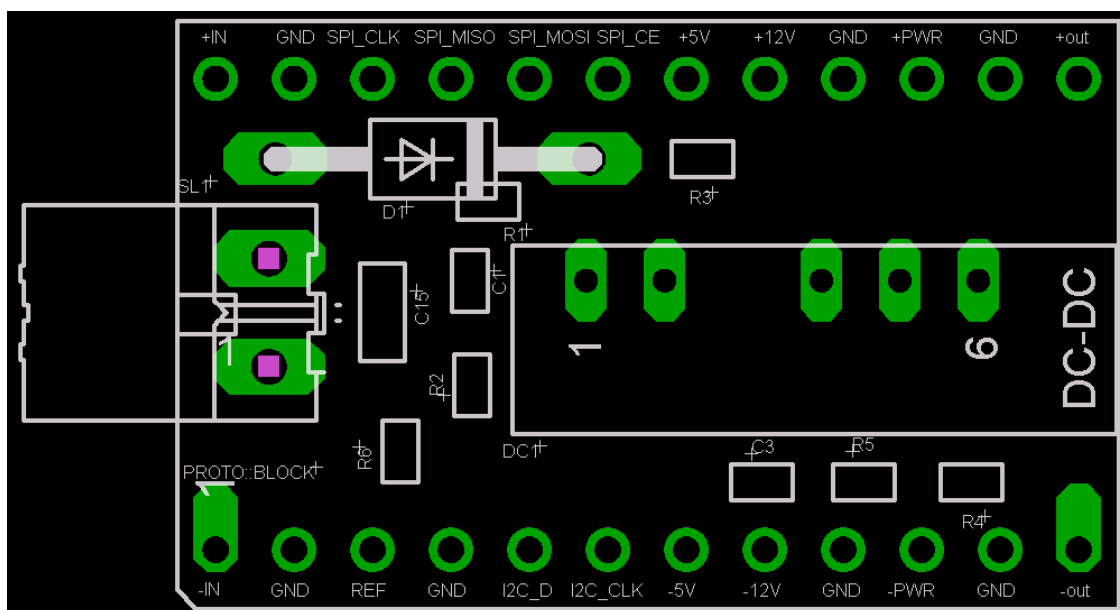


Figure 1. Common Power Module Board layout

Components / pads	Function
R6 / R3 / R8 / R10 C15 / D1	12 V external powered: the external 12 V supply is connected to the +12 V power rail.
R1 / R2 / R5 C3 / DC1	-12 V powered: The DC/DC converter is powered by external 12 V and connected to the -12 V.

3) Configuration Notes

The PCB supports an external +12 V supply and optional generation of the –12 V supply rail.

External 12 V powered: The +12 V power rail is connected directly to the external 12 V input.

-12 V powered: The DC/DC converter is powered from the external +12 V input. A converter with a 12 V input voltage is required. Its output is connected to the –12 V supply rail.

DCDC test fixture: Instead of the DC/DC converter, a socket can be mounted on the board for testing different DC/DC converters. The DUT is inserted into the socket and powered from the external 12 V input. The output of the DUT can be monitored at the –12 V supply rail.

4) Prototype Board

Ordering Information: ABL-PPD-11-E11

5) Populated Function Modules

The populated Function Modules use the same configurable circuit as the Prototype Boards. Their factory configuration can therefore be modified by changing the DC/DC converters and the corresponding resistor and capacitor positions.

5.1) External powered ± 12 V Power Module

Configuration:	External 12 V input with DC/DC converter
Input:	12 V external
Output:	± 12 V
Maximum Output Current:	+12 V: 1 A - 12V: 80 mA
Ordering Information:	ABL-MPD-11-E11-12

6) Module Interface and Pin Assignment

The module interface consists of 24 contacts. The four corner contacts are the principal analog signal connections. The signal names IN and OUT describe their usual purpose; an individual module may use these analog contacts in the opposite direction.

