



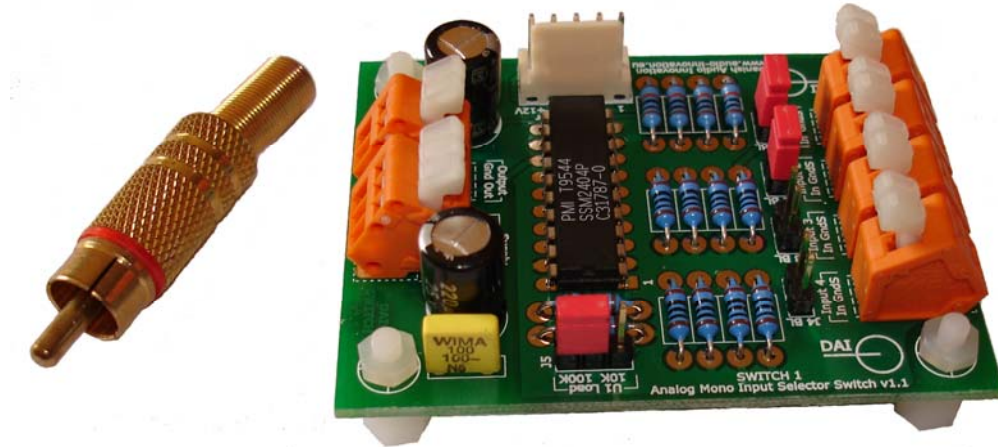
Product Specifications

Last updated 18.05.2008

SWITCH 1

Clickless Analog Mono Input Selector Switch

v1.1

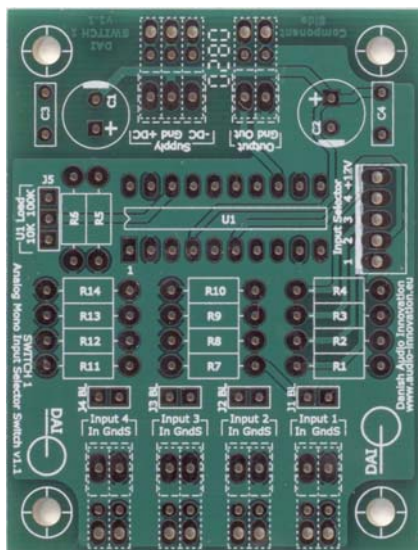


Please note that components on PCB are sold separately!

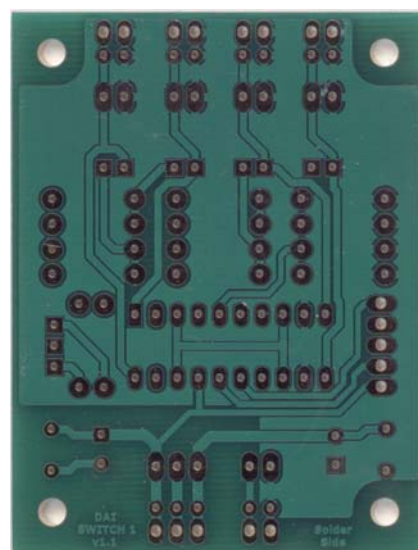
Product use

As High End Audio Input Selector Switch in all types of Audio Line Level Preamps and other Audio Line Level Equipment that requires clickless switching between Line Level Signals. Build your own High End Preamp using the SWITCH 1 circuit with a Regulated Power Supply.

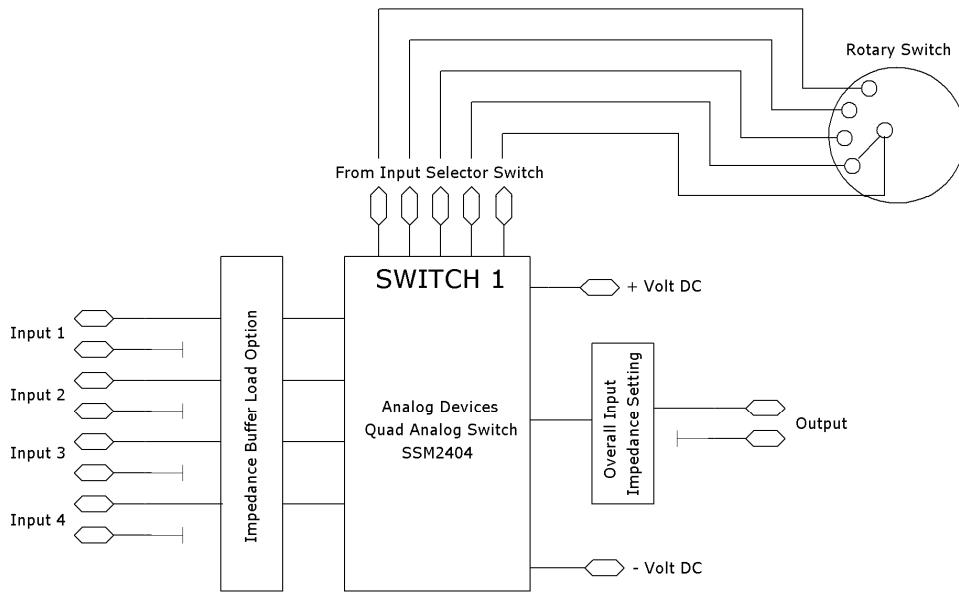
Please note that this SWITCH 1 is specially designed to benefit from the use of 50 Ohm impedance signal transmission between Line Level sources for lossless interconnections. For more information, please visit www.audio-innovation.eu and read more under Buffers.