Pinout

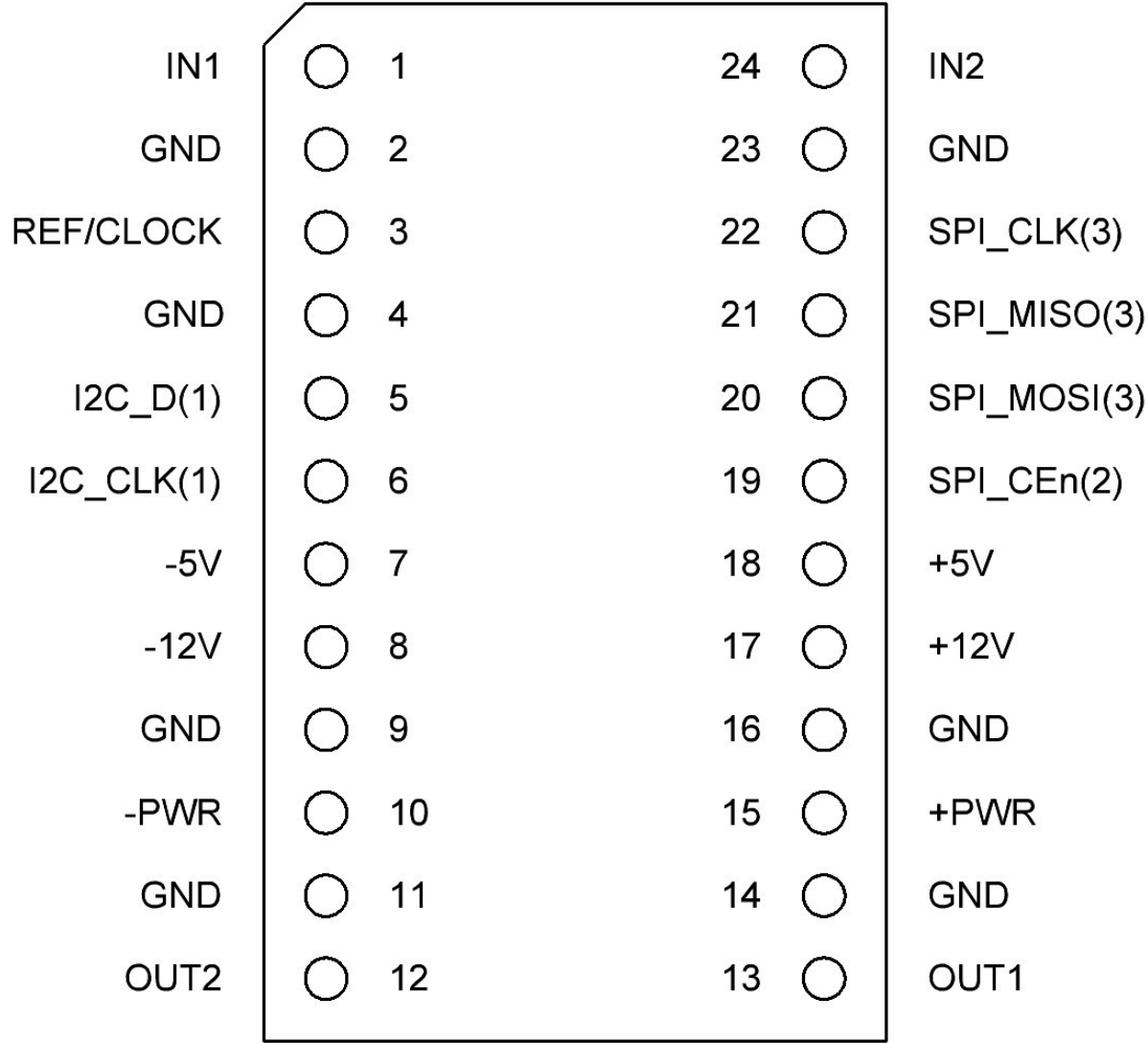


Figure 3: 24-pin analog::blocks module interface, top view.

History:

Revision	date yy/mm/dd	Changes
1.0	26/09/21	Initial.