Component side



Solder side



Principle of operation (simplified)

Specifications

Power Supply:	Stabilized +/-6 to +/-12 Volt DC, 2x10 mA (not included) Recommended +/-12 Volt DC
Buffered Impedance:	50R or none
Load Impedance	10K, 100K or none (selectable)
Freq. response:	0 to 80 kHz +/-1 dB
Gain:	None
Crosstalk:	>94 dB (SSM2404)
Off Isolation:	100 dB (SSM2404)
On resistance:	28R typical (SSM2404)
No. of Switches:	Four per board. Further boards can be added.
Board size:	50x65 mm (App. 1.97"x2.55").
Comp. recommended:	Resistors: 1% metalfilm, 0.6W Caps: WIMA film/foil caps, Panasonic NHG Type A electrolytic caps IC: Analog Devices SSM2404 Bilateral Quad Audio Switch

General

The SWITCH 1 is build around the well known Analog Devices SSM2404 Bilateral Audio Switch to perform Break-Before-Make clickless switching between Line Level Sources, e.g. in High End Audio Preamplifiers. Each board can switch between four Line Level Sources, and two PCB's are therefore needed for stereo operation. If you need to switch between more than four Line Level Sources, you just add further inputs boards to obtain 8, 12, 16 inputs and so on.

With the SWITCH 1 it is possible to easily make the switch between different inputs right behind the input RCA connectors without having to route the Audio Signal wires across the cabinet. This is essential to keep the shortest signal path, and to avoid incoming noise radiation (hum) to the Audio signal.

The SWITCH 1 can either be controlled by a low cost manual rotary selector Switch (as no Audio Signal passes through the switch), or by an electronic circuit controlled with e.g. push buttons.

Two boards are needed for Stereo switching between four Line Level Sources.

Selectable features

The SWITCH 1 is very versatile due to onboard jumpers. By these jumpers it is possible to choose following settings:

- a. Individual for each input: 50R (or none) BUFFER impedance load
- b. Standard Input Impedance: 10K, 100K or none

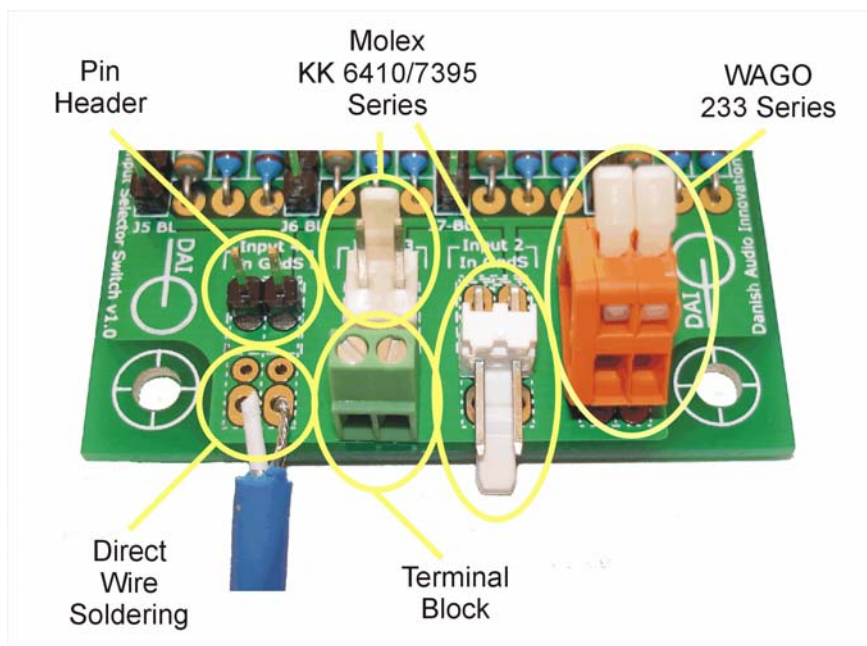
Power Supply *(not included)*

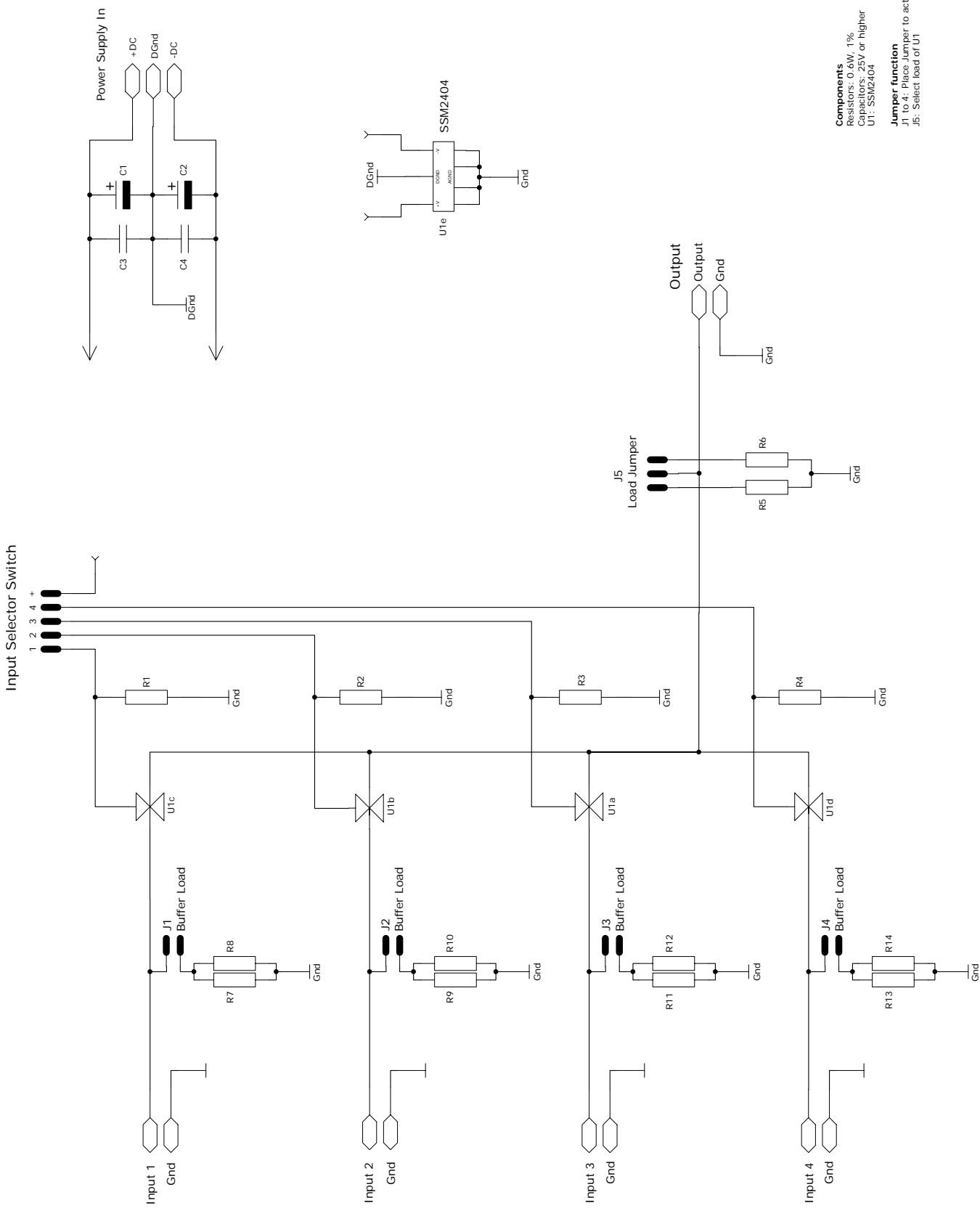
One +/-6 to 12 Volts DC, 2x10mA, Stabilized Power Supply are needed per board.

Connection to the PCB

The SWITCH 1 is very versatile and following connection methods can be used on the PCB (all holes has 2.54mm/.100" pitch):

- Soldered wire connections (PCB hole dia. 1.20 mm/0.0047")
- Pin Headers (not included)
- Molex KK 6410/7395 Series Connectors (not included)
- WAGO Easy Clamp 233/234 Series Connectors (not included)
- Terminal Blocks etc. (not included)





Components
 Resistors: 0.6W, 1%
 Capacitors: 25V or higher
 U1: SSM2404

Jumper function
 J1 to 4: Place Jumper to activate buffer load
 J5: Select load of U1

Date: 13.01.2007		Date: 11.09.2007		Date: 11.09.2007	
Rev: 1.0	Rev: 1.0	Rev: 1.1	Rev: 1.1	Rev: 1.1	Rev: 1.1
Size: A4	Code: A4	Code: 1.1	Code: 1.1	Code: 1.1	Code: 1.1
Project: SWITCH 1 v1.1			Sheet: 1 of 1		
Company: Danish Audio Innovation			R&D		